## Anatoly T. Fomenko



# History: Fiction or Science? 

Who controls the past controls the future. Who controls the present controls the past. George Orwell

Scaliger seduced me; chronological studies, as I see, terrify me.

Iohannes Kepler

Be wary of mathematiciens, particularly when they speak the truth.

St. Augustine

## A. T. Fomenko

## Chronology 1

Introducing the problem. A criticism of the Scaligerian chronology. Dating methods as offered by mathematical statistics. Eclipses and zodiacs.

## A. T. Fomenko

## Chronology 2

The dynastic parallelism method. Rome. Troy. Greece. The Bible. Chronological shifts.

## A. T. Fomenko, V. V. Kalashnikov, G. V. Nosovskiy

Chronology 3
Astronomical methods as applied to chronology. Ptolemy's Almagest. Tycho Brahe. Copernicus. The Egyptian zodiacs.

A. T. Fomenko, G. V. Nosovskiy

## Chronology 4

Russia. Britain. Byzantium. Rome.
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## Chronology 5

Russia $=$ Horde. Ottomans $=$ Atamans. Europe. China. Japan. The Etruscans. Egypt. Scandinavia.

## A. T. Fomenko, G. V. Nosovskiy <br> Chronology 6

The Horde-Ataman Empire. The Bible. The Reformation. America. Passover and the calendar.
A. T. Fomenko, G. V. Nosovskiy

## Chronology 7

A reconstruction of global history. The Khans of Novgorod = The Habsburgs. Miscellaneous information. The legacy of the Great Empire in the history and culture of Eurasia and America.

This seven volume edition is based on a number of our books that came out over the last couple of years and were concerned with the subject in question. All this gigantic body of material has been revised and categorized; finally, its current form does not contain any of the repetitions that are inevitable in the publication of separate books. All of this resulted in the inclusion of a great number of additional material in the current edition including previously unpublished data. The reader shall find a systematic rendition of detailed criticisms of the consensual (Scaligerian) chronology, the descriptions of the methods offered by mathematical statistics and natural sciences that the
authors have discovered and researched, as well as the new hypothetical reconstruction of global history up until the XVIII century. Our previous books on the subject of chronology were created in the period of naissance and rather turbulent infancy of the new paradigm, full of complications and involved issues, which often resulted in the formulation of multi-optional hypotheses. The present edition pioneers in formulating a consecutive unified concept of the reconstruction of ancient history - apparently supported by a truly immense body of evidence. Nevertheless, it is understandable that its elements may occasionally be in need of revision or elaboration.

## History: Fiction or Science?

Fomenko, Anatoly Timofeevich. Born in 1945. Full Member (Academician) of the Russian Academy of Sciences, Full Member of the Russian Academy of Natural Sciences, Full Member of the International Higher Education Academy of Sciences, Doctor of Physics and Mathematics, Professor, Head of the Moscow State University Section of Mathematics of the Department of Mathematics and Mechanics. Solved Plateau's Problem from the theory of minimal spectral surfaces. Author of the theory of invariants and topological classification of integrable Hamiltonian dynamic systems. Laureate of the $1996 \mathrm{Na}-$ tional Premium of the Russian Federation (in Mathematics) for a cycle of works on the Hamiltonian dynamical systems and manifolds' invariants theory. Author of 200 scientific publications, 28 monographs and textbooks on mathematics, a specialist in geometry and topology, calculus of variations, symplectic topology, Hamiltonian geometry and mechanics, computer geometry.

Author of a number of books on the development of new empirico-statistical methods and their application to the analysis of historical chronicles as well as the chronology of antiquity and the Middle Ages.

## Also by Anatoly T. Fomenko

(List is non-exhaustive)

## Differential Geometry and Topology

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## Anatoly T. Fomenko

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# A Global Falsification of History 

Foreword by Alexander Zinoviev

I familiarized myself with the works of A. T. Fomenko comparatively recently, and they impressed me greatly. What part of them struck me as the most stunning? First and foremost, it was the intellectual capacity observable behind them. The authors reveal a way of cogitating that manages to fuse austere logic with dialectic flexibility; this is truly a rare occurrence in the field of social studies. Reading the œuvres of A. T. Fomenko and his co-author G. V Nosovskiy - occasionally several times over - was a veritable intellectual delight for yours truly. They flabbergasted me with their sheer disquisitive might as well as the research results which, in my opinion, can by rights be called the greatest discovery in contemporary historical science - what A. T. Fomenko and his colleagues had learnt over the course of their research was the fact that the entire history of humanity up until the XVII century is a forgery of global proportions ("old history" in their terminology) - a falsification as deliberate as it is universal. I shall be referring to this falsification as the first one. My sociological research of the great evolutionary breakpoint demonstrated that a new, blatant, global and premeditated falsification was already in full swing. Prior to becoming familiar with the writings of Fomenko, I had already known that the falsification of the past was a rather common phenomenon inherent in human existence. However, I was neither aware of the scale of this fraud as described by Fomenko and his fellow scholars, nor of its social type. My assumption had been that the blatant
falsification of history on a planetary scale that I discovered was the first one in what concerned the proportions and the ulterior motivation, as well as its historical role. Let us call it the second falsification of the same variety. It differs from the first in terms of pertaining to a different epoch. Its main subject is modern history and whatever historical period can be claimed as relevant to, and seen as fitting for, the purposes of this falsification. The second falsification also differs from the first one in its primary means and methods, which shall be described below.

One has to differentiate between the two kinds of falsification, the first one being the involuntary routine falsification of minor details that results from the mechanisms of gnosis and those of the actual description of historical events, or the entropy inherent in the framework of humanity's historical memory. The second is the extraordinary, premeditated and complex falsification that has distinct social causes.

Let us consider the former kind first. We shall disregard the period preceding the epoch of literacy and symbolic systems. The mnemonic means available back then were less than meagre, which automatically diminished the arsenal of the hypothetical falsifiers. We shall turn to the era of literacy instead. It is common knowledge that historical events become immanetized in human language - and a statement uttered is a lie, as the old saying goes. We cannot fathom the unfathomable. What we end up doing is raking the vastness of history for tiny morsels of in-
formation and adding some of our own narrative in order to produce wholesome and coherent textual material.

The modern information technology does not affect the principles that the status quo relies upon. Let us introduce the concept of historical "atoms", or particles that aren't subject to further division. One may well calculate that the verbal description of a single year of real history the way it really happened, including all manner of events, no matter how minute, would require the processing power of all the computers on the planet, with all people made computer operators. De facto, this technology serves as a powerful instrument of historical falsification. It allows for the possibility of drowning a scientific approach to historical events in an ocean of meaningless facts.

Furthermore, the description of actual historical events is done by humans, and not perfect divine entities. People are brought up and educated in a certain way and have a certain social standing, as well as egotistical goals and aims of their very own. All of this affects the way the information is processed. Over the course of time, the overwhelming majority of events are wiped away into oblivion without leaving the merest trace. They are frequently not even realized as events. The people's attitude to the past begins to alter as past events gradually drift into an altogether different observational and interpretational context.

Evolutionary process discerns between two kinds of events - preliminal and superliminal. The former kind does not affect the general character of evolution; the latter one does. However, humans, including specialists, fail to recognize the difference between the two. Everyone knows perfectly well how much attention is poured over rather insignificant individuals, such as kings and presidents, whereas the really important events often don't even get so much as a passing reference. This affects the relations between historical events so much that all sense of measure is often lost. Even if we are to suppose that all those who partake in the creation of historical records see veracity as their mission, the result of their collective efforts is often the rendition of their own subjective views on history as opposed to what happened in reality. As centuries pass by, the stream of disinformation is fed by various sources and tributaries, which, in their multitude, produce the effect
of impartial falsification of historical events. This stream also feeds on murky rivulets of countless liars and swindlers.

The false model of history serves its function for a certain while. However, humanity eventually enters a period when this distorted representation loses efficacy and stops serving its ends. This is where people are supposed to start searching for explanations and set out on their quest for a "truth". However, there is the abstract scientific kind of truth, and the actual historical variety - that is to say, something that people regard, or will at some point start regarding as truth. The very word "truth" is confusing here. We shall be on safer ground if we are to consider the adequacy of having certain concepts of the past for the new needs that have manifested as a result of the historical process. These concepts stop being valid for satisfying these needs. One becomes aware of the necessity to update our view of the past in accordance with whatever the present stipulates. This awareness is the kind of craving that can only be satisfied by a "bona fide rectification" of history, which has to occur as a grandiose paradigm shift - moreover, it has to be a large-scale organized operation; one that shall result in an epochal falsification of the entire history of humankind. The issue at hand is by no means the falsification of individual observations of historical events, but rather the revision of the entirety of historical records describing the events which cannot be observed as a principle since they belong to the past. What we are talking about is not a mere change in the perception and interpretation of the same old existential phenomena - it is the adaptation of the charactery, which naturally used to refer to certain commonplace realities at some point, to the exigencies of people who have to live in an altogether different environment. Trained specialists are a sine qua non for this - people whose activity shall have to be organized in such a manner that their collective output will result in the creation of a coordinated historical Gestalt. What they really have to do is create exactly the kind of past that is needed for the present, making use of whatever available material presents itself.

The first global falsification of history as discovered and brilliantly related by Fomenko was based on an erroneous temporal and spatial coordinate system of chronological events (the chronological sys-
tem and the localizations of events wedded thereto). The more recent and ongoing second global falsification of history is based on a system of erroneous pseudoscientific sociological concepts based upon ideology and aided greatly by the modern information manipulation technology. This is why I call the second falsification conceptual and informational, or merely "conceptual" for brevity's sake. Fomenko's works describe the technology of building a false model of human history which uses the art of manipulating the temporal and spatial coordinates of events. Many thousands of specialists in false historical models are already working on this second falsification - their forte is the ability to misrepresent historical events while giving correct temporal and spatial coordinates and representing individual facts veraciously and in full detail. The actual falsification is achieved via the selection of facts, their combination and interpretation, as well as the context of ideological conceptions, propagandist texts that they are immersed into, etc. In order to describe the technology behind the second falsification with any degree of clarity at all, exhaustively and convincingly, one needs a well-developed scientific system of logistics and methodology, as well as sociological theory. I call such a system logical sociology; however, it is a thing of the future, which means that the second falsification of history shall continue in its present manner, with as much ease and impunity as the first. Tens and hundreds of years hence, a number of solitary researchers shall "excavate" the so-called "modern history" in very much the same manner as Fomenko (and his predecessors, including N.A. Morozov) have treated "old history".

I would like to conclude with an observation concerning the exceptional scientific scrupulousness of the works of A. Fomenko and G. Nosovskiy. I have examined them from exactly this position many a time, and I have neither found a single ipse dixit statement,
nor any categorical pontificating of any kind. The general narrative scheme they employ is as follows: the authors relate the consensual (textbook) historical concepts and then cite historical facts which either fail to concur to said concepts, or contradict them explicitly. Other authors who have noticed these inconsistencies are quoted. Then Fomenko and Nosovskiy put forth hypotheses which allow to find logically correct solutions for the problems under study. They keep on emphasizing and reiterating that the issue at hand is all about hypotheses and not categorical statements presented as the truth absolute. The readers are invited to take part in the solution of problems that arise as a consequence of the consensual chronological concept of history. I am amazed by the horrendous injustice of the numerous critics of Fomenko and Nosovskiy, who obviously distort their ideas, either failing to understand them completely or being altogether unfamiliar with their content. It is also quite astounding that whenever a publication occurs that voices ideas that bear semblance to those of Fomenko and Nosovskiy, but are a lot more tame and local, providing a lot less factual information, this publication is usually accepted with a great deal more benevolence. I understand the psychological groundwork beneath this - Fomenko and Nosovskiy have performed a great scientific feat of epochal significance, one that affects the sentiments and interests of too many people. Acknowledging this feat as such, or at the very least the mere fact of its creative relevance, obligates one to actions that are apparently beyond these people due to their incapacity and immaturity. The trouble with Fomenko and Nosovskiy is that they have reached out too far and dealt the dominating historical discourse too heavy a blow.

Alexander Zinoviev.
10 October 1999,
19 April 2001.

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# Foreword by A. Shiryaev (1990) 

# to the first edition of A. T. Fomenko's Methods of statistical analysis of narrative texts and their applications to chronology, 1990. Based on research materials of 1973-1988 

The methods of applied statistics affect a wide range of scientific paradigms today, including the research of a great variety of texts. We use the word "text" to refer to sequences of diverse signals here, such as the lengthy codes one finds in genetics, graphical representations of this kind or the other that can be encoded and represented in a textual form and actual narrative texts, such as historical chronicles, original sources, documents etc.

One of the key objectives we have here is learning to identify dependent texts, by which we mean texts possessing some degree of affinity between them similarities in their nature or history, for instance. We may regard the recognition problem as an example, where one is confronted with the task of finding the visual representation that bears the greatest resemblance to the given prototype. The subject of long signal sequence research emphasizes the ability to find uniform subsequences and their joining points. All of the above bears equal relevance to solving the classical change-point problem, for instance, which is of vital importance to mathematical statistics and the statistics of stochastic processes.

In application to narrative text studies and their needs, the problem of differentiating between dependent and independent texts (such as chronicles) can be formulated as that of tracing out the texts that hail back to a common original source (the ones that can logically be referred to as "dependent"), or those
of non-correlating origins (the ones we can logically refer to as "independent"). It is well understood that problems of this kind are exceptionally complex, and thus new empirico-statistical identification methods deserve full recognition for their ability to complement classical approaches to actual research (in source studies, for instance).

The present book by A. T. Fomenko, Professor of Pure Mathematics, is primarily oriented at the development of said methods as applied to identifying and dating dependent and independent texts (in relation to the texts that possess veritable datings a priori).

The author of the book suggests a new approach to the recognition of dependent and independent narrative (historical) texts based on a number of models he had constructed and trends discovered with the aid of empirico-statistical methods and as a result of extensive statistical experimentation with varying quantitative characteristics of actual texts such as chronicles, original sources etc. The verification of these models (statistical hypotheses) by subsistent chronicle material confirmed their efficacy and allowed us to suggest new methods of dating texts, or, rather, the events they describe.

The approach suggested by A. T. Fomenko is rather unorthodox and requires the reader to possess a certain degree of attentiveness and diligence in order to become accustomed with his innovative logical constructions which may be perceived as uncanny; how-
ever, one has to note that the author's principal ideas are perfectly rational from the point of view of contemporary mathematical statistics and fit into the cognitive paradigm of experts in applied statistics with the utmost ease.

The scientific results obtained by the author are most remarkable indeed, and what we witness today can already be referred to as the rather sudden evolvement of a whole new scientific division in applied statistics that is definitely of interest to us. All of the results in question were educed from a tremendous body of work performed by the author with the assistance of his fellow academicians, most of them specializing in mathematical statistics and its applications.

Seeing as how the book relates to problems that concern several scientific disciplines, one is confronted with the necessity of finding points of contact between experts working in different areas. A wide number of terms and definitions common for scholars of one discipline may need to be explicitly translated for scientists of a different specialization and orientation. This is to be borne in mind by the representatives of both natural sciences and humanities among the readers of this book. However, said miscommunications are common and are easily overcome by any mixed collective of scientists collaborating on the solution of a particular problem. One may hope that the potential readers may prove this very collective that will carry on with the research commenced by an eminent professional mathematician.

In addition to the development of new empiricostatistical methods as applied to the dating of events, the present book contains a number of applications to the problem of validating the chronology of his-
torical events. One has to differ clearly here between the primary statistical result achieved by the book, namely, defining the layer structure of the global chronological map and its representation as a "sum" of four layers, and the plethora of available interpretations. Interpreting the results and building hypotheses is well beyond the scope of precise mathematical knowledge, so the author urges us to be extremely careful with the conclusions relating to a potential revision of the "static chronology of ancient history". The author repeatedly insists on the necessity of critical analysis and separating verified facts from their interpretations and various hypotheses.

The concept offered by A. T. Fomenko is novel and somewhat startling, and by all means deserves a meticulous study.

The book is written in conformance to the most demanding scientific standards and is an unprecedented phenomenon in the area of international scientific literature on applied mathematical statistics, so no reader shall be left indifferent. It also offers us a glimpse of the rather charming personality of its author, a mathematician and a history scholar.

One hopes that the reader studies the book in its entirety with undiminished attention after the perusal of the first couple of pages and, at the very least, becomes familiar with a fascinating scientific problem, or maybe even joins the research in this new and promising field of science.
A. N. Shiryaev,

President of the International Bernoulli Society for Mathematical Statistics and Probability Theory in 1989-1991.

## Publisher's Note

History: Fiction or Science? is the most explosive tractate on history ever written - however, every theory it contains, no matter how unorthodox, is backed by solid scientific data.

The book contains 446 graphs and illustrations, copies of ancient manuscripts, and countless facts attesting to the falsity of the chronology used nowadays, which never cease to amaze the reader.

Eminent mathematician proves that:
Jesus Christ was born in 1152 A.D. and crucified in 1185 A.D.
The Old Testament refers to mediaeval events.
Apocalypse was written after 1486.
Does this sound uncanny? This version of events is substantiated by hard facts and logic, validated by new astronomical research and statistical analysis of ancient sources - to a greater extent than everything you may have read and heard about history before.

The dominating historical discourse in its current state was essentially crafted in the XVI century from a rather contradictory jumble of sources such as innumerable copies of ancient Latin and Greek manuscripts whose originals had vanished in the Dark Ages and the allegedly irrefutable proof offered by late mediaeval astronomers, resting upon the power of ecclesial authorities. Nearly all of its components are blatantly untrue!

For some of us, it shall possibly be quite disturbing to see the magnificent edifice of classical history turn into an ominous simulacrum brooding over the snake pit of mediaeval politics. Twice so, in fact: the first time, the legendary millenarian dust on the ancient marble turn into a mere layer of dirt - one that meticulous unprejudiced research can eventually remove. The second, and greater, attack of unease comes with the awareness of just how many areas of human knowledge still trust the three elephants of the consensual chronology to support them. Nothing can remedy that except for an individual chronological revolution happening in the minds of a large enough number of people.

# Preface by Anatoly T. Fomenko 

The materials contained in this book correspond to the research that was started in 1973.

One might wonder why we should want to revise the chronology of ancient history today and base our revision on new empirico-statistical methods. It would be worthwhile to remind the reader that in the XVIXVII century chronology was considered to be a subdivision of mathematics, prior to having gradually transformed into a field of historical studies considered complete in general, and only requiring minor eventual clarifications leaving the actual edifice of chronology intact. And yet we discover that the contemporary official version of the chronology of ancient history is full of prodigious contradictions and inconsistencies that deserve an attempt of partial clarification and rectification based on the methods of modern statistics at the very least.

One often hears the question about what could possibly motivate a mathematician into wanting to study a seemingly historical problem. The answer is as follows. My primary interests are those of a professional mathematician; they are thus rather distant from historical and chronological issues. However, in the early 70's, namely, in 1972-1973, I had to deal with the dates of ancient eclipses during my studies of one of the key problems in celestial mechanics (see Chroni, Chapter 2 for more details). It had to do with computing the socalled coefficient $D^{\prime \prime}$ in the Theory of Lunar Motion. The parameter characterizes acceleration and is computed as a time function on a large historical interval. The computations were performed by Robert Newton, a contemporary American astronomer and astrophysicist. Upon their completion, he had made the unexpected discovery of parameter $D^{\prime \prime}$ behaving in the most peculiar manner, namely, performing an inex-
plicable leap on the interval of VIII-X century A.D. This leap cannot be explained by conventional gravitational theory, and is improbable to the extent of making Robert Newton invent mysterious "extra-gravitational forces" in the Earth-Moon system that suspiciously refuse to manifest in any other way.

This inexplicable effect attracted the professional interest of the mathematician in me. The verification of R. Newton's work showed that his computations conformed to the highest scientific standards and contained no errors. This made the gap in the diagram even more enigmatic. A prolonged pondering of this topic led me to the idea of checking the exactitude of datings of the ancient eclipses that the $D^{\prime \prime}$ parameter computations were based upon since they implicitly affected the result. This idea turned out to have been unprecedented for the scientists that had dealt with the problem previously. Robert Newton himself, an eminent expert in the field of astronavigation and theoretical dynamics of natural and artificial celestial bodies, trusted the ancient historical dates completely and attempted to explain the leap in the behaviour of parameter $D^{\prime \prime}$ from within his professional paradigm. That is to say, without the merest hint of the very idea of questioning ancient chronology. I was more fortunate in that respect: I found out that N. A. Morozov, a renowned Russian scientist and encyclopaedist, had analyzed the datings of ancient eclipses and claimed most of them to be in need of revision. This happened as early as the beginning of the XX century. He offered new datings for a large number of eclipses that were considerably more recent. Having obtained his tables, I repeated Newton's calculations using Morozov's dates in lieu of the consensual ones as input data. I was amazed to discover that the $D$ " graph altered instantly
and drastically, transforming into a rather even horizontal line that had concurred with the conventional gravitational theory perfectly. The enigmatic leap disappeared along with the necessity to invent fictitious "extra-gravitational forces".

The satisfaction from having finished a body of scientific work successfully was accompanied by a sudden awareness of a very knotty point arising in this respect, one of great peculiarity and paramount importance. Namely, that of whether the consensual chronology of ancient history was to be trusted at all.

It was true that the new datings of many ancient eclipses offered by N.A. Morozov led to the equalization of the $D^{\prime \prime}$ function diagram, the elimination of a strange contradiction from celestial mechanics, and to the discovery of the conformance of an important parameter in the theory of lunar motion to perfectly normal patterns of behaviour.

It was equally true, however, that fitting something like the idea that the three ancient eclipses described in the History of the prominent ancient author Thucydides took place in the XI or even the XII century a.d. and not in the $V$ b.c. as it is believed today into one's perception proved quite impossible. The issue here is that the dating of the "triad of Thucydides" can only correspond to these two astronomically precise solutions (see Chroni, Chapter 2). The inevitable question that arose in this respect was that of which discipline had been correct in this case, astronomy or contemporary chronology.

I had to address several distinguished historians with this issue, including the ones from our very own Moscow State University. Their initial reaction was that of polite restraint. According to them, there was no point whatsoever in questioning the consensual chronology of ancient history since all the dates in question can easily be verified by any textbook on the subject and were proved veracious a long time ago. The fact that the diagram of some parameter $D^{\prime \prime}$ started to look natural after revised calculations based on some flimsy new chronology was hardly of any relevance. Moreover, it would perhaps be better for the mathematicians to occupy themselves with mathematics and leave history to historians. The same sentiment was expressed to me by L. N. Gumilyov. I refrained from arguing with him.

The reply offered by the historians failed to satisfy
me. Firstly due to the fact that chronology, being a problem of calculating dates, bears immediate relevance to applied mathematics. This includes astronomical calculations, the verification of their precision, calendar problems, the interpretation of old writings based on their frequency characteristics etc, and may present an extensive number of complex issues. Secondly, becoming familiar with the contemporary chronological tables soon proved that the ancient dates were quoted rather arbitrarily, with hardly any references at all given anywhere. At best, the first chronological tables get a quote - however, those were compiled relatively recently, in the XVI-XVII century. Delving deeper into the problem revealed that the version of chronology that we agree upon today wasn't the only one available historically. I found out that eminent scientists from various countries expressed the idea that ancient datings required a radical revision. I realized that the answer was the furthest thing from simple, and that shedding some light on the issue would require plenty of time and effort. This is how 1973 saw me commencing work in this direction, aided by colleagues - most of them professional mathematicians and physicists.

The research progressed rapidly. Over the years that passed since 1973 many points have been clarified and a great volume of interesting information obtained. A lot of it was published by myself and my colleagues in a number of books and scientific articles quoted in the bibliography. The first related publication saw light in 1980. It has to be noted that over the course of time our opinions on certain chronological problems have changed. Said alterations never concerned the general picture, but occasionally led to significant shifts in our perception of details. Today we feel that the empiricostatistical methods that our chronological research was based upon need to be formulated and coordinated again. This is how the books Chronı and Chron2 came to existence.

Chroni is based on the first book I wrote on the subject - Methods of Statistical Analysis of Narrative Texts and their Application to Chronology (Identifying and Dating Dependent Texts, The Statistical Chronology of Ancient History, The Statistics of Ancient Reports of Astronomical Events). It was published by the Moscow State University in 1990; a further revised and extended edition appeared in 1996 under the title

Methods of Mathematical Analysis of Historical Texts and their Applications to Chronology (Moscow, Nauka Publishing, 1996). The present book contains the entire material in a revised, extended, and coordinated form. Chron2 contains an extended version of two of my books: Global Chronology (Moscow, MSU, 1993) and The New Chronology of Greece: The Mediaeval Age of Classics (Moscow, MSU, 1996).

Certain important results that get briefly mentioned in Chroni and Chron2 were achieved with the aid of outstanding scientists - Professor V. V. Kalashnikov, Doctor of Physical and Mathematical Sciences (Moscow State University and the National Research Institute for System Studies, Moscow, Russia), and the Senior Scientific Associate G. V. Nosovskiy, Candidate of Physical and Mathematical Sciences (the Department of Mathematics and Mechanics, Moscow State University) - experts in fields of probability theory studies and mathematical statistics. The formation of the author's concept of chronology is largely a result of his having collaborated with V. V. Kalashnikov and G. V. Nosovskiy for many years, and I would like to express my heartfelt gratitude to both of them.

I would like to state explicitly that over the period of time from 1981 and until presently our collaboration with G. V. Nosovskiy has been constant and very fruitful, as the two of us have published a number of what we consider to be milestones of the new chronology. The formulation of the main principles of reconstructing modern chronology and mediaeval history is a direct result of the work we have done together over these years, which adds particular importance to this period.

Let us briefly describe the structure of Chroni and Chron2. The consensual versions of chronology, as well as those of ancient and mediaeval history, had evolved completely by the XVII century A.D. and appear to contain major flaws. Many prominent scientists are aware of this and have discussed it for quite a while (see Chroni, Chapter 1). However, the creation of a new concept of history that would be free from inconsistencies proved a truly formidable task.

A group of mathematicians, most of them from the Moscow State University, commenced their research of the problem in 1974. The results were most captivating, and got covered in a number of monographs (see bibliography) and several dozens of publications in sci-
entific periodicals. Let us emphasize that the new concept of chronology is based primarily on applying methods of modern statistics to the analysis of historical sources and extensive cybernetic computations.

The main subject of the books Chroni and Chron2 is the research of new empirico-statistical methods of finding dependencies in historical texts and derived procedures of dating historical events.

The task of recognizing the difference between dependent and independent texts is really one of identifying images. One encounters it in various scientific paradigms including applied statistics, linguistics, physics, genetics, historical source studies etc. Finding dependent texts is of great utility as applied to studying historical sources where they may be traced to a common original that had been lost before our time. It is also very useful to be able to tell which texts are independent, or derived from non-correlating sources.

The very concept of text can be interpreted in a wide variety of ways. Any sequence of symbols, signals, and codes can be referred to as "text" - the sequences of genetic code in DNA chains, for instance. The common problem of finding dependent texts is formulated as follows: one has to find "similar fragments" in long signal sequences - that is, fragments of text that duplicate one another.

There is a multitude of methods used for the recognition of dependencies and the identification of "similar images" available today. We offer several new empirico-statistical methods. They might be of use in analyzing historical chronicles, manuscripts, and archive materials as well as in finding the so-called homologous fragments in texts of a significantly different, more general nature.

This book is divided into several parts or topics for the reader's convenience. This should help us to securely differentiate between proven statistical facts and hypotheses. At the same time, one has to state that such topical division is rather artificial since the topics really have lots and lots of points in common.

## The first topic

Solving the problem of statistical recognition of dependent and independent historical texts. Formulating new statistical models and hypotheses, as well as verifying them with extensive experimental material of actual historical chronicles. It turns out we're able to
acquire general verifications of the models offered. In other words, we have managed to discover interesting statistical tendencies that define the evolution of textual information over a period of time, such as what really happens to the data contained in the manuscripts during their duplication etc.

The discovery of these tendencies is our first result.
The discovered trends are used as basis for the formulation of new methods of dating the events described in the chronicles. This is achieved by statistical comparison of the chronicles and documents pertinent to the research with the ones possessing confirmed datings. The methods are verified by a large body of correctly dated materials. Their application to the chronicles and documents describing the events of the XVII-XX century appears to confirm the efficacy of these methods. Namely, the statistical datings that we got as a result of our research concur with the ones confirmed by traditional methods. The a priori dependent chronicle pairs turn out to be dependent statistically with the use of our methods. The ones that are independent a priori turn out to be independent statistically as well.

Experimental examination of veraciously dated chronicles describing the events of XVII-XX century A.D. led to the discovery of natural numeral coefficients that allow us to differentiate between a priori dependent chronicles and a priori independent ones in 19741979. Basically, these numbers are rather small for a priori dependent pairs and rather large for a priori independent ones. This means that nowadays we can compare arbitrary chronicles $X$ and $Y$ and find out whether their proximity coefficients are within the zone that refers to dependent chronicles or the one that refers to independent ones. It is needless to say that the boundaries of these zones were found experimentally.

The discovery of the hidden dependencies that define the evolution of information in rather large historical chronicles as well as the development and experimental verification of the new dating methods (currently comprising a total of eight) - is the second principal result of our work. The datings achieved by our methods cannot be regarded as finite, so we shall refer to them as "statistical datings" and nothing more. We shall occasionally drop the word "statistical" for the sake of brevity. The above is to say that we regard the empirico-statistical dates that we computed to be a re-
sult of applying statistical methods to historical materials. Nevertheless, the concurrence of these statistical datings with the ones verified a priori that we have discovered in the interval of XVII-XX century A.D. implies that our results are of an objective nature.

## The second topic

It can also be referred to as critical. We analyze the traditional datings of events that occurred in ancient and mediaeval Europe, Asia, the Mediterranean countries, Egypt, and America. Bearing the reader's convenience in mind, we have collected various materials here that can be found scattered across all kinds of scientific literature and are known to specialists of various profiles, but often remain beyond the awareness of the general public. These materials illustrate serious difficulties that are presently inherent in the problem of scientific dating of historical events preceding the XIV century A.D.

We shall inform the reader of the fundamental research conducted by the prominent Russian scientist and encyclopedist Nikolai Aleksandrovich Morozov (1854-1946), honorary member of the USSR Academy of Sciences, who was the first to have formulated the problem of confirming the ancient and mediaeval chronology with the means offered by natural sciences in its entirety in addition to having collected a great volume of critical materials and suggested a number of innovative hypotheses.

We shall also report the chronological research conducted by Sir Isaac Newton, who questioned many datings of historical events, and several other representatives of the critical current in history and chronology. We quote from eminent authorities in the fields of archaeology, source studies, and numismatics, and a variety of other well-known scientists, and extensively compare different points of view so that the readers could develop their own opinions of the problems in question.

The primary application of novel empirico-statistical methods is the analysis of dates of historical occurrences. This is why we were forced to analyze as many dating versions of events in question as we could find in this day and age. The issue here is that various ancient and mediaeval chronicles frequently demonstrate significant discrepancies in their datings of certain important events. Attempting to navigate in this
chaos of mediaeval versions, we devote special attention to those reflected in the chronicles of XV-XVI century A.D. due to the fact that the chronologists of that epoch were closer in time to the events described than we are. Subsequent chronological versions of XVII-XX century are often revisions of derivative material, obscuring and heavily distorting the original mediaeval meaning.

Starting with XVI-XVII century A.D., the version of the chronology of ancient history that was created in the works of prominent mediaeval chronologists J. Scaliger and D. Petavius «rigidifies». The main points of the official version of contemporary chronology coincide with those of Scaliger and Petavius. Hence we are to use the term "Scaligerian chronology" and refer to the consensual datings of ancient events as to "Scaligerian datings".

We presume the reader to be more or less familiar with the traditional - Scaligerian de facto - chronology concepts familiar from school and university. We shall thus refrain from quoting the Scaligerian concept in detail, considering this knowledge to be in public domain. On the contrary, we shall be making a special emphasis on its inconsistencies. Further on, we shall give a brief analysis of traditional dating methods: datings based on historical sources, archaeological datings, radiocarbon datings, dendrochronology etc. It is expedient to allow the reader the evaluation of the veracity and the precision of these methods as well as their application areas.

## The third topic

In 1975-1979 the author compiled a table entitled "Global Chronological Map", which may be referred to as GCM for the sake of brevity. It may be regarded as a rather complete "Scaligerian textbook" of ancient and mediaeval history. All the principal events of ancient history with their dates according to Scaliger (the ones used today), lists of main historical characters etc were placed along the horizontal axis of time. All the key original sources that have survived with descriptions of contemporary life were quoted for each epoch. The resulting chronological map contains tens of thousands of names and dates. The physical space it covers amounts to several dozen square metres. This map proved itself a priceless encyclopedia and a great guide for the edifice of contemporary - Scaligerian de
facto - ancient and mediaeval chronology. Due to the large volume of the material, it made its way into Chron1 and Chron2 with many expurgations, as small tables and diagrams.

## The fourth topic

In 1974-1979, the entire arsenal of the new em-pirico-statistical dating methods was applied to the factual material collected on the map of the Scaligerian chronology. This was done by inspecting all manner of pairs of historical epochs and the key original sources pertinent to them. These chronicles were processed statistically and then compared in pairs, and eventually the dependence coefficients of compared historical texts were computed.

If such coefficients for the two compared chronicles $X$ and $Y$ proved to belong to the same numeric order as those of the a priori dependent chronicles from the "certainty interval" of XVII-XX century A.D., we called them statistically dependent. In this case, both correlating epochs (temporal periods) were marked on the map with the same arbitrarily chosen symbol such as the letter $R$.

If the proximity coefficient (or measure) of the two compared chronicles $X$ and $Y$ proved to belong to the same numeric order as those of the a priori independent chronicles from the "certainty interval" of the XVIIXX century A.D., we called them statistically independent. In this case, both correlating epochs (temporal periods) were marked on the map with different arbitrarily chosen symbols such as the letters $N$ and $S$.

As a result of statistical research, pairs of statistically dependent chronicles and epochs pertinent to them were found and exposed in the "Scaligerian history textbook". We called such chronicles and the sequences of events they described statistical duplicates.

We discovered that the results of using different empirico-statistical methods correlate very well. Namely, the chronicle pairs "statistically similar" according to one method turned out to be "statistically similar" according to all the others (if such methods were at all applicable to the chronicles in question). This result correlation is perceived as important.

It is vital that our empirico-statistical methods have found no unforeseen duplicates, or chronicles whose dependent nature we weren't aware of a priori, on the interval of XVII-XX century A.D.

At the same time, the same methods found a large number of new statistically similar chronicles (duplicates) that were previously considered underived, independent in every sense of the word and ascribed to various epochs before the XVII century A.D., preceding the XI century in particular. The compilation of the Scaligerian chronological map and the discovery of statistical duplicates therein amount to the third principal result of this book.

The fourth principal result is the division of the Scaligerian chronological map into a sum of the four chronicle layers discovered by the author. These chronicle layers are nearly identical, but they are shifted in time in relation to each other. These shifts amount to significant amounts of time and their correspondent chronicle layers may be regarded as "short chronicles" of sorts. A very rough description of "The Contemporary Scaligerian Textbook of Ancient and Mediaeval History" would be calling it a sum, or a collage, of four copies of the same short chronicle, statistically speaking.

A criticism of the Scaligerian chronology and the description of the four statistical results mentioned above comprise the main part of the present book. Its other parts are of a hypothetical and interpretational nature. They aid the formulation of a possible answer to the naturally occurring question about the meaning of all the discovered empirico-statistical facts, and what the history was "really like".

## The fifth topic

This topic can be called interpretational. This is where we offer the hypotheses that may explain the trends we have discovered and the reasons why the "Scaligerian textbook of history" might contain duplicates. Neither this material, nor the "truncated history textbook" that we offer are to be considered finite in any way. They may only be regarded as offering a possible version that requires a great body of work to be conducted by experts of various profiles, and maybe even special research facilities.

The author's position on a significant number of points raised in Chron1 and Chron2 has formed as a result of interaction, collective research, and extensive discussions with specialists from a wide variety of fields, most notably, the field of mathematics and fellow mathematicians. Specifically, the new statistical
models and the results we have achieved have all been presented and discussed over the span of the past twenty-plus years:
the Fourth and the Fifth International Probability Theory and Mathematical Statistics Conferences in Vilnius, Lithuania, 1981 and 1985;
the First International Bernoulli Society for Mathematical Statistics and Probability Theory Congress in Tashkent, Uzbekistan, 1986;
the Multi-dimensional Statistical Analysis and Probabilistic Modelling of Real-Time Processes seminar by Prof. S.A. Aivazyan at the Central Institute of Economics and Mathematics of the USSR Academy of Sciences;
several national seminars on Stochastic Model Continuity and Stability by Prof. V.M. Zolotaryov (The V. A. Steklov Mathematics Institute of the Russian Academy of Sciences) and Prof. V. V. Kalashnikov (The National Research Institute for System Studies);

Controllable Processes and Martingales seminars by Prof. A. N. Shiryaev (V. A. Steklov Mathematics Institute of the Russian Academy of Sciences) and Prof. N. V. Krylov (Department of Mathematics and Mechanics, Moscow State University);

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Academician A.A. Samarsky's seminar at the USSR National Mathematical Modelling Centre;

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Starting in 1998, the development of the new chronology was aided by a number of specialists from a variety of unrelated fields and adhering to different cognitive paradigms. In 2001 and 2002 G. K. Kasparov voiced his support of the New Chronology in its critical part a couple of times, on the radio and the television; I wish to express my gratitude to him. I am also grateful to Professor A. A. Zinoviev (MSU), the eminent writer, logician and sociologist, for active support and fruitful discussions. My thanks also go to the

IAELPS Academician M. K. Moussin, a merited employee of the oil and gas industry, and all the members of his family who actively took part in the "New Chronology" project. Special thanks to I. R. Moussina for her help in compilation of the Dictionary of Interlingual Parallelisms. The project development was greatly helped by A.V. Podoinitsyn, the economist, and Prof. I. V. Davidenko, the geologist.

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I would like to re-emphasize that over the last couple of years our research has been getting active support of A. Zinoviev, the prominent thinker, logician, sociologist and writer. His support is all the more valuable to us since the period when it is being provided is that of the utmost controversy and difficulty in what concerns the acceptance of the New Chronology by the community of scientists. A. Zinoviev had pointed out the mechanisms used for the falsification of recent his-
tory (the XIX-XX century). His concept of "virtual reality" - the one created and deliberately planted for the distortion of one's perception of reality and the creation of "the official myth of the days of yore" concurs well with the results of our research which have helped to remove the veil obscuring the creation of the Scaligerian version of history in the XVI-XVIII century. Many of A. Zinoviev's ideas concerning the necessity of introducing the methods of modern constructive logic (including the logical methods created by himself) into sociology and history gain paramount actuality nowadays. The actual idea of translating our seven-volume work into foreign languages in order to increase the involvement of foreign scientists into the discussion of ancient chronology, as well as the organizational initiative, belong to none other but him. We are most grateful to A. Zinoviev for his support and the numerous scientific disputes covering a great scope of issues including those relevant to chronology. We consider it a great honour and privilege to be able to commune with one of the most eminent thinkers of the XX-XXI century.

The present publication of the seven volumes of Chronology only became feasible due to the creation of a special project for the translation and publication of our works on chronology by Youri Filippov. One has to emphasize that the translation of such a great bulk of complex scientific material is a most grandiose endeavour per se. We would like to express our sincere gratitude to Y. N. Filippov for the gigantic amount of labour invested, and also to the translators and editors for their hard and highly professional work.

The book is dedicated to the memory of Nikolai Aleksandrovich Morozov, brilliant scientist, encyclopaedist, and author of the most profound œuvres on chemistry, physics, mathematics, astronomy, and history. He was the first to have fully formulated the problem of finding scientific basis for ancient and mediaeval chronology using natural sciences, and obtaining fundamental results in this direction.

The author would like to express the wish for this seven-volume edition to provide an impetus for the development of new empirico-statistical methods of studying historical texts so that the problems of ancient chronology can be solved in their entirety.
A. T. Fomenko, March 2002

# History of the New Chronology 

By A. T. Fomenko and G. V. Nosovskiy

The history of the new chronology and its development can be divided into three periods, albeit arbitrarily.

The first stage - the XVI-XX century, when various researchers periodically discovered major inconsistencies in the edifice of the Scaligerian chronology. We shall quote the names of some familiar scientists that dissented with the chronology of Scaliger-Petavius and reckoned that the real ancient and mediaeval chronology differed significantly.

De Arcilla - the XVI century, Professor of the Salamanca University, see Chron1, Chapter 1. The information on his chronological research is of a rather volatile nature, and it was only by accident that N.A. Morozov managed to learn of it. It is known merely that De Arcilla claimed "ancient" history to have been forged in the Middle Ages. However, we regrettably failed to have found any of his works. The Salamanca University could not give us any information about them, either.

Sir Isaac Newton (1643-1727) - the great English scientist, physicist, and mathematician devoted a large part of his life to chronology and published a large volume entitled The Chronology of Ancient Kingdoms Amended. To which is Prefix'd, A Short Chronicle from the First Memory of Things in Europe, to the Conquest of Persia by Alexander the Great. See [1298]; more details in Chronı, Chapter 1.

Jean Hardouin (1646-1729) - eminent French
scientist and author of a large number of works on philology, theology, history, archaeology, and numismatics. He was also Director of the French Royal Library, and wrote a few chronological works with sharp criticisms of the entire Scaligerian chronology. He was of the opinion that most of the so-called "ancient artefacts" were either counterfeit, or belonged to a much more recent age. See details in Chron7, Appendix 3.

Peter Nikiforovich Krekshin (1684-1763) - the personal secretary of Peter the Great wrote a book criticizing the contemporary version of Roman history. It was "still fresh" in his day and age, and wasn't taken for granted the way it is today. See details in Chron4, Chapter 14:30.

Robert Baldauf - the German philologist of the late XIX - early XX century. Assistant professor at the Basel University and author of the four volumes entitled History and Criticisms ([1025:1]). He came to the conclusion that the "ancient" literary works had been a lot more recent than one was accustomed to think, guided by philological considerations. Baldauf proved that those works were all mediaeval in their origins. See details in Chron7, Appendix 3.

Edwin Johnson (1842-1901) - English historian of the XIX century, criticized the Scaligerian chronology severely in his works ([1214] and [1215]), claiming that they needed to be truncated drastically. See details in Chroni, Chapter 1.

Nikolai Alexandrovich Morozov (1854-1946) - a prominent Russian scientist and encyclopedist, made a breakthrough in chronological studies. He criticized the Scaligerian version of chronology and history extensively. He offered the concepts of several new natural scientific methods of analyzing chronology and introduced scientific approaches to chronology making the latter a science de facto. See details in Chron1, Chapter 1.

Wilhelm Kammeyer (late XIX century - 1959) - a German scientist and lawyer, developed a method of verifying the authenticity of ancient documents. He discovered nearly all of the ancient and early mediaeval Western European documents to have been either copied or forged in a more recent age. He came to the conclusion that both ancient and mediaeval history were falsified, and wrote several books on the topic.

Immanuel Velikovsky (1895-1979) - a prominent psychoanalyst of Russian origin lived and worked in Russia, the UK, Palestine, Germany, and the USA. He wrote a number of books on ancient history that concerned several contradictions and peculiarities of ancient history. He also made an attempt of explaining them in relation to the Catastrophism Theory. He is considered to be the founder of the "critical school" in chronology, but what he really did can be regarded as an attempt to protect the Scaligerian chronology from drastic changes, so his inclusion in the list of the founding fathers of the new chronology is rather arbitrary. Velikovsky's works are much better known than the earlier and more detailed ones by N. A. Morozov; this must have inhibited the development of the new chronology in the Western Europe of the XX century considerably. See details in Chront, Appendix 3.

All in all, one has to state that the precariousness of the Scaligerian chronology was mentioned rather explicitly in the scientific works of the XVII-XIX century. The Scaligerian version of history had been subjected to extended criticisms, and the thesis of the global fabrication of ancient texts and artifacts was formulated. Nevertheless no one with the exception of N. A. Morozov managed to find a way of constructing a proven version of the correct chronology; even his version was hardly based on any substantial evidence, being incomplete and having inherited a number of substantial flaws from the chronology of Scaliger and Petavius.

The second stage - first half of the XX century. This stage should doubtlessly be linked to the name of N. A. Morozov. He was the first to have understood and formulated the fundamental idea about Scaligerian chronology being in need of a complete revision, not just the "ante-mundane" part, but also its entire edifice up to the VI century a.d. N. A. Morozov had used a number of innovative natural scientific methods for chronological analysis and quoted a number of indisputable arguments for proving his brilliant idea. The publication of his main works on the revision of the ancient history occurred in 1907-1932 ([542]-[544]). However, he held the erroneous opinion that post-VI century chronology had been basically correct. See details in Chroni, Chapter 1:3.

The third stage - the period of 1945-1973, can be characterized as one of "deliberate muting". The historical science tries to cast the chronological research of N. A. Morozov and his predecessors into oblivion. The chronological discussions in Russia cease altogether, and an "alienation zone" of sorts is created around N. A. Morozov's works on chronology, whereas in the West, the debate becomes circular and doesn't venture outside I. Velikovsky's hypothesis of "Catastrophism".

The fourth stage - which was the period of 1973-1980, commenced in 1973, when A. T. Fomenko, faculty member of the Department of Mathematics and Mechanics of the Moscow State University, was researching several problems related to celestial mechanics. He had noticed the 1972 article of the American astrophysicist Robert Newton ([1303]), where the latter described a strange leap in lunar acceleration, and the so-called parameter $D^{\prime \prime}$. The leap occurred around the X century a.d. Using the Scaligerian datings of the writings that make reference to lunar and solar eclipses, R. Newton computed lunar acceleration as a time function on the interval of the I-XX century a.d. The leap in question comprises an entire mathematical order (!), and cannot be explained by the gravitational theory in any way. It was the issue of the discussion organized by the Royal Society of London and the British Academy of Sciences in 1972, and one that had spawned major controversy ([1453]). The discussion had failed to elucidate the situation in any way, and so R. Newton suggested
to attribute the leap to certain mysterious extra-gravitational forces in the Earth-Moon system.
A. T. Fomenko noted that all the attempts of explaining the gap in the behaviour of $D^{\prime \prime}$ failed to raise the issue of the veracity of the eclipse datings that were the actual basis for R. Newton's calculations. However, despite the fact that A. T. Fomenko was well outside the paradigm of historical research back in the day, he had heard that N.A. Morozov offered some new datings of the "ancient" eclipses in his work entitled Christ, published in 1924-1932. It has to be said that A. T. Fomenko's initial attitude towards N. A. Morozov's works was rather sceptical and based on whatever random information he had received on the subjects during informal discussions with fellow faculty members. Nevertheless, having overcome his scepticism, A. T. Fomenko unearthed an astronomical table by N. A. Morozov that contained the new datings and performed a new calculation of the parameter $D^{\prime \prime}$ using the same algorithm offered by R. Newton. He was amazed to discover the disappearance of the mysterious leap and the transformation of the $D^{\prime \prime}$ diagram into an even, practically horizontal line. A. T. Fomenko's work on the topic was published in 1980 ([883]).

However, the elimination of the enigma from celestial mechanics led to another question of paramount importance: what was one supposed to do with the chronology of the ancient times in this case? The eclipse dates were supposed to be evidentially linked to a vast array of historical materials. Since N. A. Morozov's works helped to solve a complex celestial mechanics problem, A. T. Fomenko decided to study them in more detail. The only professor from the MSU Department of Mathematics and Mechanics to have had Morozov's Christ, already a bibliographical curiosity by that time, in his possession, was M. M. Postnikov. He was interested in N. A. Morozov's research and occasionally told his colleagues about it. In 1974, A. T. Fomenko approached M. M. Postnikov with the suggestion of reading a series of introductory lectures on N. A. Morozov's works. M. M. Postnikov had acquiesced after a brief hesitation, and read five lectures for a group of mathematicians that worked in the MSU Department of Mathematics and Mechanics later the same year.

As a result, a group of mathematicians developed an interest in chronological problems, regarding them
from the point of view of applied mathematics. It became obvious that the complexity of this issue demanded the development of new independent methods of dating. Hence the main focus in 1973-1980 was on developing methods of analyzing historical texts that were based on mathematical statistics, a number of which was proposed and formulated by A. T. Fomenko in 1975-1979. They allowed for the elucidation of the global picture of chronological misdatings in Scaliger's version and elimination. More specifically, A. T. Fomenko had discovered three important chronological shifts, of roughly 333 years, 1053, and 1800 years respectively. These shifts are only inherent in the erroneous chronology of Scaliger-Petavius, and have nothing to do with the correct one. It turned out that "the Scaligerian textbook" was compiled from four copies of one and the same brief chronicle.

The first scientific publications on this topic were composed and prepared for publishing in 1973-1980.

The fifth stage - 1980-1990 can be characterized by the publication of articles on the new methods of dating and achieved chronological results in specialized periodicals dedicated to pure and applied mathematics. The first publications on the topic were the two articles by A. T. Fomenko ([883] and [884]) published in 1980, as well as the preprint by A. T. Fomenko and M. M. Postnikov ([681]), published the same year. In 1981 a young mathematician by the name of G. V. Nosovskiy, specializing in probability theory and mathematical statistics, actively joined the new chronology research. This period saw the publication of several dozens of scientific articles on independent empirico-statistical and astronomical methods in chronology. They were written by A. T. Fomenko, either alone or in collaboration with the mathematicians G. V. Nosovskiy, V. V. Kalashnikov, S. T. Rachev, V. V. Fyodorov, and N. S. Kellin (see bibliography).

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A. T. Fomenko made reports concerning the new dating methods at scientific seminars on mathematics conducted by Academician V. S. Vladimirov, Academician A. A. Samarsky, Academician O. A. Oleynik, and Corresponding Member S. V.Yablonsky, as well as a scientific seminar on history conducted by Academician I. D. Kovalchenko, a specialist on applying mathematical methods to history, who was genuinely interested in those methods and claimed that historians needed to delve deeper into chronology issues.

Over the period of 1980-1990, A. T. Fomenko, G. V. Nosovskiy, and V. V. Kalashnikov presented their reports on the new methods of independent dating at a number of scientific conferences on mathematics.

The position of Academician A. N. Kolmogorov in this respect is most interesting. When A. T. Fomenko was presenting a scientific report on the new methods of dating at the Third International Conference on Probability Theory and Mathematical Statistics in Vilnius, 1981, A. N. Kolmogorov came to the presentation and spent the entire forty-plus minutes that it took standing in the back of the hall, having strategically chosen a spot where he wouldn't be seen from the hall, retaining the ability to see and hear everything that was going on at the blackboard. A. N. Kolmogorov departed immediately after the presentation and did not approach the person at the blackboard. It has to be said that A. N. Kolmogorov's health was already quite frail by that time, and being forced to stand for forty minutes must have taken a considerable effort on his part.

Later on, in Moscow, A. N. Kolmogorov invited A. T. Fomenko over to his residence and inquired whether he could borrow any of his publications on chronology. He was given a brief 100 -page essay written by A. T. Fomenko in 1979 that had circulated around as a manuscript prior to its publication as a preprint in 1981 ([888]). Apart from that, A. T. Fomenko had given A.N. Kolmogorov a more exhaustive 500 -page typewritten text on the topic. In two weeks'time, A. N. Kolmogorov invited A. T. Fomenko to converse with him once again. During the twohour discussion it became clear that A. N. Kolmogorov had made a thorough study of the materials. He had asked a large number of questions, and his primary concern was about the dynastical parallelisms between the ancient dynasties, including the biblical
ones, and those of the Middle Ages. He said he was frightened by the possibility of a radical reconstruction of several modern conceptions based on ancient history. He had no objections to the legitimacy of the methods. Finally, A. N. Kolmogorov gave the 500page text back to A. T. Fomenko and asked whether he could keep the 100 -page essay as a present. The request was complied with.

One has to add the following report that A. T. Fomenko received orally from one of the partakers of the conversation that is to be described below. A while ago, Professor M. M. Postnikov submitted an article with an overview of N. A. Morozov's chronological research in a journal titled Uspekhi Matematicheskih Nauk (The Successes of Mathematical Sciences). The following dispute among members of the journal's editing board, among them Academicians P. S. Alexandrov and A. N. Kolmogorov, ensued. A. N. Kolmogorov refused so much as to touch the article, saying something along the lines of "This article is to be rejected. I spent enough time and effort fighting Morozov in the days of yore". However, he added the following: "And yet we shall all look perfectly idiotic if it turns out that Morozov was right". The article was rejected.

This conversation sheds some light on the events of the days when N. A. Morozov's research was practically vetoed. Today we are being convinced that everything had happened "automatically" and that N. A. Morozov's research was of little enough interest to have been forgotten by everyone in a short time. We are now beginning to understand that the forces opposing N. A. Morozov were all the more formidable to have needed the assistance of A. N. Kolmogorov. It is also noteworthy that A. N. Kolmogorov considered it possible for N. A. Morozov to have been correct.

Apparently, ever since the time N. A. Morozov's research was cast into oblivion, historians have been constantly bothered by the possibility of someone resuming it. It is hard to find another explanation for the peculiar fact that as early as 1977, when the research conducted by the Moscow State University mathematicians was in its earliest stages without any publications on the topic, the Communist magazine published an article by A. Manfred, Doctor of History, with a severe criticism of "the new mathematical methods" in history. The names of the methods' au-
thors weren't mentioned, but the implications were perfectly clear. A. Manfred wrote the following: "If these "young" scientists are given any degree of liberty at all, they will drown the book market in summaries of numeric data. The "new" tendencies need to be overcome by scrupulous critical analysis, since they are holding back the progress of global historical science..." (Communist, July 1977, 10th issue, pages 106-114).

In 1981, immediately after our first publications on chronology had come out, the History Department of the USSR Academy of Sciences gathered for a special session on June 29, 1981, the criticism of our work being its main objective. The Learned Secretary of the History Department of the USSR Academy of Sciences, Cand. Hist. Sci. V.V.Volkov and the Learned Secretary of the Principal Tendencies of Human Society Development Council of the History Department of the Academy N. D. Loutzkov sent A. T. Fomenko an official note saying, among other things, that: "The Department's session took place on 29 June, 1981, conducted by the Vice Academician Secretary of the Department, Academician Y. V. Bromley... Your conclusions were sharply criticized by the specialists of six humanities institutes as well as the staff members of the Sternberg Institute of Astronomy" (8 May 1984).

The most vehement criticisms of the 1981 session belonged to the Corresponding Member of the USSR Academy of Sciences Z. V. Udaltsova, and the chairwoman of the commission, Y. S. Goloubtsova, both of them historians. Y. S. Goloubtsova was in charge of a special commission of historians that had been assembled to analyze our works. The materials of this discussion have provided the basis for a series of articles with harsh criticisms of our research in various historical periodicals.

A similar "discussion" recurred in 1998-1999, as shall be mentioned below.

The sixth stage - the post-1990 period. It can be characterized as "the stage of publishing books on new chronology." This is when the books that covered our chronological research, as well as those containing derived hypotheses about what pre-XVII century history had really looked like, started to appear. The first book on this topic was A. T. Fomenko's Methods of Statistical Analysis of Narrative Texts and their Ap-
plication to Chronology, MSU Publishing, 1990. The foreword was written by A. N. Shiryaev, President of the International Bernoulli Society for Mathematical Statistics and Probability Theory in 1989-1991, Corresponding Member of the Russian Academy of Sciences, Doctor of Physics and Mathematics, Head of the Probability Theory Studies Section of the Moscow State University Department of Mathematics and Mechanics, Head of the Probability Theory and Mathematical Statistics Department of the V. A. Steklov Mathematics Institute of the Russian Academy of Sciences.

It has to be mentioned that this book was supposed to have been published much earlier. It was already typeset by the Publishing House of the Saratov University in 1983-1984 and edited by Cand. Hist. Sci. S. A. Poustovoyt (Moscow). However, the publishing house received a sudden missive from the historians of Leningrad, Head of the Universal History Sector, the Leningrad division of the USSR History Institute, Corresponding Member of the USSR Academy of Sciences, V. I. Routenburg, Learned Secretary T. N. Tatsenko, Cand. Hist. Sci., Head of the History of Ancient States Formerly on USSR Territory and the Ancient World Group, I. A. Shishova, Cand. Hist. Sci., Learned Secretary I. V. Kouklina, Cand. Hist. Sci. Among other things, they wrote that our research was "obviously contradicting the founding principles of the Marxist historical science... the Universal History Sector as well as the history of Ancient States Formerly on USSR Territory and the Ancient World Group considering the publication of A. T. Fomenko's "Methods of Statistical Analysis of Narrative Texts and their Applications to Chronology" an absolute impossibility". The historians demanded the publication of the book to be stopped in the most categorical way, and so the typesetting of the book was recycled.

The Nauka Publishing House planned to publish our book titled The Geometrical and Statistical Analysis of Star Configurations. The Dating of the Star Catalogue of Almagest authored by A. T. Fomenko, V. V. Kalashnikov and G. V. Nosovskiy in 1991. It was reviewed and submitted for publishing. However, when a significant part of work had already been done, the Nauka publishing house all but ceased its publishing activity due to the change of the political and economical climate in the country. The
book was published later, in 1995, by the Faktorial Publishing House that had received the prepared materials from Nauka, which would subsequently resume work and publish two more of our books on chronology in 1996 and 1997.

As we can see, the release of A. T. Fomenko's Methods in 1990 was followed by a break of sorts. After that, starting in 1993, a number of books covering the current stages of our research eventually got published. This was when the term New Chronology had been coined in reference to the chronology that was beginning to emerge due to the application of our new dating methods. It was new in the sense of differing from the consensual chronology of ScaligerPetavius, and should have really been called the Correct Chronology due to its freedom from the errors of the Scaligerian school.

The publication of books on the new chronology was undertaken by a number of Muscovite publishing houses: MSU Publishing, the MSU Educational Centre of Pre-University Education Publishing, as well the publishing houses Nauka, Faktorial, Kraft, Olimp, Anvik, and Delovoi Express. Outside Russia our books on chronology were published in both English and Russian by Kluwer Academic Press (the Netherlands), CRC Press (USA), and Edwin Mellen Press (USA). In 2000-2003 the entire material was collected, processed and arranged as the seven volumes of Chronology. What you are now holding in your hands now is the first volume of seven.

Starting in 1995-1996, a large number of articles discussing our books on the new chronology began to appear in various newspapers and magazines. Most of them expressed two polar points of view. One camp enjoyed our books a great deal, whilst the other was positively infuriated by them. About a hundred of such articles appeared every year; their numbers surged dramatically in 1999-2000.

In 1998, the Free Russia radio station had been broadcasting a series of radio programmes for over six months, where Y. S. Chernyshov brilliantly rendered the contents of our books. Namely, he had read the nearly complete text of the two of our books on the radio - The Empire and The New Chronology of Russia, England, and Rome. In addition to that, the first couple of chapters of The Biblical Russia also received a reading. The programmes were resumed in

2001, but ceased shortly after that, despite Y. S. Chernyshov being ready to continue with them.

In 1998, seven series of the Night Flight programme on TVC (produced by ATV Studios aka Author Television, hosted by A. M. Maksimov) featured A. V. Podoinitsyn, a Muscovite economist and a member of the informal "New Chronology" organization as their special guest. A. V. Podoinitsyn had related the main points of our research and answered a great many of the viewers' questions live. The programmes had caused a great resonance.

In 2001 and 2002 G. K. Kasparov, the World Chess Champion, voiced his support of the critical part of the New Chronology publicly.

In 1999, the prominent writer, sociologist, logician, and philosopher A. A. Zinoviev, who had just returned to Russia after many years spent in emigration, got in touch with us. Having read some of our publications, he decided that our concept was generally a correct one, concurring well with his own research in the field of history and historical falsifications. He voices a number of related ideas in his preface to the new edition of our Introduction to the New Chronology, 2001, Kraft Publishing.

In 1996, our materials on the new chronology started to appear online. The number of related web sites keeps on growing and at the moment there are about ten of them in Russia and at least one in Germany, which is the brainchild of Professor E. Y. Gabovitsch (Karlsruhe and Potsdam, Germany), the founder of the new German Salon of History - the institution where the new chronology has been discussed very actively over the last couple of years. E. Y. Gabovitsch has also helped us immensely with archive research he had conducted in Germany. A number of valuable ideas and considerations of his have helped with the reconstruction of the true history.

The web site is currently becoming increasingly popular in Russia, offering constant discussion opportunities for both proponents and opponents of the new chronology; its URL is chronologia.org (see also history.mithec.com).

The reaction of historians during the period of 1990-1998 was rather lukewarm, and didn't go beyond the odd occasional article whose authors didn't even bother to give scientific counter-arguments but merely expressed their disapprobation. The radical
change came about in 1998. One of the Presidium sessions of the Russian Academy of Sciences was gathered with the sole purpose of discussing our research.

Later on, the History Department Bureau of the Academy was called for a special session, and the issue was also discussed at the subsequent session of the Mathematics Department Bureau. The History Department Bureau had proposed an entire combat plan for opposing the new chronology, which was implemented most visibly in December 1999, when the History Department of the MSU organized a large conference suggestively enough named "The Myths of the New Chronology". The main point of the conference agenda was that of a categorical deprecation of our research, and the conclusion was made that the new research should be pronounced perfectly unacceptable, all research concerning the New Chronology was to be banned, and its authors reprimanded severely. (See details in Chron7, Appendix 4). A rather amusing process commenced shortly afterwards. The materials of this conference were published several times under different titles and covers, with minute variations. Our opponents went so far as to publish a whole series of book under the title of "Anti-Fomenko". There are seven such books to date, and all of them duplicate each other; it looks like their number might grow in near future. We familiarized ourselves with the criticisms thoroughly, and learned that the historians haven't managed to find any original counter-arguments. The material was presented in a more "scientific" and "advanced" manner, with considerable progress made in the fine art of attaching labels. We have written a detailed reply, see Chron7, Appendix 4.

Starting with 1996, a number of books proving the falsity of Western European mediaeval chronology were published by German scientists (see Chron7, Appendix 3). However, the authors of works appear to misperceive the entire scale of the problem, thinking that several minor local corrections of the Scaligerian chronology should suffice. This is a mistake that they need to become aware of before they succeed in any of their endeavours. At the same time, the critical part of those works is written thoroughly enough. The first book that has to be mentioned in this respect is Uve Topper's The Great Campaign on the falsification of history, as well as C-14 Crash by

Blöss and Nimitz that conveys to us the knowledge of radiocarbon analysis (see bibliography).

The years 2000-2001 have been marked by the publication of such books as The True History of Russia and Multi-optional History by Alexander Goutz, a mathematician from Omsk, and N. I. Khodakovsky's The Temporal Spiral. A. Boushkov's The Russia That Never Was is also visibly influenced by our works. This list can be continued. Despite the fact that the key chronological issues are not related in these books, they unravel several new and interesting facts that confirm our general concept.

However, we must firmly disagree with a number of ideas voiced in these works and ones similar to them. Being in favour of such activity in general, we beg to differ between these works and our scientific research of chronology. We regard ascribing what we clearly did not say to us, or speaking on behalf of the New Chronology without our consent as perfectly unacceptable. All that we deem worth relating is already published in our books, or will be formulated in the upcoming ones. They remain the original source for the entire concept of the New Chronology. It is also unacceptable to ascribe our ideas and results, leave alone the basic postulates of our concept to others. We thoroughly deprecate the use of the term that we coined along with the entire concept of New Chronology for the propaganda of views that we do not share.

Let us mention another interesting effect. The recent publication of certain authors is clearly derivative, spawned by the "echoes" of the New Chronology. Such "informational reverberations" are doubtlessly of use; nevertheless, one has to bear in mind that they neither constitute the essence of the New Chronology, nor its foundations, namely, the natural scientific dating methods and the new concept of history that has evolved from those as our hypothesis. Any attempts to replace the foundations of the New Chronology with derivative observations of linguistical or historical nature may create the illusion of being essential or evidential to the New Chronology. This is untrue. The conception is based on statistical and astronomical dating methods first and foremost.
A. T. Fomenko, G. V. Nosovskiy, April 2001

## Anatoly T. Fomenko

## Chronology 1

# First volume of History: Fiction or Science? series by A. T. Fomenko and G. V. Nosovskiy 

Introducing the Problem<br>A Criticism of the Scaligerian Chronology Mathematical and Statistical Dating Methods Eclipses Zodiacs<br>Global Chronology

## Publisher's Advice

History: Fiction or Science? contains data, illustrations, charts and formulae containing irrefutable evidence of mathematical, statistical and astronomical nature. You may as well skip all of it during your first reading. They were included in this introductory volume as ammunition for your eventual discussions with the avid devotees of classical chronology. In fact, before reading this book, you have most probably been one of such devotees.

After reading History: Fiction or Science? you will develop a more critical attitude to the dominating historical discourse or even become its antagonist. You will be confronted with natural disbelief when you share what you've learned with others. Now you are very well armed in face of inevitable scepticism. This book contains enough solid evidence to silence any historian by the sheer power of facts and argumentation.

## CHAPTER 1

## The problems of historical chronology

"One often comes across accounts of a steel chisel found in the external masonry of the Great Pyramid of Cheops (Khufu, the beginning of XXX century в.с.); however, it is indeed most probable that said tool got there in a later age, when the pyramid stones were pillaged for building purposes."

Michele Giua. The History of Chemistry. Moscow, 1975, page 27, comment 23.

## 1.

## ROMAN CHRONOLOGY AS THE FOUNDATION OF EUROPEAN CHRONOLOGY

Let us give a concise preliminary account of the current state of ancient and mediaeval chronology. The importance of chronology for historical science is all the greater since this discipline allows for the determination of the time interval between the historical event and the current era (provided it can be adequately translated into terms of contemporary chronology, that is to say, it is given a corresponding B.C./A.D. dating). Nearly all the fundamental historical conclusions depend on the dating of the events described in the source that is being studied. An altered or imprecise dating of an event defines its entire interpretation and evaluation. The current global chronology model has evolved owing to the labour
of several generations of chronologists in the XVIIXIX century and has Julian calendar datings ascribed to all the major events of ancient history.

The datings of events referred to in some freshly discovered document are predominantly based on the Roman chronology, since it is considered that "all the other ancient chronological datings can be linked to our calendar via direct or indirect synchronisms with the Roman dates" ([72], page 77). In other words, Roman chronology and history are the "spinal column" of the consensual global chronology and history. This is why Roman history shall have to enjoy our very special attention.

## 2.

SCALIGER, PETAVIUS, AND OTHER CLERICAL CHRONOLOGERS

## The creation of contemporary chronology of the ancient times in the XVI-XVII century A.D.

The chronology of ancient and mediaeval history in its present form was created and, for the most part, concluded in a series of fundamental works of the XVI-XVII century that begins with the writings of Iosephus Iustus Scaliger (1540-1609), called "the founder of modern chronology as a science" by the modern chronologist E. Bickerman ([72], page 82).


Fig. 1.1. Portrait of the chronologist Joseph Scaliger. The caption in [35] reads as follows: "Portrait of Iosephus Iustus Scaliger (1540-1609), the famous philologist and critic of the XVI-XVII century. Engraving from the book by Johannes Mercius titled Athena Batavia, page 167." Taken from [35], ill. 8.

The mediaeval portrait of I. Scaliger can be seen on fig. 1.1. This is an etching from Athena Batavia, a book by Johannes Mercius ([35], page 25).

Scaliger's principal works on chronology are as follows:

1) Scaliger I. Opus novum de emendatione temporum. Lutetiac. Paris, 1583 ([1387]).
2) Scaliger I. Thesaurum temporum. 1606 ([1387]).

For the most part, the body of Scaliger's work was concluded by Dionysius Petavius (1583-1652). The best-known book of the latter is titled De doctrina temporum, Paris, 1627 ([1337]). Figs. 1.2, 1.3, and 1.4 show the title page of his Rationarium Temporum, published in 1652 ([1338]), and the titles of the first two volumes.

Gerhard Friedrich Miller (1705-1783) "revised" the Russian history and chronology in the XVIII century in accordance with Scaliger's scheme. His portrait can


Fig. 1.2. The title page of Rationarium Temporum by D. Petavius, published in 1652. Taken from [1338]. Mark that the Latin letters $U$ and $V$ were identical in XVIXVIII century texts.
be seen on fig. 1.5. See more about the endeavours of Miller and his German colleagues in Chron4.

Let us mention the works of the XVIII-XIX century, which contain a great array of factual chronological data, such as [1155], [1205], [1236] and [1275]. They are of great value to us since they provide a snapshot of the state of chronology during the epoch of a greater proximity to Scaliger and Petavius. This material is thus of a more primordial nature, not "painted over" by latter cosmetic layers. It must be noted that this series remains incomplete as well as several other similar chronological works. To quote the prominent contemporary chronologist E. Bickerman:"There has been no chronological research ever conducted that could be called exhaustive and conforming to modern standards" ([72], page 90, comment 1).

Hence it would be correct to call the modern consensual chronology of the Classical period and the


Fig. 1.3. The title of the first volume of Rationarium Temporum by D. Petavius, published in 1652. Taken from [1338].

Middle Ages the Scaliger-Petavius version. We shall simply refer to it as "Scaligerian Chronology". As it will be pointed out, this version wasn't the only one existing in the XVII-XVIII century. Its veracity has been questioned by eminent scientists.

The groundlaying works of Scaliger and Petavius of the XVI-XVII century present the ancient chronology as a table of dates given without any reasons whatsoever. It is declared to have be on ecclesiastical tradition. This is hardly surprising, since "history has remained predominantly ecclesial for centuries, and for the most part, was written by the clergy" ([217], page 105).

Today it is believed that the foundations of chronology were laid by Eusebius Pamphilus and Saint Hieronymus, allegedly in the IV century a.d. On fig. 1.6 we have a mediaeval painting of Eusebius Pamphilus of Caesarea dated 1455 ([140], page 80).


Fig. 1.4. The title of the second volume of Rationarium Temporum by D. Petavius, published in 1652. Taken from [1338].

It is worth noting that Eusebius of Caesarea is painted wearing typically mediaeval attire of the Renaissance epoch. Most probably because he had lived in that period of time and not any earlier.

Despite the fact that Scaligerian history ascribes Eusebius to the IV century A.D., during the years 260-340 ([936], vol. 1, page 519), it is interesting to note that his famous work titled The History of Time from the Genesis to the Nicaean Council, the so-called Chronicle, as well as the tractate by St. Hieronymus (Jerome) weren't discovered until very late in the Middle Ages. Apart from that, historians say that "the Greek original (of Eusebius -A.F.) is only available in fragmentary form nowadays, and is complemented by the ad libitum translation made by St. Hieronymus" ([267], page VIII, Introduction). Mark the fact that Nicephorus Callistus attempted to write the new history of the first three centuries in the XIV century, or "revise" the History of


Fig. 1.5. Portrait of the German historian Gerhard Friedrich Miller (1705-1783). Taken from the Russian Academy of Sciences Courier ([129], page 880).

Eusebius, but "he could not do more than repeat that which was written by Eusebius" ([267], page XI).However, since the work of Eusebius was only published in 1544 (see [267], page XIII), that is, much later than the writing of Nicephorus, one has reason to wonder: Could the "ancient" Eusebius have based his work on the mediaeval tractate by Nicephorus Callistus?

On fig. 1.7 we can see a painting by Cesare Nebbia and Giovanni Guerra that was allegedly created in 1585-1590. According to historians, it depicts a scene "of St. Jerome and his pet lion visiting the library of Eusebius (whose Chronicle was translated by Jerome) in Caesarea" ([1374], page 45). What we see here, however, is a typically mediaeval scene of the Renaissance epoch, or maybe even the epoch of the XVI-XVII century. The library shelves are filled with books that look basically the same as those of the XVIII-XIX century,


Fig. 1.6. "Eusebius of Caesarea, the Chronicler and the Companion of Constantine the Great. A fragment of the mural by Piero della Francesca in the Cathedral of St. Francisco (Frezzo, Italy). $14555^{\prime \prime}$ ( $[140]$, page 80 ). One should note that the gap between the Scaligerian dating of the life of Eusebius (the alleged IV century A.D.) and the time of the portrait's creation exceeds a thousand years. This is most probably a result of a chronological shift by roughly 1053 years that transferred Eusebius of Caesarea, who lived in the XV century, into the phantom IV century. Taken from [140], page 80.
in hard covers with wide fastening straps. The artists of the XVI-XVII century have most probably painted recent mediaeval events and characters cast into the "dark ages" by later XVII-XVIII century chronologists of the Scaligerian tradition.

It is assumed that Scaligerian chronology was based on the interpretations of assorted numeric data collected from the Bible. Certain "basis dates" that were used as reference points originated as results of scholastic exercises with numbers. For instance, according to the eminent chronologist J. Usher (Usserius), the world was created on Sunday, 23 October 4004 b.c., in the small hours of the morning ([76]). Mind-boggling precision. One is to bear in mind that the "secular" chronology of the present days is largely based on the scholastic biblical chronology of the Middle Ages. E. Bickerman, a contemporary histo-
rian, is perfectly right to note that "the Christian historians have made secular chronography serve ecclesial history... The compilation made by Hieronymus is the foundation of the entire edifice of occidental chronological knowledge." ([72], page 82).

Although "I. Scaliger, the founding father of modern chronology as a science, had attempted to reconstruct the entire tractate of Eusebius", as E. Bickerman tells us, "the datings of Eusebius, that often got transcribed erroneously in manuscripts (! - A. F.), are hardly of any use to us nowadays" ([72], page 82).

Due to the controversy and the dubiety of all these mediaeval computations, the "Genesis dating", for instance, varies greatly from document to document. Let us quote the main examples:

5969 b.c. - the Antiochian dating according to Theophilus, see other version below;

5508 в.c. - the Byzantine dating, also known as "The Constantinople version";

5493 в.с. - Alexandrian, the Annian era, also 5472 в.с. or 5624 в.с.;

4004 в.c. - according to Usher, a Hebraic dating;
5872 в.с. - the so-called "dating of the seventy interpreters";

4700 в.с. - Samarian;
3761 в.с. - Judaic;
3491 b.c. - according to Hieronymus;

5199 в.с. - according to Eusebius of Caesarea;
5500 в.с. - according to Hippolytus and Sextus Julius Africanus;

5515 в.с., also 5507 в.с. - according to Theophilus; 5551 в.с. - according to Augustine ([72], page 69).
As we can see, this temporal reference point, considered fundamental for the ancient chronology, fluctuates within the span of 2,100 years. We have only quoted the most famous examples here. It is expedient to know that there are about two hundred various versions of the "Genesis date" in existence. On fig. 1.8 you can see an ancient painting of the seventy Bible translators commonly referred to as "the seventy interpreters" today.

The "correct Genesis dating" issue was far from scholastic, and received plenty of attention in the XVII-XVIII century for good reason. The matter here is that many ancient documents date events in years passed "since Adam" or "since the Genesis". This is why the existing millenarian discrepancies between the possible choices of this reference point substantially affect the datings of many ancient documents.
I. Scaliger together with D. Petavius were the first ones to have used the astronomical method for proving - but not examining critically, the late mediaeval version of the chronology of the preceding centuries. Modern commentators consider Scaliger to have ipso


Fig. 1.7. Painting by Cesare Nebbia and Giovanni Guerra allegedly dating from 1585-1590. Depicts St. Jerome visiting the library of Eusebius Pamphilus in Caesarea. We see a typically mediaeval scene of the Renaissance epoch or, possibly, of an even later age. Modern history assures us that all of this happened about a thousand years earlier, in the alleged IV century A.D. Taken from [1374], page 45.


Fig. 1.8. Ancient miniature from the Ostrog Bible, allegedly dated 1581 , showing the Bible's translators and interpreters, commonly referred to nowadays as "the 70 interpreters." It is assumed that they were responsible for dating Genesis to 5872 B.C. Taken from [623], page 165. Also see [745], Volume 9, page 17.
facto transformed this chronology into a "scientific" one. This "scientific" veneer proved sufficient for the chronologists of the XVII-XVIII century to put unquestioning trust in the largely rigidified chronological date grid that they had inherited.

It is very significant that Scaligerian chronology was initially created within the paradigm of the Western European Catholic Church, which had remained in its firm control for a great amount of time. A. Oleinikov wrote, "The mediaeval theologians often tried to calculate the age of the Earth interpreting assorted data contained in the Holy Writ." On having studied the text of the Bible, Archbishop Hieronymus came to the conclusion that the world was created 3,941 years before the beginning of modern chronology. His colleague Theophilus, the Bishop of Antiochia, had extended this period to 5,515 years. St. Augustine had added another thirty-six years; whilst the Irish Archbishop James Usher, who had obviously nurtured a fondness for precise numbers, had made the assumption that the world was created in the early morning hours on 23 October 4004 в.c. ([616], page 8). Many eminent Western European chronologists of the XVI-XVII century were clergymen. I. Scaliger (1540-1609), for instance, was a theologian; Tischendorf (1815-1874), the founding father of paleography, was a Doctor of Divinity; Dionisius Petavius (1583-1652) - a Jesuit and an author of several theological works ([82], page 320, comment 5).

Their absolute trust in the infallibility of what the ecclesial chronology was telling them determined their entire Weltanschauung. Therefore, their attitude to the data offered by other disciplines was determined by whether or not it could serve the advocacy of this a priori assumption or the other, invariably based on the mediaeval ecclesial chronology that was later baptised "scientific".

The fact that the clerical chronologists of the Occidental church had deified the endeavours of their predecessors of the XV-XVI century, excluded the very possibility of criticizing the foundations of chronology in any way at all, even minutely.
I. Scaliger, for instance, could not even conceive of such heresy as running a check on the chronological materials of the holy fathers (Eusebius and others): "Scaliger calls this work by Eusebius (the Evangelical

Preparation - A. F.), divine" ([267], page VIII, Introduction). Trusting the authority of their predecessors unconditionally, the chronologists reacted at external criticisms very bitterly. The same I. Scaliger makes a perfect demonstration of his attitude toward objective scientific criticisms in the following episode: "The eminent philologist Joseph de Scaliger, the author of the chronology that has received such high scientific acclaim, turned into a keen quadraturist" ([458], page 130). Let us remind that a "quadraturist" was someone who tried to build a square equalling a given circle (disc) in area, using nothing but a pair of compasses and a ruler. This mathematical problem is insoluble as a principle, which is proven by geometry. However, I. Scaliger had published a book where he claims to have proved the "true quadrature" which solved the problem, "The best mathematicians of the epoch - Viète, Clavius... have tried their hardest to prove to him that... his reasoning was incorrect - all in vain" ([458], page 130). The point here is that Scaliger's erroneous "proof" made the easy corollary about the perimeter of an equilateral polygon with 196 angles being greater than that of the circle circumscribing it, which is, naturally, quite absurd. Nevertheless, "Scaliger and his supporters, who had a habit of defending their opinions vehemently, didn't want to acknowledge anything... replying... with maledictions and scornful epithets, and finally calling all the geometricians complete ignoramuses in what concerned geometry" ([458], page 130).

One might imagine how these people reacted towards attempts of analyzing their version of chronology critically.

Few are aware that Scaliger and Petavius brought chronology to "perfection" and "absolutely precise datings" quoting the year, day, month, and sometimes even the time of day for all the principal events in history of humankind. For whatever reason, modern monographies and textbooks usually only quote the years of events according to Scaliger-Petavius, coyly omitting the month, day, and hour. It is verily a step backwards that deprives the chronology calculated in the XVII-XVIII century of its former splendour and fundamentality.

By the XIX century, the accumulated volume of chronological material had grown to the extent of inducing respect a priori by its sheer scale, so the chro-


Fig. 1.9. The title page from one of the books by J. Hardouin, 1776.


Fig. 1.10. The title page from J. Hardouin's book in Edwin Johnson's English translation, 1909.


Fig. 1.11. The title page from one of R. Baldauf's books, 1902.


Fig. 1.12. The title page from one of E. Johnson's books, 1904.


Fig. 1.13. A portrait of Sir Isaac Newton. Taken from [336], Volume 6, inset between pages 646-647.
nologists of the XIX century saw their objective in making minor corrections and not much else.

The issue of veracity is hardly raised at all in the XX century, and the ancient chronology solidifies terminally in the very shape and form given to it by the writings of Eusebius, Hieronymus, Theophilus, Augustine, Hippolytus, St. Clement of Alexandria, Usher, Scaliger, and Petavius. To someone in our day and age, the very thought that historians have followed an erroneous chronology for about three centuries seems preposterous, since it contradicts the existing tradition.

However, as chronology developed, specialists encountered considerable difficulties in trying to correlate the varied chronological data offered by ancient sources with the consensual Scaligerian version. It was discovered, for instance, that Hieronymus misdates his own time by a hundred years ([72], page 83).

The so-called "Sassanide tradition" separated Alexander the Great from the Sassanides by an interval of 226 years, which was extended to 557 by con-
temporary historians ([72], page 83). In this case, the gap exceeds 300 years.
"The Jews also allocate a mere 52 years for the Persian period of their history, despite the fact that Cyrus II is separated from Alexander the Great by 206 years (according to the Scaligerian chronology A. F.)" ([72], page 83).

The basic Egyptian chronology has also reached us through the filter of Christian chronologists: "The list of kings compiled by Manethon only survived as quotations made by the Christian authors" ([72], page 77). Some readers might be unaware that "The Oriental Church avoided using the birth of Christ as a chronological point of reference since in Constantinople the debates about the date of his birth had continued well into the XIV century" ([72], page 69).

## 3. <br> THE VERACITY OF THE SCALIGER-PETAVIUS CHRONOLOGY WAS QUESTIONED AS EARLY AS THE XVI CENTURY

### 3.1. Who criticized Scaliger's chronology and where

### 3.1.1. De Arcilla, Robert Baldauf, Jean Hardouin, Edwin Johnson, Wilhelm Kammeyer

The doubts regarding the correctness of the consensual version aren't a recent phenomenon. They have quite a tradition behind them. N. A. Morozov wrote in particular that "the Salamanca University professor de Arcilla published his works Programma Historiae Universalis and Divinae Florae Historicae where he had proved that the entire history of the Classical Age was mediaeval in its origin. This is exactly the same point of view that was shared by the Jesuit historian and archaeologist Jean Hardouin (1646-1724), who considered the Classical literature to have been written in monasteries during the preceding XVI century...

The German Privatdozent Robert Baldauf wrote his History and its Criticisms in 1902-1903, proving that not only ancient history, but even that of the early Middle Ages, is a forgery of the Renaissance epoch and the subsequent centuries with the use of nothing but philological arguments" ([544], volume 7, pages VII-VIII, Introduction).

You can see the title page of one of Jean Hardouin's books in fig. 1.9, and that of its translation by Edwin Johnson in fig. 1.10. Fig. 1.11 shows us the title page of one of Robert Baldauf's writings.

The eminent English scientist Edwin Johnson (1842-1901), the author of several remarkable critical studies of ancient and mediaeval history, gave some severe and serious criticisms of Scaligerian chronology, fig. 1.12. The main conclusion that Edwin Johnson had arrived to after many years of chronological research, was formulated thusly: "We are a lot closer in time to the Greeks and the Romans than what the chronological tables tell us" ([1214], page XXX). Edwin Johnson called for a revision of the entire edifice of the ancient and mediaeval chronology! His principal works were published in the late XIX - early XX century ([1214] and [1215]).

See more details concerning the research of Jean Hardouin, Robert Baldauf, and Wilhelm Kammeyer in the work of E. Y. Gabovitsch (Karlsruhe, Germany) quoted in Chron7, Appendix 3.

### 3.1.2. Sir Isaac Newton

"Isaac Newton (1642-1727), an English mathematician, mechanician, astronomer, and physicist, the creator of classical mechanics, member of the Royal Society of London since 1672 and its president since 1703... developed differential and integral calculus (independently from G. Leibnitz). He discovered light dispersion and chromatic aberration, researched diffraction and interference, worked on the development of the corpuscular theory of light, made a hypothesis that combined the concepts of waves and particles, built the reflecting telescope, formulated the principal laws of classical mechanics, discovered the Gravity Law, formulated the theory of movement of celestial bodies and the founding principles of celestial mechanics" (The Soviet Encyclopaedic Dictionary, Moscow, 1979, page 903). See fig. 1.13 for a portrait of Sir Isaac Newton.

Sir Isaac Newton occupies a special place among the critics of the Scaliger-Petavius version. He is the author of a number of profound works on chronology where he relates his conclusions regarding the inveracity of Scaliger's version in some of its principal parts. This research remains rather obscure for the contemporary reader despite having provoked major


Fig. 1.14. The title page from the book by Sir Isaac Newton called The Chronology of Ancient Kingdoms amended. To which is Prefix'd, A Short Chronicle from the First Memory of Things in Europe, to the Conquest of Persia by Alexander the Great (London, J. Tonson, 1728). Taken from [1298].
controversy in the past. The main chronological works of Newton's are the following ([1298]):

1) A short Chronicle from the First Memory of Kings in Europe to the Conquest of Persia by Alexander the Great;
2) The Chronology of Ancient Kingdoms Amended, fig. 1.14.

Newton made a radical revision of the ancient chronology based on natural scientific ideas. Some - very few - events were added extra age. This is true of the legendary voyage of the Argonauts, which Newton determined to have occurred in the XIV century b.c. and not in X b.c., as was believed in his time period. However, the dating of this event is rather vague in later chronological studies of other chronologers as well.

The new chronology offered by Sir Isaac is a lot shorter than the consensual chronology of Scaliger. Newton moved most of the events dated as preceding the epoch of Alexander the Great, forward in time, closer to us. The revision isn't as radical as that contained in the writings of N. A. Morozov, who had been of the opinion that the Scaligerian version of ancient chronology was only veracious starting in the IV century A.D. Let us mark that Newton did not go further in time than the в.c./A.D. mark in his research.

Contemporary historians have this to say about these works of Newton's: "They are the fruit of forty years of labour, diligent research and a tremendous erudition. Basically, Sir Isaac Newton studied all of the major literary works on ancient history and all the primary sources beginning with ancient and oriental mythology" ([619], pages 104-105).

Modern commentators invariably come to the conclusion that Sir Isaac was wrong when they compare his conclusions to the consensual Scaligerian chronology. They say that:
"Naturally, without deciphered cuneiform and hieroglyphic writings, having no archaeological data due to the non-existence of archaeology in that age, bound by the presumed veracity of the Biblical chronology and the belief in the reality of what was told in myths, Newton's errors weren't measured in mere tens of hundreds of years - he was thousands of years off the mark, and his chronology is far from true even in what concerns the very reality of the events described. W. Winston wrote in his memoirs, 'Sir Isaac often saw the truth in mathematics intuitively, without even needing proof... But this very Sir Isaac Newton compiled a chronology... However, this chronology isn't any more convincing than the most ingenious historical novel, as I have finally proved in my refutation thereof. O, how weak, how utterly weak even the greatest of the mortals can be in some regards' " ([619], pages 106107).

What did Sir Isaac suggest exactly? Basically, he had analyzed the b.c. chronology of Ancient Egypt and Ancient Greece. He must have lacked the time for the analysis of more recent epochs, since this tractate only got published in the last year of his life.

For instance, the contemporary consensual version of chronology ascribes the first years of reign of the Egyptian Pharaoh Menes to approximately 3000
B.c. ([1298]). Newton suggested that this event could be given a date as recent as 946 b.c. ([1298]). Thus, the shift forward in time comprises about 2000 years.

Nowadays the myth of Theseus is dated to the XV century b.c. However, Sir Isaac claimed that these events took place around 936 в.c. ([1298]). Hence, the shift of dates forward that he suggests amounts to roughly 700 years.

The famous Trojan War is dated to roughly 1225 b.c. today ([72]), but Newton claims this event to have occurred in 904 в.c. ([1298]). The shift forward here is one of approximately 330 years. Et cetera.

Newton's main conclusions may be encapsulated as follows: He moves a part of the history of Ancient Greece about 300 years forward in time, closer to us. The history of Ancient Egypt, covering a span of several hundred years according to Scaliger, that is, 3000 b.c. and on, is moved forward in time by Newton and compressed into a time period as short as 330 years, namely, 946 в.c. -617 в.c. Newton also moves some fundamental dates of the "ancient" Egyptian history about 1,800 years forward in time ([1298]).

Sir Isaac Newton only managed to revise the dates preceding 200 в.c. His observations were of a rather eclectic nature, and he could not find any system in these apparently chaotic re-datings.

We shall also briefly relate the publication history of Newton's work as told by the book [1141], which may lead one to certain conclusions. Newton seemed to have been wary of the plethora of complications that the publication of his tractate on chronology could lead him to. This work of his had commenced many years before 1727 . The book had been re-written numerous times up until his death in 1727. It is noteworthy that the Short Chronicle wasn't intended for publication by its author; however, the rumours of Newton's chronological research had spread far enough, and the Princess of Wales expressed a wish to familiarize herself with it. Sir Isaac gave her the manuscript on the condition that no third party should learn of it. The same happened with Abbé Conti (Abbot Conti), who started to lend the manuscript to interested scientists upon his return to Paris.

As a result, M. Freret translated the manuscript into French and added his own historical overview to it. This translation eventually reached the Paris
bookseller G. Gavellier, who wrote Newton a letter in May 1724 eager to publish his writing. Having received no answer, he wrote another letter in March 1725, telling Newton that he would consider Sir Isaac's taciturnity as acquiescence for the book's publication, with Freret's comments. No reply was given to that, either. Then Gavelier asked his friend in London to get a reply from Newton personally. Their meeting took place on 27 May 1725, and Sir Isaac answered in the negative. But it was too late. The book had already been published under the following title: Abrégé de Chronologie de M. Le Chevalier Newton, fait par lui-même, et traduit sur le manuscript Angélois (With observation by M.Freret). Edited by the Abbé Conti, 1725.

Sir Isaac received a copy of the book on 11 November 1725. He published a letter in the Philosophical Transactions of the Royal Society (v. 33, 1725, page 315), where he accused the Abbé of breach of promise and publication without the author's consent. When Father Souciet started his attacks in 1726, Sir Isaac had announced the preparation of a more voluminous and detailed work on ancient chronology for publication.

All of these events took place shortly before Newton's death. He had sadly lacked the time for the publication of a more in-depth book, and none of its traces remain in existence. Sir Isaac died in 1727, leaving his research of ancient history unfinished.

Could all this complicated history of the Short Chronicle's publication be explained by Newton's fear of groundless attacks? What was the reaction to the publication of his book?

The mid-XVIII century press saw a multitude of responses. Most of them were made by historians and philologists, and had voiced such negative opinions as "the blunders of the honoured dilettante" in regard to Newton's work. Only very few articles appeared that expressed support of his opinion. After the initial wave of responses subsided, the book was de facto hushed up and withdrawn from scientific circulation.

In the XIX century, François Arago, the author of the revue ([30:1]), presumed Newton's chronological research unworthy of more than the following rather flippant remark: "By and large, Newton failed to come up with correct judgments in everything excepting mathematics and its applications... Apart
from his theological opuses, the chronology that he compiled is there to confirm our opinion - the very chronology that Freret refuted immediately upon publication." Most probably, Arago decided not to get involved in the issue, and quoted Freret's opinion without thinking twice about it.

Cesare Lombroso tries to bring the issue to conclusion in his notorious Genius and Insanity in the following manner: "Newton, whose mind amazed the entire humanity, as his contemporaries rightly state, was yet another one to have gone senile in his old age, although the symptoms in his case weren't quite as grave as those of the geniuses listed above. That must have been the time when he had written his Chronology, Apocalypse and Letter to Bentley, obscure, involved writings, quite unlike anything that he had written in his youth" ([462:1], page 63).

Similar accusations would later be addressed at N. A. Morozov, another scientist bold enough to revise chronology. They sound most peculiar in a scientific discussion, and, as we think, mask the inability to reply substantially.

### 3.1.3. Nikolai Alexandrovich Morozov

S. I. Vavilov wrote the following about N. A. Morozov: "N. A. Morozov managed to combine his selfless revolutionary devotion to his people with a completely amazing dedication to scientific work. This scholarly enthusiasm and this completely unconditional passionate love for scientific research should remain an example to be followed by all scientists, young and old" (Sergei Ivanovich Vavilov, Essays and memoirs, Moscow, Nauka Publishing, 1981, page 284).

The first researcher of our time who had raised the issue of providing scientific basis for the consensual chronology in its fullness and quite radically was Nikolai Alexandrovich Morozov, figs. 1.15, 1.16., 1.17. On fig. 1.18 we can see a monument to N. A. Morozov, and on fig. 1.19 - his museum home in the town of Borok in the Yaroslavl region.
N. A. Morozov (1854-1946) was an eminent Russian scientist and encyclopedist whose fortune was far from easy.

Morozov's father, Peter Alexeyevich Shchepochkin, was a rich landowner and belonged to the old aristocratic Shchepochkin family, see fig. 1.20 . N. A. Morozov's great-grandfather was a relation of Peter the


Fig. 1.15. A portrait of N. A. Morozov dated 1878. Taken from [687], Volume 1.


Fig. 1.17. A portrait of N. A. Morozov. Taken from [583].


Fig. 1.16. A portrait of N. A. Morozov. Taken from [687], Volume 2.


Fig. 1.18. Monument to N. A. Morozov on his grave in Borok, in the Yaroslavl Region. Taken from [583], p. 27.


Fig. 1.19. The museum home of N. A. Morozov in Borok. Taken from [583], page 223.


Fig. 1.20. Peter Alexeyevich Shchepochkin, father of N. A. Morozov. Taken from [141], page 6.


Fig. 1.21. Anna Vasilievna Morozova, mother of N. A. Morozov. Taken from [141], page 7.

# АКА, АЕМИЛ ПАУК СССР <br> Яочетный лкаделик H.A.MOPO3OB Жовести МОЕЙ ЖИЗНИ MEMYAPDI TOME пЕРBGI保 <br>  MOCKAA•1962 

Fig. 1.22. The title page of the Memoirs by N. A. Morozov.

Great. N.A. Morozov's mother was a simple serf peasant, Anna Vasilievna Morozova, whom P. A. Schepochkin married, after signing her liberty certificate. The church didn't confirm the marriage, and so the children received their mother's surname.

At the age of twenty, N. A. Morozov joined the libertarian Narodnaya Volya movement. In 1881 he was sentenced for incarceration in Schliesselburg for life, where he had studied chemistry, physics, astronomy, mathematics and history, all on his own. In 1905 he was let free, having spent 25 years in gaol. After having received his freedom, he had immersed himself in a vast body of scientific and pedagogical work. His Memoirs are of the greatest interest, see fig. 1.22. Many authors wrote about N.A. Morozov - his literary biography, for example, was written by M. A. Popovsky ([675]).

After the October revolution, Morozov became Director of the Lesgaft Institute for Natural Scientific Studies, where he had done the major part of his famous research in ancient chronology with the use of natural scientific methods, supported by enthusiasts and the staff of the Institute.

After N. A. Morozov left his Director's office, the

Institute was completely reformed, possibly with the objective of casting the important historical research conducted there by N. A. Morozov and his group into oblivion.
N.A. Morozov was made Honourable Member of the Russian Academy of Sciences (which became the USSR Academy of Sciences in 1925), decorated with the Order of Lenin and the Red Banner of Labour. More about the body of his prominent work in chemistry and several other natural sciences can be read in such publications as [146], [147], [582], [583] and [584]. The official reference book of the USSR Academy of Sciences published in 1945 ([811]) lists the Honourable Members the Academy had in 1945. There were just three - N. F. Gamaleya, N. A. Morozov, and J. V. Stalin ([811], pages 37-38). Nikolai Alexandrovich Morozov is described as follows: "Elected in 1932, known by his works on a variety of astronomical, meteorological, physical, and chemical problems. Merited Scientist of the Soviet Republic of Russia. Honorary member of the Muscovite Society for Natural Studies. Lifelong member of La Société Astronomique de France. Lifelong member of the British Astronomical Association" ([811], page 37).

In 1907, N. A. Morozov published a book titled Revelations in Storm and Tempest ([542]) where he analyzed the dating of the New Testament Apocalypse and came to conclusions that contradicted the Scaligerian chronology. In 1914, he published The Prophets ([543]), which contains a radical revision of the Scaligerian datings of the Biblical prophecies. In 19241932, N. A. Morozov published the fundamental work Christ in seven volumes ([544] see figs 1.23 and 1.24). The initial name of this opus had been The History of Human Culture from the Natural Scientific Point of View. It contains detailed criticisms of the Scaligerian chronology. The important fact discovered by Morozov was that the consensual Scaligerian chronology is based on an unverified concept.

Having analyzed a great body of material, N. A. Morozov put forth and partially proved the fundamental hypothesis that Scaliger's chronology had been expanded arbitrarily as compared to reality. This hypothesis was based on the "repetitions" that N. A. Morozov had found, namely, the texts that apparently described the same events, but are dated differently and considered unrelated in our time. The publication of


Fig. 1.23. The cover of the first volume of N. A. Morozov's œuvre titled Christ, 1927.
this work caused vivid discussions in the press, and its repercussions can be found in contemporary literature. There had been a number of rational counterarguments, but the critical part of Christ remained undisputable in its entirety.

Apparently, N. A. Morozov had been unaware of the similar works of Sir Isaac Newton and Edwin Johnson that were all but forgotten by his time. This makes the fact that many of Morozov's conclusions coincide with those of Newton and Johnson all the more amazing.

However, N. A. Morozov raised the issue as a much wider and more profound one, having encompassed the entire period up to the VI century in the frame of critical analysis, and found the need for a radical revision of datings. Despite the fact that N. A. Morozov had also failed to discover any sort of system in the chaos of altered datings that arose, his research was performed on a higher qualitative level than Newton's analysis. N. A. Morozow was the first scientist to have possessed the clear understanding of the necessity of revising the datings of mediaeval events as


Fig. 1.24. The title page of the first volume of N. A. Morozov's Christ, 1927, the State Publishing House, Moscow-Leningrad.
well as those belonging to "ancient history". Nevertheless, N. A. Morozov did not go further than the VI century A.D. in time, considering the consensual version of the chronology of the VI-XIII century to be basically correct. We shall yet see that this opinion of his turned out to have been gravely erroneous.

Thus, the issues raised in our works are hardly new. The fact that they recur century after century, and get voiced ever louder, shows that the problem in question does exist. And the fact that the independently suggested alterations of the ancient chronology - those of I. Newton, E. Johnson, and N. A. Morozov - are close to each other in principle is a clear witness that the solution to the problem we're studying lies somewhere in this direction.

It is worthwhile to give a brief account of the creation of Morozov's Christ. His ideas met vehement opposition as early as during the publication stage. N. A. Morozov had to address Lenin as the Head of State personally in 1921 and ask him for support. V. I. Lenin had delegated the study of this issue to
A. V. Lunacharsky. Let us quote Lunacharsky's reply dated 13 April 1921:
"From Lunacharsky to Lenin, C 13.IV.1921, Dear Comrade Lenin,
I have received your request in re Morozov's book Christ signed by Comrade Gorbounov. It would please me greatly to delegate this matter to the editing board responsible for such matters. I, for one, am familiar with the work in question. It is a perfectly preposterous thing that uses a ridiculous demonstration to prove the date of the solar and lunar eclipses that the Gospel refers to as having accompanied the Crucifixion and occurred on Friday, that Christ had lived in the fifth century and not in the first, and uses this data to deny the existence of such historical characters as Julius Caesar, who turns out to have really been identified as Julian the Apostate, Augustus, etc., also suspecting the falsification of the writings of Cicero, Horace, etc., as really referring to the Middle Ages, etc., etc.

I like and respect Morozov a lot, but this book is so bizarre that its publication shall definitely bring harm to the name of the author and the State Publishing House.

If serious science treated Morozov's demonstration concerning the Apocalypse with great suspicion, the book Christ, in its turn, can be regarded as completely absurd and based on the same scientific onesidedness.

If you consider this reply of mine not to be competent enough, I'll be glad to hand the book over to specialists for consideration.

The People's Commissar A. Lunacharsky." ([488], pages 271-272).

Shortly afterwards, having met N. A. Morozov personally and witnessed the detailed scientific report that the scientist had made during their meeting, A. V. Lunacharsky had radically changed his mind about the book and sent the following missive to Lenin as early as 12 August 1921, in complete contradiction of his previous letter:
"From Lunacharsky to Lenin,
12 August 1921.
To the State Publishing House, with a copy to be delivered to the Committee of People's Commissars.

Although I could not familiarize myself with the actual manuscript of Comrade Morozov's voluminous opus Christ and His Time, an oral report of its
contents made by the author and a demonstration of several tables made me consider its publication as a matter of considerable importance, one that is to be addressed as soon as possible.

Since the work is rather large (three volumes, fifty sheets all in all), and seeing as how we still haven't emerged from the state of acute paper crisis, I would offer the Petersburg branch of the State Publishing House to cut the edition down to 4,000 copies at least, in order to get it published without delay.

People's Commissar of Education Lunacharsky." ([488], page 308).

The comment of the editors is also noteworthy ([488]):
"The contradiction between the two Lunacharsky's letters to Lenin dated 13 April and 12 August respectively can be explained by the fact that Lunacharsky had revised his initial reply. The complete collection of Lenin's works erroneously states that Lunacharsky expressed a negative opinion of Morozov's work later on calling it non-scientific in vol. 53 , page 403, comment 145 " ([488], page 310).

Nevertheless, the first volume of Christ took three more years to be published in 1924. Morozov had to request support from the government yet again. This time it took the participation of F.E. Dzerjinsky. Here is a fragment of F. E. Dzerjinsky's letter to Morozov dated 14 August 1924:
"Dear Nikolai Alexandrovich,
...I am prepared to provide any assistance you may need in order to get your writing published - just tell me what I have to do exactly, what obstacles need to be removed and what people I need to talk to.

I will be most glad if I manage to be of use to you in any way at all.

14/VIII. Kindest regards, F. Dzerjinsky"
All of the above notwithstanding, in 1932, after the publication of the seventh volume of Christ, Morozov's opponents had finally succeeded in stopping the publication of his further materials on the topic.

### 3.1.4. Recent publications of German scientists containing criticisms of Scaligerian chronology

In the period since the publication of our works on chronology, which started to appear in 1980, several German scientists have also published the rather interesting results of their research containing a critical
analysis of the Scaligerian chronology. The first of these publications appeared in 1996; the ones we consider the most noteworthy are those written by Uwe Topper ([1462] and [1463]), as well as Heribert Illig's Was There Really a Charlemagne? ([1208]) which claims that many documents which we ascribe to Charlemagne's epoch today are really more recent forgeries, and builds a hypothesis that one needs to withdraw about three centuries from the mediaeval history, including that of Charlemagne's age.

It has to be said that the chronological obtruncation suggested by Heribert Illig is of a local nature; Illig and his colleagues are of the opinion that the contradictions they noticed in the Scaligerian history can be resolved by minor corrections, such as subtracting 300 years from the history of mediaeval Europe. Our works demonstrate the deficiency of such local expurgations; what we claim is that the entire edifice of the Scaligerian chronology needs a cardinal revision in all that concerns the times preceding the XIII-XIV century A.D.

The veracity of the Scaligerian chronology of "ancient" Egypt is questioned in When Did the Pharaohs Live? by Gunnar Heinsohn and Heribert Illig. One has to mention that the authors fail to make so much as a passing reference to the scientific œuvres of N.A. Morozov which were published in the early XX century. Morozov's epic body of work entitled Christ, which was published in 1924-1932 and questioned the entire chronology of "ancient" Egypt, pointed out the numerous "collations" of Egyptian dynasties and reasoned the necessity of a substantial concision of the "ancient" Egyptian history. Alack and alas, there are no known translations of Morozov's works except for the German text of the Revelations in Storm and Tempest. Despite our numerous appeals, Herbert Illig and his colleagues still refuse to recognize the existence of Morozov's research; it was only recently that the alternative History Salon presided over by Professor E. Y. Gabovitsch finally managed to get the name of N.A. Morozov mentioned in German scientific debates.

We should also point out Gunnar Heinsohn's Assyrian Rulers Equalling Those of Persia ([1185]), where certain parallels are drawn between the comparative "ancient" histories of Assyria and Persia. However, Heinsohn fails to raise the possibility of transferring the events of that age into the mediae-
val epoch, leaving them in the "antediluvian" historical period, which we believe to be a mistake.

The suggestively titled C-14 Crash by Christian Blöss and Hans-Ulrich Niemitz ([1038]) is also interesting and contains a voluminous body of evidence used by the authors to question the feasibility of using the radiocarbon analysis method (in its current state, at least), as well as the dendrochronological method, for the dating of historical artefacts with any degree of proficiency. Also see the bulletin [1491].

### 3.2. The questionable veracity of the Roman chronology and history. The hypercritical school of the XIX century

Let us give a brief account of the situation with the Roman chronology, which has played a leading role in the global chronology of the antiquity. Fundamental criticisms of the tradition commenced as early as the XVIII century, in the Academy of Scriptures and Fine Arts that was founded in Paris in 1701 and two decades later hosted extensive discussions about the veracity of the entire Roman tradition (Pouilly, Freret, etc). The accumulated materials provided the basis for the more in-depth criticisms of the XIX century.

One of the prominent representatives of this important scientific current, later dubbed hypercriticism, was the well-known German historian Theodor Mommsen, who pointed out the discrepancies between various accounts in such passages as:
"Despite the fact that Tarquin the Second had already been an adult by the time his father died, and that his reign had started thirty-nine years after that, he got inaugurated as a young lad.

Pythagoras, who had arrived in Italy almost an entire generation before the exile of the kings [which is supposed to have happened around 509 в.c. - A. F.] is nevertheless supposed to have been a friend of Numa Pompilius" ([538], page 876).

Historians are of the opinion that Numa died around 673 b.c. The discrepancy here reaches a century at least. To carry on quoting from T. Mommsen:
"The state ambassadors who went to the city of Syracuse in the year 262 since the foundation of Rome, had conversed with Dionysius the Senior, whose reign started eighty-six years later." ([538], page 876)

What we see is a deviation of about eight decades.





Fig. 1.25. Ancient miniature from Jean de Courcy's Global Chronicle (Chronique de la Bouquechardière), titled Trojans Founding Cities: Venice, Cycambre, Carthage, and Rome ([1485], page 164). The Trojan War and the foundation of the Italian Rome are thus made practically simultaneous, although Scaligerian chronology separates these events by 500 years. Taken from [1485], ill. 201.

Fig. 1.26. Close-up of a fragment of the miniature.

A curious detail is the warm fur hat with earflaps on the head of one of the Trojan kings. Taken from [1485], ill. 201.


The Scaligerian chronology of Rome is constructed upon a most flimsy foundation indeed. The time interval between different datings of the foundation of Rome, which is a date of the greatest importance, is as large as 500 years ([538], page 876, or [579], pages 23-24).

According to Hellanicus and Damastus, who are supposed to have lived in the IV century b.c., and whose opinion on this matter was later supported by Aristotle, Rome had been founded by Aeneas and Ulysses, and named after the Trojan woman Roma ([579], pages 23-24). Several mediaeval authors concurred with this as well; in Jean de Courcy's Chronique de la Bouquechardière (Global Chronicle), we see a miniature notably named "Trojans Founding Cities:Venice, Cycambre, Carthage, and Rome" ([1485], pages 164,165 ). The miniature can be seen in fig. 1.25. One has to remark that it represents a mediaeval scene, and that the two Trojan kings who have arrived to inspect the building site are wearing warm fur hats with earflaps, qv in figs. 1.26 and 1.27.

Thus, the foundation of Rome occurs immediately after the Trojan War which both Aeneas and Ulysses took part in. But in the consensual chronol-


Fig. 1.27. Close-up of a fragment of the miniature. A curious detail is the warm fur hat with earflaps on the head of one of the Trojan kings. Taken from [1485], ill. 201.
ogy of Scaliger, the interval between the Trojan War, which allegedly took place in the XIII century b.c., and the foundation of Rome, which is said to have occurred in the VIII century в.с., is 500 years. This means one of the following:

- the foundation of Rome took place 500 years later than it is generally thought;
- the Trojan War occurred 500 later; or
- the chronographers are deliberately lying about Aeneas and Ulysses founding Rome.
Also, what happens to Romulus in this scenario? Could Romulus have been another name of Ulysses? A lot of questions arise, as you can see, and they only increase in number once we start delving further in.

A propos, according to a different version, the city was named by Romus, the son of Ulysses and Circe. Could this mean that Romus (or Remus, the brother of Romulus) was the son of Ulysses? This would be impossible within the paradigm of Scaligerian chronology, naturally.

The historian B. Niese has the following to say about it:
"Rome, as well as many other Italian cities, was considered to have been founded by the heroes of Greece
and Troy that wound up in those parts - there is a variety of legends to prove it. The most ancient one, which was quoted by Hellanicus and Damastus as early as the IV century b.c., and later by Aristotle, claims that the City was founded by Aeneas and Ulysses, and received its name from the Trojan woman Roma... Another version suggests Romus, the son of Ulysses and Circe, to have been its founder." ([579], page 23)

Let us reiterate that there are about 500 years separating this date from the consensual one.

Such tremendous fluctuations in the determination of a date as important as that of the Foundation of the City (Rome) affect the datings of a great number of documents that use it as a temporal reference point. The well-known History by Titus Livy is one of them. Actually, the identification of the City with the Italian Rome is one of the hypotheses of the Scaligerian chronology. The possibility that the City can be identified as the famous Rome upon the Bosporus, or Constantinople, also known as Czar-Grad, or the City of the Kings, cannot be excluded.

By and large, historians are of the opinion that "the traditional Roman history has reached us via the works of a mere handful of authors, the most fundamental one doubtlessly being the historical opus by Titus Livy" ([719], page 3). It is believed that Titus Livy was born around 59 в.с., and described a 700year period of Roman history. 35 books survived out of the original 144. The first publication of his writings took place in 1469, and was based on a manuscript of unknown origin currently lost ([719], page 3). The discovery of a manuscript with five more works occurred in Hessen some time later ([544]).
T. Mommsen wrote:
"In what concerns... the global chronicle, everything was a lot worse... The development of the historical science gave hope for traditional history to be verified by documents and other dependable sources, but the hope was buried in complete frustration. The more research was conducted and the deeper it went, the more obvious the difficulties in writing a critical history of Rome became." ([539], page 512)

Furthermore, Mommsen tells us that:
"...the numeric inveracities have been systematic in his works [referring to Valerio Anciate - A. F.] until the contemporary historical period... He [Alexander Polyhistor - A. F.] gave an example of putting the
missing five hundred years that had passed since Troy fell and until Rome had been founded into chronological perspective [we have to remind the reader that according to a chronological version that differs from the consensual, Rome was founded immediately after the Fall of Troy ([579], pages 23-24) - A. F.]... having filled this period with a list of ghostly rulers, just like the ones that were used widely by the chronographers of Egypt and Greece; apparently, he was the one who brought the kings Aventinus and Tiberinus, as well as the Albanian clan of Sylvians, into existence. The descendants didn't miss their opportunity to invent first names and periods of reigning - they even painted portraits for better representation." ([539], pages 513-514)

These criticisms are also reviewed by Niese ([579], pages 4-6).

Theodor Mommsen was far from being the only scientist to suggest the revision of these most important dates from the "ancient times".

A detailed account of what the historians later labelled the "ultra-sceptical stance" - the version questioning the veracity of the chronology of the "Regal Rome," as well as our entire knowledge of the first five centuries of Roman history can be found in [92] and [498]. The problems inherent in making the Roman documents concur with the chronology of Scaliger are related in [1481].

According to the historian N. Radzig:
"The matter here is that the Roman manuscripts have not survived until our times, so all of our presumptions are based on whatever the Roman annalists have to tell us. But even here... we run into major difficulties, the principal one being that even the annalist material is represented very poorly." ([719], page 23)

The Great Annals of Rome have perished ([512], pages 6-7). It is assumed that the Roman fasti gave yearly chronological lists of all the civil servants of ancient Rome. These tables could theoretically provide for a trustworthy chronological skeleton of sorts.

However, the historian G. Martynov inquires:
"How do we make this all concur with the constant controversy that we encounter in almost every text of Livy, in the names of the consuls, their frequent omission, among other things, and a complete laissez-faire attitude to the choice of names?... How do we make it
correspond with the names of the military tribunes? The fasti are literally mottled with errors and distortions that one cannot make heads or tails of. Livy himself was already aware of how flimsy this foundation of his chronology had been." ([512], pages 6-7, 14)
G. Martynov sums up with the following:
"Neither Diororus nor Livy possess a correct chronology... we cannot trust the fasti, which tell us nothing about who was made consul in which year, or the cloth writings that led Licinius Marcus and Tubero to contradictory conclusions. The most trustworthy documentation is the kind that becomes identified as much more recent forgeries after in-depth analysis." ([512], pages 20, 27-28)

It is thus somewhat disconcerting to hear the modern chronologer E. Bickerman assure us of the following: "Since we possess full lists of Roman consuls for 1050 years... the Julian dating for each one of them can be deduced easily, given that the ancient datings are veracious" ([72], page 76). The closetongued implication is made that we possess a definite trustworthy Julian dating of the foundation of Rome, despite the fact that the 500-year fluctuations of this date affect the entire consul list, as well as the whole history of "ancient" Rome based on this list.

The actual monograph of E. Bickerman ([72]) also sadly fails to contain so much as a hint of a justification for the fundamental dates in the "ancient" chronology. Instead of relating the dating basics, the book just offers a number of individual examples that explicitly or implicitly refer to the a priori known scheme of the consensual Scaligerian chronology.

## 4.

## THE PROBLEMS IN ESTABLISHING A CORRECT CHRONOLOGY OF "ANCIENT" EGYPT

The significant discrepancies between the chronological data offered by the ancient sources and the global chronology of the ancient times as devised in the XVII century arose in other areas as well. For instance, the establishment of the Egyptian chronology presented some substantial difficulties, since a great many documents contain chronological contradictions. Let us examine the correlation between the classical History by Herodotus, and the Scaligerian chronology.

For instance, in his consecutive and coherent account of Egyptian history, Herodotus calls Cheops the successor of Rhampsinitos ([163], 2:214, page 119). The modern commentator will immediately "correct" in the following manner: "Herodotus creates confusion in chronology of Egypt - Rhampsinitos (Ramses II) was a king of the XIX dynasty (1345-1200 в.c.), whereas Cheops belonged to the IV (2600-2480 в.с.)" ([163], page 513, comment 136).

The discrepancy here equals 1200 years, no less. Just think of what the figure implies and of its sheer value: twelve hundred years. Let us carry on. According to Herodotus, Asychis was succeeded by Anysis ([163], 2:136-137, page 123). Modern commentary is also rash to tell us that "Herodotus leaps from the end of the IV dynasty (about 2480 в.c.) to the beginning of the Ethiopian reign in Egypt (about 715 в.c.)" ([163], page 514, comment 150 ).

The leap is one of 1800 years. Eighteen hundred years!

In general, it turns out that "The chronology of kings given by Herodotus does not concur with that found in the fragments of Manetho's list of kings" ([163], page 512, comment 108). As a rule, the chronology of Herodotus is much shorter than the Scaligerian version. The time intervals between kings according to Herodotus are often thousands of years shorter than corresponding periods as given by Manethon.

The History of Herodotus contains a great number of "minor errors", those of 30-40 years; however, they only come to existence as a result of attempts to fit his History into the Scaligerian chronology. We quote a few of the numerous examples of such occurrences. The modern commentator tells us that "Herodotus confuses king Sesostris with the king Psammetix I" ([163], page 512). Also: "Pittacus could not have met Croesus in 560 b.c. [by the way, Herodotus does not indicate the date in such terms - A. F.], since he died in 570 в.c." ([163], page 502). Another event related by Herodotus is commented upon thusly: "It is an error made by Herodotus... Solon could not have met Croesus" ([163], page 502).

But how can this be true? Herodotus devotes an entire page to relating the interactions between Croesus and Solon ([163], 1:29-31, page 19). Scaligerian chronology, on the other hand, tells us no such interactions ever took place.

The commentators also accuse Herodotus of dating solar eclipses incorrectly ([163], pages 504, 534); and so on, and so forth.

We should note that the choice of one chronological version from several contradicting ones is far from simple. There had been a conflict between the so-called short and long chronologies of Egypt that were developed in the XIX century. The short chronology is the one currently used, but it still contains a great many deep contradictions which remain unresolved.

The most prominent German Egyptologist, H. Brugsch, wrote:
"When the reader inquires about whether any epochs and historical moments concerning the Pharaohs can be considered to possess a finite chronological assessment, and when his curiosity makes him turn to the tables compiled by a great variety of scientists, he will be surprised to find himself confronted with a large number of opinions on the chronological calculations of the Pharaoh era belonging to the representatives of the newest school. For instance, the German scientists date the ascension of Menes, the first Egyptian Pharaoh, to the throne as follows:

Boeckh dates this event to 5702 в.с.,
Unger - to 5613 в.с.,
Brugsch - to 4455 в.с.,
Lauth - to 4157 в.c.,
Lepsius - to 3892 в.с.,
Bunsen - to 3623 в.с.
The difference between the two extreme datings is mind-boggling, since it amounts to 2079 years... The most fundamental research conducted by competent scientists for the verification of the chronological sequence of the Pharaohs' reigns and the order of dynastical succession, had also proved the necessity of allowing for simultaneous and parallel reigns that would greatly reduce the summary reigning time of the thirty Manetho's dynasties. Despite all the scientific discoveries made in this area of Egyptology, the numeric data condition remains extremely unsatisfactory to this day [late XIX century - A. F.]" ([99], pages 95-97).

The situation hasn't improved to the present day. Modern tables date the beginning of the reign of Menes differently, to "approximately 3100 в.с.," "roughly 3000 в.c.," etc. The fluctuation span for this date amounts
to 2700 years. If we consider other opinions - those of the French Egyptologists, for instance ([544], vol. 6), the situation becomes even more complex:

Champollion gives the dating as 5867 b.c.,
Lesueur - as 5770 в.c.,
Mariette - as 5004 в.c.,
Chabas - as 4000 в.с.,
Meyer - as 3180 b.c.,
Andrzejewski - as 2850 b.c.,
Wilkinson - as 2320 в.с.,
Palmer - as 2224 в.с., etc.
The discrepancy between the datings of Champollion and Palmer equals three thousand six hundred fourty three years. No commentary is needed, really.

We discover that, generally, "Egyptology, which had poured some light over the perpetual darkness that had covered the ancient age of Egypt, only came into existence 80 years ago," as Chantepie de la Saussaye wrote at the end of the XIX century ([965], page 950). He also said that "it has been the private domain of a very few researchers... alack and alas, the results of their research have been popularized in too much haste... Thus, many erroneous views had come into existence, which resulted in the inevitable sobering when Egyptology became a lot less vogue and the excessive trust in the results of the research was lost... To this day, the construction of the Egyptian chronology remains impossible" ([966], pages 97-98; [965], page 95).

The situation with the list of kings compiled by Sumerian priests is even more complex. "It was a historical skeleton of sorts, one that resembled our chronological tables... But, sadly, this list was of little utility... By and large, the chronology of the king list makes no sense," according to the prominent archaeologist L. Wooley ([154], page 15). Furthermore, the "dynastical sequences have been set arbitrarily" ([154], page 107).

We see that the great antiquity ascribed to these lists today contradicts modern archaeological information. Let us give just one example that we consider representative enough.

Telling us about the excavations of what we consider to be the most ancient royal Sumerian sepulchres, dated roughly to the third millennium before Christ, Wooley mentions a series of findings of golden toilettery, which "was of Arabic origin and belonged to the early XIII century A.D., according to one of the
best experts in the field." Wooley patronizingly calls the expert's mistake "a forgivable one, since no one had thought such advanced art could have existed in the third millennium before Christ" ([154], page 61).

Unfortunately, the development of the entire critical concept and the propagation of the hypercritical current of the late XIX - early XX century froze, due to the sheer lack of objective statistic methods at the time, ones that could provide for the independent and objective verification of the previous chronological identifications.

## 5. <br> THE PROBLEM IN DATING THE "ANCIENT" SOURCES <br> Tacitus and Poggio. Cicero and Barzizza. Vitruvius and Alberti

The framework of the global Scaligerian chronology was constructed as a result of the analysis of the chronological indications given by the ancient sources. It is natural that the issue of their origin should be of interest in this respect. Modern historiography manifests the paucity of evidence in what concerns the genesis of such "ancient" manuscripts. The general observation is made that the overwhelming majority of these documents surfaced during the Renaissance epoch that allegedly superseded the "dark ages." The discovery of manuscripts often happened under circumstances that forbade the analysis which could allow the critical dating of such findings.

In the XIX century two prominent historians, Hochart and Ross, published the results of their research proving that the famous "ancient" Roman History by Cornelius Tacitus was really written by the well-known Italian humanist Poggio Bracciolini ([21], [1195], and [1379]). The publications occurred in the years 1882-1885 and 1878; readers may turn their attention to [21], which covers this problem exhaustively. We should just note that we deem the History by Tacitus to be an edited original - that is, a partial forgery and not a complete one. However, the events related therein have been misdated and transposed far back in time.

The history of the discovery of Tacitus' books really provokes a great many questions ([21]). It was

Poggio who discovered and published the opuses of Quintillian, Valerius Flaccus, Asconius Pedianus, Nonius Marcellus, Probus, some tractates by Cicero, Lucretius, Petronius, Plautus, Tertullian, Marcellinus, Calpurn Seculus, etc. ([21]). The circumstances of these discoveries and their datings have never been related in detail. See more about the history of Tacitus' books in Chron1, chapter 7.

In the XV century famous humanists such as Manuel Chrysolorus, Gemisto Pleton, Bessarion of Nicaea and some others, came to Italy. They were the first ones to familiarize Europe with the achievements of the "ancient Greek thought." Byzantium gave the West almost all of the known "ancient" Greek manuscripts. Otto Neugebauer wrote that "the major part of the manuscripts that our knowledge of the Greek science is based upon consists of Byzantine copies made 5001500 years after the death of their authors" ([571], page 69).

According to Scaligerian history ([120]), the entire bulk of the "Classical ancient" literature only surfaced during the Renaissance. In most cases, detailed analysis shows us that the obscurity of the literature's origins and the lack of documentation concerning its passage through the so-called "Dark Ages" leads one to suspect that none of these texts had really existed before the dawn of the Renaissance ([544]).

For instance, the oldest copies of the so-called incomplete collection of Cicero's texts are said to have been made in the IX-X century a.d. However, one instantly finds out that the original of the incomplete collection "had perished a long time ago" ([949]). In the XIV-XV century there is a surge of interest in Cicero, so:
"Finally, about 1420 the Milanese professor Gasparino Barzizza... decided to undertake a rather precarious endeavour of filling the gaps in the incomplete collection with his own writings for the sake of consequentiality [!-A.F.]. However, before he could finish this volume of work, a miracle occurred: a forlorn manuscript with the complete text of all the rhetorical works of Cicero's becomes unearthed in a parochial Italian town by the name of Lodi... Barzizza and his students eagerly embrace the new discovery, arduously decipher its ancient [presumably XIII century - A.F.] script, and finally produce a readable copy. Subsequent copies constitute the actual "complete col-


Fig. 1.28. Ancient miniature allegedly dating from the XV century, depicting the "ancient" Cicero as a mediaeval writer. Modern commentary: "Cato, with Scipio and Lelius standing in front of him. Cicero can be seen on the left, working on his tractate On the Old Age" ([1485], page 163). The entire setting is typically mediaeval. Taken from [1485], page 195.
lection."... Meanwhile, the irrecoverable happens: the original of the collection, the manuscript of Lodi, becomes abandoned since no one wants to confront the textual difficulties it presents, and finally gets sent back to Lodi, where it disappears without a trace: nothing is known of what happened to the manuscript since 1428. The European philologists still lament the loss." ([949], pages 387-388)

Incidentally, the reverse or so-called Arabic reading of the name Barzizza gives TsTsRB without vocalizations, which is close to the consonant root of the name Cicero, TsTsR.

Figs. 1.28 and 1.29 show two ancient miniatures from a book by Cicero that was allegedly published in the late XV century ([1485], page 162). In fig. 1.28 Cicero is portrayed from the left, writing the tractate

On the Old Age. In fig. 1.29 Cicero is depicted from the right side, penning out the tractate On Friendship. We see a typically mediaeval setting. Cicero and his interlocutors are wearing mediaeval clothes, which means that the author of the miniatures (in the XV century or later) apparently didn't doubt Cicero to have been his historical contemporary.

De vita XII Caesarum by Caius Suetonius is also only available as relatively recent copies. All of them hail back to the only "ancient manuscript" ([760]), that is presumed to have been in Einhard's possession in the alleged year 818 A.D. His Vita Caroli Magni is supposed to represent a diligent copy of the biographical schemes of Suetonius today ([760], pp. 280-281). The original document, known as the Fulda Manuscript, did not reach our time, and neither did the first copies ([760],


Fig. 1.29. Ancient miniature allegedly dated XV century depicting the "ancient" Cicero and other "ancient" characters in a typically mediaeval setting. The modern commentary reads: "Lelius (on the left), Ennius, and Scaevola (centre); Cicero is seen composing his tractate On Friendship" ([1485], page 163).
p. 281). The oldest of Suetonius' copies is hypothetically the IX century text that was only brought to light in the XVI century. Other copies are dated to the postXI century epoch in the Scaligerian chronology.

The fragments from De viris illustribus by Suetonius also appeared very late. The alleged dating of the latest fragment is the IX century A.D.:
"This manuscript was discovered by Poggio Bracciolini in Germany in 1425... The Hersfeld Manuscript did not survive (nothing but several pages from the Tacitus part remained), but about 20 of its copies did - those were made in Italy in the XV century." ([760], page 337)

The dating of the "ancient" sources was performed in the XVI-XVII century out of considerations that are perfectly nebulous to us nowadays.

De Architectura by Vitruvius was discovered as late as 1497 - according to N.A. Morozov ([544], vol. 4, page 624), the astronomical part of the book quotes the periods of heliocentric planetary circulations with the utmost precision! Vitruvius, an architect who is supposed to have lived in the I-II century A.D., knew these periods better than Copernicus the astronomer! Furthermore, his error in what concerns the circulation of Saturn differs from the modern value of the period by a ratio of 0.00007 . The error ratio for Mars is 0.006 , and a mere 0.003 for Jupiter, q.v. in the analysis ([544], vol. 4, pages 625-626).

We should mark the magniloquent parallels between the books of the "ancient" Vitruvius and those of Alberti, the prominent humanist of the XV century ([18]), see fig. 1.30. One cannot fail to notice a


Fig. 1.30. Leon Battista Alberti. Self-portrait, Bronze medallion from around 1430. Washington, National Gallery. Taken from [18], page 160.
certain semblance of the names $\mathrm{Alb}(\mathrm{v})$ erti and Vitruvius, bearing in mind the frequent inflexion of the sounds "b" and "v." Alberti (1414-1472) is known as a prominent architect, the author of the fundamental theory of architecture that is very similar to the theory of the "ancient" Vitruvius ([18], pages 34). As well as the "ancient" Vitruvius, the mediaeval Alberti was the author of a voluminous tractate that included mathematical, optical, and mechanical knowledge, as well as from his theory of architecture.

The title of the mediaeval opus of Alberti's, The Ten Books on Architecture coincides with its "ancient analogue" by Vitruvius. Nowadays it is supposed that the "ancient" Vitruvius had been "his ultimate ideal that he emulated in the creation of his tractate" ([18], page 152). Alberti's volume is written "in an archaic manner," accordingly. The specialists have long ago compiled tables comparing fragments of the works by Alberti and Vitruvius which sometimes coincide word
for word. Historians explain this fact in the following manner: "all of these numerous parallels... unveil the Hellenistic-Roman atmosphere that his thoughts evolved in" ([18], page 89).

So, the book of the "ancient" Vitruvius fits into the mediaeval atmosphere and ideology of the XV century A.D. absolutely organically. Furthermore, the majority of Alberti's mediaeval constructions are "an emulation of the ancient style" ([18], pages 165,167 , 173). He creates a palace "made to resemble a Roman amphitheatre in its entirety" ([18], page 179).

So, the leading mediaeval architect fills Italian towns with "ancient" edifices that are nowadays considered an emulation of the Classical age - but this by no means implies they were considered as such in the XV century. The books are also written in the manner that will be made archaic much later. It is only after all of this, in 1497 A.D., that the book of the "ancient architect Vitruvius" appears, occasionally coinciding with a similar book of the mediaeval Alberti word for word. One feels that the architects of the XIV-XV century did not consider their endeavours to be an "emulation" of the Classical Age - they were the Classical Age. The emulation theory was to evolve much later, in the works of the Scaligerite historians, who were forced to explain the numerous parallels between the Classical Age and the Middle Ages.

One observes a similar situation with scientific literature. It would be expedient to remind the reader of how the acquaintance of the European scientists with the works of Euclid, Archimedes, and Apollonius occurred, since, as we can see, the Middle Ages were the time when the "revival" of the "achievements of ancient science" took place.
M. Y. Vygotsky, an expert in the history of science, writes that "not a single solitary copy of Euclid's Elements has reached our times... the oldest manuscript we know of is a copy made in $888 \ldots$ there is a large number of manuscripts that date from the X-XIII century" ([321], page 224). Fig 1.31 shows a page from a deluxe edition of Euclid's Geometry dated 1457 ([1374], page 103). It contains a picture of a "panoramic view of Rome." It is most remarkable that the book by the "ancient" Euclid contains a picture of the mediaeval Rome and not the "ancient" one. One can clearly see a Christian Gothic cathedral right in front. The commentators say that "such Christian monuments as Ara Coeli are de-


Fig. 1.31. A panoramic view of Rome from the "ancient" Geometry by Euclides, from an edition allegedly dated 1457. We see mediaeval Rome, a Gothic Christian cathedral, etc. Taken from [1374], page 103.
picted here" ([1374], page 103). One gets a clear implication that Euclid was really a mediaeval author.
I. G. Bashmakova, an expert in the history of mathematics informs us that even before the publication of the Latin translation of the Arithmetica by the "ancient" Diophantus, the European scientists "have been using the algebraic methods of Diophantus, remaining unaware of his works" ([250], page 25).I. G. Bashmakova assesses the situation as "somewhat paradoxical." The first edition of the Arithmetica is dated to 1575 A.D. If Ptolemy's Almagest was instantaneously continued by Copernicus - let us remind the reader that the surge of interest in the Almagest's publication immediately preceded the era of Copernicus, q.v. in detail in Chron3-Diophantus' opus must have been continued by Fermat (1601-1665).

The history of both manuscripts and printed editions of the "ancient" Archimedes follows the pattern already known to us. According to I. N. Veselovsky,
all of the modern editions of Archimedes have been based on the lost manuscript of the XV century, and the Constantinople palimpsest that was found as late as 1907. It is assumed that the first manuscripts of Archimedes reached Europe quite late, in 1204. The first translation is supposed to have been made in 1269, and the complete text found in 1884 - the XIX century. The first printed edition allegedly appeared in 1503, and the first Greek edition - only in 1544. The "works of Archimedes entered scientific circulation after that" ([40], pages 54-56).

On fig. 1.32 you can see an ancient portrait of Archimedes from his book Opera dating to the alleged XV century. We see a typical mediaeval scientist in his study. The commentators couldn't fail to have marked this: "The study is represented in the Renaissance fashion" ([1229], page 87).

Conical Sections by the "ancient" Apollonius was not published until 1537. Furthermore, "Kepler, who


Fig. 1.32. Ancient miniature depicting the "ancient" Archimedes as a mediaeval scientist. Vatican, Biblioteca Apostolica Vaticana, Urb. Lat. 261, fol. 1r. Taken from [1229], page 87.
was the first to discover the significance of conical sections (ellipses) in astronomy, didn't live to see the publication of the complete works of Apollonius. The next three books... were first published in a Latin translation [a translation yet again! - A. F.] in 1631." ([740], page 54)

So, the body of work of the "ancient" Apollonius only got to be published in its entirety after the dis-
covery of the objects that this "ancient" tractate deals with, in Kepler's epoch.

By the way, could the works of "the ancient Apollonius" just be an edited version of the Pole Copernicus? The name Apollonius is almost identical to Polonius - a Pole, a native of Poland, or Polonia. The astronomer Copernicus (1473-1543) was the immediate precursor of the astronomer Kepler (1571-1630).

## 6.

## TIMEKEEPING IN THE MIDDLE AGES Historians discuss the "chaos reigning in the mediaeval datings." Peculiar mediaeval anachronisms

The Scaligerian chronological version was far from being the only one. It competed with versions that were significantly different. Bickerman mentions the "chaos reigning in the mediaeval datings" ([72], page 73). Furthermore, the analysis of ancient documents shows us that old concepts of time were substantially different from modern ones.
"Before the XIII-XIV century the devices for time measurement were a rarity and a luxury. Even the scientists didn't always possess them. The Englishman Valcherius... was lamenting the lack of a clock that afflicted the precision of his observations of a lunar eclipse in 1091." ([1461], page 68)
"The clocks common for mediaeval Europe were sundials, hourglasses, and water clocks, or clepsydrae. However, sundials only were of use when the weather was good, and the clepsydrae remained a scarcity" ([217], page 94). In the end of the IX century A.D., candles were widely used for timekeeping. The English King Alfred took them along on his journeys and ordered them to be burned one after the other ([217], page 94). The same manner of timekeeping was used in the XIII-XIV century, in the reign of Charles V, for instance.
"The monks kept count of time by the amount of holy book pages or psalms they could read in between two observations of the sky... For the majority, the main timekeeping medium was the tolling of the church bells" ([217], page 94). One is to bear in mind that astronomical observations require a chronometer that possesses a second hand, while we learn that "even after the discovery and the propagation of mechanical chronometers in Europe, they had been lacking the minute hand for a long time" ([217], page 95).

It has to be said that the ultra-sophisticated chronological Cabbala developed in the Middle Ages contradicts this imprecision of temporal observation. For instance:
"The very periods used for measuring time on Earth... acquire an entirely different duration... when
used for measuring the Biblical events... Augustine equalled every Genesis day to a millennium [!-A.F.], thus attempting to define the duration of the history of humankind." ([217], pages 109-110)

Such an "inherent trait of the mediaeval historiography as its anachronistic propensity" is of importance to us.
"The past is described in the same categories as the contemporary epoch... the Biblical and the ancient characters wear mediaeval attire... a mediaeval moralist ascribes "courteousness" to the ancient Romans, which was a purely knightly virtue... The epochs of the Old and the New Testament are not put in a direct temporal sequence... The fact that the portals of mediaeval cathedrals portray Old Testament kings and patriarchs together with the ancient sages and evangelical characters unravels the anachronistic attitude to history like nothing else... In the end of the XI century the crusaders were certain they came to punish the actual executioners of the Saviour, and not their offspring." ([217], pages 117-118)

This fact is significant enough, and we shall come back to it later on.

Modern historians base their observations on the Scaligerian chronology, believing that the mediaeval authors had "attained a state of great confusion in what concerned both concepts and epochs" due to their alleged ignorance, and that they had confused the ancient Biblical epoch with the Mediaeval one. Mediaeval painters, for instance, kept portraying the Biblical and the "ancient" characters in typically mediaeval costumes. However, another point of view is also viable, one that differs from the traditional "love for anachronisms" explanation. Namely, that all of the statements made by the mediaeval chronographers and artists may have reflected reality, and we consider them to be anachronistic because we follow the erroneous Scaligerian chronology.

The Scaligerian chronological version only managed to immortalize one mediaeval chronological concept out of many. Other versions previously coexisted with the consensual chronology.

For instance, it was assumed that the Holy Roman Empire of the German nation in the X-XIII century A.D. was the immediate descendant of the "ancient" Roman Empire that is alleged to have existed in the VI century A.D., according to the Scaligerian version
([270], vol. 1, page 16). Mark the repercussions of the discussion that appears very odd in our time: "Petrarch... made the statement that he was supposed to have based on a number of philological and psychological observations, that the privileges granted by Nero Caesar to the House of Austrian Dukes [in the XIII century a.d.! - A.F.] - were fake. It needed proof in those days" ([270], vol. 1, page 32).

For the modern historian [270], the thought that the "ancient" Caesar and Nero were the contemporaries of a mediaeval Austrian house of dukes that had only commenced its reign in 1273 A.D., that is, about 1200 years after Caesar and Nero - is naturally a preposterous one. However, as we see, the mediaeval opponents of Petrarch were of a different opinion, since it "needed proof" qv above.
E. Priester makes the following observation in re the same notorious documents: "All the interested parties were perfectly aware that the documents were blatant and shameless forgeries [such is the modern interpretation of the fact-A.F.], and nevertheless politely shut their eyes on this circumstance" ([691], page 26). An abnormally large number of "anachronisms" that transpose ancient events into the epoch of the XI-XIV century is contained in the mediaeval German chronicles and texts. Detailed reference may be obtained from [469].

The reader must be accustomed to believing the famous gladiator fights only occurred "in the distant ancient age". This is not the case, however. V. Klassovsky in [389], having told us of the gladiator fights in the "ancient" Rome, proceeds to add that these fights took place in the mediaeval Europe of the XIV century as well! For instance, he mentions the gladiator fights in Naples around 1344 A.D., which were attended by Johanna of Naples and Andrew of Hungary ([389], page 212). These mediaeval fights ended with the death of one of the fighters, exactly the way they did in the "ancient" times ([389]).

## 7.

## THE CHRONOLOGY AND THE DATING OF BIBLICAL TEXTS

The datings of religious sources are virtually woven out of obscurity and confusion. The Biblical chronology and datings are of a very vague nature, since they
are based on the authority of late Mediaeval theologians. The historians write the following:
"The true history of the origins of the books comprising the New Testament also fails to concur with the one backed by the church... The order of the New Testament books [some of them - A. F.] that is used nowadays is the direct opposite of the one set by the ecclesial tradition... The real names of the authors of mediaeval books... remain unknown." ([444], page 264)

As we shall learn, the consensual point of view about the Old Testament books preceding those of the New Testament also causes many doubts, and contradicts the results obtained by modern empiricostatistical dating methods. One should also consider the issue of the age of the Biblical manuscripts that have reached our time. They turn out to be of mediaeval origin.
"The oldest more or less complete copies of the [Greek] Bible are the manuscripts of Alexandria, Vatican, and Mt. Sinai... All three manuscripts are dated [palaeographically; that is, with such an ephemeral concept as handwriting style used as a basis -A.F.] to the second half of the IV century A.D. The codex language is Greek... The least is known about the Vatican codex - nobody knows how the artefact manifested in Vatican around 1475... The Alexandrian codex is known to have been given to the English king Charles I by the Patriarch Cyril Lucaris in 1628..." ([444], pages 267-268)

The codex of Mt. Sinai was only discovered in the XIX century by K. Tischendorf ([444], pages 268-270).

So, the three oldest codices of the Bible only surface after the XV century A.D. The reputation of their antiquity was created by the authority of K. Tischendorf, who had based his research on the style of handwriting. However, the very idea of palaeographical dating apparently implies the existence of a known global chronology of other documents and thus cannot be regarded as an independent dating method in any way. What we know for certain is that the history of these documents can be traced as far back as 1475 A.D.; in other words, no other more or less complete "ancient" Greek Bibles exist [444].

Among separate Biblical books, the oldest ones are considered to be those of Zechariah and Malachi, dated to the alleged VI century A.D., also palaeo-


Fig. 1.33. The Trident Council (1545-1563). A painting by Titian. Kept in the Louvre, Paris. Taken from [328], page 238.
graphically ([444]). "The most ancient Biblical manuscripts are in Greek" ([444], page 270).

There are no Hebraic manuscripts of the Bible predating the IX century A.D. (!) in existence, although those of a more recent time, primarily the middle of the alleged XIII century A.D., are kept in many national libraries. The oldest Hebraic manuscript is a fragment of the Books of Prophets, and it is dated to 859 a.d. One of the two second oldest manuscripts "is dated to 916 A.D. and contains the Books of the Prophets; the other is dated to 1008 A.D. and contains the text of the Old Testament." ([444], page 270)

However, the first manuscript was dated to 1228 by the scribe. The so-called Babylonian punctuation of letters given here allows this text to be dated by the Sel-
eucid Era, which gives us 916 A.D. However, there are no serious foundations for such a statement, and it is hence possible that the dating was given in years since Christ ([543], pp. 263-264), in which case the manuscript would belong to the XIII century and not the X.

The oldest Hebraic document containing the complete Old Testament can be ascribed to the alleged year 1008 A.D. ([444], page 270).

It is supposed that the Biblical canon was agreed upon by the Laodician Council in 363 A.D., but no edicts of this council remain in existence, and the same concerns the previous councils [765], page 148. The canon was really made official by the new Trident Council called in 1545, the epoch of the Reformation, and continued until 1563 . In fig. 1.33 we can see a painting of one of the council's sessions by Titian.

A great many books were destroyed by the edict of the Trident council - the ones considered apocryphal, namely, the Chronicles of the Judaic and Israeli Kings ([765]). We shall never be able to read these books, but there is one thing that we can be perfectly certain of. They were destroyed, since they had described history differently from the books approved by the winning faction of Scaligerite historians. We should emphasize that "there were a lot more apocryphal opuses, than those... certified canonical" ([471], page 76), and that most biblical datings are wholly dependent on palaeography, which means that they are based upon the a priori chronological knowledge of the Scaligerian school and would change automatically if a chronological paradigm shift occurred.

Let us give an important example: "In 1902 the Englishman Nash purchased a fragment of an Egyptian papyrus manuscript whose dating cannot be agreed upon by the scientists to this day" ([444], page 273). The final agreement was made that the text corresponds to the beginning of our era. Later on, "after the discovery of the Qumran Manuscripts, the comparison of the handwriting styles in both Nash's papyrus and the Manuscripts allowed for the determination of a greater antiquity of the latter" ([444], pages 272-273). Thus, one papyrus fragment whose dating "cannot be agreed upon" pulls a whole lot of other documents after it. Nevertheless, the "dating of the [Qumran - A. F.] scrolls provoked major dispute amongst scientists (the dating range was given from the II century and until the epoch of the Crusades)" ([471], page 47).

The "early a.d." dating is considered proven after 1962, when a radiocarbon research of the Qumran manuscripts was conducted. However, as we shall mention again later on, the radiocarbon method is really unsuitable for the dating of specimens whose age falls into the span of 2-3 millennia, since the ensuing datings cover too wide a time range (this may reach as wide a span as 1-2 thousand years, for specimens whose age reaches 1-2 thousand years).

Although [444] dated the Qumran Manuscripts to 68 A.D., the American historian S. Zeitlin categorically insists on "the mediaeval origin of these texts" ([444], page 27).

We shall give a more detailed account of matters concerning the Biblical manuscripts in chron6.

## 8. <br> DIFFICULTIES AND CONTRADICTIONS ARISING FROM THE READING OF OLD TEXTS

### 8.1. How does one read a text written in consonants exclusively? The vocalization problem

The datings of other Biblical fragments that we possess today also need attentive additional analysis.

Attempts to read most of the old manuscripts, such as the Biblical and the Ancient Egyptian ones, often confront historians with severe difficulties.
"The first steps of our research into the primordial language of the Old Testament bring us to the fact of paramount importance, which is that written Hebrew neither had signs for vowels originally, nor any other signs to replace them... The books of the Old Testament were written in nothing but consonants." ([765], page 155)

The situation is typical. Ancient Slavonic texts, for instance, also come as chains of consonants, often even lacking the vocalization symbols and separation of individual words from one another - just an endless stream of consonants.

Ancient Egyptian texts also contained nothing but consonants.
"The names of the [Egyptian - A. F.] kings... are rendered [in modern literature-A. F.] in a perfectly arbitrary manner, à la primary school textbook content... There is a plethora of significant variations that defy all attempts of classification, being a result of arbitrary interpretation $[!-\mathrm{A} . \mathrm{F}$. that became tradition."([72], page 176)

It is possible that the scarcity and the high cost of writing materials made the ancient scribes extremely frugal, and the vowels were eliminated as a result.
"It is true that if we take a Hebraic Bible or a manuscript nowadays, we shall find a skeleton of consonants filled with dots and other signs that are supposed to refer to the missing vowels. Such signs were not included in the ancient Hebraic Bible... The books had been written in consonants exclusively, and filled with vowels by the readers to the best of their ability and in accordance with the apparent demands of common sense and oral tradition." ([765], page 155)

Imagine how precise the kind of writing that con-
sisted of nothing but consonants would be today, when the combination BLD, for instance, could mean blood, bled, bold, build, boiled, bald, etc.; RVR could stand for river, rover, or raver, etc. The vocalization aleatory quotient in ancient Hebraic and other old languages is exceptionally high. Many consonant combinations may be vocalized in dozens of ways ([765]). Gesenius wrote that "it was easily understood how imperfect and unclear such writing method had been" (quoted in [765]).
T. F. Curtis also noted that "even for priests the meaning of the scriptures remained extremely doubtful and could only be understood with the aid of the tradition and its authority" (quoted in[765], p. 155). Robertson Smith adds that "the scholars had no other guide but the actual text, that was often ambiguous, and oral tradition. They had no grammatical rules to follow; the Hebraic that they wrote in often allowed for verbal constructions that were impossible in the ancient language" (quoted in [765], page 156). Scaligerian history considers this status quo to have prevailed for many centuries ([765]).

It is furthermore assumed that "this paucity of the Hebraic Bible was only remedied in the VII or VIII century of our era," when the Massorets had processed the Bible and "added... symbols that stood for vowels, but they had no other guides but their own intuition and very fragmentary oral tradition, and this fact is known perfectly well to every expert in the Hebraic language" ([765], pages 156-157).

Driver points out that:
"Since... the Massorets and their efforts in the VII and VIII centuries, the Jews have started to protect their holy books with the utmost zeal and vigour when it had already been too late to mitigate... the damage done to them in any way. The result of this overzealous protection had been the immanetization of the distortions that had been made equal to the original text in authority." (Text given by [765], page 157.)
"The common opinion used to be that the vowels were introduced to the Hebraic text by Ezra in the $V$ century b.c... When Levita and Capellus proved this wrong in the XVI and XVII century France, demonstrating that the vowels have only been introduced by the Massorets, the discovery made a great sensation in the entire Protestant Europe. Many were of the opinion that this new theory might lead to the complete de-
thronement of religion. If the vowels weren't received in an Epiphany of divine inspiration, being merely a human creation, and a relatively recent one, at that, how could one rely on the text of the Holy Writ?... The debate that followed had been amongst the most heated in the history of the new Biblical criticism, and had carried on for over a century. It has finally ended when the veracity of the new opinion was acknowledged by everyone." ([765], pages 157-158)

If such fierce disputes flared up around the Biblical vocalizations in the XVI-XVII century, could this mean these very vocalizations were introduced very recently? Could this have happened in the XV-XVI century? And since this vocalization version was far from the commonly accepted version, it had to encounter opposition, which may have been quite vehement. It was only much later that the Massoret deciphering of the Bible shifted (by Levita and Capellus?) into the VII-VIII century A.D. so as to give the Biblical text the authority of antiquity.

The situation with the Koran must have been similar. We are informed that:
"Arabic writing... becomes developed further in the middle of the VII century, when the first transcription of the Koran took place ( 651 A.D.). The additional diacritic marks on, above, or beneath the letter were introduced in the 2nd half of the VII century for differentiating between similarly written letters, for... vowels and doubled vowels." ([485], page 41)

Other sources tell us that the vocalizations were only introduced in the second half of the VIII century by Al-Khalil Ibn Ahmed ([485], page 39). Could all of this activity have taken place in the XV-XVI century?

### 8.2. The sounds " $R$ " and " $L$ " were often confused in the Middle Ages

We shall give some direct evidence of the fact that the sounds " $R$ " and " $L$ " were often subject to flexion. Amsterdam, among others, is a city whose name was affected by such instability and was called AmsteRdam, AmsteLdam, Amstelodami, etc. ([35], page XLI). We should mention another interesting fact here. Fig. 1.34 shows the title page of a book on navigation published in Amsterdam in 1625. The name of the city is already given as Amsterdam, the way it


Fig. 1.34. The title page from a book published in Amsterdam and dated 1625. The city is called AmsteRdam, spelt with an "R". However, in the ancient engraving that we see on the same page, we see the name AmsteLRedam, with both sounds that were often mistaken for each other included (" $R$ " and " $L$ "). Taken from [1160], page 287.


Fig. 1.35. Close-up of a fragment of an old engraving, with Amsterdam spelt in a rather curious manner, "AmsteLRedam." Taken from [1160], page 287.
is written today - however, the old engraving that one sees on the same page gives the old name in a rather peculiar spelling - AmsteLRedam, q.v. in fig. 1.35. Both consonants are present here, and a bizarre combination of sounds is achieved as a result. This reminds us that the names of many European towns and cities had remained unstable until fairly recently, when they became immanetized in the printing press epoch. Numerous other examples of this phenomenon are given below.

## 9.

## PROBLEMS IN THE SCALIGERIAN GEOGRAPHY OF BIBLICAL EVENTS

### 9.1. Archaeology and the Old Testament

The vocalizations of quotidian lexemes may not be all that important to our purposes, but the consonant sequences used for names of cities, countries, and rulers definitely are. Hundreds of different vocalizations were spawned, some of which were arbitrarily localized in the Middle East due to the hypothesis that binds Biblical events to that area exclusively.

The archaeologist Millar Burroughs expresses his unswerving trust in the correctness of the Scaligerian geography, writing that "in general... archaeological work doubtlessly gives one a very strong confidence in the dependability of the Biblical indications" (quoted in [444], page 16). One of the modern archaeological authorities, the American William Albright, wrote, albeit hazily, that "one should not doubt that archaeology [in reference to the excavations in modern Palestine - A. F.] confirms just how substantially historical the Old Testament tradition is" (quoted in [444], page 16; also see [1003], [1443]). However, Albright concedes that the situation with Biblical archaeology was so chaotic in the beginning of the 1919-1949 period that the varying views on chronological issues could not have reached any sort of convergence at all, and that "under those circumstances one really could not have used the archaeological data concerning Palestine for illustrating the Old Testament" (quoted in [444], page 16).

The one-time Director of the British Museum, Sir Frederic Kenyon, categorically insists that archaeology has refuted "the destructive criticism of the second half
of the XIX century". W. Keller even published a book titled, suggestively enough, And Yet the Bible is Right ([1219]), which tries to convince the reader of the veracity of the Scaligerian interpretation of Biblical data.

However, here is some information from the eminent archaeologist L. Wright, also an avid supporter of the theory that the Scaligerian localizations and datings of the Biblical events were correct:
"The overwhelming majority of findings neither prove nor disprove anything; they fill the background and provide a setting for history... Unfortunately, many of the works that can be understood by the average reader have been written with excessive zeal and desire to prove the Bible correct. The evidence is misused for making erroneous and semi-correct conclusions" (quoted in [444], page 17).

The pioneers of archaeology in Mesopotamia were C. J. Rich, A. H. Layard, and P.E. Botta in the XIX century - however, in order to get their research subsidized, they had to advertise their findings in a sensational manner, associating their findings with Biblical towns in a rather arbitrary manner.

But the accumulation of material evidence resulted in a significant quandary. Actual facts show that none of the Old Testament books have concrete archaeological proof of their Scaligerian dating and localization. In the XX century L. Wooley, the prominent archaeologist, performed excavations of a town that he tried to identify as "the Biblical Ur." However, it turned out that "unfortunately, one cannot give satisfactory chronological datings of the episodes [concerning the Biblical Abraham - A. F.] within the span of the second millennium of Middle Eastern history ([1484], [444], page 71).

The Scaligerian history insists that all the events concerning the Biblical patriarchs occurred precisely and exclusively on the territory of the modern Mesopotamia and Syria. Nevertheless, it is immediately acknowledged that "as to what concerns the identity of the patriarchs Abraham, Isaac, and Jacob, one can just reiterate that the information obtained as a result of the most fruitful excavations in Syria and Mesopotamia was extremely meagre, or simply nonexistent" ([1484], [444], page 77).

One might wonder just how justifiable it is to search for traces of the Biblical patriarchs in modern Mesopotamia.

Furthermore, Scaligerian history is of the opinion that all of the events involving the Biblical Abraham and Moses occurred on the territory of modern Egypt. It is evasively stated that:
"The historical intensity of this tradition is not confirmed archaeologically, but its historical plausibility is, together with an account of the circumstances that may have been the setting of the patriarchs' biography." ([444], page 80)

We are also warned that:
"One is to be cautious in one's use of cultural and social indications for dating purposes: since we have the principal concepts in what regards the era of the patriarchs, one needs to possess a certain flexibility in the fixation of chronology." (quoted in [444], page 82)

As we shall soon see, this flexibility may stretch as far as hundreds and even thousands of years.
W. Keller proceeds to tell us that "Egypt remains indebted to the researchers. In addition to the fact they found nothing about Joseph, neither documents nor any other traces of his time have been discovered" [1219]. Egypt remains "in debt" in what concerns Moses as well ([444], page 91). In this case one may wonder yet again about the possibility of Biblical events having taken place in a different country - not necessarily bound to the territory of modern Egypt.

The archaeologist Albright, an avid supporter of the Scaligerian interpretation of the Bible, has nevertheless got to agree with the fact that "the previous concept of the Exodus to Haran from the Chaldaean Ur found no archaeological evidence except for the actual city" (quoted in [444], page 84).

Furthermore,
"It turned out that the very location of Mount Sinai is unknown. Another complication is that the Bible often states Mount Horeb to have been the place where the Revelation was given. If we are to take the Biblical description of the natural phenomena accompanying said procedure seriously, one has to presume the mountain to have been a volcano... The problem is that the mountain called Sinai nowadays has never been a volcano." ([444], page 133)

Some archaeologists place Sinai in North Arabia, claiming that it was located in Midian, near Kadesh ([444], page 133). But none of these mountains were volcanoes, either.

The Bible says that "...the Lord rained upon

Sodom and upon Gomorrah brimstone and fire from the Lord out of heaven" (Genesis 19:24). Scaligerian history locates this event somewhere in modern Mesopotamia. "The first idea that one gets in this respect is the assumption of a volcanic eruption. But there are no volcanoes in this area" ([444], page 86). It seems natural to search for these cities in some area that does have volcanoes. However, the search is still conducted in Mesopotamia with great effort and no results whatsoever. And finally a "solution" is reached: the southern part of the Dead Sea appears to conceal some debris resembling tree trunks under a 400 metre layer of very salty water of poor transparency ([444], page 86). This has sufficed for the American archaeologist D. Finnegan, as well as W. Keller after him, to claim that "the valley of Siddim," together with the charred remains of both cities, had submerged ([444], page 86).

The Bible scholar and historian Martin Noth states explicitly that there is no reason to ascribe the destruction of the cities found by the archaeologists in Palestine, to the Israeli invasion in search of the socalled "Promised Land" ([1312]). As it was noted above, from the archaeological point of view the entire Scaligerian interpretation of the conquest of Ca naan by Joshua, the son of Nun, becomes suspended in thin air ([1312], [1486]). Are we conducting our search for the Biblical Promised Land in the correct place? Could the troops of Joshua have been predominantly active elsewhere?

It is further written that:
"No archaeological proof of any Biblical report of the 'Epoch of the Judges' exists to this day. All the Judges' names contained in the Old Testament aren't known from any other source and weren't found on any archaeological artefacts from either Palestine or any other country. This concerns the names of the first kings Saul, David, and Solomon." ([444], page 158)

Scaligerian history convinces us that Noah's Ark had moored to Mount Ararat in the Caucasus. Werner Keller ([1219]) assures us that the Armenian village of Bayzit still keeps the legend of a shepherd who saw a large wooden vessel on the Mount. The Turkish expedition of 1833 mentions "some ship made of wood that was seen over the southern glacier." Keller proceeds to tell us that in 1892 a certain Dr. Nuri was leading an expedition in search of the sources of the

Euphrates, and saw a fragment of a ship on the way back which was "filled with snow and dark red on the outside." The Russian aviator officer Roskovitsky claimed to have seen the Ark's remnants from his aeroplane during the First World War. Czar Nikolai the Second is supposed to have commanded an entire expedition there, which had not only seen, but also photographed, the remains of the Ark. The American historian and missionary Aaron Smith from Greenborough, an expert in the problem of the Great Deluge, wrote a history of Noah's Ark mentioning 80 thousand publications on the topic. Finally, a scientific expedition was arranged. In 1951 Smith spent 12 days on top of Mount Ararat with 40 of his colleagues. They found nothing. Nevertheless, he made the following claim: "Even though we failed to find so much as a trace of Noah, my trust in the Biblical tale of the Deluge had only become firmer; we shall yet return" (quoted in [444]). In 1952 the expedition of Jean de Riquer obtained similar results. This somewhat anecdotal account here merely scratches the surface of the problem of geographical locations that is so acute for Scaligerian chronology, as it were.

Herbert Haag in his foreword to Cyrus Gordon's Historical Foundations of the Old Testament credits the author with the following:
"His aim isn't apologetic, which makes him quite unlike other authors that drown the book market in paperbacks attempting to "prove the Bible" by jumbling together all sorts of sensationalist "proof" received from ancient Oriental sources." ([444], page 18)

Various museums, institutes, and universities send expeditions to the Middle East for "Biblical excavations." Great sums of money are invested in such excavations, and a great many special societies and funds have been founded with the sole purpose of conducting archaeological research in the Scaligerian "Biblical Countries." The first one of these institutions was the Research Fund of Palestine founded in 1865; currently there are about 20 similar organizations in existence ([444]). Among them we find the American Institute for Oriental Studies, the Jerusalem Affiliate of the Vatican Institute of Bible Studies, and the Israeli Research Society. No other region of the planet has been studied by archaeologists with such intensity as the Scaligerian "Biblical" territories. A great variety of literature is published on this subject
as well - special magazines, monographs, atlases and albums for the popularization of Biblical archaeology.

The Biblical topic is often given priority at the expense of other archaeological issues. The prominent Soviet historian who studied the antiquity, Academician V. V. Struve, has got the following to say about it:
"The excavations in Egypt and Babylonia were only of interest to the bourgeois science since they could be linked to Palestine. In order to find the funding needed for the excavations, the historians had to prove that an ancient copy of the Bible could be unearthed as a result of their research, or the sandals of Moses, mayhap, and then the monies were provided instantly." ([444], page 44)

The following example is very representative. In the early XX century a tablet archive was found in the city of Umma, Mesopotamia. But since Umma isn't mentioned in the Bible, and no enthusiastic entrepreneur could identify it as some Biblical town, the excavations in Umma were stopped, and the archives scattered without even being studied. The tablets were sold to Parisian collectors for one franc per piece ([444]).
"Archaeology as well as historical science in general can find no proof to the Biblical legend about the Egyptian slavery of the Jews" ([444], page 102). The Egyptologist Wilhelm Spielberg tells us that "what the Bible reports about the plight of Israel in Egypt isn't any more of a historical fact than the accounts of Egyptian history related by Herodotus" (quoted in [444], page 103). V. Stade wrote that "anyway, it is clear that the research concerning the Pharaoh under whose rule Israel moved into Egypt and left it represents nothing but the juggling of names and dates void of all meaning" (quoted in [444], page 103). Let us repeat our question: could an altogether different country be described by the name of Egypt?

The Bible lists a great many geographical locations that the People of Israel visited during their 40 years of wandering after the Exodus from "Egypt." The archaeologists still fail to find these locations where the Scaligerian history places their Biblical descriptions. Wright says that "few sites on the way to Mount Sinai can be identified with any degree of certainty" (quoted in [444], page 128). V. Stade wrote that: "checking the itinerary of Israel has as much sense as,
say, tracking the way of the Burgundians' return from King Etzel as described in the Nibelungenlied." The Egyptologist W. Spielberg quotes this statement, saying that "we can still sign under every word of Stade's" and that "the depiction of events following the Exodus, the listing of the sites where stops were made, the crossing of the desert - all of this is fiction" (quoted in [444], page 132). Many sites that were considered to have been on the itinerary of the Israelis were excavated thoroughly and intensively for a long time now. No traces have ever been found!

The Biblical account of the destruction of Jericho is well known. One of the Arabic settlements in the Middle East had been arbitrarily identified as the Biblican Jericho whose walls were destroyed by the sounds of the horn. The settlement has been subject to thorough excavations since the endeavours of Sellin, Watzinger, and Garstang in late XIX century. There were no results. In 1952 an Anglo-American archaeological expedition led by Kathleen Kenyon ventured to continue Garstang's research. No justifications for identifying the excavated town as Jericho have ever been found. Wright wrote that "the information received about Jericho was called disappointing, and it is true: not only is it hard to interpret the Biblical tale of Jericho, one cannot so much as trace the outline of the tradition's history... The Jericho issue is more problematic today than ever" (quoted in [444]).

The Bible says that after Jericho the Israelis destroyed the city of Ai. The site where this city was supposed to have been located according to the "calculations" made by the historians has also been subject to fundamental research. Yet again, the results have failed to satisfy. The German archaeologist and specialist in Biblical history Anton Jirku ([1213]) expresses his grief over the futility of the "Jericho" excavations, and proceeds to describe those of "Ai" as afflicted by "an even greater discrepancy between the report of the conquest of Ai that ensued and the results of the excavations" (quoted in [444], pages 145-151).

According to the Bible, the capital of Judaea in the reign of king Saul was the city of Gibeah. The historians have given birth to a hypothesis identifying it as the ruins excavated in the Tell el-Ful Hill six kilometres to the north of modern Jerusalem. However, it is conceded that "not a single inscription was found in town, and no clear evidence that the ruins belong
to Saul's palace or a tower that he built" ([444], page 158). But had Saul's palace really been built there?

Conclusion: Archaeological research shows that the books of the Old Testament have no archaeological proof of their localization and dating as suggested by the Scaligerian tradition. Thus, the entire "Mesopotamian" Biblical theory becomes questionable.

### 9.2. Archaeology and the New Testament

The traditional localization of the events described in the New Testament isn't in any better condition. The lack of archaeological proof of the Scaligerian localization of the New Testament is explained by the fact that "Jerusalem was destroyed in the years 66-73, and that the Jews had been forbidden... to come anywhere near the city" ([444], page 196). Scaligerian history is of the opinion that Jerusalem can be located at the settlement that the locals call El Kuds, whose site used to be perfectly barren before, also known as Aelia Capitolina. It was after the passage of some time that "the ancient Jerusalem" was reborn here. The "historical remnants of Biblical times" shown to tourists today, such as the Wailing Wall, etc., do not hold up to even minimal scientific criticism, in full absence of historical and archaeological proof.

Fig. 1.36 shows an ancient miniature, allegedly dating from 1470, that depicts the pillaging of Jerusalem by the Syrian king Antiochus Epiphane ([1485], pages 164,165 ). As we can see, the mediaeval author of the miniature didn't hesitate to represent Jerusalem as a typically mediaeval town with Gothic buildings and towers, and all the warriors wearing mediaeval plate armour.

One must emphasise that other versions exist apart from the Scaligerian. The Catholic Church, for instance, has been claiming the "very house" that Virgin Mary had lived in and where "Archangel Gabriel appeared before her" to have been located in the Italian town of Loreto since the XIII century, which means that the Catholic version transfers a part of evangelical events to Italy. The earliest document concerning the "Loreto house" is the bull issued by Pope Urban VI dated to 1387. In 1891 Pope Leo XIII issued an encyclical "in celebration of the 600 years of Loreto's Miracle." Thus, the "miracle" is dated to XIII century A.D. Historians mark that "Loreto remains a holy pilgrimage place for the Catholics to this day" ([970], p. 37).


Fig. 1.36. Ancient miniature allegedly dated to 1470 from Jean de Courcy's Global Chronicle (Chronique de la Bouquechardière). We see Jerusalem pillaged by the Syrian king Antiochus Epiphane. Jerusalem is pictured as a mediaeval Gothic town. There is an Ottoman crescent on the spire of one of the towers. Taken from [1485], ill. 200.
A. Y. Lentzman tells us the following in re the search of St. Peter's sepulchre, for instance:
"In 1940, the excavations sanctioned by Pope Pius XII were commenced under the Vatican crypts, and their peak fell on the post-war years... In the late 1940's a solemn statement was made by the press, especially the Catholic press [since the excavations must have been expensive - A. F.], that not only the burial
spot of the Apostle Peter was found, but his remains as well... An objective analysis of the results of Vatican excavations demonstrated all of these claims to have been false. Pope Pius even had to make a radio announcement on the 24 December 1950 where he had acknowledged "the impossibility of making any veracious claims about the unearthed human bones belonging to the Apostle." ([471], pages 45-49)

The location of the town of Emmanus near which Jesus is said to have appeared before his disciples after the Resurrection defies all attempts of being determined. The place of the Transfiguration of Jesus, Mount Tabor, also remains impossible to locate. Even the location of Golgotha is doubted by historians." ([444], page 201).

Seeck in his Geschichte des Untergangs der antiken Welt (History of the Ancient World's Decline, III, 1900) wrote that "we have no intention... of picturing his [Christ's - A. F.] earthly destiny... all the issues of the origins of Christianity are so complex that we are glad to have the opportunity and the right to leave them well alone" (quoted in [259], page 46). A convenient stance, and one that has got absolutely nothing to do with science.

The archaeologist Schwegler sums up in the following way: "This is where the tragedy begins for the believer whose primary need is to know the place on Earth where his Saviour had lived and suffered. But it is the location of the place of his (Christ's) death, that remains covered in impenetrable darkness, if we're to think in archaeological categories." (quoted in [444], page 202)

Apparently, there is no possibility of determining the location of the cities of Nazareth and Capernaum, as well as that of Golgotha etc., on the territory of modern Palestine. ([444], pages 204-205)

We shall quote the following noteworthy observation to sum up:
"Reading the literature related to Evangelical archaeology leaves a strange impression. Tens and hundreds of pages are devoted to the descriptions of how the excavations were organized, what the location of the site and the objects relevant to the research looked like, the historical and Biblical background for this research, etc.; and the final part, the one that is supposed to cover the result of the research, just contains a number of insubstantial and obviously embarrassed phrases about how the problem was not solved, but there's still hope, etc. It can be said categorically and with all certainty that not a single event described in the New Testament has any valid archaeological basis for it [in Scaligerian chronology and localization A. F.]... This is perfectly true in what concerns the identity and the biography of Jesus Christ. There is no proof for the location of any of the places where
the evangelical events are traditionally supposed to have occurred." ([444], pages 200-201)

We ask yet again: is it correct to search for the traces of the events described in the New Testament in the Middle Eastern Palestine? Could they have taken place somewhere else?

## 10. <br> ANCIENT HISTORICAL EVENTS: GEOGRAPHIC LOCALIZATION ISSUES

### 10.1. The locations of Troy and Babylon

The correct geographic localization of a large number of ancient historical events is truly a formidable task. Naples, for instance (whose name merely stands for "New Town") is reflected in the ancient chronicles as the following cities:

1) Naples in Italy, existing to this day.
2) Carthage, also translating as "New Town" ([938], page $13, \mathrm{~B}, 162-165$ ).
3) Naples in Palestine ([268], page 130).
4) The Scythian Naples (see the collection of the State History Museum of Moscow).
5) New Rome a. k. a. Constantinople or Czar-Grad, which could also be referred to as "New Town".

Thus, if a chronicle is referring to an event that occurred in Naples, one has to devote all of one's attention to making sure one understands which town is meant.

Troy may be seen as yet another example. One of the consensual localizations for Homer's Troy is near the Hellespont straits. Schliemann used this hypothesis for solemnly baptizing as "Troy" the $100 \times 100$ metre excavation site of a minuscule ancient settlement that he had discovered near the Hellespont ([443], page 107). Actually, the very localization of Hellespont itself is highly controversial. See Chron2 for more details.

The Scaligerian chronology and history tell us that Homer's Troy met its final fate of destruction and utter desolation in the XII-XIII century в.c. ([72]). However, we know that the Italian town of Troy played an important role in mediaeval history, particularly in the well-known war of the XIII century. This town still exists ([196]).

Many Byzantine historians of the Middle Ages refer to Troy as an existing mediaeval town, among them


Fig. 1.37. Ancient miniature allegedly dated to 1470 from Jean de Courcy's Global Chronicle (Chronique de la Bouquechardière). We see the "extremely ancient" King Nimrod in the "ancient" Babylon, which is depicted as a Gothic mediaeval town with elements of Muslim architecture. Taken from [1485], ill. 199.

Nicetas Aconiatus ([934], Volume 5, page 360), and Nicephorus Gregoras ([200], Volume 6, page 126).

According to Titus Livy, Troy and the entire Trojan region were located in Italy ([482], Volume 1, pages 3-4). He tells us that the surviving Trojans landed in Italy soon after the fall of Troy, and that the place of their first landing was called Troy. "Aeneas... wound up in Sicily; his fleet sailed thenceforth, and came to
the Laurentian region. This place is called Troy as well" ([482], Volume 1, pages 3-4, Book 1, No. 1).

Several mediaeval historians identify Troy as Jerusalem, for instance ([10], pages $88,235,162,207$ ). This fact embarrasses modern historians greatly, leading them to such comments as: "Homer's actual book somewhat suddenly turns into an account of the devastation of Jerusalem" [in a mediaeval text
describing Alexander's arrival in Troy - A. F.] ([10], page 162).

Anna Comnena, a mediaeval author, somewhat unexpectedly locates Jerusalem in Ithaca, the island where Ulysses was born ([419], Volume 2, pages 274-285). This is most peculiar indeed, since it is known perfectly well that modern Jerusalem isn't located on an island.

Another name for Troy is Ilion, while Jerusalem is also known as Aelia Capitolina ([544], Volume 7). Aelia and Ilion are rather close phonetically. It is possible that the same city was called Troy and Ilion by some, and Jerusalem and Aelia by others. Eusebius Pamphilus writes that somebody "referred to the small Phrygian towns, Petusa and Timion as 'Jerusalem'" (quoted in [544], page 893).

The facts quoted above demonstrate the fact that the name of Troy had multiplied in the Middle Ages, and had been used for referring to different cities. Could an archetypal mediaeval original have existed? Scaligerian chronology contains information that allows the construction of the hypothesis that Homer's Troy was really Constantinople, or Czar-Grad.

Apparently, the Roman emperor Constantine the Great took into account the wish of his fellow townsmen and "had initially chosen the place where the ancient Ilion, the fatherland of the first founders of Rome, had been located". This is what the prominent Turkish historian Jalal Assad tells us in his Constantinople ([240], page 25). Historians proceed to tell us that Constantine "changed his mind" afterwards, and founded New Rome nearby, in the town of Byzantium. But it is a known fact in Scaligerian history that Ilion is another name for Troy.

What we encounter here may well be a remainder of the fact that the same town located on the Bosporus had been referred to by different names: Troy, New Rome, Czar-Grad, Jerusalem. It might also be true that since Naples means New Town, it was the name that had been used for New Rome as well.

Let us mention the fact that southern Italy used to be called the Great Greece in the Middle Ages (Eusebius Pamphilus) ([267], pages 282-283).

Nowadays it is assumed that the city of Babylon was located in modern Mesopotamia. Some of the mediaeval texts hold a cardinally different opinion. The well-known book Serbian Alexandria, for instance, locates Babylon in Egypt. Moreover, it tells us
that Alexander the Great died in Egypt as well - according to the Scaligerian version, this event took place in Mesopotamia ([10], page 255).

Furthermore, we see that "Babylon is the Greek name of the settlement that had been located opposite the pyramids [the Tower of Babel? - A.F.]... In the Middle Ages it had been a frequently used name for Cairo, whose suburb this settlement eventually became" ([464], page 45). The name Babylon can be translated, as well as the names of many other cities, and thus may have been used for referring to other locations.

Eusebius tell us that Rome used to be called Babylon ([267], page 85). Furthermore, "the Byzantine historians [in the Middle Ages - A. F.] often called Baghdad Babylon" ([702], page 266, comment 14). Michael Psellus, the author of the alleged XI century refers to Babylon as one would to an existing town not a destroyed one ([702], page 9).

In fig. 1.37 we can see an ancient miniature dating from 1470 depicting "ancient" Babylon as a typically mediaeval Gothic town ([1485], pages 164, 165). The Tower of Babel is being constructed on the right. The "ancient" king Nimrod is also portrayed as a mediaeval knight in plate armour. Modern commentators deem this to be a fantasy bearing little semblance to reality: "on the left we see Babylon presented as a fantasy Gothic town with elements of Muslim architecture. The giant in the centre is Nimrod. The construction of the tower of Babel is pictured on the right" ([1485], page 164). It is most probable, however, that this is not a fantasy. The artist had been perfectly aware of what he was painting, and the picture reflects mediaeval reality.

### 10.2. The geography of Herodotus is at odds with the Scaligerian version

Let us quote some examples from Herodotus, who plays a key role in the Scaligerian chronology. He claims the African river Nile to be parallel to Ister, that is nowadays identified as the Danube (and, oddly enough, not Dniester) ([163], page 492). This is where we find out that "the opinion that Danube and Nile were parallel reigned in the mediaeval Europe until as late as the end of the XIII century" ([163], page 493). Thus, the mistake of Herodotus proves to be mediaeval in its origins.

Herodotus proceeds to tell us that "the Persians in-


Fig. 1.38. An old inverted map of the Black Sea. This is a so-called "portolano" by the Genoese Pietro Vesconte, allegedly dating from 1318 ([1468], page 3). Several points on the coast of the Black Sea are marked. The centre of the map says Pontus Euxinus. The North is at the bottom, the East on the left. The East used to be referred to as Levant, see [1468], page 37, which means "situated on the left". There are traces of the name remaining in the German language, among others, where the Middle East is still called Levant. See [573], page 333. The Crimean peninsula, it will be observed, is "upside down" in comparison to its location on modern maps. Taken from [1468], map 3.
habit all of Asia to the very Southern Sea that is also called the Red Sea" ([163], 4:37, page 196). According to consensual geography, the Southern Sea is the Persian Gulf. Giving a description of the peninsula that contemporary historians identify with the Arabian peninsula, Herodotus writes that "it begins near
the Persian land and stretches to the Red Sea" ([163], 4:39, page 196). Everything appears to be correct here. However, this contradicts the opinion of those historians who identify the Red Sea mentioned by Herodotus as the Persian Gulf ([163]). This is why modern commentators hasten to "correct" Herodotus:


Fig. 1.39. An old inverted map of a part of the Mediterranean. A portolano by the Genoese Pietro Vesconte, allegedly dating from the XIV century [1418]. The North is at the bottom, the East on the left. This is probably the reason why the East used to be referred to as Levant, or "located on the left." Taken from [1468], map 4.
"Red Sea stands for Persian Gulf here" ([163], Appendices, Part 4, comment 34).

Let us continue. The Red Sea in its modern interpretation may indeed "reach further up than the Persians" according to Herodotus ([163], Volume 4:40), but only meeting one condition, namely, that the map used by Herodotus was inverted in relation to the ones used nowadays. Many mediaeval maps are like that, with North and South swapped (qv
below). This makes the modern historians identify the Red Sea as the Persian Gulf ([163], Appendix, Part 4, comment 36), although the Persian gulf is "below" the Persians in this case, or to the East of them, but doesn't reach "further up" at any rate.

Historians identify the same sea mentioned by Herodotus in 2:102 as the Indian Ocean ([163], Appendix, Part 2, comment 110). What we observe here is the inversion of the East and the West. Could the


Fig. 1.40. An old inverted map of Spain and a part of Africa. Africa is on top, and Spain at the bottom. Thus, the North is at the bottom, and the East is on the left. Another portolano by Pietro Vesconte, allegedly dating from the XIV century ([1468]). These maps most probably date from the XV-XVI century. Taken from [1468], map 8.
map that Herodotus had used have been an inverted one, then?

In book 4:37 Herodotus identifies the Red Sea as the South Sea, q.v. above. This proves to be the final straw of confusion for the modern commentators who try to fit Herodotus into the Procrustean geography of the Scaligerian school, and the maps used nowadays. They are forced to identify the Red (Southern) Sea as the Black Sea! See book 4:13, [163], Appendix, Part 4,
comment 12 . We see yet another inversion of the East and the West in relation to the Persians.

Thus, identifying the geographic data as offered by Herodotus with the Scaligerian map runs us into many difficulties. The numerous corrections that the modern historians are forced to make show us that the map that Herodotus had used may have been inverted in relation to the modern ones, which is a typical trait of mediaeval maps ([1468]).


Fig. 1.41. An old inverted map of England and France. France is on top, and England at the bottom. The East is on the left. A portolano of the Genoese Pietro Vesconte, allegedly dating from the XIV century. Taken from [1468], map 10.

As we can see, the commentators have to make a conclusion that Herodotus uses different names to refer to the same seas in his History. If we're to believe the modern historians, we have to think that Herodotus makes the following identifications: Red Sea $=$ South Sea $=$ Black Sea $=$ North Sea $=$ the Mediterranean $=$ the Persian Gulf $=$ Our Sea $=$ Indian Ocean ([163], Appendix, comments 34, 36, 110, etc.).

The mentions of the Crestonians, the town of Creston, and the region of Crossaea sound most pe-
culiar coming from an allegedly ancient author ([163], $1: 57$, page $27 ; 5: 3$, page $239 ; 5: 5$, page $240 ; 7: 123$, page $344 ; 7: 124$, pages $344-345 ; 7: 127$, page $345 ; 8: 116$, page 408; page 571). One constantly gets the feeling that he is referring to the mediaeval crusaders. "Cross" and "Crest" are the roots one most often associates with the Middle Ages. Just how veracious are the datings of the events related by Herodotus?

The unbiased analysis of Biblical geography yields many oddities as well ([544]).

### 10.3. The inverted maps of the Middle Ages

Modern maps place the East on the right, and the West on the left. However, we find that the opposite is true for many mediaeval maps - all of the sea charts of the alleged XIV century had the East on the left, and the West on the right, qv in the atlas [1468]. Some of these old inverted charts from Genoa can be seen in figs. $1.38,1.39,1.40$ and 1.41. These charts may have been used by either traders or the military fleet.

The word levant, for instance, still means "oriental" in French. The Middle East is also often referred to as Levant in German ([573], page 733). This may be a reflection of the fact that the Orient was on the left of the maps (leviy means "left" in Russian, and the adverb for "on the left" is sleva). It is possible that the Russian word leviy was adopted by some of the Western European languages in order to refer to the Orient. See our Parallelism Glossary in Chron7.

Why did the old maps, and sea charts in particular, have the East on their left, and the West on their right? The reason may have been that the first seafarers of Europe would sail forth from the seaports located on the European coast of the Mediterranean, as well as the Black and Azov seas, and so they had to move from the North to the South. The South was therefore in front, and the Northern coast behind them. A ship captain sailing into the Mediterranean from the Bosporus would look at the approaching African coast. Thus, the East was on the left, and the West was on the right.

This is why the first sea charts of both the traders and the military put the East on the left. It made sense to put that which lay in front on the top of the map. Thus, the way one looks at the map corresponds with the direction of one's movement.

## 11.

## A MODERN ANALYSIS OF BIBLICAL GEOGRAPHY

The fact that many Biblical texts clearly refer to volcanic activity has been well known to historians for a long time. The word Zion is widely known; theologians interpret it as "pillar" ([544], Volume 2). Identifying Zion as Sinai and Horeb is common in both theology and Bible studies. Hieronymus in par-
ticular noted that: "it appears that the same mountain is called by two different names, Sinai and Horeb" ([268], page 129). I. Pomyalovsky wrote that: "the Old Testament often identifies it [Mt. Horeb - A. F.] as Sinai" ([268], page 326). "Mount Zion" can be translated as "The Pillar Mountain" ([544], Volume 2). The Bible explicitly describes Mount Sinai/Zion/Horeb as a volcano, q.v. below. In this case "The Pillar Mountain" makes sense in the way of referring to a pillar of smoke above the volcano. We shall be referring to God as the Thunderer below, following the interpretation suggested in [544], Volume 2.

According to the Bible,
"the Lord said unto Moses, Lo, I come unto thee in a thick cloud... upon mount Sinai... when the trumpet soundeth long, they shall come up to the mount... there were thunders and lightnings, and a thick cloud upon the mount, and the voice of the trumpet exceeding loud... And mount Sinai was altogether in smoke, because the Lord descended upon it in fire: and the smoke thereof ascended as the smoke of a furnace, and the whole mount quaked greatly. And when the voice of the trumpet sounded long, and waxed louder and louder, Moses spake, and God answered him by a voice." (Exodus 19:9, 19:11, 19:13, 19:16, 19:18-19)

Also: "And all the people saw the thunderings, and the lightnings, and the noise of the trumpet, and the mountain smoking" (Exodus 20:18). In fig. 1.42 we can see an ancient engraving from a 1558 Bible (Biblia Sacra) ([544], Volume 2, page 210, illustration 94). The mediaeval painter portrays Moses ascending a fiery mountain.

Furthermore:
"The day that thou stoodest... in Horeb... and the mountain burned with fire unto the midst of heaven, with darkness, clouds, and thick darkness. And the Lord spake unto you out of the midst of the fire; ye heard the voice of the words, but saw no similitude; only ye heard a voice." (Deuteronomy, 4:10-12)

The destruction of the Biblical cities of Sodom and Gomorrah has long been considered a result of a volcanic eruption. The Bible says that "the Lord rained upon Sodom and upon Gomorrah brimstone and fire from the Lord out of heaven... and, lo, the smoke of the country went up as the smoke of a furnace" (Genesis 19:24, 19:28).


Fig. 1.42. Moses ascending a fiery mountain. An ancient illustration from a Bible allegedly dating from 1558 (Biblia Sacra). Taken from [544], Volume 2, page 210, ill. 94.

On Albrecht Dürer's engraving "Lot Fleeing with his Daughters from Sodom" we can see a volcanic eruption destroying the Biblical cities of the plain in a fountain of fire and stones (fig. 1.43).

Let us turn to the Lamentations of Jeremiah that contain a description of the destruction of Jerusalem. It is assumed to be an account of the destruction of the city by a hostile army; however, the text contains many fragments such as "How hath the Lord covered the daughter of Zion with a cloud in his anger... and remembered not his footstool in the day of his anger! The Lord hath swallowed up all the habitations... he burned... like a flaming fire, which devoureth round about" (The Lamentations of Jeremiah, 2:1-3).

Then we encounter the following in the chapters 3 and 4 of the Lamentations:
"I am the man that hath seen affliction by the rod of his [God's - A. F.] wrath; he hath led me, and brought me into darkness, but not into light... he hath broken my bones... he hath inclosed my ways with hewn stone, he hath made my paths crooked...
he hath also broken my teeth with gravel stones, he hath covered me with ashes... thou hast covered with anger, and persecuted us: thou hast slain, thou hast not pitied. Thou hast covered thyself with a cloud... the stones of the sanctuary are pored out... the punishment... is greater than the punishment of the $\sin$ of Sodom... their [the survivors'- A. F.] visage is blacker than a coal... The Lord hath accomplished his fury; he hath poured out his fierce anger, and hath kindled a fire in Zion, and it hath devoured the foundations thereof." (The Lamentations of Jeremiah, 3:1-2, 3:4, 3:9, 3:16, 3:43-44, 4:1, 4:6, 4:8, 4:11)

Theologians insist all of this is metaphorical; however, a literal reading of the text divulges an account of the destruction of a large city by a volcanic eruption. The Bible refers to volcanic activity quite often; here's a list of all such references, compiled by V. P. Fomenko and T. G. Fomenko:

Genesis 19:18, 24, Exodus 13:21, 22, Exodus 14:18, Exodus 20:15, Exodus 24:15, 16, 17, Numbers 14:14, Numbers 21:28, Numbers 26:10, Deuteronomy 4:11,

36, Deuteronomy 5:19, 20, 21, Deuteronomy 9:15,21, Deuteronomy 10:4, Deuteronomy 32:22, The Second Book of Samuel 22: 8-10,13, The First Book of the Kings $18: 38$, 39, The First Book of the Kings 19:11, 12, The Second Book of the Kings $1: 10-12,14$, Nehemiah 9:12,19, The Book of Psalms (Psalm 11, verse 6, Psalm 106, verse 17), (Psalm 106, verse 18), Ezekiel 38:22, Jeremiah 48:45, The Lamentations of Jeremiah 2:3, The Lamentations of Jeremiah 4:11, Isaiah 4:5, Isaiah 5:25, Isaiah 9:17,18, Isaiah 10:17, Isaiah 30:30, Joel 2:3,5,10.

Seeing these descriptions as referring to Jerusalem in Palestine and the traditional Mount Sinai is very odd indeed, since Mt. Sinai located on the modern Sinai Peninsula had never been a volcano. Where did the events really take place, then?

It suffices to study the geographic map of the Mediterranean region ([440], pages 380-381, 461) to see that there are no volcanoes on the Sinai Peninsula, and there aren't any in either Syria or Palestine. There are zones of Tertiary and Quaternary volcanic activity, but one encounters those in the vicinity of Paris as well. There has been no volcanic activity recorded in documented history (the post-A.D. period).

The only relevant geographic zone that possesses powerful volcanoes active to this day is the area including Italy and Sicily, since there are no volcanoes in Egypt or anywhere in the north of Africa ([440]). We are looking for:

1) A powerful volcano that was active in the historical epoch;
2) A destroyed capital near the volcano (see the Lamentations of Jeremiah);
3) Two more destroyed cities near the volcano, Sodom and Gomorrah.

There is just one volcano in the entire Mediterranean area that fits these criteria - Vesuvius. It is one of the most powerful volcanoes active in the historical period. The famous Pompeii - a capital? - and two destroyed cities: Stabia (Sodom, perhaps?) and Herculanum (Gomorrah?). The names do possess a slight similarity.
N.A. Morozov was of the opinion that the origin for the name Sinai given to Vesuvius is the Latin word sinus (or sino in Old Latin) - "mountain with bowels," and Horeb has its origins in the Latin word horribilis, "horrible." In [544] we can see the results of an
interesting research that Morozov conducted concerning the Biblical text as read without vocalizations, and considering the localization of Mount Sinai/ Horeb/Zion in Italy.

Let us quote several examples. The Bible says, "the Lord our God spake to us in Horeb, saying, Ye have dwelt long enough in this mount: turn you, and take your journey... to the land of the Canaanites (CNUN)" (Deuteronomy, 1:6-7). Theologians vocalize CNUN as Canaan, and localize it in a desert near the Dead Sea coast, but another vocalization is possible: CNUN - Cenoa, as a variant of Genoa (the area of Genoa in Italy). Apart from that, the word Canaan sounds like (the land of the) Khans.

The Bible gives the direction as "to the land of CNUN (the Canaanites), and unto LBNUN" (Deuteronomy 1:7), that is commonly vocalized as "Lebanon" - however, LBNUN is also often used for "white," and may have been used to refer to Mont Blanc - the White Mountain, literally. The land of the Canaanites may mean the same as the Khan's land, or the Land of the Khan.

Furthermore, we see "unto the great river, the river PRT" in Deuteronomy 1:7. PRT is localized as Euph-


Fig. 1.43. Albrecht Dürer's engraving titled "The Destruction of Sodom and Gomorrah." What we see here is a powerful volcanic explosion, as one might expect, destroying the Biblical cities of the plain. Taken from [1234], engraving 40.
rates; however, what lies beyond Mont Blanc is the river Danube with its large tributary Prut.

The Bible says, "when we departed from Horeb, we went through all that great and terrible wilderness" (Deuteronomy 1:19). The famous Flegrean Fields that are located near Vesuvius (Horeb) fit this description perfectly - large areas of scorched land full of small volcanoes, fumaroles, and layers of lava.

According to the Bible, the Israelites "came to KDSH V-RNAE" (Deuteronomy 1:19). KDSH VRNAE is vocalized as "Kadesh-barnea" - however, the town in question may well be Cadiz upon the Rhone ([544], Volume 2, page 166). Cadiz on the Rhone might be another name of the modern Geneva - or indeed the Bulgarian city of Varna.

Further in the Bible we see, "and we compassed mount Seir many days" (Deuteronomy 2:1). Theologians left the word "Seir" without translation; if we translate it, we shall get "The Devil's Mountains" ([544], Volume 2, page 166).A mountain by this name exists near Lake Geneva - Mount Diableret, "The Devil's Mountain."

The sons of Lot encountered on the way may well be the Latin population (LT without vocalizations) ([544], Volume 2, page 167).

The River Arnon (ARNN) is mentioned in Deuteronomy 2:24. This may well be the Italian river Arno!

The Israelites "Went up the way to Bashan" according to Deuteronomy 3:1. The town of Bashan is often mentioned by the Bible. Amazingly enough, a town by the name of Bassano still exists in Italy.

The Bible proceeds to mention that "the king of Bashan came out against us... to battle at Edrei" (Deuteronomy 3:1). This is clearly a reference to Adria (near the Po estuary). As for Po itself - ancient Latin authors (see Procopius, for instance) often refer to it as "Jordan" (Eridanus) ([544], Vol. 2). The name concurs with the Biblical JRDN perfectly well ([544], Vol. 2, page 167).

According to the Bible, "there was not a city which we took not from them, threescore cities" (Deuteronomy 3:4). Indeed, many large towns were located in this area in the Middle Ages - Verona, Padua, Ferrara, Bologna, etc.

The Bible mentions the land "from the river of Arnon (Arno, ARN) unto mount HRMN (Hermon)", q.v. in Deuteronomy 3:8. However, the HRMN mountains can also be vocalized as the German mountains.
"For only Og king of Bashan remained... his bedstead [coffin here - A. F.] was a bedstead of iron; is it not in Rabbath of the children of Ammon?" (Deuteronomy $3: 11$ ). Rabbath is Ravenna, and the coffin of Og [Goth?] is the sepulchre of Theodoric the Goth located in Ravenna! Theodoric is supposed to have lived in 493-526 A.D., so this Biblical text could not have appeared before the VI century A.D., even in Scaligerian chronology.

The Israelites are supposed to have stopped at TBRAE, or "the place Taberah" (Numbers 11:3). Bearing the previous identifications in mind, we can recognize the Italian river Tiber in this name. Furthermore, CN is Siena (to the south-east from $\mathrm{Li}-$ vorno), the Biblical Hebron (HB-RUN, Genesis 23:2) is possibly Gorgo du Rhone ([544], Volume 2, pages 229-237). The slopes of Monte Viso are called Jebus (VUZ) in Judges 19:10. The city of Rome is called Ramah (RAMA) in Judges 19:13. All the quotes are from the authorized version of the Bible, and there are many more examples.

It is thus possible that a part of the events described in the Bible, namely, the journey of the Israelites led by Moses, and their subsequent conquest of the "Promised Land" with Joshua, took place in Europe, and particularly in Italy (as opposed to Palestine).

The localization of the "ancient" states mentioned in the Bible also raises a vast number of questions. The Bible often mentions the Phoenician towns of Tyre and Sidon; since we now allow for possibilities of mediaeval interpretations of many Biblical names, one cannot fail to notice the similarities between the names of Venetia and Phoenicia - they may well be the same name if we consider the usual rules of flexion. One comes up with the hypothesis of localizing the Biblical Phoenicia as the mediaeval Venice.

Indeed, the Bible describes the "ancient" Phoenicia as a powerful nation of seafarers that reigned over the entire Mediterranean, with colonies in Sicily, Spain, and Africa. "Ancient" Phoenicians traded extensively with faraway lands, as can be seen in the book of Ezekiel, chapter 27. All of these Biblical criteria are met by the mediaeval Venetian republic, a well-known and powerful state.

The Scaligerian history claims the principal Phoenician towns to have been the modern Tyre and Sidon (Saida). Do these towns fit their Biblical descriptions
of lavishness and splendour? A XIX century volume of sailing directions for seamen ([494]) tells us the following about Saida:
"The town had 1600 inhabitants in 1818... There is a small bay to the south... A small pier that is barely visible in our day used to belong to a small harbour that is now completely covered by the sands... Plague often rages fiercely here... One finds no traces of former splendour in Saida nowadays... There's a reef on the south end, and it's very shallow in the north... The depth between the town and the island is uneven... The passage is narrow, and the bottom is full of stones. A large ship's boat cannot come close to the shore, which makes it impossible to replenish water supply here" ([494], quoted in [544], Volume 2, page 637).

The town is located in the estuary of a river that isn't navigable by ships. Its main means of survival in the XIX century had been the local gardens. Strategically speaking, Saida's location is perfectly hopeless. It used to belong to virtually everyone during the crusades epoch; there are no records mentioning it as a large independent trade centre ([544], Volume 2).

All of this contradicts the Biblical descriptions of the greatness of Sidon and Phoenicia. The situation with Tyre is similar ([494], [544], Volume 2). Evidently, the Bible is referring to other locations.

## 12.

THE MYSTERIOUS RENAISSANCE EPOCH AS A PRODUCT OF THE SCALIGERIAN CHRONOLOGY

The Scaligerian chronology is very fond of the renaissance motif, appealing to the archetypal recurrence of the Classical Age.

The ancient Plato is supposed to have been the founding father of Platonism. His teaching allegedly falls into oblivion for centuries to come, and is revived by the famous Neoplatonist Plotinus, allegedly in 205270 A.D. The similarity of his name to that of his teacher is purely accidental, of course. Then Neoplatonism perishes as well, in order to be revived again in the XV century A.D. by another famous Platonist - Gemisto Pleton, whose name is also identical to that of his teacher as a result of sheer coincidence. The mediaeval Pleton is supposed to have revived the "ancient" Platonism, having been an avid advocate of "the ancient sage Plato." Furthermore, it is only in the XV century
that Plato's manuscript was unearthed ([247], pages 143-147). This is precisely the epoch of Gemisto Pleton.

Pleton founds "Pleton's Academy" in Florence in the image of the "ancient" Plato's Academy ([247]). A. A. Vasiliev writes that "His [Pleton's - A. F.] sojourn in Florence... had been one of the most important periods for Italy when it was importing the ancient Greek science, and Plato's philosophy in particular" ([675], Volume 3, Pt. 2; [120]).

Both Plato and Pleton write Utopian works. Gemisto Pleton is reported to have been the author of the famous Tractate on the Laws, which sadly failed to reach us in its entirety. However, the full text of Plato's tractate by the same title did. Pleton, who lived in the XV century, also suggests the construction of an ideal state, with his programme being extremely close to Plato's. Plotin, who had allegedly lived in 205-270 A.D., is yet another one to have hoped the Emperor would aid the foundation of the city of Platonopolis in Campagna (Italy again), where he had planned to introduce communal aristocratic institutions à la Plato ([122], Volume 4, pages 394-397).

Many prominent ecclesial leaders have historical doppelgangers in Scaliger's chronology. Eusebius in his Historia Ecclesiastica ([267]) makes many references to a certain Bishop Victor who played a key role in the so-called Easter Dispute, or the introduction of the Paschalian rules ([267], page 306). There is indeed an Easter dispute known to history and associated with the name of Victor, as reflected in the term "The Paschalian Cycle of Victor" ([76], table 17). However, this dispute and Victor's lifetime are ascribed to 463 A.D., whereas Eusebius who reports this is supposed to have lived in the III-IV century A.D. The Scaligerian chronology would appear to be inverted.

Furthermore, in [267] Eusebius tells us of a famed Dionysius who formulated the rules for celebrating Easter, having linked it to the Spring Equinox and the "suffering of the Saviour." According to Eusebius, Dionysius is supposed to have died in the 12th year of Gallienus, which is 265 A.D. in the Scaligerian chronology. It is most remarkable that another wellknown scientist by the name of Dionysius existed in the VI century a.d. - namely, Dionysius Exiguus (Dionysius the Little). He is supposed to have conducted an in-depth study of the Paschalian problem, and deduced the date of Christ's birth for the first time.


Fig. 1.44. Charlemagne's portrait (he allegedly reigned in 742-814). Albrecht Dürer, 1514. The portrait is kept in the German Museum, Nuremberg. Taken from [328], page 25 , ill. 3 .

Apart from this, he calculated the advent of Easter for many years ahead, affixing it to the Spring Equinox ([76], table 18). We have two eminent scientists by the name of Dionysius who studied the Paschalian problem and the relation of Easter to the vernal equinox, both following Victor who already possesses a duplicate of his own. However, they are separated by a period of three centuries according to Scaligerian chronology. This is evidently a mistake; there was only one

Dionysius whose double existed on paper exclusively. Actually, we are to acquaint ourselves with yet another Dionysius the Little, who must have been the prototype of both. We are referring to Dionysius Petavius who lived in the XVII century.

We see strange duplicates in the Scaligerian history of the famous Res Romana as well ([5]). F. Schupfert writes that:
"The series of prominent Roman lawyers ends with Erennius Modestine who died in 244 A.D. After that, the entire discipline of law enters a lethargic phase to be revived in nine hundred years by Erennius [who was the double of Erennius in activity as well as the name - A. F.]... It suddenly resurrected in the entirety of its primordial grace... in Bologna." ([879], page 187)

The mediaeval Irnerius ("ancient" Erennius?), the founder of the school, started lecturing in Roman Law around 1088 A.d., "reviving" it after an alleged nine-century period of oblivion. He is also supposed to have "collected" the ancient codices of Justinian.

There are two famous Homers in Scaligerian history: the ancient poet and the mediaeval Angilbert Homer who is supposed to have belonged to Charlemagne's court in the IX century a.d. "He must have received his academic name Homer for his poetical works," suggests G. Weber. "Very few poetic works of Angilbert have reached us" ([122], Volume 5, page 391). This mediaeval Homer had been "an important member of the circle of scientists that existed in the Aachen court of Charlemagne" ([122], Volume 5, page 391).

It has to be noted that Charlemagne is in no way a personal name as we tend to think today; most probably, it used to mean "The Great King." The question of who exactly was referred to in that manner deserves a special study, and we shall return to it below. In fig. 1.44 we can see a portrait of Charlemagne painted by Albrecht Dürer in the XVI century.

Nowadays the "ancient Roman" count of time by ides and calends is assumed to have gone out of use in the VI-VII century A.D. Nevertheless, the mediaeval chronographers of XIV century A.D. appear to have been unaware of this fact, using the "long-forgotten" ides and calends wherever they saw fit ([229], p. 415).

There's a large number of such odd doubles in the Scaligerian history. We are not claiming they prove our statements; one may indeed find a large number of


Fig. 1.45. An old miniature from the book titled Les Grandes Chroniques de France, Paris, allegedly dating from the early XV century. The siege of Troy is on top, and the foundation of Paris at the bottom. The miniature illustrates the Trojan origins of the French, with the "ancient" Greeks and Trojans portrayed as mediaeval knights wearing heavy plate armour identical to that of the knights founding Paris at the bottom of the miniature, also mediaeval. Taken from [1485], ill. 115.
isolated coincidences. What we emphasize is the global nature of these duplicates and parallels, fitting the general scheme of chronological shifts which cover sequences of hundreds of years "side by side" and "following each other" for hundreds of years to come.

One of the principal indications of the mediaeval origins of many ancient documents is the very existence of a Renaissance Epoch when all of the ancient scientific disciplines, philosophy, arts, and culture in general are assumed to have been revived. The "re-
splendent Classical Latin" degrades into a rough and clumsy lingo that only manages to regain its former splendour in the Renaissance epoch. This "revival" of Latin and Classical Greek begins in the VIII-IX century A.D. the latest ([335], page 23).

The famed mediaeval troubadours begin to use the plots that the historians call "a masquerade of classical recollections" in the alleged X-XI century. The "history of Ulysses" (Odyssey) appears in the XI century as a "mediaeval remake" of the "well-known

Classical story" complete with knights, belles dames, jousting tournaments, etc.; in fact, all the elements that shall later be considered integral to a "Classical" plot, ([335], pages 83-84).
"The troubadours were proudly claiming the story [of the Trojan War - A. F.] to have been an original one, it had neither been told nor written by anyone before... The troubadours' primary concern was the Trojan War, it had almost been a native story for them" ([335], pages 85-86). The Francs considered themselves descendants of the Trojans, while the alleged VII century author Fredegarius Scholasticus refers to King Priam as a representative of the previous generation ([335], pages 85-86).

Furthermore, "The voyage of the Argonauts became confused with the Trojan War... when the crusader conquerors [apparently, the mediaeval prototypes of the "ancient" Argonauts - A. F.] had set forth in the direction of faraway Asian lands" ([335], pages 85-86). In mediaeval texts the ancient Alexander the Great "compliments the French" ([335], pages 85-86).

Certain Slavonic texts of the Middle Ages use the name Parizh (the Russian name for the city of Paris) in order to refer to Paris, the abductor of Helen when they speak of the "ancient" Trojan War. Could it have referred to somebody from Paris? The following is said, for instance: "Parizh called himself Alexander and deceived Helen" ([10], page 234, comment 76). The same mediaeval texts often demonstrate the flexion of P and F spelling Parizh as Farizh.

On fig. 1.45 we see an ancient miniature from the Great French Chronicle dated to the alleged XV century that depicts the Trojan origins of the Francs. Modern commentary is as follows:
"The miniature illustrates the idea that the French can trace their ancestry back to Francion, the son of Hector and grandson of the Trojan king Priam. This is why we see the foundation of Paris directly under the picture of the fall of Troy." ([1485], page 104)

So, Troy barely has the time to fall when Paris is founded! The "ancient" Troy is also represented as a mediaeval city here.

Scaligerian chronology reckons that the so-called apocalyptic nations of Gog and Magog mentioned in the Bible disappeared from the historical arena in the early Middle Ages. However, reading modern commentary to the mediaeval Alexandria ([10]) we
find out that "The names Gotti and Magotti must be a repercussion of the apocalyptic nations of Gog and Magog identified as the memories of the Goths and the Mongols (the Book of Revelation, XX, 7), who were well known in the Middle Ages" ([10], page 248, comment 165).

The pressure of Scaligerian chronology and all of these oddities brings historians to the conclusion that:
"The Middle Ages were the time when all idea of chronological consequentiality had been lost: monks with crosses and thuribles at the funeral of Alexander the Great, Catilina attending mass... Orpheus becomes a contemporary of Aeneas, Sardanapal a Greek king, and Julian the Apostate - a Papal chaplain. Everything acquires a hue of fantasy in this world [this perplexes the modern historian greatly - A. F.]. The most blatant anachronisms and the strangest fancies coexist peacefully." ([879], pages 237-238)

All these facts, and thousands of others, are rejected by historians, since they contradict the consensual chronology of Scaliger and Petavius.

Christian saints and "ancient pagan characters" can be seen side by side on mediaeval Gothic cathedrals, q.v. in fig. 1.46 which shows the sculptures of Aristotle and Pythagoras together with the Christian saints from the western façade of the Chartres Cathedral. The historians try to explain this chronological heresy in a rather vague manner: "Aristotle and Pythagoras... the two pagan philosophers on a Christian cathedral symbolize the importance of scientific knowledge" ([930], page 169).

The oldest biography of "the ancient" Aristotle is dated to 1300 A.D. The manuscript's condition "rapidly deteriorates; certain places which could be read perfectly well in the XIX century are a great effort to make out nowadays" ([300], page 29). All of this despite the fact that, according to Scaligerian chronology, certain manuscripts whose age exceeds a thousand years are still perfectly legible, and their parchment remains in a excellent condition, q.v. in Chron6, Chapter 2. Historians are most probably right in their estimation of manuscript destruction rate - many old texts may be well-preserved precisely because they really are not quite as old as we think them to be.

Presumably, "the best Greek codices of Aristotle's works belong to the X-XII century" ([300], page 206).


Fig. 1.46. The sculptures of the ancient Pagans Aristotle and Pythagoras from the Chartres Cathedral, near the Christian saints. The western façade, allegedly dating from 1145-1170. "Aristotle and Pythagoras actually represent music and dialectic" ([930], page 169). Similar proximity of "ancient" and mediaeval characters is common in the bas-reliefs and murals of Christian temples in Europe and Russia. Taken from [930], page 169.

The "ancient" argument between the philosophies of Plato and Aristotle is revived in the XV century when Pleton and Scholarius, a devotee of Aristotle, engage in a similar dispute. This is yet another odd mediaeval duplicate of ancient events.

The history of Europe's first acquaintance with the works of Aristotle wasn't studied until the XIX century ([300]). It is written that "Aristotle's philosophy had remained in a state of stagnation and taciturnity... only... 1230 years since the birth of Christ...
the Latin population learnt of the philosophy of Aristotle" (quoted in [330], page 230). We would also like to quote the opinion of contemporary historians on this issue, namely, that "the mediaeval authors had a penchant of referring to texts that they often were altogether unacquainted with" ([333], page 117).

In the Middle Ages "the somewhat barbaric shape... of the dispute between the realists and the nominalists... really represents the renaissance of the two immortal schools of idealism and empiricism...

Nominalism and realism... signified a rebirth of the teachings of Plato and Aristotle in the XII century" ([335], pages 167-168). It is also assumed that the originals of Plato's and Aristotle's works were unknown in Europe in that epoch ([335]). Weren't yet written, perhaps?

Yet another chronological duplicate: "antiquity" = Middle Ages. "Three of the four principal philosophical systems of the Classical age were represented in the mediaeval science" in XII-XIII century Paris ([335], page 175). "The collision of realism... and nominalism... gave birth to scepticism at last... Another system that was the latest to have appeared in Greece had also seemed imminent... namely, that of mysticism" ([335], page 175). Indeed, mysticism soon becomes "revived" by Bonaventura ([335]).

Thus, the evolution of mediaeval philosophy faithfully mirrors even the minute details of the development of its predecessor. Let us present this information as a table:

| The Middle Ages | The Classical Age |
| :---: | :---: |
| 1. Realism | 1. Idealism |
| 2. Nominalism | 2. Empiricism |
| 3. Pleton - the initiator of the revival of Platonism | 3. Plato - the founder of Platonism |
| 4. Scholarius - the initiator of the revival of Aristotelism | 4. Aristotle - the founder of Aristotelism |
| 5. Confrontation between the two schools | 5. Confrontation between the two schools |
| 6. Confrontation between Pleton and Scholarius | 6. Confrontation between the Platonists and the Aristotelists |
| 7. The naissance of scepticism | 7. The naissance of scepticism |
| 8. Mysticism evolves after the three schools | 8. Mysticism evolves after the three schools |
| 9. A total of four principal mediaeval schools of thought | 9. A total of four principal Classical schools of thought. |

A long time before the "discovery" of the "ancient" manuscript of The Golden Ass, the entire "ass topic"
had been well-developed by the mediaeval troubadours ([335]). The "Classical ass story" that surfaced as late as the Renaissance is a logical conclusion of the entire mediaeval cycle. One has to note that long before the discoveries of the "Classical" originals all of the main plots they contain had been developed by the troubadours, the "ancient" originals being in fact subsequent chronologically as well as structurally ([335], pages 142-143).

Long before the discovery of the "ancient" fables of Aesop, similar tales were told in the Middle Ages, in the alleged XI-XIII century ([335]).

An important fact to note is that the ancient people didn't have fixed names in the modern sense; what they used instead were aliases which had explicit meanings in the original language. The aliases characterized a person in some manner; the more remarkable qualities a person had, the more aliases he or she would be likely to possess. B. L. Smirnov says that "one seldom finds a name that would mean nothing" ([519], Volume 6, page 526, comments $126,31$. Also see J. Frazer's works [917], [918], [919], [920]). For instance, the chroniclers could refer to an emperor by the alias used in their own region, and so different chronicles referred to the same rulers by different names.

The Egyptian Pharaohs used to have different names before and after their coronation. As multiple coronations would take place in different regions, the list of names kept growing. These aliases usually translate as "The Mighty," "The Fair," etc.

The father of a Roman consul who lived in the alleged year 169 в.с. had 13 names; his son had 38 ([872], page 101). The Torah scholars quote 94 names for the Biblical god ([544], Volume 6, page 978).

The same phenomenon was typical in Russian history. "Czar Ivan III was also known as Timothy; Czar Basil III was known as Gabriel... Prince Dmitri (who had been killed in Uglich) was called Uar; one name was secular, and the other ecclesial" ([586], page 22). The name Uar most probably simply meant "Czar."

Nowadays we tend to assume that mediaeval names differed significantly from the "ancient" ones. However, the analysis of a number of texts shows us that ancient names were in use throughout the Middle Ages. Nilus of Sinai, who is supposed to have died in 450 A.D., writes to his contemporaries addressing them
with typically "ancient" names - Apollodorus, Amphiction, Atticus, Anaxagoras, Demosthenes, Asklepiodes, Aristocles, Aristarchus, Alciviades, Apollos, etc. ([836]). Many of the names considered "exclusively ancient" nowadays were still in use in Byzantium in the XII-XIV century. Georgius Phrantz uses the following names in his History (1258-1476): Antioch, Argo, Amorius, Hermetian, Demetrios, Dionysius, Dioscorus, Epidaurus, Calliope, Cleope, Kritopulos, Laconicus, Macrobius, Minos, etc. - typical ancient names worn by people of the XIII-XV century.

Handwritten books remained in existence for a long time after the invention of the printing press. They were made in large quantities in the XV-XVIII century all across Europe ([740], pages 13, 25). In the Balkans, "handwritten books managed to compete with the printed ones" as recently as in the XIX century ([740], page 26). Apart from a few exceptions, the entire Irish literature of the VII-XVII century "only exists in the handwritten form" (quoted by [740], page 28). Up until 1500 A.D., 77 percent of all printed books are supposed to have been in Latin, possibly due to the fact that Romanic fonts were easy to make. Other fonts made their way into the printing practice extremely slowly. Diacritic signs were difficult to make, as well as the ones used for stresses, vocalizations, etc. This is why "the scribes remained without competition in what concerned copying the Greek, Arabic and Hebraic manuscripts" for centuries after the invention of the printing press ([740], page 57).

This may be the reason why many Greek, Arabic and Hebraic manuscripts considered "very ancient" really pertain to the epoch of printing. Among them are many classical texts, Tischendorf's Biblical codices, etc.; see Chron6, Chapter 2.

It appears that the region richest in handwritten books dating from the epoch of printing was Greece - the country that is considered to have a very long ancient history, one that gave the world a large number of "ancient manuscripts." Historians tell us that "due to the lack of publishing houses in Greece, books were copied manually" ([740], page 106). One wonders how many handwritten books of the XV-XIX century were to be declared ancient later on.

The following information clearly demonstrates the lack of a solid scientific foundation under the
very concept of palaeographical dating - that is, dating by the "handwriting style." It turns out that "the creation of the deluxe Greek codices with the texts of ancient authors was ordered by humanists and philanthropist collectors" ([740], page 109). Let us repeat the question: how many of these mediaeval codices were later declared extremely ancient?

One might suggest a method that allows the differentiation between real manuscripts and handwritten copies of printed books, namely, comparing the misprints in the printed versions with the handwritten errors, since during the manual copying of printed literature most misprints would get copied as well.

The foundations of the Scaligerian chronology had been laid by the analysis of written sources. A secondary analysis of these datings free from a priori hypotheses about the antiquity of the documents, may lead to the discovery of serious contradictions, as we have demonstrated.

## 13.

## THE FOUNDATIONS OF ARCHAEOLOGICAL METHODS HAVE BEEN BASED ON THE SCALIGERIAN CHRONOLOGY FROM THE VERY BEGINNING

## "HOW COME THERE WAS NO BATTLE?"

The results of excavations conducted by the Swiss anthropologist Georg Glovacki in Italy proved sensational. The scientist discovered that there was no military action conducted in the area where the troops of Hannibal had allegedly defeated the Roman legions in the battle of Cannes. A study of the barrows showed that the remains belong to the victims of the XIII century plague epidemic, and not to Roman soldiers, as everyone was accustomed to thinking.

Sovetskaya Rossiya, 28 November 1984.

### 13.1. The ambiguity of archaeological datings and their dependence on the existing chronology

The reader may inquire about the state of affairs concerning other methods of dating historical sources and artefacts used nowadays. Modern archaeologists speak of the "ignorant diggers" of the previous cen-
turies in pained tones, since many artefacts have become defaced in the search for valuables. The archaeologist Count A. S. Ouvarov excavated 7729 mounds in the Vladimir-Suzdal area. A. S. Spitsyn has the following to say about it: "when the items [found in the excavations of 1851-1854 - A. F.] came to the disposal of the Rumyantsev museum, they were a chaotic pile of materials with no markings whatsoever, and no one could tell which mound this or the other object had belonged to. The grandiose excavations of 1851-1854... shall be mourned by the scientists for years to come" ([19], pages 12-13). Nowadays the excavation methods are a lot more advanced - however, applying them to "ancient" excavations is an impossibility since these have already been conducted by the "diggers" of the past ([389]).

The basics of archaeological dating methods are as follows: "the best way of deducing the age of a given European culture is finding out which Egyptian dynasty this European tribe traded with" ([390], page 55). The findings of Mycenae-made Greek vessels in the Egyptian mounds of the 18th-19th dynasties allow the archaeologists to consider the dynasty and the culture as contemporaries. Similar vessels are found later on in Mycenae together with a particular kind of pin that is later also found in Germany near some urns. A similar urn is found near Fanger, together with a different kind of pin, which resembles the one found in Sweden, in the so-called Barrow of King Bjorn, which can thus be dated as a contemporary of the 18th-19th Egyptian dynasties ([390]). However, it turns out that King Bjorn's Barrow "could not have belonged to Bjorn, king of the Vikings [a well-known mediaeval character - A. F.] since it predates his time by about two millennia" ([390], pages 55-56).

Firstly, one fails to understand what criteria of similarity have been used here. Secondly, and a lot more importantly, all of these methods are heavily dependent on the a priori datings of the "ancient" Egyptian Pharaoh dynasties. This method, which is also known as "the dominoes method," and all similar ones are based on pure unadulterated subjectivism, and, principally, on Scaligerian chronology. Newly-found artefacts such as vessels are compared to similar findings dated in accordance with the consensual chronology. The alteration of the chronological scale automatically alters the chronology of the
new archaeological findings. An erroneous chronology completely invalidates all such methods.

It is little wonder that the archaeologists investing their trust in such methods are constantly confronted with bizarre facts. It appears that "in certain remote parts of Europe one encounters the coexistence of things whose prototypes in the East are separated from each other by centuries" ([390], pages 55-56).

Furthermore, L. S. Klein ([390]) firmly denies all connexions between King Bjorn's Barrow and the mediaeval Bjorn, king of the Vikings. This method tells us only that Bjorn's Barrow is contemporary to the 18th-19th Egyptian dynasties; it tells us nothing about the possible datings of these actual reigns, which may well be mediaeval, along with Bjorn the Viking.
"The first schemes of Egyptian chronology were based on the work of Manethon... who had compiled the list of the Pharaohs [allegedly in the III century b.c. - A. F.] and grouped them into 30 dynasties, having added up all the years of reigns [and assuming that their reigns have all been consecutive A. F.]. The figures he got proved formidable. Flinders Petrie, L. Borhardt, and other Egyptologists had estimated the duration of the history of Ancient Egypt to equal 5-6 thousand years. This is how the "long" chronology of Egypt was born, the one that had been prevalent for a long time. E. Meyer and his followers had developed the so-called "short" chronology as an alternative. The problem is that the Pharaohs, and their entire dynasties, often reigned simultaneously (as co-rulers) in different parts of the country. Manethon was making the assumption that the state had been a monolithic one under a single ruler, and so he had lined all of the Pharaohs into a sequence and thus considerably extended the entire history of the state" ([390], pages 54-55).

We should add that the "short" chronology of Egypt is still way too long, and should really have been called "a slightly shorter chronology."

As we have already mentioned in reference to the data provided by the Egyptologist Heinrich Brugsch, the so-called "short" chronology is also based on ethereal foundations. We learn that its creator, E. Meyer, "has based his deductions on the annual records and entries referring to memorable events made by the Pharaohs themselves. However... this
chain of knowledge has reached us as separate links, with many gaps and distortions" ([390], pages 54-58). This is why attaching the archaeological material to the "Egyptian scale" does not solve the problem of absolute (or indeed even relative) dating.

### 13.2. The excavations of Pompeii. The dating of this town's destruction

The excavations of the "ancient" town of Pompeii are a perfect illustration to the problems that arise in the dating of archaeological materials. First and foremost, it isn't clear which year's eruption destroyed it. Apparently, the XV century author Jacopo Sannazaro wrote: "We were approaching the town (Pompeii), and could already see its towers, houses, theatres and temples, untouched by the centuries [?! - A. F.]" (quoted in [389], page 31). It is assumed, however, that the town of Pompeii has got destroyed and completely buried after the eruption of 79 A.D. This is why the archaeologists have to interpret Sannazaro in the following manner: "in the XV century some of the buildings of Pompeii were already emerging from the debris" ([389], page 31). It is thus assumed that Pompeii had been covered by a thick layer of earth, since the ruins of the town were only found in 1748, and the discovery was purely accidental. Herculaneum was discovered in 1711 ([389], pages 31-32). Nowadays the history of the discovery of Pompeii is related after the documented recollections of that epoch as follows: "during the construction of a canal on the river Sarno (1594-1600), the ruins of an ancient town were found. Nobody had the merest notion it might be Pompeii... Methodical scientific excavations were started as late as 1860 by Giuseppe Fiorelli. However, his method of work was far from the usual scientific standards" ([433], page 49).

The excavations were indeed conducted in a barbaric manner. "Nowadays it is hard to estimate the damage done by the sheer vandalism of that time... if somebody thought a picture or a figurine wasn't artful enough or visually pleasing, it would become destroyed and thrown away as trash. Sculpture fragments had been sold as souvenirs, often as statuettes of saints" ([434], pages 224-225). Some of these "Christian forgeries" may have been mediaeval originals that did not fit the Scaligerian chronology, and


Fig. 1.47. "Ancient" mural from the Boscoreale villa near Pompeii. "We can distinctively see a terrestrial globe shown in an approximate perspective. The object was also related to the sundial" ([1177], ill. 4, inset between pages 106-107). Taken from [1177], plate 4.
hence wound up sold as souvenirs instead of becoming part of a museum's collection.

If one's cogitation is to be confined within the paradigm of the Scaligerian chronology, the artistic level of the artefacts found in Pompeii is very high indeed - be it frescoes, inlays, or statues. The state of science is also deemed advanced enough to correspond to that of the Renaissance epoch. One of the findings was a sundial with uniform hourly divisions, which were considered a high level of precision even towards the end of the Middle Ages. This finding was analyzed by N. A. Morozov. An "ancient" picture of a part of such a device that had been found on a villa near the town of Pompeii can be seen in fig. 1.47.


Fig. 1.48. A picture found on a Pompeian wall. We see a hooded mediaeval henchman, dragging a caped figure by a rope onto a wooden scaffold. Taken from [389], page 161.


Fig. 1.49. A picture of a mediaeval knight wearing a helmet with a visor, found in "ancient" Pompeii. Taken from [389], page 161.
V. Klassovsky wrote that "a set of surgical instruments has been discovered that is all the more noteworthy since some of the items have been previously supposed to belong to the modern times, discovered and introduced by the scientific avant-garde of the operative medicine" ([389], page 126).

Some of the graffiti art found on the walls of Pompeii is clearly mediaeval in its origin. For instance, the picture of a hooded henchman ([389], page 161, qv in fig. 1.48). We see a mediaeval henchman that drags his victim (a man in a cape) onto a scaffold with a rope. V. Klassovsky tells us this is a "copy from a drawing made on plaster with some sharp object." Another drawing that is definitely worthy of our attention is that of a mediaeval warrior wearing a helmet with a visor ([389], page 161, see fig. 1.49). These two drawings are but a small part of the Pompeian graffiti that is explicitly mediaeval in its content ( qv in the illustrations to [873]). One should mark the illustration that one sees on page 44 of [873] (fig. 1.50). Nowadays we are told that it portrays "ancient" gladiators ([873], page 44). However, what we see is clearly a mediaeval knight with a visor on his helmet. This is well-known military equipment of the Middle Ages.
V. Klassovsky sums up his general impression of the excavations of Pompeii as follows: "I have been amazed many a time... to find that ancient Pompeian artefacts often prove to be spitting images of the objects of a much later epoch" ([389], page 133).

We also find out that, according to Klassovsky, many of the famous Pompeian inlays bear an amazing resemblance to the mediaeval frescoes of Rafael and Giulio Romano in composition, colouring and style ([389], page 171 , comment A). To put it simply, they look like mediaeval frescoes. An example of such an inlay can be seen in fig 1.51 , ([389], page 172, table XII). This is assumed to be the ancient battle of Alexander the Great and the Persian king Darius (on the right). The inlay was discovered in 1831 and is now in the domain of the National Museum in Naples ([304], Volume 1, pages 232-233).

## V. Klassovsky's comment runs as follows:

"On the floor of the triclinium one sees the famous mosaic from coloured stone, which now crowns the collection of the museum in Naples. The colouring and the technique are unparalleled, the composition may well be compared to the best works of Raphael


Fig. 1.50. Pictures of the Nero epoch painted on the wall of an "ancient" Pompeian residence. The "ancient" gladiators are depicted as mediaeval knights here; one can clearly see helmets with visors, which were invented in the Middle Ages. Taken from [389], page 44.


Fig, 1.51. An "ancient" Pompeian inlay showing the battle of Alexander and Darius at Issa. Modern drawn copy. Taken from [389].
and Giulio Romano... It is most remarkable indeed that there should be a semblance between the work of the anonymous ancient artist and Raphael's 'Battle between Constantine and Maxentius' in style and the composition of the main group. Certain decorations of the Roman thermae of Titus bear amazing resem-


Fig. 1.52. "Ancient" gladiators wearing mediaeval helmets with visors. Pompeian artwork, close-up of a fragment. Taken from [389].
blance to some of Raphael's frescoes as well [sic!]." ([389], page 171)

The Scaligerian history as followed by Klassovsky tries to convince us that all these works of "ancient" art were created in the I century A.D. the latest, and have remained buried until very recently, when the excavations of Pompeii finally began. Raphael, Giulio Romano and other artists of the Renaissance are supposed to have created paintings strongly resembling these "ancient originals" without even having seen them. All of this is highly suspicious. The hypothesis that we put forward is as follows: Pompeii is a mediaeval town of the Renaissance epoch. It has been destroyed by one of the relatively recent eruptions of the Vesuvius. The "ancient" Pompeian artists were contemporaries of Raphael and Giulio Romano, hence the stylistic semblances. Pompeii might have been destroyed and buried by ashes during the well-known eruption of the Vesuvius that occurred in 1500 ([389], page 28 ), or even by the eruption of 1631 . See more in Chron2, Chapter 2.

Most of the Pompeian graffiti cannot be used for dating purposes, such as quotidian announcements, slang, etc. However, some of the inscriptions explicitly contradict the Scaligerian chronology. One of them can be found in [389], and was translated by N. A. Morozov as follows: "The hunt and the decorations of Valentis Nero Augustus the Holy, son of the Holy D.


Fig. 1.53. A rare picture of a Christian tabernacle unearthed in the "ancient" Herculaneum (Italy).

Lucretius Valentis the Immanent, the 28th of March." We run into a contradiction between the Scaligerian history and actual inscriptions discovered as a result of excavations. An emperor with the double name of Va-lentis-Nero is mentioned here, whereas in Scaligerian chronology these names belong to two different emperors separated by about 300 years.

A longer version of the same "ancient" announcement referring to the pageants of 6-12th April can be seen in [873], No. 73 (see fig. 1.52). The translation offered by V. Fyodorova in [873], page 74, separates Nero from Valentis, as we had expected. We had no opportunity of checking the authority of both translations.

Artefacts of the Christian epoch have been found in the "ancient" town of Herculaneum. In fig. 1.53, for instance, one can see a Christian chapel discovered during the excavations of Herculaneum with a large cross on the wall.

### 13.3. The allegedly accelerated destruction of the "ancient" monuments

The archaeologists of the XX century have noticed a rather odd tendency. The overwhelming majority of the ancient monuments report deterioration in their
condition that allegedly started two or three hundred years ago (from the moment their study began, in other words), and has become more intense than during the preceding centuries and even millennia. The examples are widely known: the Theatre of Epidaurus, Parthenon, the Coliseum, the palaces of Venice, etc. ([228], [144], [207], [456]). Here's another example in the form of an article from the Izvestiya newspaper, 31 October 1981:
"A sphinx in peril. The famous figure of the El Giza sphinx in Egypt has stood steadfast for five millennia. However, pollution has afflicted it terribly. A large piece of the sculpture (a paw) has fallen off. The reasons for this are as follows: high humidity, salty ground, and, primarily, the accumulation of sewage around the sphinx that isn't filtered in any way at all."

It is nevertheless supposed to have stood for five thousand years without any problems whatsoever.

This condition of deterioration is usually explained by the "negative effect of modern industry" ([144], [456]). However, as far as we know, there has been no quantitative research conducted to this day, as to whether or not modern industry afflicts ancient constructions made of stone. One logically assumes all of these buildings to be a lot more recent than what the Scaligerian chronology tells us. They are subject to erosion, and have a constant natural destruction rate, which is rather high.

### 13.4. When did the construction of the Cologne Cathedral really begin?

Nowadays we are being told that the construction of the famous Cologne Cathedral carried on for several centuries. It is assumed that the construction began in the IV century ([1015], page 3). After that, the cathedral has allegedly been rebuilt many times, and nothing remained from the "original cathedrals" whatsoever. The construction of the Gothic cathedral is supposed to have commenced in 1248 -some sources even mention the exact date as 15 August 1248 ([1015], page 6). It is further assumed that the construction was "finished for the most part" by the XVI century, circa 1560 ([1015], page 8). After that, this gigantic mediaeval cathedral has allegedly undergone minor renovations, but, by and large, its shape remained unaltered (see fig. 1.54).


Fig. 1.54. The Cologne Cathedral as it is today. Cologne, Germany. Taken from [1017], photograph 3.


A schematic representation of the southern side of the cathedral with the most important kinds of masonry. The term "Sandstone from Schlaitdorf" also refers to the assorted sandstone from Flonheim, Trier, Udelfangen, and especially Heilbronn.


Fig. 1.55. The chronology of the Cologne Cathedral masonry. Taken from the technical brochure titled The Danger to the Cologne Cathedral. An Illustrated Documentary of the Erosion. Excerpt from the Illustrated Textbook on the Cologne Cathedral (Gefahr fiir den Kölner Dom. Bild-Dokumentation zur Verwitterung. Auszug aus dem Kölner-Dom-Lese- und Bilderbuch) by Professor Dr. Arnold Wolff. We obtained the brochure in the Cologne Cathedral.

How valid is this point of view? When was the cathedral that we can see today really constructed? Is the construction that we see truly mediaeval, dating from the XIII-XVI century for the most part?

In fig. 1.55 we can see a schematic drawing from a technical brochure that demonstrates which parts of the cathedral are mediaeval, and which ones were built over the last two centuries. The full name of the brochure is Gefahr fuir den Kölner Dom. Bild-Dokumentation zur Verwitterung. Auszug aus dem Kölner-Dom-Lese- und Bilderbuch. Professor Dr. Arnold Wolff. (The Dome of Cologne in danger. Graphic documents on weathering.) It was originally addressed to professionals specializing in the preservation and restoration of stone constructions. It was printed in Cologne, and can be obtained inside the cathedral.

According to the scheme, the oldest part of the
masonry, that which belongs to the years 1248-1560, is represented by horizontal shading. The rest - shown by seven other kinds of shading, such as diagonal, dotted. etc. - was constructed a lot later, after 1826!

Amazingly enough, the oldest part of the masonry (horizontal shading) amounts to a small part of the modern edifice. Really, it only covers half of the cathedral's foundation, and even this small mediaeval fragment is not whole, since it consists of two parts that are pretty distant from each other (qv in fig. 1.55). The rest of the masonry - that is, the major part of the entire modern edifice - only appeared in the early XIX century. The absence of masonry dating to 1560-1825 is particularly suspicious. Does it mean that there were no works at all conducted in 250 years, or that they did not affect the structure of the cathedral in any way worthy of mentioning?

What German historians and architects are telling us in this manner is that the cathedral that we see today was essentially built in the XIX century! By what criteria does Scaligerian history call it a mediaeval cathedral, in that case? Someone might say that despite the fact that the cathedral was built in the XIX century, it should still faithfully represent the mediaeval original that has stood there ever since the XIII century.

We would like to ask about the groundwork for this hypothesis. Are there any genuine mediaeval graphical representations of the Cologne Cathedral before the XVII century? Apparently, there are none. The same brochure by Arnold Wolff contains an engraving dated 1834/1836 that depicts the cathedral pretty much the way it is nowadays. The album [1017] contains what appears to be the oldest picture of the cathedral on page 21 - dating from 1809. We consider all of this to mean that the construction of the cathedral in its present form has only commenced in the XIX century, which is proven by the masonry scheme as shown above. The cathedral was built between 1825 and 1835 for the most part, and the engraving dating from 1834/1836 reflected the final stages of the cathedral's construction. There were renovations done in the XIX-XX century, but no major changes.

There were some traces of an ancient building on the site of the modern cathedral, since some mysterious masonry dating from 1248-1560 is present on the scheme. However, this very scheme explicitly tells us that this mediaeval masonry was used as building material for the XIX century construction. Let us study fig. 1.55 yet again. The lower part of the left tower is made of stones dating from the XIX century laced with layers dating from the XIII-XVI century. The upper part of this tower is a construction of the XIX century, and the same is true for the other tower. The old mediaeval building that had stood on the place of the modern cathedral was deconstructed in the XIX century, its masonry used as construction material for the new edifice.

We would like to pose the following questions to the historians and the archaeologists:

1) Are there any genuine mediaeval pictures of either the Cologne cathedral or its predecessor that had existed before the XVII century?
2) Does the modern Cologne cathedral bear any
resemblance to the mediaeval cathedral that had stood on the same site before the XVIII-XIX century? Our hypothesis is that if there has really been a cathedral here, it was significantly different from the modern one - a great deal smaller, for one thing.
3) Why are there no traces of masonry dating to the period between 1560 and 1825 in the walls of the modern Cologne cathedral? Doesn't this mean that the construction really commenced in the XIX century on the spot that had been previously occupied by a building of smaller proportions dating from the XIIIXVI century? One should also question the reasons for dating the old masonry to the XIII-XVI century; these stones may well belong to the XVII-XVIII century. Another enquiry that we find worthy of making concerns the methods used by modern archaeologists for dating masonry fragments. How can they be certain that a given stone was used for the construction of a cathedral wall in the year that they consider to be the correct dating, and not some other?

We conclude with a general observation concerning the unnaturally prolonged construction of many historical buildings of mediaeval Europe. According to Scaligerian history, they were built very slowly indeed, for centuries on end. The Strasbourg cathedral is a perfect example. It used to be the tallest building in Europe. We are now being told that its construction began in 1015, and ended as late as 1275 ([415], Volume 1, page 333). That makes 260 years. The Erwin von Steinbach tower allegedly took 162 years to build. The historian Kohlrausch makes the logical conclusion that "the entire edifice [of the cathedral A. F.] took 424 years to build" ([415], Volume 1, page 333) - almost half a millennium!

Kohlrausch also couldn't have missed the unnaturally procrastinated construction of the Cologne cathedral. Apparently realizing the necessity of explaining such unnaturally extended terms, he offers the following as a theory: "The Cologne cathedral, whose construction began... in $1248 \ldots$ and lasted for 250 years. Such tardiness can be explained by the fact that its stones bear a great amount of artwork" ([415], Volume 1, page 333). As we are beginning to understand, artwork has got absolutely nothing to do with the matter at hand - it is the erroneous Scaligerian chronology that has arbitrarily extended the construction period into several centuries.


Fig. 1.56. "The Bronze Idols from Luristan," allegedly extremely ancient ([245], page 19). Kept in the Louvre in Paris. These artefacts most probably date from a much more recent period. Taken from [245], page 19.

### 13.5. Archaeological methods are most often based on Scaligerian datings

The modern methods of archaeological dating rely on the Scaligerian chronology to a great extent, and may often lead the researcher to great errors, which are blatantly obvious in some cases. Let us give a few examples.

The excavation of a barrow that was "dated with absolute certainty" to the epoch of Kiev Russia (the alleged IX-XII century), according to the "archaeological method," occurred relatively recently. However, nineteenth century coins were found in the same barrow, among the bones. This is mentioned in the article by the Byelorussian historian Zaikovsky published


Fig. 1.57. A bronze figurine, presumably "very old," dated to the V century B.C. This sconce most probably belongs to a much more recent age, namely, the XVI-XVIII century. Taken from [1237].
in 1997 in the 12th issue of the Almanach of History and Archaeology on page 83. It is clear that the coins could not have made their way into the barrow by chance. Is there an explanation? As a matter of fact, there is, and a simple one at that. The "ancient" barrow belongs to the XIX century. And there is nothing surprising about it, since the pagan church also known as "Romish" had existed in Russia and Byelorussia until the XX century, complete with specific burial rites. The centre of the Romish church had been in the Byelorussian village of Romy. In the XIX century it had possessed an archbishop, more that a hundred parishes, and a special language used by priests in sacraments. There is a XIX-century volume containing a detailed description of this old Russian pagan church.

Another example. A different barrow is being excavated, and the archaeologists make another "perfectly certain dating" that ascribes it to the Bronze Age. The ground under the barrow had been virgin until the hole that preceded the barrow had been dug. Some XVIII century ceramics were found in this hole; it could only have got there during the burial. This is yet another case of archaeologists using "scientific methods" for the dating of a XVIII century mound to the Bronze Age, or the time when the rather inexperienced humanity could not have fathomed the intricacies of iron metallurgy. But the XVIII century was a period when both iron and steel were already known quite well. This barrow only got dated to the Bronze Age since it hadn't contained any steel or iron items.

In the cases described, the barrows contained objects that contradicted their initial datings. If there are no such objects, the archaeologists date the barrows "scientifically" to times immemorial. The very method of "archaeological dating" appears extremely flawed and wholly dependent on the a priori known Scaligerian chronology.

### 13.6. One of the numerous problems of the Scaligerian history - the problem of bronze manufacture before the discovery of tin

Many chemists and metallurgists have been reporting the following peculiar circumstance for quite a while, namely, that no bronze could possibly be manufactured in the Scaligerian "ancient" Bronze Age. Professor Michele Giua, "a prominent and versatile specialist in organic synthesis, as well as the chemistry of explosives and plastics" ([245], from the cover annotation), the author of an in-depth work titled The History of Chemistry, writes the following (basing his logical construction on Scaligerian chronology, naturally):
"Copper... had been known from the prehistoric times not just in its free state... but also as bronze, an alloy of copper and tin. During the prehistoric epoch known as Bronze Age, bronze was used for the manufacture of various utensils, jewellery, weapons etc. However, the issue of ancient tin metallurgy remains extremely nebulous. Metallic tin had not been known in the Bronze Age; nevertheless, it must have
been used for the manufacture of bronze. All we can do is assume that a metal of a higher fusibility was manufactured as a result of fusing copper with some minerals rich in tin content. Thus, copper was discovered earlier than tin, whose metallurgy is a lot more complex. However, the fact that bronze was discovered earlier than tin does not clarify numerous other problems of ancient history." ([245], pages 17-18)

The picture is perfectly clear. As we can see, the fact that tin metallurgy is more complex than that of copper is common knowledge. Hence bronze, being a fusion of copper and tin, must have appeared after the discovery of the latter. Scaligerian history has it the other way round - bronze is supposed to have been discovered before tin, in the Bronze age. This contradiction inherent in Scaligerian chronology can be explained by the fact that the chronologers of that school were neither chemists nor metallurgists. How were they to know that the compilation of a history textbook requires that the description of the discovery of tin should precede that of the invention of bronze? However, the historians of the XVII-XVIII century were driven by altogether different considerations, neither caring much for tin, nor indeed for science itself. None of them would consider consulting with a chemist. As a result, "ancient" Greek heroes happily hack at each other with bronze swords that need tin for their manufacture, which had not yet been discovered in than epoch. Modern chemists are naturally confused by such historical tableaux, and are earnestly questioning the reasons for the existence of such oddities in Scaligerian history of chemistry and metallurgy.

Our explanation is a very simple. The Bronze Age falls within the epoch of the XIV-XVI century, when tin had already been discovered (after copper, of course). Consider the allegedly ancient bronze idols from Luristan currently in the Louvre's possession, qv in fig. 1.56. Michele Giua cites them as examples of "ancient" bronze art. However, these artful Bronze Age figurines were most probably made in the XV-XVII century.

The same applies to the "ancient" bronze girandole that has received the dating of $V$ century в.с., also from the Louvre's collection, that we see in fig. 1.57. It may well be an item made in the XVIXVIII century.

## 14. <br> THE PROBLEMS AND DEFICIENCIES OF DENDROCHRONOLOGY AND SEVERAL OTHER DATING METHODS

### 14.1. The consequent scale of dendrochronological datings does not extend further back in time than the $X$ century A.D.

The dendrochronological method is one of the modern dating methods claiming to be capable of dating historical artefacts independently. It is based on the assumption that the yearly growth of tree rings is uneven. Annual ring thickness rates are supposed to be roughly similar for the trees of the same kind that grow in similar conditions.

In order to make this method fit for actual dating, one has to construct a reference scale of annual ring thickness for trees of a particular kind for a historical period of sufficient length. Let us call this graph a dendrochronological scale. If such a scale is constructed, it might aid one in the attempt at dating archaeological findings containing wooden pieces. One has to determine the timber type, saw off a sample, measure the thickness of rings, build a diagram and try to find out whether it concurs with any part of the reference scale. One should also consider the question of what deviations of compared diagrams can be ignored safely.

However, the European dendrochronological scales only reaches several centuries back in time, which does not allow for the dating of "ancient" constructions.
"Many European scientists have started to experiment with the dendrochronological method... however, obtaining results appeared a very complex task. The oldest trees in the European forests are only 300400 years old... Deciduous trees have vaguely defined rings which are hard to study and most reluctant to tell the researcher anything about the past... Quality archaeological material proved extremely scarce, against all expectations." ([616], page 103)

American dendrochronology is in better conditions, since it is based on Douglas fir, mountain pine and yellow pine ([616], page 103). However, this region is far away from the zone of "ancient history." Furthermore, there is always a large number of ig-
nored factors, such as the weather conditions for the period in question, soil quality, humidity level fluctuation for the area in question, its geography, and so on. All of them affect the growth rate of the rings significantly ([616], pages 100-101). It is most important that the creation of dendrochronological scales was based on the existing Scaligerian chronology ([616], page 103). Thus, any alteration of the chronology of documents should automatically alter these scales, whose independence is thus greatly compromised.

It appears that the dendrochronological scales for Europe and Asia only reach several centuries back from our age. We shall give a more detailed account of the contemporary state of such scales for Italy, the Balkans, Greece, and Turkey.

Let us refer to a diagram of dendrochronological dating scales for those countries that reflects the state of affairs in this area as of spring 1994 (fig. 1.58). This diagram was kindly provided by Professor Y. M. Kabanov (Moscow). He took part in a conference in 1994 where the American Professor Peter Ian Kuniholm made a report on the modern state of dendrochronology, presenting this rather noteworthy diagram that had been compiled in the Malcolm and Carolyn Wiener Laboratory for Aegean and Near Eastern Dendrochronology, Cornell University, Ithaca, New York, USA.

In fig. 1.58 we can see fragments of dendrochronological scales for different kinds of timber: oak, box, cedar, pine, juniper, and conifers in general.

All of these scales have a very obvious gap around 1000 A.D. Thus, none of them can be continued without intervals further back in time than the X century A.D.

All of the earlier fragments of dendrochronological scales as shown on the diagram cannot be used for independent datings, since their attachment to the time axis is wholly dependent on the Scaligerian chronology, which had served as a basis for the dating of several individual "ancient" pieces of wood.

A piece of wood found in a Pharaoh's tomb thus gets the dating of some distant millennium before Christ due to "historical considerations" based on the Scaligerian chronology. After that, other "ancient" pieces of wood are linked to the one that has already been dated. These attempts occasionally succeed,


Fig. 1.58. The modern condition of the dendrochronological scales. One can observe that they are considered to extend until as late as the X century A.D. uninterrupted. The "scale" pertinent to earlier epochs is merely an assortment of unrelated fragments.
which results in the construction of a fragment of the dendrochronological scale around the first piece of wood. Relative datings of ancient findings within this fragment may be correct. However, their absolute dating, that is, the placement of this fragment on the time axis, is wrong. The reason is that the first dating was based on the erroneous Scaligerian chronology.

Let us return to the basics of the dendrochronological methods. In theory, the dendrochronological scale is supposed to grow, beginning with the current period and extending into the past. This implies the collation of ring thickness scales of different specimens. What is the principle of this collation? A modern source [1055] gives an in-depth analysis of the problem on page 341. It turns out that the method used is a combination of mathematical statistical methods and "visual" subjective assessments. Hence, the boundary between dated and undated dendrochronological scales becomes very vague.

The book [1055] tells us rather frankly that:
"If we can find a collation position whose diagrams concur with those of the traditional chronology to the best of our certainty and knowledge, the new specimen is considered dated. If we fail to discover such a collation position, the specimen remains undated, although even in this case a dendrochronologist can point out one or more collation methods whose concurrence is 'good,' but not 'perfect' (in his opinion). Needless to say, the Dendrochronological Society has to agree on what is to considered perfect concurrence." ([1055], page 341)

Dendrochronology is thus affected by subjectivity and arbitrariness. Different dendrochronological datings have different veracity. The veracity of a dendrochronological dating depends on the certainty of the collations on the dendrochronological scale. Dubious collations cast the shade of ambiguity over the entire scale. The book [1055], page 341, uses a special term for referring to such datings, namely, "the grey zone" (with white zone referring to certain datings, and the black one, to the total absence of datings of any kind).

The recently published book by Christian Blöss and Hans-Ulrich Niemitz subjects the dendrochronological method to some very sharp criticisms that leave no stone unturned ([1038]).

### 14.2. Sedimentary layer datings. The methods of radium-uranium and radium-actinium analysis

The Scaligerian chronology implicitly or explicitly affects the scale graduations of methods, even the rough physical ones supposed to give the absolute age of objects.
A. Oleinikov tells us that:
"Over the eighteen centuries that have passed since the time of the Roman invasion [in reference to the territory of the modern Savoy - A. F.], the weathering processes have created a 3 mm erosion layer on the walls near the quarry's entrance. Comparing the thickness of this 1800-year-old layer [according to the Scaligerian chronology - A. F.] to the $35-\mathrm{cm}$ erosion crust that covers the glacier-polished hills leads one to believe that the Ice Age left these latitudes about 216 thousand years ago... The proponents of this method have been well aware of the difficulty of obtaining a referential scale for something like erosion speed... it differs for various climates: the same type of rock erodes at varying speeds in the tropics and beyond the Arctic Circle. Erosion speed also depends on the temperature, humidity, rainfall and sunshine. This means that every biospheric zone requires the compilation of special scales and diagrams; besides, one cannot be certain that the weather conditions have remained unaltered since the exposure of the layer that we're interested in." ([616], pages 34-35)

There were many attempts of deducing absolute age by the speed of sedimentary layer formations. They didn't lead anywhere, which is perfectly understandable.

Oleinikov tells further that:
"The research in this direction has been conducted by the scientists of many countries; however, the results failed to meet the expectations. It became apparent that similar types of rock erode at different rates even under similar conditions, and establishing a regular pattern of these processes is hardly possible at all. For instance, ancient documents [a reference to the Scaligerian chronology yet again! -A. F.] tell us that the Egyptian Pharaoh Ramses II reigned about 3000 years ago. The buildings that were constructed in his lifetime are now covered by a three metre layer of sand. This means that about a metre of sand accumulated every millennium. At the same time, certain areas of Europe have
a millenarian rate of three centimetres of sediment, whereas for the firths in the South of the Ukraine this is an annual rate." ([616], page 39)

The development of other methods was attempted as well. "The radium-uranium and radium-actinium methods are valid for the time interval of 300 thousand years. They are convenient for the datings of geological formations when the required precision does not exceed 4-10 thousand years" ([616], page 70). However, this isn't precise enough for the ends of historical chronology, and cannot contribute to it in any substantial manner at all.

## 15.

## ARE RADIOCARBON DATINGS TO BE TRUSTED?

### 15.1. The radiocarbon datings of ancient, mediaeval, and modern specimens are scattered chaotically

### 15.1.1. Libby's initial idea. The first failures

The most popular method claiming the capability of dating ancient artefacts independently is the radiocarbon method. However, the accumulation of radiocarbon datings has exposed the difficulty of the method's application.

According to Oleinikov, "Another problem had to be considered. The intensity of the atmospheric radiation is affected by many cosmic factors. The radioactive carbon isotope production rate should also vary, and one needs to find a method that would take these variations into account. Apart from that, over the period when highways and industrial plants have been introduced by the civilization, a gigantic amount of carbon from the combustion of wood, coal, oil, turf, oil-shales and their products emanated into the atmosphere. How does this atmospheric carbon affect the production of its radioactive isotope? In order to get veracious datings, one has to introduce complex corrections into calculations that reflect the changes in the content of the atmosphere over the last millennium. This issue, as well as a number of technical difficulties, casts a shadow of doubt over the precision of many radiocarbon datings." ([616], page 103)
W. F. Libby, the author of the method, wasn't a historian, and did not question the veracity of the

Scaligerian datings, which had been used for the justification of his method according to his book. However, the archaeologist Vladimir Miloicic has proved this method to give random errors of 10002000 years, while its "independent" dating of the ancient specimens faithfully follows the datings offered by the consensual chronology. Naturally, there can be no talk of "proof" here ([391], pages 94-95).

Let us quote some rather meaningful details. As we have already noted, W. F. Libby had a priori been certain of the veracity of Scaligerian datings. He wrote that they "...had no contradictions with the historians in what concerned ancient Rome and Egypt. We did not conduct anything in the way of extensive research related to this epoch [sic! - A. F.], since its chronology in general is known to the archaeologists a lot better than whatever our methods could estimate, so the archaeologists were doing us a favour providing specimens [which are actually destroyed, being burned in the radiocarbon measurement process - A. F.]" ([478], page 24).

This confession of Libby's tells us a lot, since the deficiencies of Scaligerian chronology directly concern the regions and epochs that he and his team "did not research extensively enough."

We can see that the Scaligerite archaeologists were most reluctant about letting the radiocarbon method enter the "certainty epochs" of Scaligerian history for fear of embarrassing discoveries. Archaeologists have naturally got no objections against applying this method to the undocumented prehistory since nothing capable of compromising consensual chronology can possibly be found there.

In what concerns the several reference measurements that were conducted on ancient artefacts, the situation is as follows. The radiocarbon dating of the Egyptian collection of J. H. Breasted "suddenly discovered the third object that we analyzed to have been contemporary," according to Libby. "It was one of the findings... considered... to belong to the V dynasty [2563-2423 в.c., or roughly four millennia before our time.-A. F]. It has proved a heavy blow indeed" ([478], page 24).

Why could it have been such a blow? The physicists appear to have restored the veracious dating of the Egyptian specimen, proving the old one to have been wrong. What's the problem with that?

The problem is of course the simple fact that any such dating would prove a menace to the Scaligerian chronology. Carrying on in that vein would lead Libby to compromising the entire history of ancient Egypt.

The specimen that Libby had been careless enough to have claimed as modern had to be called a forgery and disposed of ([478], page 24), which is only natural since the archaeologists could not have possibly let the heretical thought of the XVI-XVII century A.D. (considering the method's precision) origin of the "ancient" Egyptian finding enter their minds.
"The evidence that they [the proponents of the method - A. F.] use for proving the veracity of their method is rather insubstantial, with all the indications being indirect, the calculations imprecise, and the interpretation ambiguous, the main argument being the radiocarbon datings of the specimens whose age is known for certain used for reference... Every time referential measurements are mentioned, everybody quotes the results of the first referential datings that were obtained for a very limited number of specimens [sic! - A. F.]" ([391], page 104).

Libby recognizes the absence of substantial referential statistics. Together with the millenarian dating deviations mentioned above (explained as a consequence of a series of forgeries), we may thus question the very validity of the method as used for dating specimens belonging to the period that we're interested in, covering the two millennia preceding our century. This discussion does not concern the applicability of the method for geological purposes, however, where millenarian deviations are considered insubstantial.
W. F. Libby writes that "there was no deficiency in materials belonging to the epoch preceding ours by 3700 years for checking the precision and the dependability of the method" ([478], pages 24-25). However, there is nothing here to compare radiocarbon datings to, since there are no dated written documents dating from those epochs. Libby also informs us that his historian acquaintances "are perfectly certain of the veracity of the datings referring to the last 3750 years, however, their certainty does not spread as far as the events that precede this era" ([478], pages 24-25).

In other words, the radiocarbon method has been
used most extensively for the period of time that doesn't allow the verification of the results by any other independent method, which makes life a lot easier for the historians. The example that we quote below is most typical.
"The radiocarbon datings of the three inscriptionbearing plaques found in Romania have put archaeologists in a quandary... The ashes that they were found in prove them to be 6000 years old at the very least. Could the discovery of literacy have happened in a rural community in Europe and not in the urban and highly-developed Sumerian civilization? [Such an awful lot of space for the flight of exalted fantasy - A. F.] The scientists consider this probability to be very low... There have been many theories put forward for the explanation of this discovery that apparently refuted the reigning opinion on the origins of written language. Some of the archaeologists, without doubting the scientific principles of the radiocarbon method have suggested the method to be errorprone due to the effects of factors that haven't been studied as of yet" ([478], page 29).

Could it be that the errors of the method are rather insubstantial and allow for an approximate dating of the specimens belonging to the last two or three millennia? The state of affairs appears to be a graver one. The errors of radiocarbon dating are too great and too chaotic. They can amount to several millennia in what concerns contemporary and mediaeval objects (q.v. below).

In 1984 the Technology and Science magazine had published the results of the radiocarbon method-related discussions from the two symposiums in Edinburgh and Stockholm (No 3, page 9):
"Hundreds [sic!] of analysis examples were quoted with dating errors ranging from 600 to 1800 years. In Stockholm the scientists lamented the fact that the radiocarbon method appears to produce the greatest distortions when applied to the history of ancient Egypt in the epoch preceding ours by 4000 years. There are other examples, some of them pertaining to the history of Balkan civilizations... Specialists have reached solidarity in their opinion that the radiocarbon method remains ambiguous due to the impossibility of proper calibration, which renders it unacceptable since it gives no calendar datings."


Fig. 1.59. Photograph of the celebrated Shroud of Turin ([387], pages 16-17).

### 15.1.2. A criticism of the application of the radiocarbon method to historical specimens

According to L. S. Klein, the radiocarbon datings "...have confused the archaeologists greatly. Some of them were characteristically overzealous... to follow the advice of the physicists... These archaeologists hastened to reconstruct the chronological schemes [which implies they aren't constructed firmly enough -A.F.]... The first archaeologist to have opposed the radiocarbon method was Vladimir Miloicic, who... attacked the practical usage of radiocarbon datings, and... criticised the very theoretical foundation of the physical method sharply and bitterly... The comparison of individual measurements of modern spec-
imens with their average value allowed Miloicic to support his scepticism with a series of brilliant paradoxes.

The shell of a living American mollusc has the radioactivity index of 13.8 as compared to the average value of 15.3 , which makes it 1200 years old. A live North African wild rose flower with the radioactivity of 14.7 has been dead for 360 years, according to the physicists... as for the Australian eucalyptus with a radioactivity of 16.31 , it isn't likely to exist anywhere in the next 600 years. A shell from Florida with a value of 17.4 shall only appear in 1080 years...

Since in the past radioactivity wasn't distributed any more evenly than it is now, similar fluctuations and errors may afflict ancient objects as well. A prime example is the result of the radiocarbon dating of a mediaeval altar fragment from Heidelberg... which demonstrates that the wood used for the repair of the altar hadn't existed at that time... In the Iranian Welt cavern the lowest layers were dated to 6054 b.c. (give or take 415 years) and 6595 (give or take 500 years) before Christ, whilst the layer on top was dated to 8610 в.c., give or take 610 years. The upper layer is thus 2556 years older than the lower, which is clearly an impossibility. There is a vast number of similar examples..." ([391], pages 94-95)

Thus, the radiocarbon dating method can only be used for the approximate datings of objects whose age amounts to dozens of millennia, when the error rate is comparable with the actual specimen age reaching one-two or more thousand years.

Live molluscs have been dated with the radiocarbon method, and proved to be 2300 years old as a result, which is perfectly preposterous (qv in Science magazine, No. 130, dated 11 December 1959). The radiocarbon dating deviation amounts to twenty-three hundred years here.

A few more examples of relatively recent radiocarbon datings made around 1970-1971:

1) No. 225 of Nature magazine dated 7 March, 1970 reports the results of analyzing the C-14 content of organic material contained in the mortar of an English castle which is known to have been built 738 years ago. The radiocarbon dating gave the age of 7370 years as a result, being 6500 years off the mark. The radiocarbon dating deviation amounts to six millennia and a half. One wonders whether there
was any point in quoting decades with such precision.
2) The radiocarbon analysis of seals that have just been shot defined their age as 1300 years, i.e. dating mistake of 1300 years. Seals mummified 30 years ago have been dated as 4600 years old, with a dating error of 4570 years. Quote from the Antarctic Journal of the United States, No. 6, 1971.

The above examples demostrate that radiocarbon dating can make the specimens thousands of years older than they really are. As we have seen, there are examples of the opposite, when the specimen is dated as belonging to the distant future.

One shouldn't wonder about radiocarbon analysis making mediaeval objects fabulously old.

Let us return to L. S. Klein's review. He writes that: "Miloicic suggests to cease the tendentious "critical" editing of the radiocarbon datings, which is constantly done by the physicists, and calls upon their patrons the archaeologists to do away with the "critical" censorship that axes the publication of the complete result. He appeals to both physicists and archaeologists to publish all of the results of their research without filtering out the dates that strike them as improbable. He also tries to convince the archaeologists to stop the practice of familiarizing the physicists with the age of the finding, and not giving them any figures until they publish theirs! Otherwise, after such editing, which reflects the private viewpoints of the researchers themselves, the dating is bound to be subjective, so the study of the concurrence between historical and radiocarbon datings becomes impossible.

Thus, in Groningen, where the archaeologist Becker has been a supporter of the short [European - A. F.] chronology, radiocarbon datings are usually recent, whereas in Schleswig and Heidelberg, where Schwabedissen and others have been proponents of the longer version of chronology, these datings are usually a lot more ancient." ([391], pages 94-95)

We think that no commentary to the above is required.

We may be told that the radiocarbon method may have attained a higher level of precision over the last couple of years. This may be true concerning the theory and the actual measurements. The question is, however, whether these improved methods are used


Fig. 1.60. A fragment of the Shroud. Taken from [46]. Also see [1055], page 138, ill. 7.1, as well as [358], pages 16-17.
in modern archaeological practice, and if so, what results are obtained in this manner. Do the new radiocarbon datings concur with Scaligerian chronology? Let us quote a relatively fresh example.

### 15.2. The dating of the Shroud of Turin

The reports of the radiocarbon dating of one of the most famous Christian holy objects - the Shroud of Turin, qv in figs. 1.59, 1.60, 1.61 - caused a great resonance in 1988. According to the traditional version, this piece of cloth bears the image of the body of crucified Christ and dates from the I century A.D., which is supposed to make it about two thousand years old. However, radiocarbon datings have given a different dating: roughly XI-XIII century A.D. The radiocarbon analysis has been conducted in three laboratories - in Oxford University, Arizona University, and the Swiss Technological Institute in Zurich ([769], page 80).

A scientific work specifically dedicated to the radiocarbon dating of the Shroud of Turin claims the linen fabric that the shroud is made of to be produced between 1050 and 1350 A.D. ([1055], page 141). The authors cite the results of the Shroud's radiocarbon analysis performed in the laboratory of the Oxford University ([1055], page 140). The laboratories of Arizona and Zurich have given more recent datings, 1304 and 1274 (with the error rates of 31 and 27 years) respectively ([769], page 82 ).


Fig. 1.61. Negative and positive images of the Shroud of Turin ([358], pages 16-17).

These results have proved shocking for many. "In September 1988... a report appeared telling of the analysis and the fact that it gave a certain dating of the shroud's fabric which turned out a thousand years more recent than the alleged date of Christ's death... even if the Shroud is dated as a XI century artefact..." ([46], page 25). The author ceases the discussion of the dating after this, and begins to ponder the veracity of Christ's image as seen on the Shroud.

One arrives to the following conclusions:

1) Either the Shroud of Turin is a forgery;
2) the radiocarbon datings can contain errors of several centuries or even millennia;
3) or the Shroud of Turin is original, but dated to the XI-XIII century a.d. If this be the case, it is natural to ask about the century that Christ's lifetime pertains to. Could it really have been the XII?

We discuss the radiocarbon dating of the Shroud
in our book entitled "King of the Slavs". The second half of the XII century turns out to be the most likely dating.

As we demonstrate in our book entitled "King of the Slavs", the radiocarbon dating of the Shroud (the middle of the XII century) concurs with other independent datings of Christ's lifetime. In particular, he must have been born in 1152 and crucified in CzarGrad in 1185. We must note right away that our attitude towards the results of radiocarbon datings is highly critical (we shall discuss the reasons at length below). However, the situation with the dating of the Shroud is somewhat different. The specimens of its fabric were dated by a number of different laboratories, which makes the results of this research somewhat more plausible.

The radiocarbon dating of the Shroud of Turin to the XI-XIII century A.D. made the historians rather worried, and provoked a series of attempts to refute the result. A. Agureyev, the ITAR-TASS correspondent, had made a report from New York in 1998 that can be found printed in the Gudok newspaper dated 4 April 1998. This report stated that the radiocarbon dating of the shroud "contradicts the Biblical tradition. However, according to the scientists of the University of Texas, their Italian colleagues should not have used the radiocarbon analysis system". The Shroud could allegedly "have fallen prey to a fungus" in the XI-XIII century; this may have affected the radiocarbon dating. "However, the scientists have no opportunity of conducting further research, since the Catholic church refused to provide any more specimens, and even insisted on the return of all of the ones that were at scientists' disposal" (same source).

Since the results of the radiocarbon dating of the Shroud gave results that contradicted the Scaligerian dating of the life of Jesus Christ, the radiocarbon method had to be exposed to public attention. The protection of the Scaligerian dating of Christ's life had been provided by the publication of new facts important enough to considerably aggravate the dubiety of the radiocarbon method in what concerns its applicability to historical chronology, already great enough. Let us quote some of the critical materials belonging to the proponents of the Scaligerian chronology ([358]). The publication belongs to Rev. Gleb

Kaleda, a prominent geologist, Professor, and Doctor of Sciences. Also see [717] for critical material.
"There are several other factors, either local or planetary, that affect the concentration of C-14 in the atmosphere, hydrosphere, and organic matter, thus complicating and limiting the use of the radiocarbon method in chronology.
a) Natural or artificial radiation. Neutrons released in nuclear and thermonuclear reactions, as well as cosmic rays, turn $\mathrm{N}-14$ into $\mathrm{C}-14$. The atmosphere content of $\mathrm{C}-14$ had doubled in the period between 1956 and August 1963. A drastic increase in C-14 content began after the thermonuclear explosions in 1962.
d) The local effect of volcanic gases on C-14 content had been described by L. D. Sulerzhitsky and V. V. Cherdantsev ([717]).

In a number of cases radiochronological age calculations give results that are clearly absurd and contradict the entirety of accumulated geological and palaeontogical data. In such cases "absolute chronological figures" are to be ignored as blatantly erroneous. The discrepancies between geochronological definitions using different isotope methods may reach a factor of $10 x$.

In 1989 the British Science and Technology Council analysed the precision of the radiocarbon method (see the 8th issue of the New Scientists magazine for 1989). 38 laboratories from all across the world were involved in the research. All of them received specimens of wood, turf, and carbonate salts whose age had only been known to the organizers of the experiment, and not to actual analysts. Only seven laboratories (of thirty-eight! - A. F.) reported satisfactory results; others proved wrong by factors of $2 x, 3 x$ and higher. The comparison of the data received by different researchers that used various analysis methods has shown that the causes of the dating errors were not limited to the imprecision of a specimen's radioactivity estimation as it had been assumed; apparently, the technology of preparing specimens for analysis had also served as an entropy agent. The diagnostic errata are caused by the calefaction of specimens as well as some methods of preliminary chemical processing. Everything points at the necessity of using the radiocarbon dating method with the utmost caution" ([358], pages 14-16).

In 1997 the German authors Christian Blöss and Hans-Ulrich Niemitz have published a book titled suggestively enough C-14 Crash ([1038]). They have collected a great body of modern material demonstrating rather convincingly the fact that the radiocarbon method in its current form cannot serve as a valid basis for absolute datings of historical artefacts.

More on the subject can be seen in the bulletin [1491] that contains the following critical publications of 1991-1995 that interest us:

1) Christian Blöss and Hans-Ulrich Niemitz (1996), Der Selbstbetrug von C14-Methode und Dendrochronologie;
2) Hans-Ulrich Niemitz (1995), Die "magic dates" und "secret procedures" der Dendrochronologie;
3) Herbert Illig (1991), Dendrochronologische Zirkelschüsse.

As we can see, radiocarbon dating might prove more or less effective in analyzing objects whose age is measured by tens and hundreds of millennia. The errors of tens and thousands of years naturally inherent in the methods are of minor importance here, although this is far from obvious. However, the mechanical use of the method for the dating of objects no older than two thousand years, which is the historical epoch that interests us most in what concerns the reconstruction of the true history of documented civilization, appears perfectly impossible without being preceded by extensive and detailed statistical research and calibrations employing specimens of known ages. As far as we know, no such research has ever taken place, so there are no referential statistics. There is also no knowledge of whether improving the method's precision is a possibility at all. Also see [718].

Other physical dating methods do exist; unfortunately, the spectrum of their applicability is considerably more limited than that of the radiocarbon method, and their precision is also insufficient for the historical epochs relevant to our ends. For instance, in the early XX century some scientists proposed to define the ages of buildings by the shrinkage of their foundations or the deformation of columns; however, no steps have been made in this direction due to the impossibility of calibrating this method and estimating the real shrinkage and deformation speed.

Two more methods have been suggested for dating ceramics: the archaeomagnetic method and the
thermoluminescent method. However, they have calibration issues of their own. The archaeological datings offered by these methods for the Eastern Europe, for instance, are limited to the Middle Ages.

Let us return to the Shroud of Turin for a second in order to put forth the following hypothesis concerning the nature of the alleged human figure that one sees on the Shroud's fabric. One shouldn't exclude the possibility that an embalmed body had really been wrapped in this linen at some point. Let us recollect that the "ancient" Egyptians had the practice of wrapping a body up in several tight layers of cloth saturated with various elixirs. This may have resulted in a "carbon copy" of a body on the fabric of the cloth which was later removed for some reason, and stored with great care. See our book entitled "King of the Slavs" for more details.

### 15.3 Modern radiocarbon analysis of Egyptian artefacts demonstrates serious contradictions

We shall once again consider the alleged reliability of the radiocarbon method used for supporting the traditional version of the "ancient" history, particularly Egyptian, as reflected in a fundamental and detailed article published by the Manchester Museum in England in 1979 as part of the project named "The Mummies of the Manchester Museum" ([1196]). This most remarkable material was recommended to us by Professor A. Kravtsevich from the Alberta University Department of Mathematics, Edmonton, Canada.

The topic of the article is a dating that had amazed and confused the authors of the article ([1196]). The radiocarbon dating of the mummy \#1770 from the Manchester Museum collection attributed the mummy's bones to 1000 в.с., whereas the cloth that the mummy has been wrapped in received the dating of 380 A.D. The discrepancy between the datings of the mummy and the cloth equals some 1400 years, although the dates should be equal. The cloth may be somewhat older than the mummy if an old cloth had been used by the embalmers, but it couldn't possibly have belonged to a later age.

According to the authors of the article, this gap of nearly a millennium and a half cannot be explained by the possible errors of the radiocarbon dating, the way it is usually done today. That is why they had to
come up with the rather amusing "explanation" that the old mummy was exhumed after fifteen hundred years, and re-wrapped in a new cloth, and then restored to its rightful place as though it had remained unperturbed all the while.

We think this to be perfectly preposterous. Our take is that we encounter yet another imprecision of the actual method of radiocarbon dating which is apparently affected by effects of an undefined nature leading to great discrepancies in datings of 1,500 years, for instance (see the examples of the greatly misdated modern specimens cited above, with the fluctuation amplitude reaching up to two millennia).

The authors of the article also confess to the fact that at the very dawn of the radiocarbon method "ancient" Egyptian specimens were used for its calibration, with their dates taken from history textbooks ([1196], page 137). Here's a verbatim quote: "the use of the method commenced in 1948 in Chicago University and was initiated by Professor W. F. Libby... the Egyptian chronology played a great role in the naissance of the method, since Egyptian specimens, such as wood or charcoal, among others, have been used as standards for the known historical dates" ([1196], page 137). Thus, the radiocarbon scale used nowadays had initially been made largely dependent on the Scaligerian chronology of the "ancient" Egypt, and therefore needs to be revised.

## 16.

## CRITICAL ANALYSIS OF THE HYPOTHESES ON WHICH THE RADIOCARBON METHOD IS BASED

(This section contains quotations from works by A. S. Mischenko, Doctor of Physical and Mathematical Sciences from the Moscow State University Department of Mathematics and Mechanics, a prominent scientist of the V. A. Steklov Mathematics Institute of the Russian Academy of Sciences, nominated State Premium of the Russian Federation Laureate in 1996, a specialist in topology and geometry, functional analysis, differential equations and their applications.)

### 16.1. W. F. Libby's initial idea

A better representation of the modern problems most frequently encountered in the archaeological application of the radiocarbon method requires that we
return into the 50 's and the 60 's for a close study of the foundations that the edifice of historical and archaeological applications is based upon. The matter is that the first steps of the method's creation and development led to a large number of natural complications, many of which afflict it to this day, and lead to further error aggravation. Also see the book [1038], and the article [1491] recently published in Germany. These complications need to be addressed again in order to attract the attention of the physicists to the necessity of a fresh analysis of the foundations of this method's archaeological applications, especially considering what we learn about Scaligerian chronology.

The actual concept of radiocarbon dating belongs to W. F. Libby ([1250]). "Shortly after the end of WW II, the American Willard Frank Libby published the results of the discovery that made him world famous, the laureate of the Guggenheim Award and the Nobel Prize. Studying the interaction between artificially produced neutrons and nitrogen atoms, Libby came to the conclusion (1946) that the nuclear reactions observed in his experiments should also occur naturally - that is, the neutrons produced by the atmosphere of the Earth should become absorbed by nitrogen atoms and transform into $\mathrm{C}^{14}$, the radioactive isotope of carbon. Minute amounts of this radioactive carbon mix with the stable isotopes of carbon, $\mathrm{C}^{12}$ and $\mathrm{C}^{13}$, taking part in the formation of carbon dioxide molecules that are subsequently consumed by plants, and animals (including humans) further up the food chain. Such molecules should be present in the tissues as well as the effluvia of living bodies. The discovery of mild radioactivity of the miasma emanated by Baltimore sewage in 1947 was the first proof of the correctness of Libby's estimations. The radioactivity of growing trees, seashells etc was estimated in the following two years, 19481949. As well as any other radioactive element, the radioactive carbon isotope has a constant hallmark decay rate. Its global concentration would keep on diminishing by a factor of two every 5568 years, according to Libby, if it hadn't been for the constant generation of $\mathrm{C}^{14}$ in the atmosphere that keeps the supply regular. The amount of $\mathrm{C}^{14}$ lost equals the amount gained.

The death of a living organism excludes it from this process and makes it stop accumulating carbon


Fig. 1.62. Atmosphere neutron density as a height function. Taken from [986], page 138.
from air (plants) or food (animals). The radioactivity of a dead organic body (a corpse, piece of wood, charcoal) keeps on falling - at a constant rate, which is an important fact.

Therefore it suffices to measure how much the overall radioactivity of a dead organism has decreased in comparison to the living ones in order to determine the time when this organism stopped refreshing its cells - the date when a tree was cut down, a bird was shot, or a human has died. This is naturally far from being an easy task, since the radioactivity of carbon as found in natural conditions is very weak (even before the death of an organism - one $C^{14}$ atom per every 10 billion atoms of regular carbon). However, Libby had developed the means and the techniques of measurement and numeric conversion that led to the naissance of the radiocarbon method of dating ancient objects" ([390], pages 52-53).

Let us now consider the basics of this method, particularly [390], [391], [1250], [1080], [986], [110], [1081], [1082], [1480], [414], [1431], [1432], [1433], [1025], [1124], [1473], [567], [480], and [478].

### 16.2. Physical basics of the radiocarbon method

Cosmic rays produce neutrons as they pass through the atmosphere of Earth. The density of the neutron current depends on the altitude. The results of density measurement of this current with aerostatic probes can be seen in fig. 1.62 on graph A ([986], page 138). The measurements were conducted in the state of New Jersey, USA, and belong to the period preceding 1955. The peak of neutron content falls on the height of approximately 40 thousand feet ( 12 kilometres). Close to the actual surface of Earth, the neutron current density drops to zero. This leads us to the following two conclusions:

1) Neutrons are generated in the stratospheric layers of the atmosphere, thus being secondary cosmic ray particles that are born with the passing of the primary cosmic rays through the atmosphere.
2) All of these neutrons immediately engage in nuclear reactions, and only a minute part of them reaches the surface of the Earth.

Graph $B$ in fig. 1.62 reflects the dependence of the neutron current on the height of 30 thousand feet on the geomagnetic latitude ([986], page 139). The measurements were conducted before 1955. This graph makes one think that the primary particles of cosmic radiation that give birth to neutrons are charged and reflected by the magnetic field of the Earth. It is significant that the neutron current density in the latitudes of 50 degrees (the latitude of Paris, Prague, Kiev and Kharkov) is three times higher than measured at the latitudes of 20-30 degrees (the Red Sea coast, the north coast of Africa).

The atmospheric neutron generation rate per minute equals roughly $6 \times 10^{20}$ neutrons $/ \mathrm{min}$, with error rate equalling $25 \%$ ([986], p. 139). Thus, every minute $4.5 \times 10^{20}-7.5 \times 10^{20}$ neutrons are generated on planet Earth. These neutrons collide with the atoms of atmospheric nitrogen and oxygen and react with them. The probability rate of a neutron reacting with a nitrogen atom is supposed to be a few thousand times higher than such for oxygen atoms ([986], pp. 139-140). Neutrons of low energy levels (heat neutrons) engage in $\mathrm{C}^{14}$ radioactive carbon reactions for the most part:

$$
\begin{equation*}
\mathrm{N}^{14}+\mathrm{n} \rightarrow \mathrm{C}^{14}+\mathrm{H}^{1} \tag{1}
\end{equation*}
$$

The section of this reaction comprises roughly


Fig. 1.63. The structure of the carbon exchange reservoir.
$1.7 \times 10^{-24} \mathrm{~cm}^{2}$. See [986], page 140 . Fast neurons may react in two more ways:

$$
\begin{align*}
& \mathrm{N}^{14}+v \Pi \mathrm{~B}^{11}+\mathrm{H}^{4}  \tag{2}\\
& \mathrm{~N}^{14}+v \Pi X^{12}+\mathrm{H}^{3} \tag{3}
\end{align*}
$$

However, compared to the section of the reaction (1), their sections are very small. The reaction (3) results in the production of tritium $\mathrm{H}^{3}$ that has a halflife period of 12.5 years and transforms into $\mathrm{He}^{3}$, a stable helium isotope. The speed of tritium $\mathrm{H}^{3}$ generation is estimated to equal $1 \%$ of that of $\mathrm{C}^{14}$ generation.
M. J. Aitken writes the following in his monograph titled Physics and Archaeology:
"A relatively small amount of neutrons reaches the surface of the Earth... and it would be reasonable to suggest (? - A.F.) that every neutron produced by the cosmic rays creates a radiocarbon atom, hence the speed of neutron generation equals that of radiocarbon production. This amounts to roughly 7.5 kilos of radiocarbon per year" ([986], page 104). Radiocarbon $\mathrm{C}^{14}$ decays according to the formula:

$$
\begin{equation*}
\mathrm{C}^{14} \rightarrow \mathrm{~N}^{14}+\beta^{-} \tag{4}
\end{equation*}
$$

The half-life period equals approximately 5600 years, so $1 \%$ of radiocarbon decays in about 80 years. It is thus easy to estimate that the amount of $\mathrm{C}^{14}$ that is constantly present on Earth equals about 60 tonnes, with the error rate comprising about $25 \%$, that is, 45 to 75 tonnes.

The generated radiocarbon mixes with other elements in the atmosphere, and is assimilated by oceans
and living beings. The carbon propagation sphere is called the carbon exchange reservoir. This includes the atmosphere, the biosphere, sea surface and ocean depths, qv in fig. 1.63 ([986], page 30). The numbers on this picture refer to the carbon content in one part of the carbon reservoir or the other, with atmosphere carbon content equalling 1 . The part of carbon that escapes the reservoir as oceanic sediment is not shown on the diagram. "We use the term radiocarbon age in order to refer to the period of time between the point that the object ceases to be part of the exchange reservoir and the moment the $\mathrm{C}^{14}$ measurements are conducted" ([110], page 32).

### 16.3 The hypotheses that the radiocarbon method is based upon

In theory, the radiocarbon age measurement concept is a simple one. It suffices to know:

1) The radiocarbon volume for the moment of the object's departure from the exchange reservoir;
2) the exact half-life period of radiocarbon $\mathrm{C}^{14}$.

After that, provided the specimen volume is sufficient, one has to measure the current radiocarbon content, and calculate the time elapsed since the moment that the object stopped taking part in carbon exchange by simple subtraction and division. However, this seemingly simple idea encounters a number of serious complications in practical application. We should also note right away that any diminishing of the relative $\mathrm{C}^{14}$ content in the specimen for any reason at all leads to the increase of its alleged age.

### 16.4. The moment of the object's departure from the exchange reservoir

So, what does "the moment of the object's departure from the exchange reservoir" actually mean? The first hypothesis of Libby's is that this moment should coincide with the time of the object's death. However, despite the fact that the moment of death might differ from the moment that interests the historians (for instance, a piece of wood from a Pharaoh's tomb may belong to a tree that had been cut down a lot earlier than the sepulchre had been built), it is obvious that identifying the moment of death as that of an object's departure from the carbon exchange reservoir only
seems correct initially. The matter is that carbon exchange does not stop with death. It just slows down and assumes a different form, and one has to bear this in mind. At least three processes may alter the radiocarbon content in a body ([110], page 31):

1) Organic decomposition;
2) Isotopic exchange with foreign carbon;
3) The absorption of environmental carbon.

According to M. J.Aitken, "The only possible kind of decomposition results from the production of carbon oxide or dioxide. However, this process isn't relevant to $u s$, since it only concerns the carbon lost by an object" ([986], page 149). M. J. Aitken seems to imply that since the oxidation of carbon isotopes has the same speed, it does not affect the percentage of radiocarbon. However, in a different place he proceeds to tell us the following:
"Although $\mathrm{C}^{14}$ is identical to $\mathrm{C}^{12}$ chemically, its greater atomic mass manifests as a result of natural processes. The exchange mechanism between the atmospheric carbon dioxide and the oceanic carbonates provides for a higher (by $1.2 \%$ ) concentration of $\mathrm{C}^{14}$ in carbonates; on the other hand, the photosynthesis of atmospheric carbon dioxide by the plants of Earth leads to their possessing a somewhat lower (by 3.7\% in average) concentration of $\mathrm{C}^{14}$." ([986], page 159)

Craig Harmon offers the following table of carbon and radiocarbon propagation for the various parts of the exchange reservoir ([1080] and [986], page 143).

|  | Carbon content, <br> trillions of tonnes | Division <br> effect for $C^{44}$ |  |
| :--- | ---: | ---: | ---: | ---: |
| Atmosphere | 0.64 |  | 1.037 |
| Living biosphere of the Earth | 0.30 |  | 1.000 |
| Humus | 1.10 |  | 1.000 |
| Biosphere of the sea | 0.01 |  | 1.024 |
| Sea-solved organic substances | 2.72 |  | 1.024 |
| Inorganic substances in the sea | 35.40 |  | 1.049 |

Therefore, biosphere and humus are the lowest in radiocarbon content, whereas inorganic substances and sea water are the highest.

The book [110] tells us nothing of the difference between the carbon isotope oxidation speed differences in decomposition processes, but the information cited above gives reason to believe them to be quite
visible. In any case, the carbon oxidation process is the reverse process to that of its photosynthesis from atmospheric gas, hence the isotope $C^{14}$ should oxidize faster (or with greater probability) than the isotope $C^{12}$. Thus, decomposing (or decomposed) specimens should have a lower content of radiocarbon $C^{14}$, which should make the specimens appear a lot older than they really are. This is one of the mechanisms that leads to the gathering of extra age by the specimens that distorts the true picture. We have witnessed actual examples of such artificial ageing above, which distorts radiocarbon datings often throwing them considerably off the mark.

Counting other possibilities of carbon exchange between the specimens and the exchange reservoir is next to impossible. It is supposed that "wood and organic matter appear to be the most inert in what concerns carbonization, whereas a large quantity of bones and shell carbonates show frequent changes in isotope content" ([110], page 31). Since measuring the actual carbon is de-facto an impossibility, it gets ignored, by and large. Standard methods and procedures of radiocarbon measurements are at best concerned with the ways of possible cleansing of the specimen from foreign radiocarbon and reasons of specimen contamination. S.V. Boutomo finds it sufficient to merely state that "charred organic matter and wood in a good condition (?! - A. F.) are dependable enough in most cases" ([110], page 31).
M. J. Aitken adds that "in order to work with any specimen at all, one has to clean it thoroughly from foreign roots and other fibres, and treat it with acid in order to solve all sedimentary carbonates. The removal of humus is achieved by washing the specimen in a base solution" ([986], page 149).

Note that the important question of whether this chemical cleansing might affect the specimen's radiocarbon content had not been raised back in the day - and we're talking about the time when it was claimed that the radiocarbon method "gives solid proof to historical chronology".

### 16.5. Radiocarbon content variations in the exchange reservoir

The second hypothesis of Libby's is that the radiocarbon content in the exchange reservoir remains constant all the time. Quite naturally, this hypothesis is also
an erroneous one, and one has to consider the effects that affect the radiocarbon content of the exchange reservoir. The estimations of the general volume of radiocarbon on Earth as cited above imply that in a modern specimen the ratio is one radiocarbon atom per every $0.8 \times 10^{12}$ atoms of regular carbon. This means that every minute about 15 decays occur in a gramme of natural carbon ([986], page 143). Thus, if the radiocarbon content in the exchange reservoir for the moment of a specimen's death differed from the current by a ratio of $1 \%$, the calculations of this specimen's age shall contain an error of about 80 years, $2 \%$ shall give an error of 160 years etc (!). A deviation of $10 \%$ shall give a dating error of 800 years, and higher deviations shall also alter the linear rule, and so a $20 \%$ deviation shall lead to an error of 1760 years, and not 1600 , and so on. The radiocarbon content in old specimens for the moment of their departure from the carbon reservoir cannot be estimated in any other manner but via the comparison with the radiocarbon content of the modern specimens considering several effects that alter the radiocarbon content in specimens with the passage of time. M. J. Aitken cites the following well-known effects that influence the radiocarbon content in the exchange reservoir:

1) The change of radiocarbon generation speed in accordance with the changes in the intensity of cosmic radiation;
2) The change of the size of the exchange reservoir;
3) The finite speed of mixing between the different parts of the exchange reservoir;
4) The separation of isotopes in the exchange reservoir.
M. J. Aitken makes the justified remark that "any concrete data concerning points 1 and 2 is hard to obtain in any other way except for measurements conducted on the specimens veraciously dated with other methods" ([986], page 153). This pours light on the existence of a very important circumstance. The physicists required veracious external reference for the correct graduation of the radiocarbon scale. Having absolute trust in the historians, they took the dates from history textbooks and chronological tables. It appears that the physicists have been misinformed from the very beginning, since the radiocarbon method had been based on the same old Scaligerian chronology of historical specimens. Its reconstruction
shall invariably affect at least some of the fundamental concepts that define the actual method.

Furthermore, one has to notice two more modern effects that affect the current radiocarbon concentration, namely, the increase in radiocarbon content due to experimental thermonuclear explosions, and the decrease (the so-called Süss effect) thereof that is caused by the burning of fossil fuels - oil and coal, whose radiocarbon content should be minute due to their great age. The estimation of the change in radiocarbon production speed (see point 1) has been attempted by many authors. Crowe, for instance, has researched the "materials with veracious historical datings" and shown that there was a correlation between the errors of radiocarbon dating and the changes in the magnetic field of the Earth ([1082], also [110], page 29). The measurements of the yearly layers formed by sequoia trees are cited nearby for comparison ([110], page 29; [1480]).

It is assumed that the specific activity has been varying within the range of $2 \%$ in comparison to the average from 600 A.D. to the present time, with the maximal alterations occurring every 100-200 years ([110]). We see yet again that the creation of the "radiocarbon scale" involved the materials that the Scaligerian chronology dated as belonging to 600 A.D. or maybe even earlier. We do already know, however, that this chronology isn't to be trusted with anything that concerns the times preceding the XIII-XIV century. The physicists have been deceived by the Scaligerian chronology yet again.

Thus, the radiocarbon dating is implicitly based on the same old incorrect chronology of Scaliger and Petavius. In order to separate it from the very basics of radiocarbon dating, we shall have to trust the historical objects that can really be dated veraciously. However, we're beginning to understand that the age of such "trustworthy objects" cannot exceed $500-600$ years, since none of them predate the XIV century A.D. Thus, all the work on the calibration of the radiocarbon method shall have to be done again. The results that the physicists will achieve in this case may strike them as surprising.
"Apparently, the changes in cosmic radiation occurred before, but due to the brevity of their period, the effect of these fluctuations is hard to consider. We base our assumption that the intensity of cosmic radiation over the last 35000 years has been constant within the error range of $10-20 \%$ on the coincidence of the cal-
culated value of specific activity and on the proximity of the age of oceanic sediment estimated with the aid of mutually independent carbon and ionium methods" ([110], page 29). Let us remind the reader that the "constancy" within the range of $20 \%$ means an error of 1760 years in the dating of the specimen. It isn't that significant an age compared to 35000 years, but the fluctuation rate is unacceptably high for what concerns the issues of the so-called "ancient" history. We have already given examples of millenarian discrepancies between the radiocarbon datings and the Scaligerian "ancient" chronology. The fluctuations of $10-20 \%$ mentioned by the physicists are a reality, and not just theory.

In America - the regions withdrawn from the entire "Classical scene" - the dendrologists of the Arizona University have discovered plantations of bristlecone pine (Pinus aristata) whose age exceeded 4000 years. Some dead standing trees have been found nearby which have remained in their current condition for several thousand years ([414], page 6). It is assumed that cross-dating, that is, the temporal superposition of living and dead tree specimens, allowed for the creation of a dendrochronological scale spanning 7117 years ([1431], [1432], [1433]). However, this American dendrochronological scale, even if it is indeed correct, cannot help "ancient" European and Asian dendrochronology in any way at all, q.v. above.

In [414] on page 7 we can see a schematic drawing of the correlation of dendrochronological and radiocarbon datings based on the measurements conducted with the aid of over 300 specimens. If we're to consider the dendrochronological dating absolutely veracious (which is wrong, as we have already pointed out), the maximal radiocarbon dating error equals to the following values:

| Dendrochrono- <br> logical dating | Radiocarbon <br> dating |  | Error |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 300 |  | -270 |
| 500 |  |  | -250 |  |
| 800 | 900 |  | +100 |  |
| 1500 | 1000 |  | +100 |  |
| 1900 | 2100 |  | +200 |  |
| 2700 | 2400 |  | -300 |  |
| 4000 | 3500 |  | -500 |  |
| 5000 | 4300 |  | -700 |  |

The error rate keeps on growing with a negative value.

These American data can be interpreted in the following manner. The radiocarbon content in American bristlecone pine has been varying over the years in the following manner (in comparison to its current radiocarbon content):

| Years | Radiocarbon <br> content |
| :---: | :---: |
|  | 1 |
| 1700 | 1.035 |
| 1500 | 1.031 |
| 1200 | 0.988 |
| 100 | 0.975 |
| -700 | 1.038 |
| -2000 | 1.063 |
| -3000 | 1.100 |

Furthermore, on page 7 the authors of [414] write that "it is estimated, that the $\mathrm{C}-14$ variations are of a global character - that is, they happen simultaneously all across the planet". No argumentation is given. It would thus be appropriate to inquire about the possible grounds for making hypotheses that arose from the analysis of nothing but American materials, and ones belonging to a rather small and very specific geographical location at that, valid for the entire planet.

The authors of [414] also make the conclusion that the difference between the dendrochronological and radiocarbon datings is a result of a temporal variation of radiocarbon content in the exchange reservoir. However, this very difference might lead one to an alternative hypothesis that a growing tree continues to take part in carbon exchange after the formation of the rings, which isn't even mentioned in [414]!

On page 4 of [414] we see the schematic drawing also included in [1025] that displays the correlation between the historical dates of the "ancient" Egypt and the hypothetical radiocarbon datings, and comparisons of the same dates to European monuments and artefacts. The commentary is as follows: "this drawing shows us that the datings of the Roman period are virtually identical, whereas the datings of the early dynastic period differ by 500-700 years" ([414], page 7). Apart from this, we have already seen the data
showing that the radiocarbon datings of at least some of the "ancient" Egyptian specimens really partain to tha late Middle Ages.

In 1964 Kigoshi conducted precise measurements of $\mathrm{C}^{14}$ concentration in the tree rings of an old Japanese cryptomeria whose age reached 1890 years ([567], page 172). This information is also of little utility for the European dendrochronology and radiocarbon scale. The results of this research proved somewhat different from the ones related to a small area in America as cited above, but show the radiocarbon concentration for 1000 A.D. to have been $2 \%$ lower than it is currently ([567]). The conclusion is apparently valid for some small area in Japan.

The variations in the exchange reservoir (see point 2 above) are primarily determined by the alterations of the ocean level. Libby claims that a change of 100 metres in the sea level curbs the volume of the reservoir by $5 \%$ ([986], page 157). If this were accompanied by a temperature drop, during the Ice Age, for instance, the concentration of carbonates in the water would diminish, and the entire carbon exchange reservoir would shrink by $10 \%$. We are to be aware that we are considering hypotheses that are extremely hard to prove nowadays, and all such proof is, it turn, based on other hypotheses that are just as hard to prove.

The data that concern the mixing speed as mentioned in point 3 are somewhat contradictory. Ferguson, for instance, having studied the radioactivity of tree rings (also in a small geographical area) reckons that this speed is rather high, and that the average time that it takes the carbon molecule to reach a different part of the reservoir equals seven years maximum ([986], page 158). On the other hand, thermonuclear test explosions have produced about half a tonne of radiocarbon, which shouldn't affect the general radiocarbon mass of 60 tonnes that greatly in theory however, the activity of the specimens grew by $25 \%$ as measured in 1959, and this growth had reached 30\% by 1963. This speaks in favour of the low mixing level hypothesis.

According to Süss, it takes about 1500 years for all of the water to mix in the Pacific, and 750 is the figure given for the Atlantic ocean by E. A. Olson and W. S. Brecker ([480], page 198). But the mixing of ocean waters is greatly affected by the temperature.

| Specimens | Geomagnetic latitude | Per minute decay frequency for one gramme |
| :---: | :---: | :---: |
| White fir (Yukon) | 55 degrees in lat. North | $14.84 \pm 0.30$ |
| Norwegian fir (Sweden) | 55 degrees in lat. North | $15.37 \pm 0.54$ |
| Fir (Chicago) | 53 degrees in lat. North | $14.72 \pm 0.54$ |
| Ash (Switzerland) | 49 degrees in lat. North | $15.16 \pm 0.30$ |
| Honeysuckle leaves (USA) | 47 degrees in lat. North | $14.60 \pm 0.30$ |
| Pine branches (USA, 3.6 km above sea level) | 44 degrees in lat. North | $15.82 \pm 0.47$ |
| Heather (North Africa) | 40 degrees in lat. North | $14.47 \pm 0.44$ |
| Oak (Palestine) | 34 degrees in lat. North | $15.19 \pm 0.40$ |
| Unidentified timber (Iran) | 28 degrees in lat. North | $15.57 \pm 0.31$ |
| Manchurian ash (Japan) | 26 degrees in lat. North | $14.84 \pm 0.30$ |
| Unidentified timber (Panama) | 20 degrees in lat. North | $15.94 \pm 0.51$ |
| Chlorophora excelsa timber (Liberia) | 11 degrees in lat. North | $15.08 \pm 0.34$ |
| Sterculia (Bolivia, 2.7 km above sea level) | 1 degree in lat. North | $15.47 \pm 0.50$ |
| Ebony tree (The Marshall Isles) | 0 degree | $14.53 \pm 0.60$ |
| Unidentified timber (Ceylon) | 2 degrees in lat. South | $15.37 \pm 0.49$ |
| Eucalyptus (Australia) | 45 degrees in lat. South | $16.31 \pm 0.43$ |
| Seal-oil (The Antarctic) | 65 degrees in lat. South | $15.69 \pm 0.30$ |

A $50 \%$ increase in the mixing of both shallow and deep waters shall imply a $2 \%$ shrinkage of the atmospheric radiocarbon concentration.

### 16.6. Variations in radiocarbon content of living bodies

The third hypothesis of Libby's is that the radiocarbon content is equal for all of the organisms on the entire Earth, and thus independent from the latitude and the species. In order to verify this hypothesis, Anderson (Chicago University) had conducted an indepth research and discovered that the radiocarbon content does indeed fluctuate, as one should have expected ([480], page 191). See the table above.

Thus, modern radiocarbon activity varies from 14.03 (North African heather) to 16.7 (Australian eucalyptus) decays per minute depending on the geographical location and the species of the tree. This gives a deviation rate of $8.5 \%$ as compared to the average radiocarbon content value. Libby tell us the following:
"Over the ten years that have passed since that time, this information has not been refuted; the only
exceptions concern the carbonate rock formations, where ground waters dissolve and wash away a significant part of ancient carbon, thus making carbon14 content lower in comparison with the average planetary rate of the atmosphere-biosphere-ocean system. Such cases are extremely rare (? - A. F.), and can easily be accounted for" ([480]).

## 17. <br> SUMMARY

Let us sum up the information that we have just considered. We have learnt that the real activity of ancient specimens may alter from the average value for the following reasons:

1) A temporal change in timber activity: $2 \%$ deviation range;
2) Cosmic ray intensity changes (theoretical estimation): $20 \%$ deviation range;
3) Short-term changes of solar activity: additional 2\%;
4) An increase in the mixing rate of the oceanic water: minus $2 \%$;
5) Variations in radiocarbon concentration depending on the geographical location and the tree species: $8.5 \%$ deviation range;
6) Variations in radiocarbon content resulting from decomposition processes: ? (unknown);
7) Variations in radiocarbon content resulting from a specimen's chemical processing: ? (unknown);
8) The variations in the exchange reservoir radiocarbon content resulting from the washing out of carbonate rock formations: ? (unknown);
9) Variations in radiocarbon content caused by large quantities of carbonates produced by volcanic eruptions: ? (unknown). This reason can provide for significant distortion of radiocarbon datings for the areas close to volcanoes, such as Italy with its Vesuvius and Etna.

One should also bear in mind the dating deviation resulting from the temporal gap between the cutting of a tree, for instance, and the use of the wood for the object or building researched. Finally, one has to consider the imprecision of the currently used $\mathrm{C}^{14}$ halflife value, that has been corrected by almost $10 \%$ as of late, and the errors of experimental measurement of a specimen's radioactivity (background radioactivity consideration etc). We do not cover these errors (whose correction has cost the physicists lots of labour) presently, since having learned of all the factors mentioned, we deem it nonsensical to attempt the precise measurement of a value whose theoretical uncontrolled error rate may equal $10 \%$ if we're to make modest assumptions. The most optimistic calculations give a radiocarbon dating uncontrolled error range of 1200 years of arbitrarily added or subtracted age.

This makes the placidity of the following conclusion made by B. A. Kolchin and Y. A. Sher most peculiar indeed: "Summing up the brief overview of the centurial $\mathrm{C}^{14}$ variation research, one has to point out that apart from its mere failing to undermine the trust that we have in radiocarbon chronology, this research had made its precision even higher (?! - A. F.)" ([414], page 8). Another specialist in radiocarbon datings, S . V. Boutomo, is of a more realistic opinion: "due to the considerable fluctuations of $\mathrm{C}^{14}$ 's specific activity rate, the radiocarbon datings of relatively young specimens (under 2000 years of age) cannot be used as fundamental referential data for the absolute chronological scale" ([110], page 29). However, from the point of
view of the "Classical age" studies, including those of the "ancient" history of Egypt, these "relatively young specimens" are of the greatest interest. Thus, certain specialists in the field of radiocarbon dating confess openly (albeit in special scientific literature) that the use of the radiocarbon method in its current state for the specimens whose age is 2000 years or less appears a most dubious endeavour.

We could have finished our overview of the radiocarbon dating method here if it hadn't been for the criticisms of the method coming from archaeologists and certain oddities in the behaviour of the radiocarbon method specialists themselves. We have quoted some of the examples above. The first thing to attract one's attention is the absolute trust of the authors in the infallibility of historical datings, as one sees from such passages as "the ages of specimens younger than 5000 years concur well (?! - A. F.) with the historical estimations" ([986], page 155). Such statements appear very odd indeed considering what we have just learnt.

Libby wrote that "further research has been undertaken involving specimens of known ages... The results... span a historical period of 5000 years... Thus, the general reliability of the radiocarbon method is well-proven" ([986], page 135). As we have already demonstrated, the popular myth of the "concurrence" between the Scaligerian chronology and the radiocarbon datings is based on flimsy foundations, and proves immaterial at closer study; the myth's popularity is clearly of an unnatural origin. Let us remind the reader of something that Libby himself has mentioned in this respect: "One of the exceptions was discovered when we have worked on the materials of a large collection collected by James H. Breasted in Egypt together with the specialists of the well-known Chicago Institute for Oriental Studies. The third object suddenly turned out to have proved modern after analyzing. The finding belonged to a collection ascribed to the time of the V dynasty. It had really been a heavy blow" ([478], page 24). As we have already mentioned, this object was claimed a forgery. The fact that Libby mentions this "strange occurrence" makes one wonder how many of those he remained taciturn about.

As we have already demonstrated, the calibration of the radiocarbon method has been largely based on the Scaligerian chronology. It would be expedient
to check whether the radiocarbon method can actually be made independent from written sources.

Libby cites the table of modern carbon activity for various rock formations claiming that "it has been shown that there are no significant differences between the studied specimens collected at various latitudes from pole to pole" ([480], page 191).

Wait a second, we have just learnt that the deviation range equals $8.5 \%$ in one direction or the other, that is, over 700 years. How is it possible to claim five pages further on that "the carbon content that we have estimated concurs well with the expected value, all deviations being nothing but acceptable reference point errors" ([480], page 196). Could it be that Libby had been certain that the readers would not be interested in the details of Anderson's table? Libby also says that their "conclusions may have proved wrong if the measurement errors of all kinds - those of cosmic ray intensity, mixing rate and ocean depths, had been in correlation. However, since this is not the case, we reckon that large error rates are improbable" ([480], page 193).

We are not quite certain as to what kind of improbability is being talked about here, since the cosmic ray intensiveness, mixing speed, and other physical values affecting the initial radiocarbon content in a specimen for the moment of its departure from the exchange reservoir are far from being random - all of these values had all equalled something at a given point in time. If we do not know these values and have to make a choice from some interval of possible values, the radiocarbon dating error shall equal the sum (!) of all the errors that have been made in the estimation of the source data for the specimen.

Libby writes that "despite the great differences between the cosmic ray intensiveness values at different geographical latitudes (they are a lot higher in the northern and southern latitudes than they are around the equator), one has to expect (? - A. F.) the radioactive carbon propagation rate to be homogeneous for the entire planet" ([478], page 23). The effect mentioned may nevertheless result in "extra age" gathered by specimens in Egypt, for example.

Libby proceeds to tell us the following:
"The coincidence of the age of the core and the entire tree shows that the sap from the core of gigantic sequoias is not chemically balanced in comparison to the fibre and other molecules of the tree. In other
words, the carbon in the central part of the tree had been stored there about 3000 years ago, although the actual tree had only been cut down several decades ago" ([480], page 195).

However, three years after this, the radioactivity of tree rings was researched by Süss, who has found the discrepancies between the radiocarbon datings and the dendrochronological ones. Did he make the conclusion that Libby's initial hypothesis was wrong? He did not. Süss made the claim that the radiocarbon content in the ancient times used to be higher than it is today instead. What we see is a vicious circle.
L. S. Klein gives a similar example in [391]. First Libby proves the veracity of the radiocarbon method using the historical chronology of the "ancient" Egypt; however, when control measurements showed deviations, Libby immediately questioned the Egyptian chronology concerning these particular specimens ([391], page 104). Similarly, Libby had used dendrochronology in support of the radiocarbon method, explaining arising deviations by the fact that several tree-rings may be formed in a year. However, Libby is far from being the only one to demonstrate the lack of logic where its presence is undesired.

In the article by Kolchin and Sher ([414]) we read that "the dates calculated in assumption of the constancy of atmospheric $\mathrm{C}^{14}$ content from the ancient times to our age need to be revised. Does this mean they aren't true? The following analogy appears congruent..." ([414], page 6). The authors proceed to tell us how the distance between the Earth and the Moon had been calculated in several stages, each time with a greater precision. The same allegedly applies to the radiocarbon method where gradual corrections make the calculations more precise as time goes by. This may well be so in theory. However, we read in the very same article that "the half-life period for $\mathrm{C}^{14}$ is 5570 years, with the possible deviation range of 30 years in each direction..." (page 4), and that "the half-life period for $\mathrm{C}^{14}$ is set (?? -A. F.) at 5730 years, give or take 40 ". 160 years - that's some correction!
M. J. Aitken writes that "an important characteristic of all these methods is their output, that is, the carbon content in the original volume that is transformed into gas. It would be expedient to have an output of $100 \%$ in order to eliminate all possibility of $\mathrm{C}^{14}$ turning into gas more readily than $\mathrm{C}^{12}$, or the
other way round" ([986], page 168). We also learn that "the shortcoming of the synthesis of the latter is that only $10 \%$ of the carbon is transformed into benzol; this increases the possibility of error resulting from isotope separation" ([986], page 17. The author appears to have full awareness of the necessity of considering the isotope separation effect in all chemical reactions. However, in 6.3 , while discussing the issues of a specimen's suitability for measurements, M. J. Aitken writes that "charcoal and wood in good condition are considered the best specimens: their taking part in exchange is improbable (? - A. F.), and the only possible kind of decomposition results from the production of carbon oxide or dioxide. However, this process isn't relevant to $u s$, since it only concerns the carbon lost by an object" ([986], page 149). What about isotope separation? The radiocarbon content in a specimen may change as a result of decomposition!

Such careless attitude of specialists to the effects that may greatly affect the research results remains enigmatic for us. We have listed some of these effects in the general list. Some of them may really be difficult to evaluate currently. However, a number of effects reflected in literature may be quantitatively assessed after a series of experiments. No careful activity reports of either living or dead specimens have been made for any of the below:

1) latitude;
2) longitude;
3) proximity to certain geological and geographical formation on dry land and in the ocean;
4) altitude above the sea level;
5) climate etc.

Without such analysis, the self-righteous claims of the alleged independence of specimen activity from their locations and other characteristics are altogether impossible to understand.

Therefore, we have to concede the following:

1) The radiocarbon method in its current condition has deviation rate of 1000-2000 years for specimens whose age is estimated as under 1000 years. This means there's not much to be learnt about the events of the last two millennia from this method.
2) The radiocarbon method needs a fresh graduation that would not be based on Scaligerian chronology at the very least.
3) Other physical dating methods are even less precise, ergo, they can tell us nothing about the dating of objects younger than 2000 years.
4) The actual archaeological methods that aren't based on documented chronology can give no absolute dates; these methods can only aid the estimation of relative chronology of some findings in a limited number of cases.
5) Scaligerian chronology implicitly or explicitly affected the graduations of scales used for archaeological and even physical methods, including the radiocarbon method. This also questions the usability of the method in its current condition for the dating of historical objects.
6) According to a number of archaeologists (see above), the unacceptable practice of familiarizing the physical laboratories that perform radiocarbon datings with the opinions of the archaeologists about the estimated ages of findings still exists.

## 18.

 NUMISMATIC DATINGIt is assumed that in some cases certain archaeological findings can be dated with the aid of the ancient coinage found on the site. However, one should be aware that the so-called numismatic dating as used today is wholly dependent on Scaligerian chronology. This chronology was created in the XVI-XVII century, and all the kings and rulers described in chronicles and other documents took certain chronological places. Then the ancient coins were distributed along the time axis - for instance, coins bearing the legend "Nero" were dated to the I Scaligerian century A.D., the ones saying "Justinian," as the VI Scaligerian century A.D., etc., since those are the centuries where Scaligerian chronology locates the Roman emperors Nero and Justinian.

After that, all of the coins found in the XVIII-XX century have either been dated by the same "method," or compared to the ones that have already received datings, and placed on the time axis accordingly.

It is perfectly obvious that any alteration of the Scaligerian chronology that this "method" is based upon shall automatically alter the "numismatic datings" as well. Furthermore, an independent comparison of different coins that isn't based on external chronological considerations, cannot even tell us any-
thing about the relative chronology of the coins under comparison, let alone their absolute chronology. Comparing actual coins as metallic objects bearing graphical designs of some sort cannot give us exact knowledge of which coin is older and which is newer. The analysis of the metal that the actual coin is made of can point at its geographical point of origin in some cases. However, the calculation of the date - absolute or relative - sadly remains an impossibility. It is possible that some method will be developed eventually that will estimate absolute ages of coins after a study of the alloys that they are made of. However, as far as we know, no such method has yet been developed. This opens a great many opportunities for physicists, chemists and metallurgists.

The historians write that "numismatics as a science is a relatively recent phenomenon. The transition period between the collection of coins to scientific methods of their study... can be estimated to fall into the very end of the XVIII century" ([345], pages 13-14). We shall thus repeat that the entire numismatic science is based on Scaligerian chronology that was based on written sources, and can in no way be considered an independent dating method.

As a result, we encounter many oddities nowadays when we compare "ancient" coins to their mediaeval counterparts. An abnormally large number of parallels and even direct coincidences appear between the "ancient" and the mediaeval - sometimes even late mediaeval - coinage. These parallels have been known for a long time, and their number keeps on growing. Historians try to explain them by elaborate and nebulous theories of "imitation", "copying," etc. The English Edwardian pennies allegedly dating from 1042-1066 A.D. copy the Constantinople solidi of Justin II dated 565-578 A.D. in Scaligerian chronology ([1163], page 449). The chronological difference between the "original" and the "copy" exceeds 450 years here! No such cases of "copying" coins from 450 -year-old "originals" have been registered in either late mediaeval or newer history.

The coinage history has allegedly seen an "ancient dawn," then the Dark Ages are supposed to have come, and later on the Renaissance epoch. It is assumed that between the VIII and XIII century a.D. all Roman golden coinage disappeared from Italy ([1070]). This strange effect is noticeable enough to have entered the
names of chapters of certain monographs on history and numismatics, such as "The End of Roman Coinage (V century)," or "Imitation epoch (VI century)" ([1164]), or "The Lack of Gold Coinage" ([64], page 151).

Let us pay close attention to the following information provided by specialists in numismatic history. It turns out that in the Middle Ages "the West of Europe did not try to compete with Byzantium and the Muslims in this respect [coin minting - A. F.]. The idea of having regular gold coinage was given up, and most mints produced silver coins" ([1070], page 20; [1435]). It is also said that "regular golden coinage had practically ceased in VIII-century Western Europe, and towards the end of the same century on the Italian peninsula as well. Even in Muslim Spain no golden coinage was minted between the beginning of the VIII century and the beginning of the $\mathrm{X}^{n}$ ([1070], page 20).

Numismatists attempt to give some sort of explanation to this mysterious "mediaeval gap" in coinage history. It is suggested that "gold coinage was ceased by an order issued by Pepin". The council at Reims allegedly forbade the use of the golden solidi of imperial Rome, and the type of circulating coinage allegedly "became barbaric" in the VIII century ([64], page 151).

Doesn't this imply that the "ancient" Western European coinage is really mediaeval, minted after the XIV century A.D., and cast way back in time by Scaligerian chronology?

Historians proceed to tell us that "there are no Papal coins from the time of Benedict VII (who died in the alleged year 984 A.D. - A. F.) to that of Leo IX [allegedly the middle of the XI century - A. F.] in existence; this is purely incidental, since the coinage must have existed, naturally... There is only one coin from the times of Leo IX... Even stranger is the fact that not a single coin remained from the times of Gregory VII" ([196], Volume 4, page 74, comment 41).

Where did all these mediaeval coins go? Let us formulate a hypothesis. All of these coins have been misdated, and thrown back into the past, transforming into "ancient coins" as a result. Some of them are exhibited in museums as "very old ones" nowadays.

Apparently, the naissance of golden and silver coinage in Western Europe really dates to the XIII cen-
tury A.D. at the earliest. Confronted by the non-existence of mediaeval Western European coins predating the XIII century A.D., the numismatists were faced with the necessity to invent various theories aimed at explaining the economical stagnation of Europe that allegedly followed the "flourishing Classical age". The strange "stagnation" in Roman minting between the VIII and XIII century A.D. is all the more amazing since it follows a very fruitful and glorious period of Roman coinage of the alleged I-VI century a.D. Golden coins of this "ancient" empire are on a par with the mediaeval ones dated to the XIII-XVII century in quality and detail. This oddity is most probably explained by the misdating of the XIII-XVII century coins that have been moved a long way into the past.

Let us point out another strange effect. According to the historians, the coin caches of the X-XIII century found on the territory of Russia hardly contain any Italian, French, or Spanish coins of X-XIII century A.D. ([685]). Only single Italian coins (!) of the X-XIII century have been found among the tens of thousands of coins dating from that period. Historians have created a theory that is supposed to explain this strange occurrence - namely, that there were no economical or trade connexions between Russia and Italy in the X-XIII century ([685], pages 200-211). This "numismatic theory" contradicts written sources explicitly mentioning extensive trade and
economic relations ([685], page 201). The historian's commentary is that "the contradictions between the numismatic and other data is purely illusionary" ([685], page 201). However, no explanations of any kind are given. We shall formulate the following hypothesis: Western Europe and Italy in particular really minted a very small number of gold coins before the XIII century, which is why they aren't found in treasure caches on the territory of Russia.

However, in 1252 A.d. full-scale golden coinage is allegedly "resurrected" in Rome all of a sudden, and it becomes international currency over a very short period of time, chasing the Byzantine coinage off the market ([1070]). This sudden appearance of Italian gold coinage in the XIII century is considered to be "a dramatic change of the situation prevalent for the first half of the mediaeval period" ([1070], pages 20-21). However, most probably, no such dramatic occurrences really took place. What we appear to witness here is more likely the real naissance of European coinage in the XIII-XIV century as a result of serious changes that happened in the life of Western Europe. See more about the nature of these changes in Chrons.

The concept of uniform mass coinage is extremely close to that of printing engravings and books. Thus, qualified coin minting shouldn't predate the birth of book-printing by too long, and that event is dated to the XV century nowadays ([797], page 352).

## CHAPTER 2

## Astronomical datings

## 1.

## THE STRANGE LEAP OF PARAMETER $D^{\prime \prime}$ IN THE THEORY OF LUNAR MOTION

Nowadays we have special calculation tables - the so-called canons - whose compilation was based on the theory of lunar motion ([534]). They contain the date of each eclipse, the area to be covered by the lunar shadow, the phase, etc. See the famous astronomical canon of Ginzel, for instance ([1154]). If an ancient text describes some eclipse in enough detail, we can determine what characteristics of the eclipse had been observed - the phase, the geographical area that the shadow passes over, etc. The comparison of these characteristics to the referential ones contained in the tables may give a concurrence with an eclipse possessing similar characteristics. If this proves a success, we can date the eclipse. However, it may turn out that several eclipses from the astronomical canon fit the description; in this case the dating is uncertain. All the eclipses described in the "ancient" and mediaeval sources have been dated by the following method to some extent at least ([1154], [1155], [1156], [1315], [1316], [1317], etc.).

Nowadays the datings of the "ancient" eclipses are occasionally used in astronomical research. For instance, the theory of lunar motion has the notion of the so-called parameter $D^{\prime \prime}$ - the second derivative of lunar elongation that characterizes acceleration. Let us remind the reader of the definition of elongation.

Fig. 2.1 shows the solar orbit of the Earth and the telluric orbit of the moon. The angle between the vectors $E S$ and $E M$ is called lunar elongation $D$ - the angle between the lines of sight drawn from the Earth to the Sun and the moon. Apparently, it is time-dependent. An example of the elongation of Venus can be seen in the picture on the right. Maximal elongation is the angle where the line of sight as drawn from Earth to Venus ( $E^{\prime} V^{\prime}$ ) touches the orbit of Venus. One has to note that the orbits in fig. 2.1 are shown as circular, while being elliptic in reality - however, since the eccentricity is low here, the ellipses are schematically drawn as circles.

Some computational problems related to astronomy require the knowledge of lunar acceleration as it had been in the past. The problem of calculating


Fig. 2.1. Lunar elongation is the angle between the vectors $E S$ and $E M$. The elongation of Venus is the angle between $E S$ and $E V$. The maximal elongation of Venus is the angle between $E^{\prime} S$ and $E^{\prime} V^{\prime}$.


Fig. 2.2. The $D^{\prime \prime}$ graph calculated by Robert Newton. Parameter $D^{\prime \prime}$ is measured here as seconds divided by century ${ }^{2}$. Parameter $D^{\prime \prime}$ performs a sudden leap on the interval of the alleged VI-XI centuries A.D. Taken from [1303] and [1304].
parameter $D^{\prime \prime}$ over a large time interval as a time function was discussed by the Royal Society of London and the British Academy of Sciences in 1972 ([1453]). The calculation of the parameter $D^{\prime \prime}$ was based on the following scheme: the equation parameters of lunar motion, including $D^{\prime \prime}$, are taken with their modern values and then varied in such a way that the theoretically calculated characteristics of ancient eclipses coincide with the ones given for dated eclipses in ancient documents. Parameter $D^{\prime \prime}$ is ignored for the calculation of actual eclipse dates, since the latter are a rougher parameter whose calculation does not require the exact knowledge of lunar acceleration. Alterations in lunar acceleration affect secondary characteristics of the eclipse, such as the shadow track left by the moon on the surface of the Earth, which may be moved sideways a little.

The time dependence of $D$ " was first calculated by the eminent American astronomer Robert Newton ([1303]). According to him, parameter $D^{"}$ can be "defined well by the abundant information about the dates scattered over the interval from 700 b.c. until the present day" ([1304], page 113). Newton calculated 12 possible values of parameter $D^{\prime \prime}$, having based them on 370 "ancient" eclipse descriptions. Since R. Newton trusted Scaligerian chronology completely,
it is little wonder that he took the eclipse dates from Scaligerian chronological tables. The results of R. Newton combined with the results obtained by Martin, who was processed about 2000 telescopic observations of the moon from the period of 1627-1860 ( 26 values altogether) have made it possible to draw an experimental time dependency curve for $D^{\prime \prime}$, $q v$ fig. 2.2.

According to R. Newton, "the most stunning fact... is the drastic drop in $\mathrm{D}^{\prime}$ that begins with 700 [A.D. - A. F.] and continues until about 1300 ... This drop implies the existence of a "square wave" in the osculating value of $D^{\prime \prime}$.. Such changes in the behaviour of $D^{\prime \prime}$, and such rates of these changes, cannot be explained by modern geophysical theories" ([1304], page 114; [1453]). Robert Newton wrote an entire monograph titled Astronomical Evidence Concerning Non-Gravitational Forces In The EarthMoon System ([1303]) that was concerned with trying to prove this mysterious gap in the behaviour of $D^{\prime \prime}$, which manifested as a leap by an entire numeric order. One has to note that these mysterious nongravitational forces failed to manifest in any other way at all.

Having studied the graph that was drawn as a result of these calculations, R. Newton had to mark that "between the years ( -700 ) and ( +500 ), the value of $D$ " remains the lowest as compared to the ones that have been observed for any other moment during the last 1000 years" ([1304], page 114).

Newton proceeds to tell us that "these estimations combined with modern data tell one that $D^{\prime \prime}$ may possess amazingly large values, and that it has been subject to drastic and sudden fluctuations over the last 2000 years, to such an extent that its value became inverted around 800 A.D." ([1453], page 115).

Summary:

1) The $D^{\prime \prime}$ value drops suddenly, and this leap by an entire order begins in the alleged V century A.D.;
2) Beginning with the XI century and on, the values of the parameter $D^{\prime \prime}$ become more or less constant and close to its modern value;
3) In the interval between the alleged $V$ and $X I$ centuries A.D. one finds $D^{\prime \prime}$ values to be in complete disarray.

This strange fact has a natural explanation within the paradigm of the New Chronology.

## 2.

## ARE THE "ANCIENT" AND MEDIAEVAL ECLIPSES DATED CORRECTLY?

### 2.1. Some astronomical data

Let us give a brief digest of the information that shall ensure a better understanding of the current chapter. More detail can be found in such sources as [534], for instance.

When the moon gets into the cone of telluric shadow, one can observe a lunar eclipse on Earth more specifically, on its nocturnal hemisphere, the one that faces the moon. A lunar eclipse can be observed from any point of the Earth's nocturnal hemisphere. An eclipse doesn't last longer than three hours and is only possible during a full moon; however, due to the irregularity of lunar motion, it doesn't happen every time the moon is full. The repetition of lunar eclipses is roughly and approximately periodic, and conforms to the so-called Saros cycle. A Saros period equals about 18 years. 28 lunar eclipses occur over this time, so one can find an eclipse that falls over virtually every given year. A Saros is easily determined over 50-60 years of systematic observation, and might have already been known at the dawn of astronomy. The prediction of lunar eclipses based on the Saros cycle is nevertheless somewhat uncertain, not only due to the imprecision of the Saros cycle, but also because of the fact that the eclipse might occur when the hemisphere where the observer is located is illuminated by sunlight, which renders the moon invisible.

A solar eclipse occurs when the observer gets into the cone of the lunar shadow. If the solar disc is completely covered by the moon, the place where the eclipse can be observed becomes darkened to the extent of making the stars visible. This is a full eclipse whose duration does not exceed 8 minutes in the equatorial zone, and 6 in moderate latitudes. The lunar shadow moves across the surface of the Earth at the speed of about 110 meters per second, forming a narrow line. The width of this line does not exceed 4 degrees. The track of the umbral shadow is bordered by stripes of penumbral shadow, whose width as counted from the centre of the umbral shadow comprises about 30 degrees in moderate latitudes and about 15 degrees near the equator. The
observer in the penumbral shadow only sees a partial covering of the solar disc by the moon: a partial eclipse. The maximal degree of the covering of the solar disc by the lunar shadow is called the depth, or the phase of the eclipse. The estimations of the phase are usually expressed by the $b$ value that is calculated by the formula $b=12 h, h$ being the ratio between the shadow-covered part of the solar diameter and the entirety of the latter. Hence, a total eclipse of the Sun will have a phase value of 12 . A solar eclipse becomes visible as a darkening of the solar disc starting with the phase values of $3^{\prime \prime}-4^{\prime \prime}$ ".

The lunar eclipse phases are calculated differently - namely, another item that is proportional to the duration of the eclipse if the latter is more than full is added to the phase value of $12^{\prime \prime}$. Thus, the phase value of a lunar eclipse might reach up to $22.7^{\prime \prime}$.

In cases of solar eclipses there may be situations when the cone of the moon's umbral shadow does not reach the Earth. In this case, an annular solar eclipse is possible, when no stars are visible, as is the case with all partial solar eclipses. A solar eclipse is only possible when the moon is new; however, not every new moon is marked by a solar eclipse, since the Earth may slip past the cone of the lunar shadow due to the incline of the lunar orbit towards the ecliptic (or the plane of the telluric orbit). This is why there are only 2-7 solar eclipses happening every year. Every geographical area of the Earth gets an eclipse with a minimal phase value of 6 " in the span of $10-20$ years from any date.

Predicting solar eclipses is a truly formidable task due to the complexity of the lunar motion that is defined by a large number of external factors. One may attempt to predict solar eclipses by the Saros cycle that includes about 43 solar eclipses - 15 of them being partial, 14 annular, 2 belonging to the category of the so-called "total-annular," and 12 total. However, the eclipses from the Saros cycle can occur in different areas of the Earth, and so a prediction for a given location is true in one case out of 400 in general. That is to say, the probability of a correct prediction based on the Saros cycle equals $1 / 400$ ([544], Volume 4, page 415). In theory, the so-called triple Saros, whose duration is 24 years, should be more precise; however, the probability that it may give a correct prediction equals about $1 / 99$, so it is of little practical utility. From the
astronomical point of view, the empirical triple Saros can only be discovered as a result of long-time solar eclipse observations. Due to the low recurrence rate of the eclipses separated by the triple Saros, let alone the problems of mathematical processing of the empirical data necessary for the calculation of an undefined recurrence rate, any such discovery would imply a well-developed system of natural sciences.

A more or less certain prediction of solar eclipses is apparently only made possible by the existence of a sufficiently advanced theory of lunar motion that would at least account for the principal irregularities of the latter. Thus, the prediction of solar eclipses remained a de facto impossibility a hundred years after Copernicus. We should thus treat the eclipse prediction reports preceding the XVI-XVII centuries with the utmost caution, or even suspicion.

### 2.2. The discovery of an interesting effect: an unprejudiced astronomical dating shifts the dates of the "ancient" eclipses to the Middle Ages

Dealing with certain celestial mechanics issues in the 1970s, the author of the current book discovered the possibility of a link between the alleged gap in the value of $D^{\prime \prime}$ (see [1303]) and the results of N. A. Morozov's research concerning the datings of ancient eclipses ([544]). A study of the issue and a new calculation of parameter $D^{\prime \prime}$ attains an altogether different quality; namely, one sees the complete elimination of the mysterious leap. Parameter $D^{\prime \prime}$ appears to be subject to minute fluctuations around one permanent value coinciding with the current value of this parameter ( qv in A.T. Fomenko's articles [1128] and [883]). All of this can be summed up as follows.

The previous calculation of the parameter $D$ " was based on the dates of ancient eclipses used in the consensual chronology of Scaliger-Petavius. All the astronomers' attempts to explain the strange gap in $D^{\prime \prime}$ didn't get anywhere near the issue of the correctness of datings considered "ancient" and early mediaeval nowadays - in other words, in how far the parameters of the eclipse described in the chronicle correspond with the calculated parameters of the real eclipse that Scaligerian chronology suggests to be described in the chronicle in question.

The following method of independent astronomical dating was proposed in [544]: obtaining all of the characteristics described in the chronicle, such as the phase, the time, geographical observation location, etc., and copying all of the eclipse dates fitting these characteristics from the reference tables mechanically. N. A. Morozov discovered that the astronomers have been under the pressure of Scaligerian chronology, and so only considered the dates that Scaligerian chronology had already ascribed to the eclipse in question and the events related thereto ([544]).

As a result, in many cases astronomers failed to find eclipses corresponding to the chronicle description in the required century, and had to resort to approximations, without the merest thought of questioning Scaligerian chronology and indicating eclipses that would fit the chronicle description partially. Having revised the datings of the eclipses considered "ancient," Morozov found that the reports of these events fall into two categories:

1) Brief and nebulous accounts with no details given. In many cases it is altogether unclear whether the event described is an eclipse at all. The astronomical dating in this category either has no meaning whatsoever, or gives so many possible solutions that they can basically fit any historical epoch at all.
2) Exhaustive, detailed reports. The astronomical solution for those is often singular, or there are two or three solutions at most.

Apparently, all of the eclipses with detailed descriptions falling into the period between 1000 в.с. and 500 A.D. get independent astronomical datings that differ significantly from the ones offered by Scaligerian chronology and belong to a much latter epoch, namely, the interval between 500 and 1700 A.D. Being of the opinion that Scaligerian chronology was correct about the interval 500-1800 A.D. for the most part, Morozov did not analyze the mediaeval eclipses of 500-1700 A.D., assuming that no contradictions would be found there. Let us dwell on this for a short while.

Morozov didn't possess the sheer deliberation needed for the realization that Scaligerian chronology had been erroneous up until the epoch of the XIXIII century a.D. He stopped with the VI century A.D., assuming more recent chronology to be correct
in the form offered by Scaliger and Petavius. His erroneous presupposition naturally affected the analysis of the "ancient" eclipses. We see today that Morozov's analysis was not completely objective, since he had obviously been reluctant to alter the post-VI century chronology. This isn't hard to understand, as the transition from the artificially extended Scaligerian chronology spanning millennia to a much shorter one beginning with the XI century A.D. looked absurd even to N. A. Morozov.

In Volume 4 of [544], for instance (in Section 4, Part II, Chapter 2), Morozov discusses one of the eclipses that is today ascribed to the V century A.D., being of the opinion that its Scaligerian dating is confirmed. However, it becomes obvious that no confirmation of the Scaligerian chronology could have possibly taken place. The description of the eclipse is quite nebulous, and the use of comets for dating purposes is impossible due to reasons that shall be related in the chapter of Chrons where we consider comet lists specifically. Being certain that Scaligerian history was following the correct chronology ever since the V century a.D., Morozov was inconsistent in his analysis of post- $V$ century eclipses. Had he encountered an equally nebulous description referring to a pre-IV century eclipse, he would have justly considered it a description that cannot be proved astronomically.

Morozov made a similar mistake in his descriptions of other eclipses dated to the alleged V-VI century a.d. He treated them a lot more benevolently than their pre-IV century precursors. The eclipses of the VI-XI century weren't checked by Morozov at all, since he had believed the Scaligerian datings to have been satisfactory. Unlike Morozov, we have continued with the critical research, having covered the post-V century period up until the XVII century A.D., and discovered that Morozov should not have stopped with the IV-V century. The datings of the eclipse descriptions that are ascribed nowadays to the X-XIII centuries A.D. contradict astronomy to just as great an extent as those preceding the IV century a.d. In cases when there's a concurrence of sorts, one almost always discovers that these eclipses have been calculated a posteriori, that is, affixed to a certain point in the past by the mediaeval chronologers of the XVIXVII century in order to confirm Scaligerian chronology, whose naissance occurred around that time.

Having calculated the dates for certain lunar eclipses of the past, Scaligerite chronologers included them in the "ancient" chronicles that they were creating in order to give "solid proof" to the false chronology. It is of course possible that the odd occasional veracious description of the VI-XIII century eclipses would reach the chronologists of the XVI-XVII century. However, it would surely have to pass the filter of the Scaligerian version and be "brought into accordance" with the "correct" dates.

Thus, continuing the research that began in [544], the author of this book conducted an analysis of other mediaeval eclipses in the interval between 400 and 1600 A.D. It turned out that the "transfer effect" affecting the "ancient" eclipses as described in [544] also applies to those usually dated to $400-900$ a.d. This either means that there are many possible astronomical solutions, which make the dating uncertain, or there are just one or two, in which case they all fall in the interval between 900 and 1700 A.D. Only starting with approximately 1000 A.D. - and not 400 A.D., according to Morozov in [544] - does the Scaligerian dating begin to concur with the results of Morozov's method satisfactorily enough, becoming more or less certain by as late a date as 1300 A.d.

Let us give a few extremely representative examples demonstrating how the "ancient" eclipses and the chronicles that describe them become a great deal younger.

### 2.3. Three eclipses described by the "ancient" Thucydides

Scaligerian history tries to convince us that Thucydides was born in approximately 460 B.c., or 456 451 в.c., and died around 396 в.с. ([924], page 405). He was a wealthy aristocrat and politician from Athens. During the Peloponnesian war Thucydides was in command of the Athenian fleet, albeit unsuccessfully. He was subsequently banished from Athens for 20 years. He wrote his famous tractate during his sojourn in Thracia. Thucydides had received amnesty near the end of the war; he returned to Athens and died shortly afterwards.

Historical tradition trusts Thucydides in his descriptions of military events, considering him an eyewitness and a participant. Thucydides himself writes
the following: "I was writing down the events witnessed by myself as well as what I had heard from others, after as meticulous a study of each fact as circumstances allowed... I have survived the entire war... understood it, and studied it attentively" ([923], V:26).

Thucydides is the only source that we have in what concerns the history of the Peloponnesian War. Historians write that "after Thucydides... nobody turned to the history of the Peloponnesian war ever again. Many have however thought it would prove flattering for them to be seen as his followers, and started their own works where the tractate of Thucydides ended" ([961], page 171). It is supposed that the work of Thucydides either hadn't had any title at all originally ([924], page 412), or had been called Communal Account in Greek, having received the name History of the Peloponnesian War in later translations. The entire historical account of the 27-year war between the Ionians and the Dorians (could Doria mean "Horde" when read in reverse?) is given by Thucydides clearly and consequentially, though it remains incomplete.

The entire work of Thucydides, whose volume comprises about 800 pages when printed ([923]), is written in a brilliant style. Numerous commentators have pointed out the following hallmarks of his book a long time ago:

1) Thucydides demonstrates great erudition and writing experience;
2) The phrase constructions are complex and contain non-trivial grammatical structures;
3) One sees a clear development of an elegant realistic concept in the account of historical facts;
4) The author is sceptical about everything supernatural in people's lives.

We are being convinced that this work was wrtitten in the $V$ century b.c. when writing materials had still been scarce and expensive - the Mesopotamians use styluses to scribble on clay, the Greeks aren't familiar with paper yet, and write on pieces of tree bark or use sticks for writing on wax-covered plaques.

The oldest written copy of the History of Thucydides is supposed to be the Codex Laurentinianus parchment dated to the alleged $X$ century ([924], page 403). All other old manuscripts belong to the alleged XI-XII centuries ([924], page 403). Some papyrus fragments of the second book of Thucydides were found
in Egypt in the XIX century. A papyrus commentary is also in existence, published as late as 1908 . However, the condition of these fragments is very poor indeed ([544], Volume 4, page 495). Let us note straight away that the datings of all the "oldest" manuscripts listed are based on palaeographical hypotheses exclusively, and therefore don't seem very trustworthy. Any alteration of the chronology changes all of these "palaeographical datings" automatically.

There are no calendar dates mentioned in the History by Thucydides, and no planetary horoscopes. However, it contains the descriptions of three eclipses - two of them solar and one lunar. We shall be calling this combination as a triad. Apart from that, the first book (I:23) contains mentions of solar eclipses - however, those are rather general and vague, and cannot serve for any astronomical dating. The descriptions of the triad, however, are quite sufficient for an unambiguous solution. We shall consider it below.

The second volume of History contains a rather detailed description of the eclipse. (The Russian original refers to the well-known professional Russian translation of Thucydides done by F. G. Mishchenko in the XIX century - [923].) Thucydides writes that "the summer when the Athenians have chased the Aeginians with their wives and children from Aegina [Thucydides is referring to the first year of the war A. F.]... The very same summer, when the moon was new - apparently, that is the only time when such things can happen - the sun became darkened after midday and became full again, attaining the shape of a crescent, and several stars appeared" ([923], II:27-28). The Greek text can be seen in fig. 2.3.

Let us pay attention to the fact that the author appears to understand the mechanism of the eclipse well, mentioning the new moon to be a necessary condition, which is a reference to a long-time practice of eclipse observation in the epoch of Thucydides.

##   

Fig, 2.3. The Greek text of Thucydides describing the first eclipse from the "Thucydides triad" - a solar eclipse. Taken from [1154], page 176.

## 



Fig, 2.4. The Greek text of Thucydides describing the second eclipse from the "Thucydides triad" - a solar eclipse. Taken from [1154], page 178.

The second eclipse of the triad, also solar, happens in the eighth year of the Peloponnesian war, in the beginning of summer. Thucydides writes in the fourth volume that "the winter has ended, and with it - the seventh year of this war, whose history has been described by Thucydides. In the beginning of the next summer, with the advent of the new moon, a partial solar eclipse took place" ([923], IV:51-52). The Greek text can be seen in fig. 2.4. Apparently, the summer month mentioned as the month when the aestival campaign began was March, the month of Mars when military campaigns were usually started. It shall be interesting to verify this statement after the finite solution of the problem is obtained.

The third (lunar) eclipse is described in the seventh volume: "The winter was coming to an end together with the eighteenth year of the war whose history has been described by Thucydides. As soon as the next spring began, the Lacedaemonians and their allies invaded Attica, in the earliest season" ([923], VII:18-19). The events of the summer are related in detail further on. The analysis of the manoeuvres described shows that the next sections ( 50 and 51) most probably refer to the end of summer. This is where Thucydides writes that "when everything was ready, and the Athenians were preparing to sail away, a lunar eclipse occurred; it had been full moon then" ([923], VII:50). See Greek text in fig. 2.5.

Let us sum up. The following information can be obtained from the text by Thucydides with absolute certainty:

1) All three eclipses were observed from the square fitting into the following geographical coordinates: longitude between 15 and 30 degrees, latitude between 30 and 42 degrees;
2) The first eclipse is solar;
3) The second eclipse is solar;
4) The third eclipse is lunar;
5) The time interval between the first two eclipses equals 7 years;



Fig. 2.5. The Greek text of Thucydides describing the third eclipse from the "Thucydides triad" - a lunar eclipse. Taken from [1154], page 178.
6) The interval between the second eclipse and the third equals 11 years;
7) The first eclipse occurs in the summer;
8) The first solar eclipse is a total eclipse, since one can see the stars - that is, its phase value equals 12. Remember, one cannot see any stars during a partial eclipse;
9) The first solar eclipse occurs after midday, local time;
10) The second solar eclipse occurs in the beginning of summer;
11) The lunar eclipse takes place around the end of summer;
12) The second solar eclipse occurred within the temporal vicinity of March. As a matter of fact, this consideration doesn't have to be included in this list.

The problem can be formulated as follows: finding the astronomical solution that would satisfy the requirements 1-11.

Historians and chronologists have naturally paid attention to such a precise description of three eclipses in an "ancient" work, and tried to date them accordingly. Apparently, the chronologists immediately ran into serious difficulties that haven't been overcome since. We shall proceed to give a more detailed account of the problem of dating the triad of Thucydides, following the well-known astronomical work of Ginzel ([1154], pages 176-177).

In the XVI century the chronologer Dionysius Petavius found the date that fitted the first eclipse: 3 August, 431 b.c. Johannes Kepler later confirmed the fact that there was indeed an eclipse that day. The beginning of the Peloponnesian war was dated to the very same year, 431 в.с.

Petavius found the dating of the second eclipse as well, which was 21 March, 424 в.с. J. Kepler also confirmed the fact that a solar eclipse took place that day.

The date that D. Petavius found for the third eclipse was 27 August, 413 в.с.

This is how astronomy appears to have dated the
events described by Thucydides to the $V$ century b.c. However, a secondary analysis of the "astronomical solution" offered by Petavius unearthed serious complications that were repeatedly discussed in astronomical and chronological literature in the XVIIIXX century. These rather heated debates have recurred and abated several times; however, modern historians prefer to remain taciturn in everything that concerns this long and difficult discussion, pretending that the problem doesn't exist and has never existed.

The main dating problems that the chronologers ran into concerned the first eclipse. The fact of the matter is that the eclipse of 3 August in 431 b.c. proved an annular one, and so it couldn't have been total anywhere on Earth. This was realized after the inclusion of the Scaligerian "astronomical dating" of the beginning of the Peloponnesian war into Scaliger's chronological tables. This eclipse is claimed to have been annular by Ginzel's canon as well ([1154], page 176). The fact that the eclipse in question was an annular one can also be proved by the existing computer software for eclipse calculations. We have verified it using a simple program called Turbo-Sky that was developed by the Muscovite astronomer A. Volynkin in 1995, which is easy to use and convenient for approximate calculations. The eclipse of 3 August that occurred in 431 b.c. was in fact an annular eclipse.

However, Thucydides tells us explicitly that stars were visible during the eclipse. As we have already stated, one cannot observe the stars during a partial eclipse. Furthermore, it turned out that the phase value of the "Petavius eclipse" of 431 b.c. was rather small in Athens, which means Kepler has also made a mistake in his Optics telling that the phase value of this eclipse had equalled twelve, or, in other words, that the eclipse had been total. Such a statement on the part of Kepler is most probably explained by the imperfection of the eclipse calculation methods of his age. The calculation of the phase of an eclipse is a delicate matter. However, we should not exclude the possibility that Kepler, who was involved in many chronological matters, had been perfectly aware of the fact that one can only see the stars during a total eclipse, and slyly transformed the annular eclipse of 431 в.c. into a full eclipse in order to make it satisfy the description given by Thucydides and protect the


Fig. 2.6. The erroneous astronomical "solution" for the "Thucydides triad" of eclipses as offered by D. Petavius. The track of the lunar shadow for the first annular solar eclipse of 431 B.C. is represented by a dotted line. The track for the second solar eclipse of 424 B.C. is represented by a solid line, with the large dot standing for the zenith point of the lunar eclipse of 413 B.C. Taken from [544], Volume 4, page 505.
nascent Scaligerian chronology from such an unpleasant dissonance. Kepler had been in constant contact with Scaliger, who had been his correspondent.

Due to the abovementioned circumstances, astronomers and chronologists started new calculations of the phase of the eclipse that took place in 431 в.с. All sorts of empirical corrections were made in the equations of lunar movement in order to make the
phase value of the eclipse as observed from Athens and neighbouring areas approach 12. Among the most prominent astronomers of the time that have dealt with the "Thucydides triad problem" we find such names as Petavius, Zech, Heis, Struyck, Kepler, Riccioli, Hofman, Ginzel, Johnson, Lynn, Stockwell and Seyffarth.

According to Petavius, the phase value of the eclipse equalled $10 " 25$ ([1337], page 792). The phase value equalled 11" according to Struyck, 10 " 38 according to Zech, $10^{\prime \prime} 72$ according to Hofman, and only 7"9 according to Heis (!) ([1154], pages 176177). Ginzel devoted the most attention to the problem of the "stars of Thucydides." He came up with a phase value of 10 " ([1154], pages 176-177). It became perfectly clear that apart from having been annular, the eclipse could only have been observed from Athens as partial, and with a rather small phase value at that. The lunar shadow track on the surface of the Earth during the eclipse of 3 August 431 b.c. is shown in fig. 2.6 as a dotted line, which signifies the fact that the eclipse was an annular one. No umbral shadow could be observed anywhere.

The fact that the phase value of the Athenian eclipse of 431 b.c. only equalled 10 " means that $1 / 6$ th of the solar disc was open. This is all but bright daytime, and one naturally cannot see any stars or planets. Furthermore, as it is made obvious in fig. 2.6, this eclipse had only passed Crimea around 17:22 local time (17:54 according to Heis). Thus, it can hardly be called an afternoon eclipse as Thucydides explicitly states. It should rather be called an evening eclipse.

We have computed the respective positions of the moon and the sun at the moment when the phase value had been maximal for the observation point the city of Athens and the area around it. One can see the screenshot in fig. 2.7. It is obvious that a large part of the solar disc is open, and neither stars nor planets can possibly be seen.

Thus, the eclipse of 3 August 431 b.c. couldn't have been the one described by Thucydides, since conditions 8 and 9 aren't satisfied, as shown above.

This discovery was naturally a most unpleasant one for the Scaligerite chronologers and historians. The astronomer Ginzel went so far as to claim that "the low phase value which equalled 10 " for Athens according to the latest calculations caused a shock and


Fig. 2.7. The solar disc during the maximal phase of the 431 B.C. eclipse as seen from Athens. A large part of the sun remained uncovered. Neither stars nor planets were visible. Calculated with Turbo-Sky software.
significant doubt about the fact that 'the stars could be seen,' as Thucydides claims" ([1154], page 176).

Since the stars clearly couldn't have been visible during the eclipse of 431 b.c., Heis and Lynn decided to calculate the disposition of bright planets in hope that they might save the situation. However, it turned out that Mars was only 3 degrees above the horizon. Venus was high enough, about 30 degrees above the horizon. Ginzel makes the cautious remark in regards to Venus and Mars that these two planets "may have been visible" ([1154], page 176). However, this probability is low in what was practically broad daylight. All other hopes have been for Jupiter and Saturn, but it turned out that Jupiter was below the horizon during the eclipse, and therefore invisible; and as for Saturn, although it was above the horizon, its location was in Libra, a long way off to the south, and, according to Ginzel, its "visibility was very dubious [sehr zweifelhaft]" ([1154], page 176).

We have used the Turbo-Sky software in order to compute the planet locations for the time of the eclipse that occurred on 3 August 431 b.c. (see fig. 2.8). What one sees here is a view of the sky from Athens for the maximal phase of the eclipse at 14:57 GMT. It is clear that Venus, Mars, and the much dimmer Mercury are close to the sun, and thus rendered invisible by the rays of the partially obscured radiant


Fig. 2.8. Planet disposition at the moment of the eclipse in 431 B.C. Venus and Mars are close to the sun, and most probably aren't visible with a large part of the solar disc exposed. Mercury is altogether dim, whereas Jupiter is below the horizon. Saturn is far away to the south, and its hypothetical visibility is "quite dubious", as Ginzel justly points out.
orb. Their visibility in broad daylight is extremely improbable.

The gravity of the situation that the proponents of Scaligerian chronology had been well aware of made Johnson suggest a different eclipse, one that occurred on the 30th of March in 433 b.c.; however, it isn't included in any triad. The nearest triads are 447, 441 and 430 b.c., and 412,405 and 394 в.c. They don't fit for different reasons. The phase value of the eclipse suggested by Johnson also turned out to have equalled a mere 7 " 8 , which is even less than the eclipse mistakenly suggested by Petavius ([1154], page 177).

Stockwell then tried to revise the calculations in order to make the phase maximal. However, the very peak of his ingenuity only allowed him the result of 11 "06. However, Ginzel's reaction to Stockwell's calculations was quite sceptical.

Seyffarth put forward a hypothesis that Thucydides may have been referring to the eclipse of 27 January 430 в.с. ([1154], page 177). However, despite the fact that this eclipse is far from fitting the description given by Thucydides (for instance, it can-
not be included into any triad at all), a thorough check showed that the eclipse could not have been visible near Athens ([1154], page 177).

The shock that Ginzel mentioned eventually became replaced by a confusion of sorts, which has brought about altogether different considerations that led farther and farther away from astronomy; among those - pure demagogy. Zech, for instance, tried to eliminate the problem by his references to "the clear skies of Athens and the sharp eyes of the ancients" ([1154], page 177). Apparently, our contemporaries would fail to see any stars at all, but the ancients were an altogether different race. Their vision was a lot keener. They ran faster, too.

Hofman went even further in his suggestion to consider the stars of Thucydides a mere rhetorical embellishment ([1154], page 177). This translates as "we trust him in every other respect, but refuse to do so in this particular instance." Hofman tries to find linguistic proof for his theory, implying that Thucydides reports the appearance of stars when the sun had already assumed the shape of a crescent. We have asked the philologist E. V. Alekseyeva (Department of Philology, MSU, 1976 - see Chronı, Appendix 2.1) to perform a philological analysis of the text that can be seen in fig. 2.3. The linguistic verdict was that the following four events are described by Thucydides:

1) The occultation of the sun;
2) The crescent shape assumed by the sun;
3) The appearance of stars;
4) The restoration of the entirety of the solar disc.

Thus, the entire eclipse process is described. The darkening of the disc at the beginning, its transformation into a crescent, and the subsequent visibility of the stars (this only happens at the maximal phase of a total eclipse), and the return of the disc to its original form. The consequence of events $1-4$ is quite natural, and is unequivocally defined by the grammatical structure of the phrase. Actually, that was exactly the way that the professional translator quoted above, F.G. Mishchenko, translated this fragment from the ancient Greek in the XIX century. The analysis performed by E. V. Alekseyeva confirmed the correctness of the classical translation yet again - it wouldn't have been questioned in the first place, if it hadn't been for the problem with astronomical dating that arose in this respect.

Therefore, Hofman's opinion, that was also shared by the modern astronomer Robert Newton, is really based on the wish to save Scaligerian chronology at any cost, and not the actual translation.

We see that the attempt to substitute astronomy for linguistics does not solve the problem.

Despite all this, the erroneous date offered by Petavius wasn't altered, and any modern history textbook indicates the date that the Peloponnesian war began as 431 в.с., albeit for no other reasons than Petavius' opinion. His chronology has been legitimized despite its blatant deviation from the clear and unambiguous description of Thucydides.

The description contained in the original text is a detailed and fundamental, which makes all attempts of rectifying the case by playing with the text look ridiculous. Apart from Hofman's "solution," it was proposed to alter the durations of the intervals between the neighbouring eclipses (the ones that equal 7 and 11 years according to Thucydides). However, even the authors of this proposal refused to elaborate on it.

It is hard to doubt that Thucydides was referring to a full eclipse when describing the first one of the triad. In case of the second eclipse (which was partial) he explicitly states that "a partial eclipse of the sun occurred when the moon was new" ([923], IV:52). The word "partial" is used here; apparently, the author understood the difference between a total eclipse and a partial eclipse quite well. That is why he emphasized the visibility of the stars in the first case, which is a hallmark of a total eclipse.

Let us give a summary. The astronomers failed to find any other fitting astronomical solutions in the interval between 600 and 200 в.c. However, no one had thought of broadening the search interval so that the Middle Ages would be included. It is well understood - they have all been raised on Scaligerian chronology, and trusted it, by and large. As a result, the erroneous triad of Petavius was kept, despite the fact that this "solution" contradicts the text of Thucydides. The use of the independent dating method in the entire interval between 900 b.c. and 1700 A.d. shows that a precise astronomical solution does exist; furthermore, there are only two solutions that fit exactly. The first one was discovered by N. A. Morozov in [544], Volume 4, page 509 ; the second, by A. T. Fomenko during a new analysis of the "ancient" and mediaeval eclipses.

The first solution (N.A. Morozov):
1133 A.D., 2 August (total solar);
1140 A.D., 20 March (total solar);
1151 A.D., 28 August (lunar).
The second solution (A.T. Fomenko):
1039 A.D., 22 August (total solar);
1046 A.D., 9 April (partial solar);
1057 A.D., 15 September (lunar).
Even condition 12, stipulating the time around March for the second eclipse, is met here. More importantly, the first eclipse is total, the way Thucydides describes it. Thus, once we managed to venture outside Procrustean paradigm of Scaligerian chronology, we found the answer to a question that has been of great interest to astronomers - that of the astronomical descriptions contained in the book of Thucydides.

Taking all the facts that we already know into consideration, we should conclude that the solution closest to historical reality is apparently the one suggested by Morozov - the more recent triad of eclipses falling on the middle of the XII century - namely, 2 August 1133 A.D., 20 March 1140 A.D., and 28 August 1151 A.D. The XI-century solution is most probably too early. Morozov's 1133,1140 , and 1151 A.D. solution is illustrated in fig. 2.9. One can see the lunar shadow tracks on the surface of the Earth for total solar eclipses of 1133 and 1140 as well as the zenith visibility point for the lunar eclipse of 1151 A.D.

We have verified the two solutions listed above with the Turbo-Sky software. Let us quote the exact data characterizing the total eclipses of 22 August 1039 and the 2 August 1133. They are listed as full in the Oppolzer eclipse canon ([544], Volume 5, pages 77-141). The Turbo-Sky application identifies them as total eclipses as well. We shall give the geographical coordinates of the beginning, middle, and end of the lunar shadow trajectory on the surface of the Earth for the total eclipse of the 2 August 1133. The first line gives the longitude, and the second, the latitude.

| -89 | +8 | +72 |
| ---: | ---: | ---: |
| +52 | +53 | +9 |

The umbral lunar shadow had been at the central point of the trajectory (with the sun in the zenith) from about 11:15 to 11:17 GMT (according to the Turbo-Sky application).

For the eclipse dating from 22 August 1039 of the


Fig. 2.9 The triad of eclipses described by the "ancient" Thucydides: 1133, 1140 , and 1151 A.D. The solution was found by N. A. Morozov. One sees the lunar shadow tracks for the first two eclipses and the zenith visibility point for the lunar eclipse of 1151. Taken from [544], Volume 4, page 509.
second triad (the XI-century one), the umbral shadow of the moon was at the central point of the trajectory at about 11:15 GMT. The coordinates are 7 degrees of Eastern longitude and 45 degrees of Northern latitude (Turbo-Sky).
N. A. Morozov made the following justified remark regarding the full eclipse of 2 August 1133 in the XII-century triad: "The sun appeared to rise in total occultation on the southern coast of the Hudson Bay, it had been matutinal in England as well, came to Holland at noon, to Germany, Austria, the vicinity of the Bosporus, Mesopotamia, and the Gulf of Arabia, and set in complete darkness in the Indian ocean" ([544], volume 4, page 508). The eclipse was full and its phase maximal, everything went dark, and one could naturally see the stars in the sky.

Thus, the XII-century triad discovered by N. A. Morozov can be seen as follows:

1) The first total eclipse of the sun occurred on 2 August 1133 A.D. and happened in the following manner:

| -89 | +8 | +72 |
| ---: | ---: | ---: |
| +52 | +53 | +9 |

The central point of the lunar shadow trajectory on the surface of the Earth was passed between about 11:15 and 11:17 GMT (see fig. 2.9; also see [544], Volume 5, page 122).
2) The second full eclipse happened on 20 March 1140, as follows:

| -96 | -30 | +48 |
| :--- | :--- | :--- |
| +20 | +42 | +55 |

The central point of the lunar shadow trajectory on the surface of the Earth passed at approximately 13:40 GMT (Oppolzer's canon; see [544], Volume 5, page 123, and fig. 2.9).
3) The partial lunar eclipse of 28 August 1151 A.D. had the maximal phase value of $4^{\prime \prime}$ at 23:25 GMT. The zenith visibility of the moon concurred with the point whose geographical coordinates were 8 degrees of Eastern longitude, and 7 degrees of Southern latitude ([544], Volume 5, page 51).

This XII-century triad is ideal in all respects. The second eclipse really occurred in March, as one should have expected from the text of Thucydides.

The XI-century triad discovered by A.T. Fomenko:

1) The first solar eclipse, of 22 August 1039 A.D., happened in the following way:

$$
\begin{array}{rrr}
-82 & +7 & +64 \\
+55 & +45 & +2
\end{array}
$$

The central point of the lunar shadow trajectory on the surface of Earth was passed at about 11:15 GMT (see fig. 2.9; also see [544], volume 5, page 118).
2) The second solar eclipse (partial) of 9 April 1046 A.D. occurred as follows:

$$
\begin{array}{llr}
+22 & +87 & +170 \\
+19 & +47 & +50
\end{array}
$$

The central point of the lunar shadow trajectory on the Earth surface was passed about 5:46 GMT (Oppolzer canon; see [544], Volume 5, page 123 and fig. 2.9).
3) The partial lunar eclipse of 15 September 1057 A.D. had the maximal phase value of $5^{\prime \prime}$ at 18:09 GMT. The zenith visibility of the moon concurred with the
point whose geographical coordinates were 86 degrees of Eastern longitude, and 1 degree of Southern latitude ([544], Volume 5, page 49).

The Thucydides eclipse triad is a very substantial argument proving that the History of the Peloponnesian War by Thucydides couldn't have been written earlier than the XI century A.D. It is most improbable that the triad is a fantasy of the author, since in that case a fitting astronomical solution would most probably have been nonexistent. It is also hard to consider the eclipses an apocryphal part of the "ancient" text, since they fit the consecutive and detailed narration incredibly well.
N. A. Morozov appears to have been correct in noting that "the book of Thucydides isn't ancient or mediaeval, it dates [from] the thirteenth century of our era at least, the Renaissance epoch" ([544], Volume 4, page 531).

### 2.4. The eclipses described by the "ancient" Titus Livy

Let us give a few more examples. Omitting the details this time, we shall just report that the eclipse from the History by Titus Livy (XXXVII, 4, 4) that the modern chronologers ascribe to 190 в.c. or 188 в.с., also fails to satisfy the description of Titus Livy. The situation with the eclipses of Thucydides is repeated yet again. It turns out that an independent astronomical dating yields just one precise solution in the interval between 900 в.c. and 1600 A.D.: 967 A.D. ([544]).

The situation with the lunar eclipse that Titus Livy describes in his History (LIV, 36, 1) is exactly the same. Scaligerite chronologers suggest that Livy is referring to the eclipse of 168 в.c. However, analysis shows that the characteristics of this eclipse do not fit the description given by Livy. The eclipse that he describes could really have happened on one of the following dates:

- Either in 415 a.D., at night between the 4th and the 5th of September;
- In 955 A.D., at night between the 4th and the 5th of September;
- Or in 1020 A.d., at night between the 4th and the 5 th of September.

This pattern of false dating goes on and on. A list of such examples includes all the ancient eclipses that
have detailed descriptions. We shall present the whole picture of this effect of moving ancient eclipse dates forward in time, below.

## 3. <br> TRANSFERRING THE DATES OF THE "ANCIENT" ECLIPSES FORWARD IN TIME INTO THE MIDDLE AGES ELIMINATES THE ENIGMATIC BEHAVIOUR OF THE PARAMETER D"

The author of the current book proceeded to re-calculate the parameter $D^{\prime \prime}$ values using the new dates for ancient eclipses that were produced as a result of the method described above. The discovered effect of moving ancient eclipses forward in time led to the identification of many "ancient" eclipses with the mediaeval ones. This, in turn, allowed us to expand and alter the list of such mediaeval eclipses. New data were obtained from the descriptions considered "ancient" earlier on, and added to the mediaeval eclipse descriptions. Nevertheless, research has shown that previous values of $D^{\prime \prime}$ basically didn't change over the interval of 5001990 A.D. A new curve for $D^{\prime \prime}$ can be seen in fig. 2.10.

The new curve is qualitatively different from the previous one. In the interval between 1000 and 1900 A.D. parameter $D^{\prime \prime}$ reflects in an even curve on the graph, one that is practically horizontal and fluctuates around a single constant value. It turns out there have never been any drastic leaps in the parameter, whose value has always equalled the current. Therefore, one doesn't have to invent any mysterious non-gravitational theories.

The fluctuation rate of $D$ " values, which is rather low in the interval of 1000-1900 A.D. grows significantly when we move from 1000 A.D. to the left, towards 500 A.D. This means that either the scarce astronomical descriptions that chronologists ascribe to this period are very nebulous, or, more likely, these chronicles are also misdated, and the events they describe are in need of re-dating. However, due to the utter vagueness of the remaining astronomical descriptions, they cannot be used for dating purposes since they offer too many solutions. The re-dating of the events that precede the XI century shall have to be done by other means and methods, some of which shall be related below.

Further on, to the left from 500 A.D., we see the zone of no observation data. We know nothing at all about this epoch.

The resulting picture reflects the natural temporal distribution of the observation data. The initial precision of the mediaeval observations of the IX-XI centuries was naturally rather low, and then grew together with the precision and perfection of the observation techniques, which resulted in a gradual decrease in the fluctuation of $D^{\prime \prime}$ values.

## 4. <br> ASTRONOMY MOVES THE "ANCIENT" HOROSCOPES INTO THE MIDDLE AGES

### 4.1. The mediaeval astronomy

The naked eye can see five planets: Mercury, Venus, Mars, Jupiter, and Saturn. Their visible movement trajectories are adjacent to the solar ecliptic, or the line of its annual movement. The very word "planet" means "wandering star" in Greek. Unlike stellar motion, the movement of the planets is relatively fast. Their movement on the "sphere of immobile stars" is characterized by significant irregularities that can be explained by the fact that the planet trajectory as observed from the Earth is a result of the projection of the telluric orbit onto the immobile celestial sphere through the moving planet. Most of the time, the planets as observed from Earth follow the sun in their movement. However, after certain periods of time that differ for various planets, they begin to move in the opposite direction. This is the so-called retrograde movement of the planets. We should note that Mercury and Venus don't go far from the sun in their movement as observed from the Earth. Other planets can get far away from the sun, since their orbits are located beyond the telluric orbit, unlike those of Venus and Mercury.

Complex and seemingly chaotic movement of the planets gave birth to the belief, back in the days of yore, that there is a feedback between planets and human lives. Objectively, this belief was based on the undeniable correlation between the change of seasons and the position of celestial objects. This is how astrology was born - a science of planets, stars, and the effect they have on people's lives.


Fig. 2.10. Comparison of $D^{\prime \prime}$ graphs as calculated by R. Newton and A. T. Fomenko. Parameter $D^{\prime \prime}$ is measured here as seconds divided by century ${ }^{2}$. The new $D^{\prime \prime}$ graph has neither gaps nor leaps, and fluctuates around a constant value.

A significant part of mediaeval literature contains astrological texts, especially astronomical tractates up until Kepler's age and even after that. The existence of several competing astrological schools led to the use of lavish symbolism by mediaeval astrologers, which makes it hard to speak of unified astrological definitions. Furthermore, each school developed its own linguistic and symbolic system. However, we shall soon see that many countries have surprisingly enough used a more or less uniform astrological symbolic system -
for zodiacal constellations, for example. This can mean that astrology was born relatively recently, in the epoch when the means of communication between the astronomers of different countries had already been developed well enough to provide for regular information exchange and a similar "astrological language" in Europe and in Egypt, for instance.

It would be expedient to remind the reader that the modern names for planets have been introduced by astrologers. The names for days of the week in such languages as English, French and German are also in direct relation to astrological concepts ([470]).

Planets have roughly the same trajectory on the sky. The circle of their movement along the ecliptic plane is called the zodiac. It is separated into 12 parts or constellations ([571]). Astrology was of the opinion that there is a special relation between the planets and each zodiacal constellation ([470]). A detailed theory was developed in this respect, wherein each constellation and each planet have been assigned a "character": Mars is alleged to be aggressive, Jupiter divine, Saturn deathly, etc. In the so-called Four Books of the mediaeval astrologers, one may read that "Mars scorches and burns; his colour is red, the colour of fire" ([470]). Colour used to be ascribed to the planets as well - thus, Mars was considered red, Saturn pale, etc. ([470]). The combination of planets and constellations was given special attention. For instance, bloodthirsty Mars entering the sign (constellation) of Leo was considered an extremely dangerous omen of war and bloodshed. Ill-boding Saturn, the "god of death," when entering the sign of Scorpio, was regarded as an omen of epidemics and plague. Saturn and Scorpio were actually considered symbols of death ([470]).

As we have already mentioned, the projections of planets onto the immobile stellar sphere move in leaps as the Earth revolves around the sun. In its movement between the stars from the west to the east, each planet located outside the orbit of the Earth slows down at some point, then stops and begins to move in the opposite direction. It stops after that, begins to move back, stops again, and resumes its movement from the west to the east. An elongated loop appears as a result - the projection of the telluric orbit onto the immobile stellar sphere through a planet. These leaps were naturally observed a long time ago, and led to the comparison with horses running across the sky.

A horoscope is a name used for referring to the disposition of planets in zodiacal constellations: Mars in Virgo, Saturn in Pisces, etc. Horoscopes can be calculated. The question of a planet's location in one constellation or another is a question of its fitting into the sector about 30 degrees wide. For many problems, the longitudinal precision of 5 degrees is quite sufficient. The latitude of the planet doesn't have to be calculated. Their deviations from the ecliptic are minute from the point of view of fitting into a constellation. This is why the old documents that contain horoscopes usually only give the zodiacal, or longitudinal, planetary disposition.

Horoscopes are calculated in the following way. Having fixed the constellational distribution of planets for a given moment (today, for instance), and knowing the numeric values of the periods of the planets' revolutions around the sun, we can move to the front or to the back using periods divisible by the revolution length, and get zodiacal planetary dispositions for the past or the future. Tables of various precision exist nowadays, ones defining the zodiacal positions of planets. Such tables have been compiled by P. Neugebauer, Newcomb, Leverrier, Morozov and others. Also see [1293]. Such tables exist to answer the question of what the zodiacal position of a given planet was on a given day in a given year. N. A. Morozov and M.A. Viliev have also compiled reverse tables showing when a given planetary disposition may have really taken place ([544], volume 4). Relatively recently a number of good computer applications have appeared that can be used for horoscope calculation. We have employed some of them.

Nowadays we have a rather vague concept of the way of thinking characteristic for mediaeval astrologer astronomers. The astrological hue was dominant in the perception of many mediaeval scientists, not just astronomers. Mediaeval books on astronomy are filled with astrological symbolism despite the fact that they describe real celestial events. These books weren't written in a cipher - this was the usual way of writing down celestial observations understandable for both writers and readers. For instance, dates of death on gravestones and monuments, or memorable dates, were often written down as horoscopes - in other words, drawn as the zodiacal positions of planets for a given moment in time.

Astrology occupied one of the leading positions as a fundamental cosmological discipline. This ideology is largely lost for us nowadays. That is why the understanding of such books requires the knowledge of the symbolism used therein. An ideological overview of mediaeval astrology is given in [849], for instance. Troels-Lund, a specialist in history of religion, gives an illuminating description of the mediaeval Western European scientific Weltanschauung. This is what he writes about planets in particular:
"Such strange movement could only have been interpreted as a manifestation of will, as proof of independent life... the opaque celestial dome rotates above all of this, and it has 'stars affixed to it, in figures bearing semblance to animals'... This was nothing but astronomy transformed into a religion... Thus happened the birth of art and science that would never fail to attract human attention for centuries to come, and considered the crown of human knowledge." ([849], pages 24-26)

The book [849] quotes Biblical fragments that are astronomical in their nature according to TroelsLund. We shall get back to this issue soon.

The flourishing scientific astrology invariably spawned an offshoot, the so-called applied astrology, or the science of predicting the destinies of people, states and monarchs by planetary movements, or "by the stars." Astrology enjoyed state support in mediaeval Western Europe ([849]). Astronomy (mixed with astrology) was also extensively used by the Roman church, which employed it for calendarian purposes in particular ([849]).
"Astrology became the leading science of the time, the basis for all other sciences" ([849], page 166).
"If we regard the XVI century astrology objectively nowadays... Our first reaction will be that of surprise at how great a role the belief in stars and the way they affect one played in that epoch... It had not just been the ignorant masses that believed in astrology, even the greatest minds followed suit... It suffices to take a look at the great variety of works on astrology that appeared in the XV and XVI centuries. Just the ones that can be found in the two main Copenhagen libraries, would make a rather voluminous pile... Their authors aren't obscure anonymous scribblers - on the contrary, these books were written by the greatest minds of the time. There
is no name in the XVI century Scandinavia that could compare to Tycho Brahe, one of the greatest representatives of natural sciences... a popularizer of Heinrich Rantzau, the viceroy of Schleswig-Holstein." ([849], page 169)

About Tycho Brahe: "all of his scientific activity was dedicated to [astrology's] development to a certain extent" ([849], page 169).

The same can be said about Melancthon and Kepler in Germany. Astrology flourished at the courts of European monarchs in France, England, and Italy. It is known that Rudolf II, Louise of Savoy, Catherine de Medici, Charles IX, Henry IV, and other Western European rulers were active proponents of astrology ([849], pages 170-171).

Melancthon claimed that the Bible gave direct indications of the divine origins of astrology ([849], page 175). The fact that many fragments of the Bible's prophetic books, for example, are astronomical and contain horoscopes in cipher was considered indisputable in the Middle Ages ([849], page 180).

It is believed that the authority of astrology had received several mortal blows from Copernicus, Newton and Laplace. Therefore, the astrological symbolism of many ancient texts lost its importance and mystery, became lacklustre and soon forgotten. Nowadays the majority of readers will fail to understand it for the most part. The discovery of the chronometer and other instruments rendered quotidian sky observations void of value, which has completely crushed the foundations of astrological ideology.
"There has been no other epoch when people's direct perception of the sky had been quite as meagre [in reference to the XIX-XX century - A. F.]. There is hardly one person in a hundred in London, Paris and Copenhagen that knows whether the moon is full or new today, or what the current location of Ursa Major is. The light of the nocturnal sky has assumed a purely decorative role." ([849], pages 212-213)

Unlike the spiritual leaders of the Western European countries, the Russian Orthodox Church is considered to have had a very negative attitude towards astrology.
"A very demonstrative episode occurred in the Kremlin in 1559, when Ivan the Terrible returned the present of a sophisticated clock embellished with moving representations of celestial bodies to the Danish ambassadors, who were told that 'the present
is of no use for a Christian ruler who believes in God without concerning himself with either planets or (celestial) symbols."' ([775], pages 125-126)

At the same time, astronomy was used in Russia for Paschalian calculations. We shall be relating this in more detail in Chron6. Apart from that, we quote some facts in Chron6 that shall greatly aid in the explanation of the negative attitude of the Orthodox church towards astrology that has been prevalent ever since the second half of the XVI century and continues until the present day.

### 4.2. The method of unprejudiced astronomical dating

As we have already mentioned, the idea of using the horoscopes contained in old documents for the astronomical dating of the events described in the texts originated as early as the XVI century. It has been occasionally used by astronomers and chronologists of more recent epochs. If some document contains a horoscope, then the use of theoretical calculation tables for reference can allow for the attempt to select a fitting horoscope whose astronomical characteristics would satisfy the description of the old document. A certain date would be the result of these calculations, or a number of dates in case of several astronomical solutions, which will happen if the description is vague or incomplete. However, the practical use of this apparently simple idea ran into great practical complications whose reasons were far from astronomical - the culprit was the existing Scaligerian chronology.
N. A. Morozov had discovered that under the pressure of Scaligerian chronology, the astronomers of the XVII-XIX century had to resort to arbitrary fittings to a greater or a lesser extent in order to make the "historical tradition" that they believed in correspond to the results of their astronomical calculations ([544]). The thing is that the astronomers of the XVII-XVIII century in an epoch when Scaligerian chronology had already been shaped. Therefore, the principal historical reigns, wars, characters, etc. were distributed across the time axis by historians for the most part. This is why astronomers had already "known" the approximate datings of old texts that they needed to date astronomically from historical
chronology. The role of astronomers would thus become limited to making marginal corrections of historical datings using the "astronomical method." If the astronomers failed to find a precise astronomical solution in the "necessary" epoch, they preferred to question the old document's exactness, and not historical chronology. In such cases astronomers usually utter something along the lines of "the scribe must have made a mistake putting Saturn into Pisces, since it has to be in Virgo so that the events described would fall over the V century в.с." Correcting Pisces for Virgo, the astronomers ipso facto "confirmed" the opinion of Scaligerite historians who dated the document to the $V$ century b.c.
N. A. Morozov's great achievement is that he was the first to question the consensual historical chronology, and not the astronomical reports contained in the old documents. He suggested extending the search interval of astronomical solutions so that it would include the entire historical epoch up to the Middle Ages. However, even N. A. Morozov wasn't entirely consistent and usually preferred not to venture further in time than the VI century A.D.

It turned out that the accurate use of the astronomical method reveals dates that are a lot more recent than the ones offered by Scaliger. Furthermore, in some cases the new dates turn out to pertain to the late Middle Ages! All of this is notwithstanding the fact that the astronomical results obtained by Morozov cannot be regarded as finite. Being certain that only the "ancient" chronology had been incorrect, he was gullible enough to have trusted the mediaeval chronology beginning with approximately 300-500 a.D. This is why he usually failed to research the entire possible time interval, most often contenting himself with attempts at finding the solution in the period between 2000 в.c. and 600 a.D., and only occasionally further into the Middle Ages.

Morozov most often did not consider the later epoch between the XIV and XVIII century at all. He was of the opinion that the "ancient" eclipses and horoscopes couldn't possibly have moved forward in time to such an extent that they would end up in the XIII or even XVII century a.d. Thus, moving forwards along the time axis in his search of astronomical solutions, he would most probably stop at the first one that fit.

This is why we treat his astronomical results as preliminary when we report them. It is possible that if we carry on with his unfinished research, we shall find astronomical solutions that will be a lot more recent, and occasionally more precise.

However, we can already state the following with certainty: if new and more precise astronomical solutions are really found - this is the case with the Dendera zodiacs and the Apocalypse (see below) they shall be even closer to us than the ones found by N. A. Morozov, since he had already analyzed the period between the antiquity and the VI century A.D.

### 4.3. Many "ancient astronomical observations" may have been theoretically calculated by late mediaeval astronomers and then included into the "ancient" chronicles as "real observations"

One shouldn't forget that in the creation of the "correct history according to Scaliger," the chronologers of the XVI-XVII century often turned to astronomers asking them to perform calculations of some sort.

We have already mentioned the heavy astrological influence that the mediaeval science was subject to. The astrological schools of the XV-XVII century may have occupied themselves with solving such "scientific" problems as the planet disposition during the coronation of Justinian I (who lived in the VI century A.D. according to the erroneous opinion of the mediaeval chronologers) with astronomical/astrological methods.

Another problem they may have been busy with was giving exact datings to the lunar eclipses of the Roman Empire epoch that the mediaeval chronologers had already erroneously ascribed to the III-VI century A.D.

Yet another one may have been the estimation of the Easter Sunday in the year of the Nicaean council, whose erroneous dating of allegedly the IV century A.D. was already "calculated theoretically" a few years earlier, in the XVI-XVII century.

All these "astronomical calculations" were slyly included in the final editions of ancient chronicles. All of this probably happened in the XVI-XVII and even XVIII century. It was a great body of work, which
would have been useful if the chronology created by the mediaeval historians had been correct. However, this chronology proved erroneous, and so the mediaeval astronomers aggravated the mistakes of the historians, calculating planetary dispositions for the VI century A.D. (when Justinian I is supposed to have lived), and entering something like "on the day Justinian I was crowned, the planets were in such-and-such constellations" into the chronicles. As a result, the chronicles may have been given an erroneous chronological and astronomical skeleton, which was apparently just a result of later mediaeval calculations represented as true "ancient astronomical observations" in the chronicles.

Afterwards this partially erroneous and partially falsified material rigidified, gathered some authority dust, and reached us in this exact form. Our contemporaries, both historians and astronomers, read ancient chronicles and rejoice to find "astronomical data" in them. The alleged observations - fruits of theoretical calculations of the XVI-XVIII century - are dated with modern astronomical methods, and everybody is clearly brimming with satisfaction when the results obtained concur with Scaligerian chronology. Thus, the chronology of Scaliger-Petavius receives additional "proof," which leads to a vicious circle.

Of course, one occasionally finds discrepancies with modern astronomy due to the fact that the astronomical calculation methods of the XVI-XVIII century (those dealing with past dates) were imprecise, and a lot worse than the ones currently used. Upon locating such discrepancies, modern astronomers patronizingly correct the "ancient observer," which creates an even greater illusion of the veracity of Scaligerian chronology.

What should one do when the results of modern astronomical calculations radically contradict the Scaligerian chronology? In such cases modern historians start talking about "the ignorance of the ancient observers."

Our new results show that mediaeval chronology can only be trusted from the XVI century on (see Chrons). One needs to perform an even greater body of work in the field of finite independent dating of eclipses and horoscopes present in written sources. According to the latest research, N. A. Morozov's astronomical solutions are often complemented with
new, considerably more precise and recent solutions scattered across the interval between the XIII and XVI century.

### 4.4. Which astronomical "observations of the ancients" might be a result of late mediaeval theoretical calculations?

Our idea is as follows: the chronologers of the Sca-liger-Petavius school first created the erroneous chronology of the ancient and mediaeval history, having arbitrarily extended the real history of the XIXVII century A.D. into the past.

After that, in the XVI-XVII century a great body of work was started in order to make this scheme "look scientific" and backed by the authority of astronomical calculations. If we're to call a spade a spade, it was really a deliberate falsification of history.

1) The "Ancient calendar theories" were put forward. The chronologers of the XVI-XVII century began to "reconstruct" the ancient calendar systems that people had allegedly been using in antediluvian times for hundreds and thousands of years. The "initial points" of calendars would appear as a result of theoretical calculations, as well as dates of the Genesis, the Great Deluge, etc. The results of these calculations would be written into the "ancient" chronicles without any hesitation whatsoever in order to "help maintain chronological order." What this meant in fact was the confirmation of mistakes or blatant falsifications of the Scaliger-Petavius school. Real mediaeval events assumed wrong datings that moved them a long way into the past. Nowadays these "ancient" datings are considered to prove the Scaligerian history by historians who remain unaware of the fact that many of these "calendar observations" are a result of theoretical calculations of the chronologers of as late an epoch as the XVI-XVII century A.D. - yet another vicious circle.
2) Certain horoscopes may have been calculated in reverse. Rough calculations of planetary dispositions may already have been known in the late Middle Ages. The chronicles would then undergo special editing, after which they began to contain such passages as "in the VIII century since the foundation of Rome, on the day Julius Caesar was murdered, the planets occupied the following positions." The planet dispositions
would be calculated exactly for the I century в.c., since the astronomers of the XVI-XVII century "already knew" in their blind trust of Scaliger-Petavius that Caesar lived in the I century b.c. Nowadays historians believe these "astronomical observations" to be the real thing, and try to present them as proving the correctness of the Scaligerian chronology, which leads to a vicious circle. For instance, one of the astronomer/astrologers of the Middle Ages would first calculate that some astronomical event occurred in the I century b.c. Afterwards the fact that this dating was calculated would fall into oblivion, and the result of the same mediaeval calculation would be called proof - of the fact that Julius Caesar really lived in the I century в.c., for instance.
3) First and foremost, a number of lunar eclipses were calculated into the past. Let us mention that the lunar eclipse calculations are rather simple. They were successfully performed already in the epoch of the XVI-XVII century. Solar eclipses are a different matter, and involve a lot more complex calculation. However, in the XVII, let alone the XVIII century, the astronomers were already capable of counting solar eclipses into the past as well. The "calculated" lunar and solar eclipses may have been included into the erroneous history of Scaliger and Petavius in the following manner: "On the day such-and-such emperor died, an eclipse occurred." The process was apparently as follows: having calculated that some eclipse occurred in the beginning of the II century A.D., the astronomer would take the "Petavius textbook" and see what emperor's reign coincided with the date of the eclipse that he had calculated. For instance, Scaligerian chronology would claim that some ruler died that year. The edited chronicle would then become altered to include some phrase like "the moon (or the sun) darkened upon his demise." The examples of mediaeval calculations that were claimed "ancient observations" a posteriori are given in abundance by the modern astronomer Robert Newton in his well-known work entitled The Crime of Claudius Ptolemy ([614]).
4) The appearances of certain comets may have been calculated into the past. Late mediaeval scientists starting with Tycho Brahe and Kepler were already able to calculate their recurrence periods based on trustworthy observations. The Galley comet may
serve as an example. Then the alleged dates of comet appearances were calculated by the extension of several recurrence periods into the past. After that the erroneous "Petavius textbook" was used for reference, and the edited chronicles were altered to contain such phrases as "in the nth year of reign of emperor such-and-such a comet with a fuzzy tail adorned the sky."

Nowadays we are being convinced that the ancient astronomers really observed all of these "appearances of the Galley comet" in times immemorial. Moreover, these "observations" are nowadays presented as proof of the Scaliger-Petavius history textbook. This is not the case in reality. We shall cover comet "datings" in general and the Galley comet in particular in the chapters of Chrons that deal with the history of China.

In the XIX-XX century even some of the professional astronomers were taken in, thinking that they dealt with true ancient observational material, which has led to the construction of theories that should have made the calculated trajectory of the Galley comet's movement "more precise." However, such "reconstructions" invariably lead to the distortion of the very mathematical theory of the comet's movement, since certain constants in motion equations have to be obtained from empirical observations. If such observations are incorrect or simply fictitious, the constant values also turn out wrong.

One sees just how serious the consequences for the history of science may prove, ones that arise from the late mediaeval chronological calculations that were slyly presented as "true astronomical observations" later on.

These considerations are primarily valid for written sources. It must have been easy enough to take a quill and write the "ancient observation" down on the page of the chronicle.

Such suspicions are less applicable to trustworthy archaeological findings or the ancient monumental architecture, although great caution is required there as well. However, if a horoscope is presented as a large bas-relief on the ceiling of an old cathedral, or on a coffin in an old sepulchre, one has reason to believe that we see the result of a veracious astronomic observation, and not a later calculation based on ScaligerPetavius chronology.

## 5.

## A BRIEF ACCOUNT OF SEVERAL EXAMPLES OF EGYPTIAN ZODIACS

In this section we shall give a rather brief account of the results of our research related in detail in Chron3, Part 2.

### 5.1. Some general observations

The ancient horoscopes that have reached our days are a valuable body of chronological material. A horoscope's dating can be based on modern astronomical theory. Generally speaking, horoscopes may possess several astronomical solutions, but usually only one of them falls into the historical time interval. In this case we may calculate the precise dating of this horoscope.

However, the dating of horoscopes is a tricky business. The concept of using astronomy for the purposes of dating old documents was already familiar to Scaliger and the rest of the XVI-XVII century chronologers. Thus, the ones responsible for the forgery of history may have employed this concept and must have certainly done so. Since the written sources have largely been edited in the XVII-XVIII century, as we understand, the astronomical information contained therein may also be a forgery - especially in cases when this did not require much time and effort, as in the case with horoscopes. The astronomers of the XVI-XVII century already knew planetary revolution periods well, and could calculate horoscopes for any given date, including those partaining to days long gone.

Thus, in order to obtain certain chronological datings based on horoscopes and independent from the Scaligerian chronological scale, it only makes sense to use the horoscopes whose calculation in the XVIXVIII century is improbable. From this point of view, a horoscope carved in stone on the wall of an ancient temple is a lot more dependable than a horoscope included in an "ancient" manuscript. Carving a large and detailed bas-relief in stone would require lots of effort; apart from that, the construction of a temple is an event of high social significance that directly involves a large number of people. Writing something about the constellation that housed the planets on a given "ancient date" on a sheet of paper isn't nearly as


Fig. 2.11. A rare old picture showing a dilapidated arch, and the Great Dendera Temple behind it. We see its main northern entrance. The drawing was made by the French painters who accompanied the Napoleonic troops during the Egyptian invasion. Taken from [1100], A., Volume IV, pl. 5.
difficult. This is office work. The history swindlers have been involved in precisely this sort of activity. It was only after Scaligerian history became consensual that it began to affect monumental construction as well, in the XVII-XVIII century. Furthermore, it is a lot easier to correct the horoscope in a manuscript while editing it than altering one carved in stone on a cathedral wall, which is hardly a possibility at all.

Thus, the horoscopes contained in written sources are of little interest in what concerns independent dating. This particularly refers to the "ancient" Greek horoscopes collected in the well-known work entitled Greek Horoscopes by O. Neugebauer and H.B. Van Hoesen ([1290]).

### 5.2. The Dendera Zodiacs

The images known as the Round and the Long Zodiac nowadays have been found in the Dendera
temple in Egypt. Multiple attempts of the XIX-XX century astronomers to find "ancient" solutions that would fit the horoscopes depicted on the Zodiacs, have failed to yield any results. Such eminent scientists as Laplace, Fourier, Letron, Biot and Helm have tried to solve this problem. The search for a correct solution was eventually abandoned after many unsuccessful attempts. Nowadays the temple and the horoscopes are dated to 30 в.c. and 14-37 A.D. However, it turns out that there are exact astronomical solutions. We shall give a very concise account of the matter presently, since part 2 of Chron3 contains a detailed study of this problem.

Dendera is a town in Egypt, north of Thebe, on the bank of Nile. The ruins of the ancient town of Tenteris, with its remains of a magnificent temple, are located nearby. We shall reproduce several unique old drawings made by the French artists who accompanied Napoleon's military units on his Egyptian


Fig. 2.12 A reconstruction of the Dendera Temple done by French painters of late XVIII - early XIX century. We only show the right portion of the "reconstructed" façade here. The reconstruction in general was apparently done rather conscientiously; however, one immediately notes the curious fact that the faces of the statue columns on the "reconstruction" significantly differ from those on the original drawing ([1100], A., Volume IV). Also see Chron3, Part 2. The original stone faces with chipped noses have high cheekbones differing from the ones depicted by the "restorers" of Egyptian history. It isn't quite clear just what considerations the French artists were guided by, and why they would have to substitute "becoming Graeco-Roman faces" for the original ones with high cheekbones. Taken from [1100], A., Volume IV, pl. 29.
expedition of violent conquest, towards the end of the XVIII century. These drawings present priceless proof; they are extremely important documents since they reflect the state of the Egyptian monuments at the end of the XVIII century - right after the troops and the artillery of Napoleon had fought their way through the terrain. They can be considered "photographs" of sorts, reflecting Egypt the way it was in the late XVIII - early XIX century, taken by eyewitness members of the Egyptian campaign. Of course, they are far from being real photographs, but we have no reason to doubt that Napoleon's artists faithfully represented what they saw.

In fig. 2.11 we can see a dilapidated arch and a view of the main, northern, entrance to the Dendera temple. We can see that the buildings are largely in a decrepit state. We give a "reconstruction" of the temple in fig. 2.12 for comparison. Its authorship can most probably be credited to the very same artists
who made the other drawings. What we see is thus their concept of what the temple "really looked like" prior to its destruction. The reconstruction is most satisfactory in general (see fig. 2.12), although the "reconstructed faces" on the columns are visibly different from the semi-obliterated stone originals, qv in Chron3, Part 2.

In figs. 2.13 and 2.14 we can see the rear view of the Great Temple of Dendera. This was how Napoleon's artists would have seen it when the front line could finally advance, and Napoleon's troops entered Dendera. It is clearly visible that it wasn't "almighty time" that has caused most of the destruction. We see a scene of utter devastation here; the buildings have either been shelled, or simply exploded with gunpowder.

In figs. 2.15, 2.16 and 2.17 one sees modern photographs of the Dendera temple. Pay attention to the immaculate stonework of the wall that surrounds the


Fig. 2.13. Rear view of the Great Dendera Temple. We see utter devastation most probably caused by artillery or powder kegs placed under the foundations of the buildings. Taken from [1100], A., Volume IV, pl. 3.
temple (fig. 2.15). The piers supporting the foundation of one of the buildings that used to stand in front of the temple are visible very clearly. The building is a ruin, qv in fig. 2.16. The stonework quality and the clever construction solutions give us an idea of the highly professional work of the "ancient" builders of the temple. In fig. 2.17 we see a bird's eye view of the Dendera temple and its environs. One thing in particular that draws our attention is the tall wall that surrounds a large area around the temple, and contains the remnants of other buildings. One gets the idea that the entire set was planned as a Christian monastery possibly relatively recently.

Two sculptural compositions from the dome of the Great Temple of Dendera have survived - the socalled Round and Long Zodiacs. They are ancient bas-reliefs carved in stone. The Round Zodiac is about 2.5 by 2.5 metres ([1177], Volume 1, page 121). The Round Zodiac was taken to Paris, and is now kept in the Louvre. The Long Zodiac was also taken to Europe. In fig. 2.18 we can see the drawing of the Round Zodiac done by Napoleon's artists ([1100], A., Volume IV, pl. 21). It was published in the fundamental oeuvre titled Description de l'Egypte ([1100]), compiled by the artists and archaeologists who accompanied Napoleon's troops in Egypt. The work


Fig. 2.14. Rear view of the Great Dendera Temple. The devastation wasn't necessarily caused by the French troops; it may have been the result of the Ottoman=Ataman conquest of the XV-XVI century, when the troops of Moses that came from HordeRussia, or the children of Israel (the army of Joshua), were conquering "their very own" Egypt, cleansing it from the "plague" that reigned there. From the epidemics, in other words, q.v. in Chron6. Over the centuries elapsed since that time, a large part of the ruins have become buried in sand. However, the sand may have gathered over a matter of decades, or already accumulated by Napoleon's era, which means it would only have taken several years. This is quite possible, since the strong dry winds of Egypt carry sand continuously. Taken from [1100], A., Volume IV, pl. 3.


Fig. 2.15. Modern condition of the Dendera Temple. The low wall around the temple is built from large blocks; the stonework is done accurately. Taken from [1062], page 10.
was published under a direct order from Napoleon, which is explicitly stated in the subtitle:"Publiée sous les ordres de Napoléon de Bonaparte."

Both Zodiacs - the Round one and the Long one - contain images of planets presented as various human figures located in zodiacal constellations. Thus, what we have in front of us is a pair of horoscopes which can be dated astronomically.

These images have been discussed in astronomical literature as well as historical. The consensual dating of the Zodiacs attributes them to 30 b.c. and $14-$ 17 A.D., respectively ([1453], No. 4, page 64).

However, this dating falls apart after the first criticism, qv in Chron3, Part 2.

The fact that the Zodiacs of the Dendera temple contain horoscopes is reflected in their very names, and the zodiacal positions of the planets that they depict was noted by astronomers some time ago. The constellations and the planets are represented as human and animal figures in a standard Egyptian symbolism; some of the figures are combined in the procession.

An event as unique as the discovery of a horoscope in an ancient temple invoked great interest among as-


Fig. 2.16. Modern condition of the Dendera Temple. Taken from [1062], page 63.


Fig. 2.17. A bird's eye view of the Dendera Temple and its environs. The temple and the constructions around it were erected as a Christian monastery. One sees a tall wall containing a considerable amount of space around the temple. Taken from [1062], page 64.
tronomers. However, as we have already pointed out, astronomical research shows that ever since the distant past and up until the III century A.D., the planets did not form those celestial configurations observable on the Dendera Zodiacs. On the other hand, the detailed accuracy of the bas-reliefs was so great that the chronologists reluctantly formulated a hypothesis that the bas-reliefs depicted pure fantasy, bearing no relation to actual celestial events. After that no further attempts at dating the Zodiacs were made. None of the astronomers thought of extending the researched time span forward, beyond the III century A.D.

Attempts at deciphering the Round Zodiac started a long time ago. One should name Brugsch, Morozov, and Turayev in this respect. Zodiacal constellations are depicted very skilfully, and form a zodiacal belt, as one should rightly expect. Its visual representation is hardly any different from the ones in Bayer's star charts, for instance, or even the astronomical tractates of the XVIII-XIX centuries. Identifying the planets, however, proved a lot more complex.
N. A. Morozov offers a partial decipherment of
the Round Zodiac in [544], Volume 6, and the dating that was obtained as a result. Morozov's idea was simple, but truly revolutionary. If there was no satisfactory planet combination before the III century A.D., one should carry on with the calculations and go forward in time in order to cover those epochs closer to us. Morozov conducted all of his calculations on the interval between the III and the XIII centuries A.D. ([544], Volume 6 , pages 662 and 667 ). As a result, he found one astronomical solution that could provide the key to the cipher (assuming Morozov's partial decipherment), namely, 15 March 568 a.d. ([544], Volume 6). This solution (assuming the same Morozov's decipherment) was then verified by the astronomer N. I. Idelson. See the details of his verification in the tables in [544], Volume 6.

The Muscovite physicists N. S. Kellin and D. V. Denisenko made another attempt to date the Round Zodiac in 1992. Their work was published in [MET2]:1 and [MET1]:6, pages 315-329. The date they came up with (given in the so called 'Old Style' calendar) is 22 March 1422 A.D.


Fig. 2.18. A copy of the Round Zodiac done by the painters of Napoleon's Egyptian expedition. Taken from [1100], A., Volume IV, pl. 21. Left sheet.


Fig. 2.19. A picture of the zodiac and the planets from a mediaeval French astronomical manuscript. Planets are depicted as human figures. The figure of a warrior with a sword and shield is explicitly subtitled "Mars. . . ." As we see, similar symbolism - wanderers with staves - is also used for planets in the "ancient" Egyptian Round Zodiac. Taken from [1046], ill. 80.

Fig. 2.20. Close-up of the fragment depicting Mars as a warrior. Taken from [1046], ill. 80.


Later on, in 1999, a partial decipherment and dating of the Round Zodiac were performed by T. N. Fomenko, who based her method on an altogether different concept and calculated everything from scratch (see [MET3]:3). The result was as follows: either 15 March 568, or 22 March 1422 ([MET3]:3). The results of an extensive research of several important Egyptian Zodiacs, such as the Round and the Long Zodiacs of Dendera, and the Greater and the Lesser Zodiacs of Esna, were published by T. N. Fomenko in Chapter 12 of the book [MET]:3.

The final solution formulated by A. T. Fomenko and G. V. Nosovskiy in 2001 is given below.

The identification of the figures from the Round and the Long Zodiacs with contemporary astronomical symbols as reflected in [MET1]:6 was based on the following method. The figures on the Dendera Zodiacs were compared to the pictures of planets and
constellations known to us from mediaeval atlases. It turns out that the symbols contained in both Zodiacs are virtually identical to the ones used on mediaeval and even late mediaeval star charts.

The planets on the Dendera Zodiacs are represented as human figures - namely, wanderers carrying staves. Planets were depicted in a similar manner in a number of European mediaeval books on astronomy. In fig. 2.19 we can see a zodiac with planets from a mediaeval French manuscript on astrology ([1046], ill. 80). The planets here have the appearance of wanderers proceeding on their journey across the sky. Mars, for instance, is pictured as a warrior who walks with his shield, and a sword in a raised hand, $q v$ in fig. 2.20. The inscription near the picture unambiguously identifies this figure as Mars.

In a number of such cases the pictures can be identified as planets without any complications whatso-


Fig. 2.21. Mediaeval picture of the planet Jupiter. The Thunder God is holding a thunderbolt in his hand and has a royal crown on his head. Jupiter's chariot is rolling over the zodiacal constellations. Taken from a book by Ioanne Tesnierio titled Opus Maternaticum Octolibrum, Coloniae Agrippinae, 1562. The book archive of the Pulkovo Observatory (St. Petersburg). Also see [543], page 71.
ever. The mediaeval representations of the planet Jupiter sometimes emphasized the fact that Jupiter was a Thunderer, and the chief deity in Roman mythology. Jupiter's symbol is a royal crown. One of such mediaeval pictures can be seen in fig. 2.21. We see a thunderbolt in his hand, a crown upon his head, and the symbol of Jupiter next to the thunderbolt. Another detailed old picture of Jupiter can be seen in fig. 2.22

Mediaeval pictures of the planet Saturn often referred to the imagery of Saturn, the Roman god of death. The standard astronomical representation of Saturn is that of a person with the scythe of Death in his hands ([543], pages 181, 241, and 157). The mediaeval astronomical symbols of Saturn include the sickle and the scythe. A well-known book by Leopoldus of Austria allegedly dating from 1489 ([1247]) has a picture of a scythe and the inscription "Saturn" next to it, qv in fig. 2.23. Tesnierio's book of 1562 depicts the planet Saturn with a scythe and devouring a child ([1440]). The scythe or the sickle are often located over the head of Saturn and bear visible resemblance to the Ottoman crescent, or "horns" (see fig. 2.24). It may be that the fear and respect that the inhabitants of the mediaeval Western Europe had for the Ottomans=Atamans caused the Ottoman crescent to become a symbol of punishment.

The identification of the Egyptian god Anubis with the Roman Saturn is described in the oeuvres of the

Egyptologist H. Brugsch ([99]), and the expert in the history of religions J. Frazer ([918] and [919]). The Egyptian Anubis is most frequently portrayed with long pointed jackal ears, somewhat curved, qv in figs. 2.25 and 2.26. It is possible that the Ottoman crescent would occasionally be compared with long pointed jackal ears.

In Tesnierio's book [1440], Saturn's chariot is drawn by a griffin and an asp - monsters of death.

The representation of the planet Saturn on the Round Zodiac is as follows: behind the Virgo constellation and beneath it we see two male figures crowned by crescents, one of them bearing a staff, and the other - a large scythe. No other figure on the Round Zodiac, including constellations, has a scythe.

Virgo is portrayed here in exactly the same manner as it is on the mediaeval astronomical charts - as a woman holding an ear of wheat, qv in fig. 2.27. Let us remind the reader that this constellation contains a well-known star - Spica, or the Ear of Wheat.

The figure of Saturn is drawn with a jackal's head. Numerous Egyptian pictures of Saturn accompanying people to the Underworld, are well known. See figs. 2.28, 2.29, 2.30 and 2.31 , for instance. Incidentally, one clearly recognizes the well-known Christian Doomsday theme in the "ancient" Egyptian pictures in figs. 2.30 and 2.31 - one of the most popular


Fig. 2.22. A mediaeval picture of the planet Jupiter from a book by Albumasar titled Dé Astrú Sciéncia, 1515. The book archive of the Pulkovo Observatory. Also see [543], page 181, ill. 92.
themes in mediaeval Christian art. We see Jesus Christ sitting on a throne and pronouncing judgement. The scribe in front of him is reading a scroll, or the Book of Fate, where all the deeds of the dead are listed. The god Anubis is weighing the good and the bad deeds on his scale in order to determine whether the person should go to heaven or to hell. This is clearly an illustration of the Christian Apocalypse, or the Revelation of St. John the Divine. This means all such "ancient" Egyptian drawings belong to a Christian epoch - which couldn't have preceded the XI century A.D. according to the New Chronology.

Furthermore, the mediaeval pictures of Venus emphasized the fact that Venus was the only female among planets, not counting the moon and the sun, naturally. Astronomical maps practically always represent Venus as a woman. The mediaeval symbols of the planet Venus can be seen in figs. 2.32 and 2.33. The first picture is a close-up of a fragment of an ancient picture taken from the French astronomical manuscript cited above (see fig. 2.19). In fig 2.33 we see an ancient miniature called "The Planet Venus" ([1046], ill. 71). Venus is also represented as a woman and has her name written over her head, qv in fig. 2.34. Let us remind the reader that Venus resembles Mercury in being positioned relatively close to the sun.


Fig. 2.23. A mediaeval picture of the planet Saturn with a scythe over its head. The scythe looks like an Ottoman crescent. Taken from Compilatio de Astrorum Scientia by Leopoldus of Austria, 1489 ([1247]). The book archive of the Pulkovo Observatory. Also see [543], page 181, ill. 92.


Fig. 2.24. A mediaeval picture of the planet Saturn with a scythe over its head. The scythe looks like an Ottoman crescent. Taken from Dé Astrú Sciéncia by Albumasar, 1515. The book archive of the Pulkovo Observatory. Also see [543], page 241, ill. 123.

We see the astronomical symbol for the sun in mediaeval books - a large disc with a point in its centre, $q v$ in the drawings in the mediaeval book by Tesnierio ([1440], fig. 2.35), as well as the mediaeval book by Albumasar ([1004], see fig. 2.23). The usual astronomical symbol for the moon is a narrow crescent, qv in fig. 2.36.

How did the ancient Egyptians draw the sun and the moon? On the Round Zodiac, directly over Pisces we can see a disc that contains an alectryon's eye. Let us remind the reader that the cock that cries at dawn is a natural symbol of the moon or the rising sun. On the other hand, the brightest star in the constellation of Aries is called The Eye, and the disc with an eye could really indicate that the sun or the moon were in Aries.

The fact that in certain cases the "alectryon disc" could be associated with the moon is also reflected on another stone bas-relief on the dome of the Great Dendera Temple, close to the entrance. There is no planetary horoscope here; however, one sees a large number of separate representations of celestial objects. We can see a disc with an alectryon's eye yet again, with a crescent circumscribing it. The reference to either the moon or the sun is apparent, qv on figs. 2.37 and 2.38. Furthermore, we see an identical alectryon-eye disc on


Fig. 2.25. "Ancient" Egyptian picture of the god Anubis with a jackal's head and pointed ears resembling the Ottoman crescent, or a pair of horns. The specialists in the history of religion call this picture "The Mummy of Osiris Prepared for Burial by Anubis." Taken from [1415], page 100. Also see [966], Volume 1, page 128.


Fig. 2.26. A picture of Anubis from the famous Egyptian Book of the Dead. The pointed ears on the god's jackal head are painted in such a way that they resemble the Ottoman crescent or a pair of horns. Taken from [1448], pl. 3.
this bas-relief, this time accompanied by fourteen identical human figures. The reader will recall that a lunar month contains 28 days, so what we see here can probably be identified as representations of halves of lunar months, or fortnights. Each day is represented by a small figure. All of the figures are identical, as "similar days" coming one after another. This may be the way the artist represents the 14-day interval between the new moon and the full moon that is separated into two weeks each with seven figures for days. Furthermore, this second "lunar disc" is sailing the skies in a boat that clearly resembles a crescent, qv in fig. 2.39. Let us also point out that both "lunar discs" on the dome near the entrance clearly depict some celestial deity, since they are worshipped by other figures.

However, in this case our identification of the "alectryon disc" as the Moon or the Sun coincides with that offered by the Scaligerite Egyptologists. They are of the opinion that Osiris had the double name Osiris-Moon, and a disc such as this one used to be
one of his symbols ([1062], pages 22, 68 and 69 . See figs. 2.40 and 2.41). However, one should also bear in mind that Osiris used to symbolize the sun.

We can see that a final identification of any particular disc on the Egyptian Zodiac as the Moon or the Sun is only feasible after all possible options are tried and all the necessary astronomical calculations performed - which is exactly what we shall do in Chron3, Part 2.

Mediaeval drawings of Mercury were based on the idea that both Mercury and Janus were considered gods of trade, and patrons of contracts of all sorts. Janus is an "ancient" Roman god with two faces ([533], Volume 2, p. 684). His two faces face different sides, qv in figs. 2.42 and 2.43. Mercury is always close to the Sun and never drifts too far away from it. In Tesnierio's book [1440] we see Mercury's famous caduceus resembling a trident in the hands of the planet Mercury (see fig. 2.44).Another depiction of Mercury, allegedly dating from the XVI century, can be seen in fig. 2.45.

We shall limit ourselves to these examples, since in Chron3, Part 2, we shall study all possible planet identification options for the Egyptian zodiacs with the greatest care, and select a finite version.

However, one shouldn't think that what we encounter in the Egyptian zodiacs is the fixed result of a real astronomical observation. The fact is that in the Middle Ages certain important dates were apparently written down as picture horoscopes, or "celestial dates" of sorts. This is why when a temple commemorating some ancient event would be erected in


Fig. 2.27. An ancient picture of the constellation of Virgo from an astronomical book by Bacharach. Virgo is holding a bunch of wheat ears. Near her hand is the star called Spica, or the "Ear of Wheat". Taken from [1021]. Also see [543], page 81, ill. 44.


Fig. 2.28. Famous Egyptian Book of the Dead. The "ancient" Egyptian god Anubis is weighing the good and the bad deeds of humans on a scale. The subject is clearly a Christian one, popular in the Middle Ages. Taken from [1448], plate 3. Also see the photograph on the back of the book cover [1448].
the XVI-XVIII century, for instance, the zodiacal dislocation of the planets could well be calculated for the "ancient date" in question, and then depicted on the dome of a temple.

Let us now report the datings of the horoscope depicted on the Long Dendera Zodiac. This bas-relief used to be on the dome of the temple, in the hall one enters via the main entrance.
N. A. Morozov offered the following astronomical solution, basing it on his partial decipherment: 6 April 540 A.D. ([544], Volume 6).


Fig. 2.29 Another "ancient" Egyptian picture from the Book of the Dead. The subject is the same one - the comparison of good and evil deeds of humankind at doomsday; its origins are clearly Christian. Anubis is weighing human deeds on a scale. Taken from [1448], plate 31.
N. S. Kellin and D. V. Denisenko extended the analysis methods, and offered 14 April 1394 as an astronomical solution.

An even more detailed, albeit also partial, decipherment of the Long Zodiac as well as its dating were performed by T. N. Fomenko. The result was the 7 or 8 of April, 1727 ([MET3]:3).

The finite answer obtained by A. T. Fomenko and G. V. Nosovskiy in 2001 shall be formulated below.

### 5.3. The horoscopes of Brugsch and Flinders Petrie

In 1857 the eminent Egyptologist Henry Brugsch found an "ancient" Egyptian wooden coffin in Egypt that was in a remarkable condition, as if it were created in a very recent period, $q v$ in fig. 2.46. It contained a typical "ancient" Egyptian mummy ([1054]). On the inside of the lid there was a symbolic representation of the starlit sky with planets affixed to constellations - a horoscope, in other words, qv in Chron3, Part 2.

The entire burial rite, the artwork, and especially the demotic scripture doubtlessly indicated (according to Scaligerite historians) that the finding was exceptionally ancient. Brugsch himself dated it to the I century A.D. at the earliest ([1054]).


Fig. 2.30. "Ancient" Egyptian picture of the Christian Judgement Day as described in the Biblical Apocalypse. Jesus Christ is judging people; in front of him we see a scribe with a scroll, and somewhat further on is Anubis, weighing the deeds of the people on a scale. This bas-relief, distinctively Christian, is kept in the Egyptian Thèbes, Memnonium. Taken from [1100], A., Volume II, pl. 36.


Fig. 2.31. A similar Christian Judgement Day scene from an "ancient" Egyptian papyrus. Jesus Christ is judging people, with Anubis weighing their deeds. It is evident that such drawings could only have appeared after the description of the Apocalypse, not in the dateless antiquity that they are nowadays supposed to date from. Taken from [1100], A., Volume II, pl. 67.

The demotic inscriptions are close to the figures of certain zodiacal constellations and make direct references to the planets they contain.

The situation is extremely advantageous. Indeed, all the necessary astronomical information is given clearly and accurately by the creators of this remarkable "ancient" Egyptian sepulchre.

All the researchers of the horoscope were hypnotized by the alleged antiquity of the demotic scripture (first discovered by Ackerblade 20 years prior to Champollion deciphering hieroglyphic writing), and dated the artefact to the historical epoch corresponding to Scaligerian chronology of Egypt. What ensued was a series of attempts made by astronomers to ascribe the horoscope to the very historical epoch that concurs with the Scaligerian version of the Egyptian chron-
ology. This, however, has failed to yield any results, since, as was the case with the Dendera Zodiacs, the ancient sky, from deep antiquity and until the first centuries of the new era, has never been positioned the way the lid of the sarcophagus depicts it.

The astronomer M. A. Viliev went a little further along the time axis than the other astronomers. However, he didn't go beyond the first couple of centuries of the new era. It is interesting that despite N. A. Morozov's numerous suggestions, M. A. Viliev refused to carry on with the research so that it would include the Middle Ages as well, since this would blatantly contradict Scaligerian chronology, which Viliev did not doubt in the least ([544], Volume 6). N. A. Morozov proceeded with the calculations and went forward in time ([544], Volume 6, pages 694-728). N. A. Morozov


Fig. 2.32. A close-up of the picture of the planet Venus on an old French miniature. The complete title of this astronomical miniature was "Zodiac and the Planets," and it can be seen in its entirety on one of the preceding illustrations. We see Venus depicted as a woman in motion, with the inscription above her head saying "Venus." Taken from [1046], ill. 80.
discovered the following astronomical solution, basing his calculations on his own partial decipherment of the Zodiac found by Brugsch: 17 November 1682. The final 2001 solution of A. T. Fomenko and G. V. Nosovskiy will be formulated below.

In 1901 the eminent Egyptologist W. M. Flinders Petrie found an artificial cave in Upper Egypt, near Sohag, that was used as an "ancient" Egyptian sepulchre. Its walls were covered by ancient artwork and graffiti, and there were two colour horoscopes on the ceiling (see Athribi by W. M. Flinders Petrie in Volume 14 of the British School of Archaeology in Egypt Research Account, 1902. Details in Chron3, Part 2.)

In 1919, academician B. A. Turayev suggested to perform an astronomical dating of the horoscopes to N.A. Morozov. Their preliminary analysis and deciphering were performed by E. B. Knobel in Britain ([1224]), who also gave preliminary datings to the horoscopes. The dates he obtained were as follows: 20 May 52 A.D. and 20 January 59 A.D.

However, E. B. Knobel remarked that he found the position of Mercury in the second horoscope quite dubious. In other words, the solution he offered only satisfied the conditions if one was to close one's eyes at some inconsistencies. As for the first horoscope he put forth the hypothesis that the planetary positions were calculated by the astronomer who had painted it, and not actually observed. The planets were far
away from the positions indicated on the horoscope on 20 January 59 A.D. ([1224]). Apart from Mercury, E. B. Knobel had his doubts about the position of Venus in the first horoscope.

This led E. B. Knobel to try out a few other "ancient" versions pertinent to the epoch where Scaligerite Egyptologists had a priori placed them, guided by the style of burial. However, all Knobel's attempts to find a better astronomical solution turned out utterly fruitless. All the other options that he had researched satisfied to the given conditions even less.

Furthermore, when M. A. Viliev verified Knobel's calculations, it turned out that Knobel had been somewhat imprecise with Mars and Saturn as well. This made both of Knobel's dates ( 52 A.D. and 59 A.D.) highly questionable.

Then M. A. Viliev performed another series of calculations, and offered his own solution of 186 в.c. and 179 b.c. However, it turned out that the subconscious (or conscious) desire of M. A. Viliev to make the solution fit into the historical interval a priori defined by Scaligerian chronology of "ancient" Egypt, led him to several unjustified allowances. In [544], Volume 6, pages 733-736, all of Viliev's calculations are cited, with all of their errors and deviations pointed out as a good example of what a desire to save Scaligerian chronology by all means might lead to.

Then M. A. Viliev put forth a hypothesis that the couple of 349 and 355 A.D. would provide a better fit. However, numerous verifications proved this pair to be even worse than the first solution. Another similar attempt also led to a complete fiasco.
N. A. Morozov carried on with the research. However, he also failed to find a precise astronomical solution. This was beginning to look most peculiar indeed. The character of the painted horoscopes clearly indicated that the ancient painter was fully aware of what he was painting, and not just making the artwork up as he went along. Then N. A. Morozov started to suspect that the horoscope had been deciphered incorrectly. He analyzed the horoscope and suggested another interpretation, a more logical one in his opinion. It was partial as well; however, the astronomical solution for the problem presented itself as 6 May 1049 for the upper horoscope and 9 February 1065 for the lower.

Now we are ready to consider the finite answer obtained by A. T. Fomenko and G. V. Nosovskiy in 2001.


### 5.4. Finite datings of Egyptian Zodiacs based on their complete decipherment, as calculated by A. T. Fomenko and G. V. Nosovskiy in 2001

Let us quote a part of our introduction to Chronз, Part 2.

Previous attempts to decipher the "ancient" Egyptian Zodiacs - primarily, those of N. A. Morozov, N. S. Kellin, D. V. Denisenko and T. N. Fomenko - have all been partial, since some part of the zodiacal depictions had remained unidentified. The complications they had to face are perfectly understandable, since to try out all possible permutations one would have to perform a gigantic amount of calculations impossible to do manually. The decipherment we obtained in 2001 was the first one to be completed, with an exhaustive computer search of every symbol in the zodiacs that was interpreted ambiguously. The singular complete decipherment possible was the only one that accounted for everything depicted on the zodiacs, and allowed for an astronomical solution to boot. This fact is extremely important. The very existence of a complete and datable decipherment is anything but obvious. Furthermore, our astronomical solution is the only one possible. This makes our decipherment finite.

Apparently, the complete decipherment that we

Fig. 2.33. Ancient miniature titled "The Planet Venus" from the Livre des echés amoureux. The planet Venus is depicted as a woman with the name Venus written above her head. Taken from [1046], ill. 71.

Fig. 2.34.
A close-up of a fragment of the previous picture of Venus. Taken from
[1046], ill. 71.

performed includes the partial decipherments formerly offered by N. A. Morozov and T. N. Fomenko, but differs from them somewhat in details. These differences have the shape of circumstantiations in the complex situations where one would formerly have to choose between a great number of possible options. This concerns the differing symbols for the sun and the moon as used by astronomers in the Middle Ages. All of the previously mentioned researchers did not perform any computer search, basing their choice on


Fig. 2.35. Picture of the Sun from a mediaeval book by Tesnierio dating from 1562. The symbol of the Sun - a disc with a dot in the centre - can be seen to the left of the baculus in Sun's hand. Taken from [1440], also see [543], page 71, ill. 31.


Fig. 2.36. Mediaeval picture of the Moon. Its astronomical symbol is a crescent. Illustration in the book by Tesnierio dating from 1562 ([1440]). Here the crescent is also drawn on the head of the woman (the moon), but already in the shape of a pair of "horns." This is how Moses used to be portrayed in ancient Bibles - with "horns" on his head. As it is pointed out in Chron6, the implication is that the mediaeval painters would have had to be carrying on an ancient tradition of depicting the Biblical Moses with a crescent on his head. Taken from [1440]. Also see [543], page 71, ill. 32.
the analysis of the "ancient" Egyptian symbols in general. Their interpretations weren't finite in a number of cases; therefore, the dates they came up with could not fit ideally. This explains the fact that the precise datings calculated by the authors differ from the ones calculated previously by N. A. Morozov, N. S. Kellin, D. V. Denisenko and T. N. Fomenko; however, it is significant that all the exact dates remain mediaeval. It turns out that no finite astronomical solution for the Egyptian zodiac goes further back in time than the XII century A.D.

Let us re-emphasize that computer calculations allowed us to discover that the previous partial decipherments provided for the foundation of the finite complete interpretation of the zodiac, confirming that the research of our predecessors had been conducted in the correct general direction.

The computer datings we have come up with for the "ancient" Egyptian zodiacs are as follows:

- The Round Zodiac of Dendera: morning of 20 March 1185 A.D.
- The Long Zodiac of Dendera: 22-26 April 1168 A.D.
- The zodiac from the Greater Temple of Esna: 31 March - 3 April 1394 A.D.
- The zodiac from the Lesser Temple of Esna: 6-8 May 1404 A.D.
The Athribean horoscopes of Flinders Petrie:
- The upper zodiac:

15-16 May 1230 A.D.

- The lower zodiac:

9-10 February 1268 a.d.

- The Horoscope of Thebe by H. Brugsch:
- The horoscope of demotic subscripts:

18 November 1861 A.D.;

- The "Horoscope without Staves":

6-7 October 1841 A.D.;

- The "Horoscope with Boats":

15 February 1853 A.D.

- The "Colour Horoscope of Thebe" (Luxor): 5-8 September 1182.
This research of ours proved to include a great body of material, and was quite complex. It turned into an entire book that we include in Chrons.


### 5.5. On the errors of E. S. Goloubtsova and Y. A. Zavenyagin

This could mark the end of our account of Egyptian zodiacs and their datings, if it hadn't been for the publication of a certain article by E. S. Goloubtsova and Y. A. Zavenyagin often quoted by the proponents of Scaligerian chronology. The article in question is entitled "One More Study of the 'New Methods' and the Ancient Chronology" and was published in Voprosy Istorii (Historical Issues), No. 12, 1983, pages 68-83 ([179]). The authors of the article tried to question the dating of the Round Zodiac as obtained by N. A. Morozov. It will be edifying to study the article of Goloubtsova and Zavenyagin, since it appears to be concerned primarily with using a computer for solving the problem, which makes the conclusions arrived at by the authors seem scientific and objective.
E. S. Goloubtsova and Y. A. Zavenyagin write that "the complication lies in the fact that it is perfectly unclear which figure (of the five on the Round Zodiac) should stand for which planet." This is why they suggest considering the Zodiac to depict the following planets: Saturn, Venus, Mercury, Mars and Jupiter. However, the authors don't offer any proof for such an interpretation of the Zodiac ([179]). Furthermore, they cite the following table and suggest that the


Fig. 2.37. A fragment of a bas-relief located on the ceiling of the Great Dendera Temple, close to the entrance. Both discs are depicting the same celestial deity worshipped by surrounding figures. The first disc with an alectryon's eye is inscribed within a crescent. What we are seeing most probably represents the solar and the lunar symbols. The second disc with an alectryon's eye contains 14 identical glyphs that we presume to represent a half of the lunar month, namely, the interval between the new moon and the full moon. A 3D copy made by Napoleon's painters. Taken from [1100], A., Volume IV, pl.19.


Fig. 2.38. A close-up of a fragment of the bas-relief near the entrance to the Dendera Temple showing either the lunar or the solar disc inscribed within a crescent. Taken from [1100], A., Volume IV, pl. 19.


Fig. 2.39. A close-up of a fragment of the bas-relief near the entrance to the Dendera Temple showing either the lunar or the solar disc with 14 glyphs inside. Most probably, the glyphs served to represent half of the lunar month -14 days out of 28 , or the period between the new moon and the full moon. The 14 figures are divided into 2 groups of 7 , perhaps a pictorial representation of two seven-day weeks. Taken from [1100], A., Volume IV, pl. 19.


Fig. 2.40. The "ancient" Egyptian Osiris as either the Moon or the Sun, with his symbol - the disc with the head of an alectryon. Taken from [1062], page 22.


Fig. 2.41. The "ancient" Egyptian Osiris as either the Moon or the Sun, with his symbol - the alectryon disc. Taken from [1062], page 69.


Fig. 2.42. An old picture showing the two-faced "ancient" Roman god Janus. Taken from [966], Volume 2, page 339.


Fig. 2.43. "Janus, the Roman god watching doors and gates from both the inside and the outside" ([1425], page 3). Taken from [1425], page 3.


Fig. 2.44. An ancient picture of the planet Mercury with a caduceus, from Tesnierio's book of astronomy dating from 1562 ([1440]). Taken from [543], page 71, ill. 33.


Fig. 2.45. A sculpture of Mercury with his caduceus resembling the Greek letter $\psi$ ( $p s i$ ). A sculpture by Giambologna allegedly dated 1564. Museum of Bologna, bronze. The sculpture was most probably made in the XVII-XVIII centuries at the latest. The finish is beautiful; the running or flying figure looks practically modern. Taken from [533], Volume 2, page 140.


Fig. 2.46. "Ancient" Egyptian wooden sarcophagus found by G. Brugsch in Thebe in 1857. Allegedly dating from 90 A.D. Taken from a book by Henri Brugsch titled Recueil de Monuments égyptiens, dessinés sur lieux. 1862. Also see [543], page 297, ill. 148.
abovementioned planets are localized on the Zodiac with a possible deviation rate of 20 degrees to one side or another.

Figure 1 between Pisces and Aquarius $0 \pm 20$ degrees, or (340-360-20)
Figure 2 between Cancer and Gemini
$120 \pm 20$ degrees, or (100-140)
Figure 3 between Virgo and Leo

Figure 4 between Libra and Virgo
$180 \pm 20$ degrees, or (160-200)
$220 \pm 20$ degrees, or (200-240)

Figure 5 between Capricorn and Aquarius
$320 \pm 20$ degrees, or (300-340)

The authors report that none of these possible combinations were realized in 568 A.D. (supporting this by computer calculations) and add that "this conclusion is of course valid for any decipherment of the figures of the Round Zodiac." ([179]) They proceed to offer 53 A.D. as a solution.

So, one may get the impression that the astronomers have finally refuted "the fantastic inventions of Morozov" and confirmed the Scaligerian chronology once again.

However, nothing here is quite as simple as it is presented to be. This is a reflection of the typical illusion of the average lay observer that it suffices to "load" some mathematical data into a computer so that "mathematical science" can provide us with an immediate answer. Let us return to the very beginning and observe just what Goloubtsova and Zavenyagin, the authors of [179], load into their computers. They write that the five planets of the Round Zodiac are al-

The "ancient" Egyptian
pharaohs from The Universal Chronicle by Hartmann Schedel allegedly dating from 1493. They are portrayed as Christian kings of the XIV-XVI centuries wearing imperial trefoil crowns. The "ancient" pharaoh Amenope is of particular interest to us since he's wearing a crown and holding an orb and a sceptre in his hands. The pharaoh below him is wearing heavy gold-plated mediaeval armour (painted yellow on the engraving). Taken from [1396:1], sheet XXVII.


The "ancient" Biblical rulers Zimri, Omri, Achab, Jezebel, Ahaziah and Joram. An engraving from The Universal Chronicle by Hartmann Schedel allegedly dating from 1493. They are portrayed as Christian kings. We see the imperial trefoil crowns on the heads of Zimri, Omri, Achab, Jezebel and Joram (see Chron7 for more details on the crown). Ahaziah has a Christian cross on his orb, but there are no crosses on the orbs of Zimri and Joram. Omri, Achab and Jezebel have no orbs whatsoever. We can see that the authors of The Universal Chronicle portrayed different rulers with different royal regalia. This obviously indicates the possibility that these were referring to certain differences between them that have no meaning to us anymore. Taken from [1396:1], sheet XLIX, reverse.


The "ancient" Biblical rulers Jehu, Jehoiahaz, Jehoash and Jeroboam. The engraving is from The Universal Chronicle by Hartmann Schedel allegedly dating from 1493. They are portrayed as Christian kings with orbs and sceptres. Jehu and Jehoiahaz have sceptres with crosses; Jehoiahaz and Jeroboam have orbs with crosses. The sceptres of Jehoash and Jeroboam have no crosses, and there are none on the orbs of Jehu and Jehoash. Taken from [1396:1], sheet LII, reverse.
legedly localized near the following constellations: Pisces, Aquarius, Cancer, Gemini, Virgo and Capricorn, giving presumed intervals (in degrees) that contain the planets: 340-360-20 degrees, 100-140 degrees, $160-$ 200 degrees, 200-240 degrees and 300-340 degrees.

The problem here is that the data used by the authors of [179] as basis for their calculations fails to concur with the actual depiction of the planets on the dome of the temple. Where did their bizarre table come from, the one they processed mathematically afterwards? It would have sufficed to carefully study the photographs of the Round Zodiac contained in scientific literature in order to reconstruct the correct horoscope. It differs
considerably from the one described by Goloubtsova and Zavenyagin, since the Round Zodiac explicitly depicts Venus in either Aries or Pisces.
In our opinion, the fact that the authors of [179] "omitted" the constellation of Aries in their table speaks for itself. It is little wonder that the computer "failed to find a solution" in the Middle Ages. As we can see, Goloubtsova and Zavenyagin have falsified the initial data and have de facto prohibited the computer from studying the interval between 25 and 50 degrees - the actual location of the constellation of Aries.
E. S. Goloubtsova and Y. A. Zavenyagin appear to have wanted to find confirmation of Scaligerian chron-
ology without being overly accountable for the means they used for this end. This means that avid Scaligerites should think twice before referring to this "research."

## 6. <br> ASTRONOMY IN THE NEW TESTAMENT

Example 1. The terms and images used in mediaeval astronomical literature for the designation of planets and constellations can be compiled into a glossary of sorts, which can later be used for the decipherment and dating of similar terms and images found in other chronicles.
E. Renan was apparently the first scientist to point out that the biblical book of the Apocalypse contains a verbal description of a horoscope ([725]). Not being an astronomer, Renan did not date the horoscope, although the dating of the Apocalypse is of the greatest interest. ([765], page 135). But a precise astronomical solution of the Apocalypse horoscope does exist, and it is both unique and unambiguous. This horoscope dates from the 1 October 1486 A.D. (See details below.)

Example 2. The dating of the eclipse, which, according to the early Christian authors, accompanied the crucifixion of Jesus Christ. Such authors as Sinkellos, Flegon, Africanus, and Eusebius wrote about this eclipse. However, the Evangelical descriptions aren't very explicit on whether the description refers to a solar eclipse, or a lunar. Scaligerian chronology presumes the eclipse to be lunar, although this is highly debatable. The ecclesiastical tradition has preserved evidence of the eclipse being solar. The Gospel according to Luke, for instance, states specifically: "For the sun stopped shining." (Luke 23:45)

The gospel of Nicodemius, declared apocryphal by historians, says: "And it was about the sixth hour, and there was darkness over the land until the ninth hour, for the sun was darkened... And Pilate sent for the Jews and said unto them: Did ye see that which came to pass? But they said: There was an eclipse of the sun after the accustomed sort." (Nicodemius XI-[29], p. 83).

The last phrase in this passage shows that in the epoch when the gospel of Nicodemius was written, the fact that the eclipses of the sun occur according to a specific astronomical law was well understood. There is a direct reference made to the eclipse happening "after the accustomed sort", which most probably re-
flects that such astronomical notions already existed in the mediaeval period.

Scaligerian "astronomical solution" suggests the lunar eclipse of 3 April 33 A.D. to have accompanied the crucifixion of Christ ([1154]). This theory does not hold up to any criticisms at all, which is well known, although de-emphasized, and this problem is deliberately presented as nonexistent. (See the discussion in [544], Volume 1.)

In spite of the totally questionable characteristics of the "evangelical eclipse" extracted from early Christian texts, and repeatedly discussed in chronological literature, an attempt can be made to date this eclipse precisely. For this end, both the solar and lunar versions of the eclipse should be examined. A suitable astronomical solution exists on the interval between 200 A.D. and 800 A.D. The lunar eclipse solution of 368 A.D. was found by Morozov ([544], Vol. 1]). However, Morozov did not extend his calculations to later centuries for the reasons cited above - the primary being his unswerving confidence in Scaligerian chronology from the VI century A.D. and on. The calculations of the authors of the present book covered the entire historical period up to 1600 A.D. and revealed an additional precise astronomical solution, quite unexpectedly. This was the lunar eclipse of the 3 April 1075 A.D. The dating of our solution differs from the Scaligerian by over 1.000 years, and by 700 from Morozov's. (See more details below.)

We recall that Scaligerian astronomical dates and modern calculations only come to concurrence from the XI century A.D. and on, and are only fully reliable from as recently as the XIII century A.D.

But if we consider the eclipse described in the Gospels to be solar, we cannot fail to notice that a total solar eclipse whose shadow track traversed Italy and Byzantium occurred in the XI century, on 16 February 1086. See more on the correspondence of this eclipse with the old ecclesiastical tradition that dated the crucifixion of Christ to the XI century A.D., qv in the book entitled "The Biblical Russia" (Annex 4) and Chron6. However, this ecclesiastical tradition was 100 years off the mark, as we demonstrate in our book "King of the Slavs". It turns out that the solar eclipse of 1185 A.D. corresponds a lot more to the real dating of the Crucifixion. See more on this subject in our book entitled "King of the Slavs". We shall come back to this "Evangelical eclipse" in Chron2.

## CHAPTER 3

# The new dating of the astronomical horoscope as described in the Apocalypse 

A. T. Fomenko and G. V. Nosovskiy

## 1. <br> THE PROPOSED RESEARCH METHOD

Let us attempt to date ancient artefacts containing astronomical or astrological symbolism in the following self-implied manner: we shall study astronomical references contained in a number of ancient documents with the aid of the mediaeval system of astrological symbols. Many mediaeval books on astrology, for instance, identify planets with chariots or with horses drawing these chariots across the celestial sphere. Planetary trajectories were probably perceived as equine leaps.

Our method revolves around the comparison of the studied text with similar mediaeval texts containing both astrological symbols and their interpretations in terms comprehensible to us. In other words, we propose to read old astrological records with the aid of a mediaeval astrological "dictionary" of sorts, one that identified chariots or horses with planets. Of course, the applicability of the method will be substantiated in this way only if the use of such a dictionary should help us with obtaining intelligible results that can be confirmed by other independent procedures of dating applicable to old documents.
N. A. Morozov had been the first one to apply this procedure to several Biblical books that contained apparent astronomical or astrological symbolism. The
dates cited in this introduction were obtained by Morozov. After the publication of his works on this topic ([542] and [543]) many specialists persistently but unsuccessfully attempted to find errors in his calculations - however, the correctness of his interpretation of Biblical texts with the aid of a mediaeval "astrological dictionary" defied doubts as a rule. Morozov's reading of astrological texts was at first perceived by historians as completely correct and aberration-free.
N. A. Morozov had also been a pioneer in his assumption that the author of the Biblical Apocalypse coded nothing intentionally, but only described what he actually saw on the celestial sphere using the astronomical language of his time ([542] and [544], Volume 1, pages 3-70).

We can leap ahead for a short instance in order to tell the reader that Morozov's dating of the Apocalypse to the fourth century A.D. does not in fact concur with the explicit data contained in the text of the Apocalypse one hundred per cent. Being erroneously convinced of the correctness of Scaligerian chronology after the sixth century A.D., Morozov stopped at the first early mediaeval solution, which didn't fit completely, having deliberately rejected the much better astronomical solution of the late XV century a.D. - one fitting perfectly, as unprejudiced analysis shows.

## 2. <br> GENERAL INFORMATION ABOUT THE APOCALYPSE AND THE TIME OF ITS CREATION

The authors cite the Apocalypse from the 1898, 1912, and 1968 Russian editions of the Bible ([67]). The translation uses the Authorised Version.

The Apocalypse, also called the Book of Revelation, is the twenty-seventh and last book of the New Testament. It is also the last book of the contemporary canon of the Bible. The Apocalypse is considered an integral part of the New Testament. However, in mediaeval Russia the Apocalypse was not included in the New Testament manuscripts as a rule. As we shall demonstrate in the chapters related to the Slavic Bible manuscripts in Chron6, Slavic manuscripts of the Apocalypse are exceptionally rare - for instance, there is only one known manuscript of the Apocalypse dating from the IX-XIII centuries, whereas there are 158 known manuscripts of the remaining books of the New Testament dating from the same period. Furthermore, even as recently as the XVII century, references to the Apocalypse and the Revelation of St. John the Divine apparently could imply entirely different books. (See Appendix 2 to Chron6.)

This means that many uncertainties are closely related to the history of the Apocalypse, and primarily its dating. Proposed dates are very diverse, reflecting the disagreement amidst the historians. For example, Vandenberg van Eysing dated the Apocalypse to 140 A.D., A. Y. Lentsman to 68-69 A.D., A. Robertson to 93-95 A.D., Garnak and E. Fisher to not earlier then 136 A.D., and so forth. (See the survey in [765].)
I. T. Sunderland wrote that "dating the Book of Revelation to this epoch [the end of first century A.D. - A. F.] or indeed any other epoch at all [sic! -A. F.] is a task of tremendous complexity" ([765], page 135).

Furthermore, in the opinion of V. P. Rozhitsyn and M. P. Zhakov ([732]), the creation of the Apocalypse was completed in the II-IV century A.D., most likely in the IV century! This opinion is in no way congruous with the Scaliger-Petavius chronology.

The Apocalypse itself doesn't contain a single explicit chronological indication of the epoch when it was written. No actual historical figures have been identified as definite contemporaries of the Apoca-
lypse. No absolute dates whatsoever have been given in the work itself. The Apocalypse is commonly considered to be the last written book of New Testament; however, F. H. Baur, for one, has categorically asserted that the Apocalypse is not the last, but the "earliest writing of the New Testament" ([489], page 127). A. P. Kazhdan and P. I. Kovalev were also of the opinion that the Apocalypse was the first book of the New Testament, and not the last one ([765], page 119).

Furthermore, some researchers categorically reject to credit the Apocalypse to John, who has allegedly written a Gospel and three Epistles. Generally, it is assumed that no exact information about the author of the Apocalypse remains in existence ([448], page 117).
G. M. Lifshitz noted that the author of the Apocalypse is quite familiar with astronomy: the images of the dragon, beasts, horses, and so forth that he describes resemble the figures of the constellations on the celestial sphere, which are similarly designated on mediaeval star charts ([489], pages 235-236).

However, all these considerations were already expressed by N. A. Morozov in the beginning of the XX century. Apparently, his line of reasoning produced a strong impression on at least some of the abovementioned authors, and they actually reiterated his assertions without referring to him, which is very typical for such researchers.
M. M. Kublanov sums up: "The reasons for this abundance of contradictory hypotheses concerning chronological issues are explained primarily by the scarcity of reliable evidence. The ancients did not leave us any reliable data in this respect. Under the prevailing circumstances, the only means for the dating of these writings are the writings themselves... The establishment of a reliable chronology of the New Testament still remains an open issue" ([448], page 120).

So, let us finally turn to the Apocalypse itself. Its astronomical nature becomes immediately evident, especially when we compare it to the ancient celestial charts. (See the mediaeval maps allegedly dating from the XVI century, for instance - figs 3.1, 3.2, 3.3, and 3.4.)

Apparently, some time after the Apocalypse was written, its explicit astronomical meaning was forgotten. Even if some professional astronomer noted

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Fig. 3.1. Star chart of the Northern Hemisphere done by A. Dürer (1471-1528), allegedly in 1527. Taken from [90], page 8.
the similarity of figures on the ancient maps with the descriptions of the Apocalypse, he perceived this as coincidental, because he wasn't able to break free from the indoctrination of Scaligerian notions. Today's specialists in Biblical history cannot conceive of any astronomical connotations in Biblical texts. There may be a unique possibility, as we shall now demonstrate,
of dating some fragments of the Bible astronomically. If this be the case, though, we shall come up with dates that do not correspond with the ones the "tradition" insists upon at all.

The Apocalypse contains the famous prophecy concerning the Doomsday, or the Judgement Day. This prophecy is in immediate relation to the symbolic


Fig. 3.2. Star chart of the Southern Hemisphere done by A. Dürer (1471-1528), allegedly in 1527. Taken from [90], page 9.
description of what the author observed on the celestial sphere. This was still remembered by the authors of the illustrations to the Apocalypse who had lived around the XVI century. We give one such example in fig. 3.5. As we have already noted, the inability of the latter day commentators to comprehend the astronomical symbolism of the Apocalypse is directly re-
sulting from the loss of knowledge about the correct chronology and the distortions introduced by historians of the XVI-XVIII century. Another possibility is that there was an unspoken general taboo on what concerned a subject quite as dangerous, which resulted in the misdating of the Apocalypse. One way or another, the understanding of the astronomical de-


Fig. 3.3. Northern Hemisphere constellations on a star chart from Ptolemy's Almagest, allegedly published in 1551. Pay attention to the fact that some figures are wearing mediaeval clothes. Taken from Claudii Ptolemaei Pelusiensis Alexandrini omnia quac extant opera, 1551 ([1073]). The book archive of the Pulkovo Observatory (St. Petersburg). Also see [543], the inset between pages 216-217.
scriptions that the Apocalypse contains got lost at some point. The Apocalypse had lost its distinctive astronomical hue in the eyes of the readers. However, its "astronomical component" is not simply exceptionally important - it alone suffices for the dating of the book itself.

Let us turn to the astronomical fragments of the

Apocalypse. The main idea of our study consists in the comparison of the Apocalypse with the mediaeval astronomical maps. This comparison reveals many parallels and even direct coincidences between the two, which allows a confident determination of the astronomical horoscope as penned out by the author of the Apocalypse.


Fig. 3.4. Southern Hemisphere constellations on a star chart from Ptolemy's Almagest, allegedly published in 1551. Taken from Claudii Ptolemaei Pelusiensis Alexandrini omnia quac extant opera, 1551 ([1073]). The book archive of the Pulkovo Observatory (St. Petersburg). Also see [543], the inset between pages 216-217. Note that some figures are wearing mediaeval clothing.

We propose that the readers divert their attention to a star chart that has the stars pointed out in some manner. Even a contemporary map of the sky should do, but a mediaeval star chart would be better - the one by Albrecht Dürer, for instance, which we have provided on figs. 3.1 and.3.2, or the map from the Almagest that one sees on figs. 3.4 and 3.3.

## 3. URSA MAJOR AND THE THRONE

The Apocalypse says: "John, To the seven churches in the province of Asia: Grace and peace to you from him who is, and who was, and who is to come, and from the seven spirits opposite his throne" (AP 1:4-5).


Fig. 3.5. A drawing from a manuscript of the Apocalypse dating from the XVI century. The author of the miniature emphasizes that the events described occur on a starlit sky. The manuscript is kept in the State Library of Russia, Moscow, folio 98, number 1844, sheet 27, reverse. Taken from [745], Volume 8, page 446.


Fig. 3.6. The Throne constellation, known as Cassiopeia nowadays, and the constellation of the Seven Souls, presently Ursa Major, near the pole. Taken from [542], page 37.

In France, the constellation of Ursa Major is still called The Chariot of Souls. This is how this constellation used to be drawn, q.v. in the mediaeval book by Apianus ([1013]). This ancient figure can be seen below - see Chronı, chapter 4:3.7.)

The Throne: Ursa Major is right in front of this constellation. (See the star chart fragment given on fig. 3.6. Also, the Greek text of the Apocalypse makes references to the "Throne" [tronos].)

## 4.

## THE EVENTS TOOK PLACE ON THE ISLE OF PATMOS

The Apocalypse says: "From the throne came flashes of lightning, rumblings and peals of thunder. Before the throne, seven lamps were blazing... Also before the throne there was what looked like a sea of glass, clear as crystal" (AP 4:5-6).

Thus, seven fiery icon-lamps are situated before the throne on which God sits in glory. The "sea of glass, similar to crystal" apparently is the sky as observed by the author of the Apocalypse.

The Apocalypse says: "I, John, ... was on the island of Patmos" (AP 1:9).

The observation point is defined explicitly - the island of Patmos in the Mediterranean. It is also emphasized throughout the entire Apocalypse that the main arena of the events described is the celestial sphere.

## 5. <br> THE CONSTELLATIONS OF CASSIOPEIA AND THE THRONE WERE DRAWN AS CHRIST SITTING ON HIS THRONE IN THE MIDDLE AGES

The Apocalypse says: "After this I looked, and there before me was a door standing open in heaven... and there before me was a throne in heaven with someone sitting on it. And the one who sat there had the appearance of jasper and carnelian" (AP 4:1-3).

The person sitting on the throne can be seen on almost every mediaeval star chart - in the Zodiaque expliqué ([544], Volume 1, page 81, ill. 36), for instance, or on the star charts of A. Dürer ([544], Volume 4, page 204), on the map of Al-Sufi ([544], Volume 4, page 250, ill. 49), and so forth. Figures 3.7 and 3.8 provide one such image.


Fig. 3.7. The constellation of Cassiopeia from an ancient star chart. Taken from [543], page 70, ill. 30.


Fig. 3.8. The Throne constellation with a human figure sitting on it. Taken from a XVI century tractate titled Astrognosia. Book archive of the Pulkovo Observatory. Also see [544], Volume 1, page 221, ill. 60.


Fig. 3.9. The constellation of Cassiopeia from a book by Th. Radinus titled Sideralis Abyssus, dated 1551. Book archive of the Pulkovo Observatory. Also see [543], page 267, ill. 139.

All of these maps depict Cassiopeia enthroned.
The enthroned figure can be seen on many star charts of the XVI century, usually in the centre of the Milky Way. The Apocalypse indicates that there is a rainbow that encircles the throne: "A rainbow, resembling an emerald, encircled the throne" (AP $4: 3$ ). The rainbow is a sufficiently precise image for the luminous Milky Way that spans the night sky like an arch.

A straightforward comparison of the description of the "enthroned person" with a gemstone (we are told that it "had the appearance of jasper and carnelian") strengthens the impression that the images of the Apocalypse are taken from the celestial sphere. Indeed, the comparison of stars with luminous gems is perfectly understandable and natural.

The association of the constellation of Cassiopeia with Christ, which the Apocalypse actually refers to, was sometimes explicitly depicted on mediaeval maps. For example, the book of Radinus ([1361]) contains a picture of a throne with the crucified Cassiopeia upon it. The back of the throne serves as a cross, and the hands of the figure are pinioned to it. This is obviously a version of the Christian crucifix. (See fig. 3.9.)

The figure of a king on a throne can also be seen on the Egyptian star charts ([1162] and [1077]). In figs. 3.10 and 3.11 one sees a number of Egyptian maps, which make it evident that the Egyptian astronomical symbolism is amazingly close to the European, which implies the two astronomical schools are related.

Therefore, the Apocalypses contains references to the constellation of Cassiopeia, which was actually perceived as the "stellar image" of Christ (the King) enthroned in the Middle Ages.

## 6. THE MILKY WAY

According to the Book of Revelations, "a rainbow, resembling an emerald, encircled the throne." (AP 4:3) Emerald is a bluish-green gemstone. One sees a "rainbow" encircling the constellation of the Throne on every mediaeval and contemporary star chart. The constellation of the Throne, with "a person enthroned" is always surrounded by the luminous strip of the Milky Way ([1162], [1077] and [1361]).


Fig. 3.10. Egyptian Star chart of the Northern Hemisphere. Taken from Firmamentum Firmianum by Corbinianus, dated 1731 ([1077]). Book archive of the Pulkovo Observatory. Also see [543], page 276, ill. 143.


Fig. 3.11. Egyptian Star chart of the Southern Hemisphere. Taken from Firmamentum Firmianum by Corbinianus, dated 1731 ([1077]). Book archive of the Pulkovo Observatory. Also see [543], page 277, ill. 144.


Fig. 3.12. Ancient astronomy. Taken from Astra by Z. Bornman, dating from 1596 ([1045]). Book archive of the Pulkovo Observatory Also see [543], page 12, ill. 3.

## 7. <br> TWENTY-FOUR SIDEREAL HOURS AND THE CONSTELLATION OF THE NORTHERN CROWN

The Apocalypse says: "Surrounding the throne were twenty-four other thrones, and seated on them were twenty-four elders. They were dressed in white and had crowns of gold on their heads" (AP 4:4).

Any complete astronomy textbook points out that in the days of yore the sky was divided into twentyfour wing-shaped segments, that is, into twenty-four meridional sectors which converge at the poles of the celestial sphere. (See [542], page 44, or 544, Volume 1, page 7, ill. 6 , for instance). These sectors are also called sidereal hours, or direct stellar ascension hours. The twenty-four hours define the celestial coordinate system, which can clearly be seen in the mediaeval image of the celestial globe in Zacharias Bornman's book (fig. 3.12).

Thus, each "elder" of the Apocalypse is apparently a star hour in the equatorial system of coordinates, which is the division standard for the celestial sphere in astronomy.

The white clothing of the "elders" simply reflects the white colour of the stars in the sky. The golden crowns apparently refer to the constellation of the Northern Crown, situated close to the zenith, that is, exactly above the heads of all twenty-four "elders", or hours, or sectors (fig. 3.13).

## 8. <br> LEO, TAURUS, SAGITTARIUS, PEGASUS

The Apocalypse says: "Also before the throne there was what looked like a sea of glass, clear as crystal. In the centre, around the throne, were four living creatures, and they were covered with eyes, in front and in the back"(AP 4:6-7).

This is a description of the celestial sphere which surrounds the constellation of the Throne and is strewn with stars (or "eyes"). The initially obscure reference to a place "around the throne" becomes intelligible: the actual constellation of the Throne is being referred to, as well as the smaller stars scattered all across the background.

But what does "... were four living creatures, and they were covered with eyes..." mean? This becomes


Fig. 3.13. The Crown (or Diadem) constellation near the pole. Fragment of a chart dating from 1700. Taken from [1160], table 10.1, page 304.
clear from a casual glance at the star chart. Moreover, in the following passage of the Apocalypse it is clearly said that: "the first living creature was like a lion, the second was like an ox, the third had a face like a man, the fourth was like a flying eagle" (AP 4:7).

Lion (Leo) is a zodiacal constellation visited by the sun before the beginning of autumn. (See, for example, the mediaeval maps by Dürer and Grienberger ([1162]). See also figs. 3.4, 3.3 and 3.14)


Fig. 3.14. The Leo constellation on a star chart from a book by Grienberger ([1162]). Book archive of the Pulkovo Observatory. Also see [542], page 45, ill. 18.


Fig. 3.15. The Taurus constellation on the star chart from a book by Grienberger ([1162]). Book archive of the Pulkovo Observatory. Also see [542], page 45, ill. 19.


Fig. 3.16. The Sagittarius constellation on the star chart from a book by Grienberger ([1162]). Book archive of the Pulkovo Observatory. Also see [542], page 46, ill. 20.


Fig. 3.17 Three constellations: The Eagle, The Dolphin and Antinoas, as seen on the star chart from a book by Grienberger ([1162]). Book archive of the Pulkovo Observatory. Also see [542], page 47, ill. 22.


Fig. 3.18. The Pegasus constellation on the star chart from a book by Grienberger ([1162]). Book archive of the Pulkovo Observatory. Also see [542], page 46, ill. 21.

Ox (Taurus) is a zodiacal constellation visited by the sun before the beginning of summer. (See the same maps of Dürer and Grienberger, as well as fig. 3.15)

The animal with a human face (Centaur) is obviously a reference to the well-known zodiacal constellation of Sagittarius visited by the sun in the beginning of winter. (See fig. 3.16.)

The animal "like a flying eagle isn't in fact the Eagle, although such a constellation exists (see fig. 3.17.) Most likely, this is the famous Pegasus, the winged animal that completes the number of constellations in the Apocalypse indicated above. The sun visits the constellation of Pegasus before the beginning of spring. (See fig. 3.18.) Formally, Pegasus is not a zodiacal constellation, but an equatorial one; however, Pegasus almost touches the ecliptic between the zodiacal constellations of Pisces and Aquarius. The word even exists in the Greek text of the Apocalypse, where it refers to a mammal rather than a bird ([542]).

Thus, the Apocalypse clearly enumerates the four main constellations along the ecliptic: the zodiac constellations of Leo, Taurus, Sagittarius, and the "almost zodiacal" Pegasus.

The selection of four well-known constellations in the apexes of the square on the ecliptic is a standard mediaeval astronomical method. Apparently, the four constellations (perhaps some others as well) were similarly set in the angles of the quadrangular zodiac from the Theban horoscope of Brugsch (see Chron3, part 2.) Similar quadrangular zodiacs were also drawn in mediaeval India ([543], page 115).

Thus, the four constellations that denote the seasons form a square or a cross. But since there are exactly twenty-four star sectors (or wings) proceeding from the pole, each one of these animal constellations has exactly six sectors of direct ascension, that is, they have six "wings" around them. In other words, each animal constellation is located in the region that is covered by these six sector-wings on the celestial sphere.

It is notable that all of this is absolutely accurately described in the Apocalypse, in which we read that "each of the four living creatures had six wings and was covered with eyes all around, even under its wings." (AP 4:8). The "eyes" here are the stars. By the way, the Greek text formulates this as "inside and around" ([542]).

These "animals covered with eyes inside and
around" are most probably constellations, and so the "eyes" in question should be stars. Indeed, they are drawn in precisely this form on any mediaeval star chart (see Dürer's maps in figs. 3.1 and 3.2, for instance, as well as the map from the Almagest on figs. 3.4 and 3.3.)

## 9. <br> THE DAILY ROTATION OF THE NORTHERN CROWN

In the northern moderate zone of the terrestrial globe, the upper parts of the sectors, or the "wings", never set; however, the lower parts, or the "knees" of the "elders" (sectors) first descend below the horizon, then rise above it again. Therefore, it looks like each sidereal hour rises from its knees on the eastern part of the horizon and then goes down on its knees in the west. They were thus perceived as worshiping the centre of rotation, the north pole of the sky and the constellation of the Throne next to it.

Once again, all of this is accurately described in the Apocalypse. Actually, the Apocalypse says: "The twenty-four elders fall down before him who sits on the throne, and worship him who lives for ever and ever"(AP 4:10).

In the process of everyday rotation in the Mediterranean latitudes, the constellation of the Northern Crown first rises into the zenith, then descends in the northern part of the horizon. What we have in mind is a local zenith for the latitude of the island of Patmos.

We shan't continue with the enumeration of other constellations and stars mentioned in the Apocalypse, because the presence of astronomical symbolism in the Apocalypse has already been made perfectly clear. (See also [542] and [544]).

## 10.

 EQUINE PLANETARY IMAGES IN MEDIAEVAL ASTRONOMYWe shall now relate several facts of paramount importance in what concerns the datings. The first thing that attracted the attention of astronomers to the planets was their rapid movement. Their displacement is very uneven as seen by the observer. The


Fig. 3.19. Looping trajectory of Saturn between Cancer and Leo in 1888 and 1889. Taken from [542], page 12, ill. 4.

| $18 \mathrm{~h} .44 \mathrm{~m} 18 \mathrm{~h}$ $-22^{\circ}$ | $36 \mathrm{~m} \quad 18 \mathrm{~h}$ | $28 \mathrm{~m} \quad 18 \mathrm{~h}$ | $20 \mathrm{~m} \mathrm{\quad in}$ | $\begin{gathered} 12 \mathrm{~m} .18 \mathrm{n} \\ \star \mu \end{gathered}$ | $4 \mathrm{~m} \quad 17 . \mathrm{h}$ | 56 m .17 h | 48 m .17 h .40 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27 Nov | $1 \text { May } 1 \text { Apr }$ | 15 Mar | 1 Mar | 15 Feb | 1 Feb |  | 15 Jan |
|  | 1 1un |  |  |  |  | 1 Sept |  |
| $-24^{\circ}$ |  |  | 1 Jul |  | 1 Oct | 1 Aug |  |
|  |  |  | Sagitta | rius |  |  |  |
|  |  | ax |  |  |  |  | 1889 |

Fig. 3.20. Looping trajectory of Jupiter in Sagittarius in 1889. Taken from [542], page 12, ill. 5.


Fig. 3.21. Looping trajectory of Mars in Virgo in 1888. Taken from [542], page 13, ill. 6.


Fig. 3.22. Ancient Gaulish coins as seen on the illustrations to John Blake's Astronomical Myths dating from 1887. Also see [542], page 14, ills. 8, 9 .
so-called outer planets - the ones outside the telluric orbit - are described as moving in regular loops. Examples of such loops for Saturn and Jupiter can be seen in figs. 3.19 and 3.20; for Mars - in figure 3.21. Planets stop, begin retrograde movement, and then appear to rush forwards yet again. This apparently gave birth to comparisons with horses galloping through the crystal firmament. It is not surprising that astronomy and astrology appealed to this vivid image.

Ancient Gaulish coins bearing images of the equine planets are depicted on fig. 3.22 (see Astronomical Myths by John Blake, 1887.) One of them depicts $a$ horse with a rider (the letter S) leaping over the urn of the constellation of Aquarius. This constellation is frequently depicted in the form of an urn or a person bearing an urn and pouring water from it, qv in the mediaeval book of Albumasar, for instance ([1004]).

On the second coin we see an equine planet carrying the constellation of Cancer on its back. The horse leaps over the constellation of Capricorn. (See fig. 3.22.)

These old coins clearly indicate the custom of at least some of the mediaeval astronomers to associate planets with horses.

Further development of this symbolism naturally led to the use of the images of planets in the form of horses harnessed into chariots. The solar image in particular was widely used in the Middle Ages and used to be included in the planetary seven.

Horses carting the sun are represented in the astrological book of Ioanne Tesnierio dating from 1562 ([1440] and fig. 3.23), the astrological work by Leopoldi, allegedly published in 1489 ([1247] and fig.
3.24), and the 1515 book of Albumasar ([1004] and figs. 3.25 and 3.26).

Horses driving the planet Mars in a chariot are shown in the 1562 book of Ioanne Tesnierio ([1440] and fig. 3.23), with Mars referred to by its astrological sign, and in the 1515 book of Albumasar ([1004] and fig. 3.27).

Sometimes such books depicted actual horses as chariots, thus accosiating chariots with horses. The chariot of Jupiter, for instance, with a galloping centaur drawn on its gigantic wheels, can be seen in the book by Albumasar [1004] (fig. 3.27).

The concept would evolve. Sometimes horses would draw entire constellations. In the book of Bacharach dating from 1562 ([1021]), horses draw the constellation of Auriga. A similar figure can also be seen in Astrology by Radinus (fig. 3.28).

Astronomers ascribed such value to the leaps of the planets that they devised a special symbol of a halted chariot in order to refer to the moments the planets stop before beginning their movement, either straightforward or retrograde. The mediaeval book of Albumasar, for instance ([1004]) depicts the halted chariots of all the planets: Mercury, Venus, Mars, Jupiter, and Saturn (figs. 3.25 and 3.29).

Sometimes, instead of horses, chariots were harnessed to fantasy animals - griffins, eagles, and the like. Similar "horses" draw the planets in the mediaeval books of Albumasar ([1004]) and Ioanne Tesnierio ([1440] and figs. 3.23 and 3.30).

It is well known that in some languages days of the week were associated with planets in a so-called "planetary week." On the other hand, days of the week were frequently depicted as horses. Whenever an equine planet would pass between the constellations or through them, the constellations were referred to as "saddling" said planet, thus transforming into the riders of this horse.

But let us return to the Book of Revelations.
11.

JUPITER IS IN SAGITTARIUS
The Apocalypse says: "I looked, and there before me was a white horse. Its rider held a bow, and he was given a crown, and he rode out as a conqueror bent on conquest" (AP 6:2).


## Celestial chariots of the ancients.

The chariots of: 1) The Sun; 1) The Moon, pulled by maidens; 3) Mercury with eagles;
4) Venus with doves and a cupid; 5) Mars;
6) Jupiter with a cup-bearer and peacocks;
7) Saturn devouring a child, with an asp and a griffin.

[^1]Fig. 3.23. Mediaeval pictures of the chariots of the Sun, the Moon, Mercury, Venus, Mars, Jupiter and Saturn. Taken from the Opus Matematicum octolibrum by Ioanne Tesnierio ([1440]). Coloniae Agrippinae, 1562. Book archive of the Pulkovo Observatory. Also see [543], page 71, ills. 31-37.

This apparently describes a bright equine planet carrying the glorious rider, or the constellation with the bow. There is only one such constellation in the zodiac - Sagittarius (fig. 3.16).

The horse is said to be white. The Greek text renders this as "dazzling white" or "resplendent" ([542]). The combination of the characteristic "conqueror bent on conquest" and the fact that the horse in question is the first to ride out most likely refers to Jupiter.

Another dazzling white planet is Venus; however, it cannot be located here, since the text of the Apocalypse (12:1) indicates the sun to be in Virgo, in which case Venus, which never goes too far away from the sun, can by no means be in Sagittarius. We are thus given a direct reference to the fact that Jupiter was in Sagittarius.

## 12. <br> MARS IS BENEATH PERSEUS IN EITHER GEMINI OR TAURUS

The Apocalypse says: "And there went out another horse that was red [the Greek text renders this as follows: "Then another horse came out, a fiery red one (see [542] - A. F.)]. Its rider was given power to take peace from the earth and to make men slay each other. To him was given a large sword" (AP. 6:4).


Fig. 3.24. A mediaeval picture of the solar chariot. Taken from Leopoldi compilation de astorum scientia, 1489 ([1247]). Book archive of the Pulkovo Observatory. Also see [543], page 169 , ill. 89.


Fig. 3.25. Mediaeval pictures of the chariots of the Sun, Mercury, Venus and the Moon. Taken from Albumasar's De Astru Sciencia, 1515. Book archive of the Pulkovo Observatory. Also see [543], page 240, ills. 117-120.


Fig. 3.26. Mediaeval pictures of the chariots of the Sun, the Moon, Mercury and Venus. Taken from Albumasar's De Astru Sciencia, 1515. Book archive of the Pulkovo Observatory. Also see [543], page 156, ills. 78-81.


Fig. 3.27. Mediaeval pictures of the chariots of Mars, Jupiter and Saturn. Taken from Albumasar's De Astru Sciencia, 1515. Book archive of the Pulkovo Observatory. Also see [543], page 157, ills. 82-85.


Fig. 3.28. Horses dragging the Auriga constellation. From a book by Radinus dated 1511. Taken from [1361]. Also see [543], page 243, ill. 125.

What we see here is the description of a red equine planet. There is only one such planet - Mars. There is also only one constellation with a sword - Perseus. Thus, Perseus is described in the Book of Revelations as the rider of Mars. Consequently, Mars is located in either Gemini or Taurus, with Perseus above (see the fragment of a mediaeval star chart on fig. 3.31.) This is the map from Ptolemy's Almagest. N. A. Morozov proposes to consider this an indication that the zodiacal constellation of Aries was located beneath Perseus ([542]). However, it is only in such a case that the word "beneath" could be understood in relation to the ecliptic, that is, the constellation of Perseus were projected onto the ecliptic from its pole. But in such a case Perseus shall be suspended over Mars in an unnatural position - on his back. This can be observed on the same mediaeval map, fig. 3.31.

This description most probably refers to the zodiacal constellations located under the feet of Perseus. These can either be Taurus or Gemini. Perseus seems to be standing on them. But in case with Aries he lies on his back, with his feet directed upwards. Furthermore, it is important to consider the position of the local horizon of the observer. Indeed, when the observer writes that Mars is located beneath Perseus that is, Perseus was visible above Mars - this most likely means that their position is given in relation to the local horizon. It is natural that one should search for such an astronomical solution, in which the observer would be able to see Perseus above Mars con-


Fig. 3.29. Mediaeval pictures of the chariots of Mars, Jupiter and Saturn. Taken from Albumasar's De Astru Sciencia, 1515. Book archive of the Pulkovo Observatory. Also see [543], page 241, ills. 121-123.


Fig. 3.30. A mediaeval picture of Saturn's chariot. Taken from the book titled Leopoldi compilatio de astrorum scientia, 1489 ([1247]). Book archive of the Pulkovo Observatory. Also see [543], page 181, ill. 92.
sidering the relation to the local horizon - for instance, some location in the Mediterranean region.

This was well understood by N. A. Morozov. While pondering one of the solutions, namely, the solution of 1486 A.D., he did not note any aberrations concerning Mars. But on the date he indicated, 1 October 1486, Mars was located in Gemini and not Aries. We should thus understand that Mars must be searched in either Gemini or Taurus.

## 13. MERCURY IS IN LIBRA

The Apocalypse says: "I looked, and there before me was a black horse. Its rider was holding a pair of scales in his hand. Then I heard what sounded like a voice among the four living creatures, saying, 'A quart of wheat for a day's wages, and three quarts of barley for a day's wages, and do not damage the oil and the wine!"' (AP 6:5-6).


Fig. 3.31. Constellations of Perseus, Gemini and Taurus on a star chart from Ptolemy's Almagest. A close-up of a fragment of a map. We have removed all other constellations so as not to make the illustration look too cumbersome. Taken from the Pelusiensis Alexandrini omnia quac extant opera by Claudius Ptolemy. Published in 1551 ([1073]). Book archive of the Pulkovo Observatory. Also see [543], the inset between pages 216-217.


Fig. 3.32. Planet disposition for 1 October 1486. It is distinctly visible that all the planets are located in the very constellations indicated by the Apocalypse.

Apparently this is Mercury, the faintest of all of the primary planets. Only Mercury, Venus, Mars, Jupiter, and Saturn were considered primary in antiquity. Mercury is truly the "invisible" planet. Furthermore, due to its proximity to the sun, Mercury is only rarely visible due to the intensity of sunshine. Therefore,
errors were frequently made in estimations of the position of Mercury in the Middle Ages.

The synodal translation says "a quart on the scale in thy hand". According to the Greek translation, the rider holds a scale in his hand ([542]). The entire verse 6 distinctly speaks about trade. Even the prices
of wheat and the barley are given. Mercury was considered the patron of trade.

Thus, the position of Mercury is indicated in Libra.

## 14.

SATURN IS IN SCORPIO
The Apocalypse says: "I looked, and there before me was a pale horse. Its rider was named Death, and Hades was following close behind him. They were given power over a fourth of the earth to kill by sword, famine and plague, and by the wild beasts of the earth" (AP 6:8).

The Greek text provides the rendering "deathly pale, greenish" ([542]). Most probably, this refers to the ominous planet Saturn. The rider on it, named Death is, apparently, Scorpio. In the Middle Ages Saturn entering Scorpio was considered an omen of great afflictions.

The Greek text renders another part of the passage as "They were given power," which corresponds with this pair of death symbols even better ([544], Volume 1, pages 46-47, ill. 27).
N. A. Morozov was not the first one to associate four of the famous horses of the Apocalypse with planets. E. Renan put this hypothesis forth a long before Morozov ([725], page 353). Renan considered that:
red horse $=$ Mars (this is correct),
black $=$ Mercury (this is also correct),
white $=$ Moon (this is incorrect)
pale $=$ Jupiter (also incorrect).
Renan did not provide any proof for the last two identifications, and, as we can see, they actually do not correspond to the description given in the Apocalypse. However, Renan did not even attempt to date the Apocalypse on the basis of this astronomical information.

## 15.

## THE SUN IS IN VIRGO WITH THE MOON UNDERNEATH THE FEET OF THE LATTER

The Apocalypse says: "A great and wondrous sign appeared in heaven: a woman clothed with the sun, with the moon under her feet and a crown of twelve stars on her head" (AP 12:1).

This apparently is the picture of the celestial sphere
in its usual mediaeval imagery. The sun is named as being in Virgo. Let us point out that Virgo is the only female constellation on the ecliptic. The moon is located at the feet of Virgo. Directly above the head of Virgo, in the direction of the zenith, we see the constellation of Coma Berenices or the Twelve Stars. On any celestial chart one can see the well-known globular cluster, the Diadem, or the Crown. It is referred to as $5024 / \mathrm{M} 5 \mathrm{e}$ in contemporary numeration.

The Apocalypse refers to a crown of twelve stars. It is interesting that the standard designation for globular clusters on star charts is specifically a crown of precisely twelve stars in a circle. (See the maps in [293], for instance).

Thus, the sun is in Virgo and the moon at the feet of Virgo.

## 16. VENUS IS IN LEO

The Apocalypse proceeds to tell us that "To him who overcomes... I will also give him the morning star" (Ap. 2:26, 2:28).

The morning star, as is well known, a mediaeval name for Venus. But in zodiacal constellations "he who overcomes" is, of course, the constellation of Leo. This follows directly from the passage "See, the Lion of the tribe of Judah, the Root of David, has triumphed. He is able to open the scroll and its seven seals" (Ap. 5:5). The text of the Apocalypse clearly indicates that "he who overcomes" is Leo.

## 17. <br> THE ASTRONOMICAL DATING OF THE APOCALYPSE BY THE HOROSCOPE IT CONTAINS

The Apocalypse apparently contains the descriptions of the stars in the sky. They give us the following horoscope:

1. Jupiter in Sagittarius,
2. Mars in Gemini or Taurus (N. A. Morozov included Aries here as well),
3. Saturn in Scorpio,
4. Mercury in Libra,
5. The sun in Virgo,
6. The moon under the feet of Virgo,
7. Venus in Leo.

For a rough astronomical calculation, even three of these basic planets would suffice: Jupiter, Mars, and Saturn. The sun moves rapidly and makes a complete zodiacal revolution in a year. Therefore it is only useful in determining the month. Mercury is usually poorly visible. (See above.) Therefore, its position was frequently misestimated in the Middle Ages.

- The Assertion of N. A. Morozov ([542] and [544], Volume 1, pages 48-50)
N. A. Morozov asserted that the three basic planets of Jupiter, Mars, and Saturn were sufficient in order to date the Apocalypse to the fourth century A.D. the earliest, because the indicated horoscope, that is, the arrangement of planets, was only true for $395,632,1249$, and 1486 A.D.
N. A. Morozov thought that 395 A.D. was the best solution, but in this solution Mars is located above Aries, which, as we have noted, is not very fitting. Morozov was satisfied with this answer, because he thought the Apocalypse could not have been written after the fourth century A.D. But his result was cautiously formulated in this manner: "If the Apocalypse was written during the first four centuries of the Christian era, this happened in 395 A.D." ([542]).

However, nowadays, after the new research into the chronology of antiquity, we understand that Morozov had no real point in limiting himself to the first four centuries of the new era.

Once we break free from these limitations, we shall see two additional solutions: a 1249 solution and 1 October, 1486. The solution of 1249 is worse because Mercury, which in this case is in Virgo, was closer to Leo that year.

- Main Assertion (A. T. Fomenko and G. V. Nosovskiy)
The solution of 1 October 1486 ideally satisfies to all conditions, as indicated in the Apocalypse:

Jupiter is in Sagittarius,
Saturn is in Scorpio,
Mars is in Gemini, close to the boundary with
Aries, and directly at the feet of Perseus,
Mercury is in Libra,
The sun is in Virgo,
The moon is under the feet of Virgo, and
Venus is in Leo.
The arrangement of the planets on 1 October 1486


Fig. 3.33. On 1 October 1486 Jupiter was actually in Sagittarius.


Fig. 3.34. On 1 October 1486 Saturn was actually in Scorpio.
(shown in figure 3.32) provides clear evidence that all planets are found exactly in the constellations indicated in the Apocalypse. We verified this astronomical result with the aid of the Turbo-Sky software, which is modern, simple, and convenient for such approximated calculations. The result is shown in figures 3.33 to 3.39 . The program came up with the year 1486 as the astronomical solution. See also fig. 3.40.

The visibility conditions of the planets on the night of 1-2 October 1486 was verified for the Mediterranean by using an observation point in the vicinity of the Bosporus as an example.

It turns out that on 1 October 1486 the sun set at 17:30 local time, that is, at 15:30 GMT.

The crescent of the new moon was visible after sunset until 19:00 local time, after which the Moon set at the local horizon.

Saturn was visible until 20:00 local time.
Jupiter was visible until 21:45 local time.
Mars did not become visible immediately, because it was located below the horizon. It ascended at 21:05 local time and was visible the whole night.

At this time Mercury was located at almost the maximum distance from the sun for the terrestrial observer, almost in the maximum elongation, and had


Fig. 3.36. The location of Mars in Gemini, close to Taurus, right under the feet of Perseus, on 1 October 1486.


Fig. 3.38. On 1 October 1486 the Sun was actually in Virgo.


a brightness of $M=+0.7$. Consequently, it was located in almost the best visibility conditions. Mercury was actually visible until 20:15 local time, after which it went under the local horizon.

Venus ascended at 3:00 local time that night, and was perfectly visible up until sunrise.

All of this data was received from the calculations performed with the aid of the Turbo-Sky software, which is convenient for approximate computing.

We re-emphasize that the solution of 1 October 1486 is ideal from all points of view. The arrangement of the planets for 1 October 1486 A.D. is reflected in the Apocalypse with surprising accuracy.

It is evident, as one can see in fig. 3.35, that the mediaeval observer was quite correct about Perseus riding Mars: "Its rider was given power to take peace from the earth and to make men slay each other. To him was given a large sword" (AP 6:4). At this time Mars was actually located directly underneath the feet of Perseus. This can clearly be seen on fig. 3.36, which shows a fragment of a mediaeval map from Ptolemy's Almagest with the position of Mars for the 1 October 1486 pointed out. Mars was in Gemini, right under the feet of Perseus. And compared to the line of the local horizon in the environs of the Bosporus, at 23:00 local time, Mars was exactly under Perseus. Finally, the brightly luminous Milky Way passes precisely through the constellations of Perseus and Gemini in the nocturnal sky. That is where Mars was located on that date, and the Milky Way seemingly bound together the constellations of Gemini and Perseus, as well as the planet Mars (fig. 3.36). The mediaeval observer pointed out this remarkable event.

But why did the observer mention Mars in combination with the constellation of Perseus rather than Gemini? Indeed, Perseus is not a zodiacal constellation, unlike Gemini. The reason the observer did this apparently owes to the fact that the author of the Apocalypse described the forthcoming Doomsday, obviously, a very dramatic event. Therefore, he selected the symbols maximally pertinent to the spirit of a great catastrophe.

The first primary planet (Jupiter) ended up in Sagittarius, or the "martial constellation," depicted with bow and arrows.

The second primary planet (Saturn) ended up in

Scorpio, which is believed to be a terrifying, mortally dangerous constellation.

The third primary planet (Mars) ended up in Gemini, which is a "peaceful constellation." But directly above it at this moment was Perseus, the martial constellation with the sword, held in his hands and used for beheading the Gorgon Medusa with her serpent hair and stare that turned all living things to stone (fig. 3.36). Furthermore, Mars himself, as it is commonly known, was considered the God of War. It is therefore quite clear that the author of the Apocalypse selected Perseus with the Sword due to its perfect correspondence with the eschatological scenario.

One begins to understand why Mars is referred to in the Greek text of the Apocalypse (translated by N. A. Morozov) as having "gone beyond, to the other side", qv above and in [542]. Fig. 3.32 demonstrates clearly that on 1 October 1486 Mars was really in visible opposition to the other planets, which were all grouped in Scorpio. A terrestrial observer would see Jupiter, Saturn, the moon, Mercury and the sun near one side of the celestial dome, and Mars drawn to its other side, qv on fig. 3.32.

Why did Morozov reject the solutions of 1249 and 1486 a.d.? Morozov's answer is simple and sincere. He frankly explained: "Hardly anyone would dare to say in this respect that the Apocalypse could have been written on 14 September 1249 " ([544], Volume 1, page 53]. He did not even consider 1486 a possible solution.

However, nowadays, more than seventy years after N. A. Morozov, and relying on new results obtained from our books on New Chronology, among other things, one can confidently claim the Apocalypse to have been written precisely in 1486, that is, during the epoch of the Ottoman=Ataman conquest. See Chron6 for more details.

Why is 1486 the most congruous dating for the writing of the Book of Revelations in our reconstruction? As it is commonly known, the Book of Revelations is primarily concerned with all matters related to Doomsday. "The Apocalypse and its visions (apart from the first three chapters)... is an image of the final hour of the World... or the Eschaton, and it must serve as a manual for the Revelations" ([845], Book 3, Volume 11, page 511). But that year, when the entire mediaeval Christian world anticipated Dooms-
day in terror, is well known to history. This is 1492 A.D., which was year 7000 from Adam of the Byzantine era. According to the tradition of the epoch, Doomsday was supposed to have happened that very year.

The Apocalypse is thus concerned with the advent of the Judgement Day, expected in 1492 A.D. The first lines of the Apocalypse state explicitly: "Because the time is near" (AP 1:3). That should mean the proximity of the year 1492 a.D., or the year 7000 since Adam. Note that it was in 1492 that Columbus set out to sea, in the age of Doomsday expectations.

Therefore, our independent astronomical dating of the Apocalypse, or the year 1486 A.D. - that is, 6994 years from Adam - corresponds ideally with the content of the book. The Apocalypse was written only six years before the expected End of the World in the XV century.

Dating the Apocalypse to the end of the fifteenth century also corresponds ideally with our formal mathematical result as discussed in Chronı, Chapter 5:9.3. Namely, it implies that the Apocalypse must not be considered the last book of the Bible canon chronologically, but, rather, one of the first books of the Old Testament. In other words, the Apocalypse chronologically occurs simultaneously with the Pentateuch of Moses, or the very beginning of the Bible, and not the Gospels.

In other words, the position of the Apocalypse in the Biblical canon is chronologically incorrect. It was written much later than the Gospels. The Gospels describe the events of the XI century, according to our reconstruction. See more details below.

## 18.

## OUR RECONSTRUCTION OF THE INITIAL CONTENT OF THE APOCALYPSE

The Apocalypse predicts Judgement Day masking the prediction with astronomical symbolism. However, it is possible that this symbolism was obscured in the subsequent editions of the XVI-XVII century. An astronomical horoscope is encrypted in the Apocalypse, and provides for the possibility of dating it. The date of the horoscope is 1 October 1486, which ideally corresponds to the expected mediaeval date of the Judgement Day in 1492.

The Apocalypse was most likely written at the end of the XV century A.D., several years before what the entire mediaeval Christian world perceived as the impending Judgement Day in the year 7.000 since Adam, or 1492 A.D. Mortal fear of this event is vividly reflected in the Apocalypse.

The consensual opinion that the Apocalypse was written by Apostle John, the author of the fourth Gospel, is apparently incorrect, because the Gospels were most likely written in the XII-XIII century, that is, much earlier than the XV century. On the contrary, the assertion of many old ecclesiastical authors that Apostle John, and John, the author of the Apocalypse, are different persons, is confirmed by our independent astronomical dating of the Book of Revelations. Thus, the Gospels and the Apocalypse were written in different and distant epochs.

We have already pointed out that the epoch of the Apocalypse apparently coincides with the epoch of the Pentateuch. As we demonstrate in Chron6, this is the epoch of the Ottoman=Ataman conquest of the XV century a.D., that is, the "Biblical Exodus" under the leadership of Moses and Aaron - Leo/Lion. The Apocalypse is correct in dubbing him "he who overcomes". The constellation of Leo, "is adorned with the morning star," or Venus. The identification of "he who overcomes" mentioned in the Apocalypse Leo - Aaron or Moses - is also supported by the following verse: "To him who overcomes, I will give some of the hidden manna. I will also give him a white stone with a new name written on it, known only to him who receives it" (Ap.2:17). Let us recall that manna is described in the Biblical book of Exodus, which, as we will show in Chron6, tells of the Ottoman = Ataman conquest of the XV century. And we can easily recognize the white stone with the "new name" written upon it as the stone tablets of Moses, whereupon the new law, or Deuteronomy, was written.

After having astronomically dated the Apocalypse to the end of the XV century, it is interesting to evaluate the mediaeval illustrations to this Biblical text from an entirely new point of view. A mediaeval XVI century picture of the Apocalypse can be seen in fig. 3.41 ([745], Volume 8, page 442). We see a rider who is shooting a musket (figure 3.42). The lock of the musket is quite visible. The rider pulls the trigger, and the barrel disgorges fire. The powder horn


Fig. 3.41. A mediaeval illustration from the Biblical Apocalypse. XVI century. The Lenin State Library, folio 98, no. 1844, sheet 24. One sees a rider firing a musket and the fire of a shot coming from the barrel. Taken from [745], Volume 8, page 442.


Fig. 3.42. Fragment of an illustration from the Biblical Apocalypse. Death is riding a horse and firing a musket. Taken from [745], Volume 8, page 442.
can be seen attached to the barrel. The word "Death" is written above the rider. We see that mediaeval artists reflected the realities of the epoch when the Apocalypse was written in their illustrations. It is well known that firearms, muskets, and guns were already widely used on the XV century battlefields. For example, in the Constantinople siege of 1453 , the Ottomans used heavy artillery ([240]).

Another XVI century illustration from the Apocalypse ([745], Volume 8, page 451 and fig. 3.43 ) shows the destruction made by an angel "blowing into the pipe" from which a fountain of flame escapes. This very probably depicts a mediaeval gun, shooting with either cannonballs or case-shot. The mediaeval artist depicted the flame of a large explosion where the ball landed. Apparently, in the Middle Ages guns were sometimes referred to and depicted as pipes belching
fire and smoke. This tradition of depicting guns on the illustrations to the Apocalypse survived until as recently as the XVIII century. Figure 3.44 provides an illustration from the Commented Apocalypse of 1799 ([745], Volume 9, page 485). On the whole, the subject is the same as that of the XVI century illustration - an angel "blowing into a pipe" disgorging fire. We also see flames rising from the explosion of the missile at a distance. A gunshot is even better visible in the mediaeval illustration to the Apocalypse which one sees on fig. 3.45 (see [745], Volume 9, page 486). Above we can see the "pipe," into which the angel blows. The flame escapes the pipe, and we see a faraway explosion of a projectile hitting the ground.

From the XV century and on, guns invoked terror in Europe. The appearance of such terrifying images on the illustrations to the recently written Apocalypse


Fig. 3.43. A mediaeval illustration from the Biblical Apocalypse. XVI century. The Lenin State Library, folio 98, no. 1844, sheet 33. The angel is "blowing a horn" which disgorges a bright fiery flare. Probably a representation of a mediaeval cannon in action. Taken from [745], Volume 8, page 451.


Fig. 3.44. A mediaeval illustration from the Biblical Commented Apocalypse, 1799. The State Library of Russia, folio 247, no. 802 , sheet 61 , reverse. We see the subject that we're already familiar with: a horn-shaped cannon firing a shot. One also sees the explosion of the cannonball. Taken from [745], Volume 9, page 485.


Fig. 3.45. A mediaeval illustration from the Biblical Commented Apocalypse, 1799. The State Library of Russia, folio 247, no. 802 , sheet 61 , reverse. The same subject. Gunfire, the "grenade" falling and exploding. Taken from [745], Volume 9, page 486.

## CHAPTER 4

# Astronomy in the Old Testament 

## 1. <br> MEDIAEVAL ASTRONOMY IN THE OLD TESTAMENT BOOK OF EZEKIEL

### 1.1. The title of the book

Charles Brigg, Professor of Theology, wrote that "most of the books in the Old Testament were compiled by authors whose names and exact relation to the writings were lost in deep antiquity" ([543], pages 119-120).

Let us regard the actual name of the book of Ezekiel. As N. A. Morozov pointed out, the Hebrew IEZK-AL translates as "The Lord Shall Overcome" ([543], page 226). Scaligerian history believes Ezekiel to have lived between 595 and 574 в.c. However, the word "Ezekiel" is only used for referring to a person just once (Ezekiel 24:24), in a rather vague context that becomes clear only after we translate "Ezekiel" as "The Lord Shall Overcome." God addresses the author of the prophecy dozens of times, always saying "thou" and never calling him by name. One can come to the logical conclusion that "Ezekiel" is merely the name of the actual book, which concurs with its content perfectly well - predicting the victory of some currently disavowed deity. This rational explanation of the name of the book is in no way related to the analysis of its astronomical content, as we can understand perfectly well; however, it is useful for pointing out just how useful it is to think about the possi-
bility that ancient words and names may be translated, since it clarifies a great many things.
N. A. Morozov's analysis performed in [543] shows that the entire prophecy is based on two main topics:

1) Visible borrowings from the New Testament Apocalypse

Modern commentators interpret this in reverse, since the books of the Old Covenant are considered to have been written a lot earlier than those of the New Covenant. However, this is most probably erroneous, and the Gospels either predate the Heptateuch, or were created around the same time (see Chron6).
2) The astronomical "visions" of the author of the prophecy
N. A. Morozov was of the opinion that the book of Ezekiel contained a planetary horoscope. He even tried to date it astronomically, coming up with the date 453 A.D. as the first solution that he found moving forward in time from deep antiquity towards contemporaneity. There may have been other solutions dating from a much later epoch that Morozov failed to discover due to his certainty that the Bible couldn't have been written later than the V-VI century a.d. This was a grave error of his. The Bible was most probably compiled in the XI-XVII century A.D. See Chron6 for more details.

Our opinion is as follows: unlike the Apocalypse, the horoscope of Ezekiel is described extremely vaguely, and this ambiguous and Delphic description is hardly applicable to astronomical dating. We shall re-


Fig. 4.1. A mediaeval star chart from a book by S. De Lubienietski titled Historia universalis omnium Cometarum, Lugduni Batavorum, 1681 ([1257]). Book archive of the Pulkovo Observatory (Saint-Petersburg). Also see [543], pages 26-27.
frain from wasting time on it; should the readers get really interested, Morozov's oeuvre [543] gives an exhaustive account of the issue.

What N. A. Morozov is definitely correct about is the fact that the testamentary book of Ezekiel is really filled with all kinds of astronomical information that allows us to consider this book a mediaeval possibly late mediaeval, astrological text, and be quite confident about it. This particular fact is important enough for us to illustrate it by the following examples ([543]).

### 1.2. The description of the Milky Way and the Ophiuchus constellation

The Bible says: "The heavens were opened, and I saw visions of God" (Ezekiel, 1:1). We are given the same direct indication as we got from the book of Revelation - namely, that we should observe the sky.
N. A. Morozov periodically queried the synodal translation of the Bible using the Hebraic text without vocalizations. Apparently, the authors of the synodal "translation" often failed to understand the old text. These circumstantiations of Morozov often fa-
cilitate the translation greatly and elucidate the actual meaning, so we shall be making references to his comments as we proceed ([543]).

The Bible says: "And I looked, and, behold, a whirlwind came out of the north, a great cloud, and a fire infolding itself, and a brightness was about it [a more exact translation would be "an irradiance like a river of light," qv [543] - A. F.]" (Ezekiel 1:4).

The irradiance goes to the south from the north. Since the events take place in a starlit sky, as we have mentioned above, this metaphor most probably stands for the Milky Way, which may really be perceived as a luminous river of light flowing from the north to the south.

The Biblical observer looks towards the luminosity and sees that "out of the midst thereof came the likeness of four living creatures [the Hebraic text uses the term "living entities," whereas the synodal translation refers to them as "beasts," qv [543] - A. F.]... they had the likeness of a man" (Ezekiel 1:5). N. A. Morozov makes the correction referring to the Hebraic text, and suggests that the Bible really says that "the image of man could be seen right there." What could this possibly mean?

Nearly every astronomical map of the Middle Ages - see fig. 4.1, for instance, has a constellation in the south, right in the middle of the Milky Way, that has the shape of a man - the Ophiuchus (see fig. 4.2).

### 1.3. The Biblical description of the astronomical sectors, or "wings," on the celestial sphere

As we have already mentioned, the mediaeval celestial sphere was divided into 12 pairs of star hours that were pictured as meridians that converged at the poles of the sphere and divided it into 24 sectors, or "wings," qv fig. 3.12. Ophiuchus is holding the Serpent, and both of them occupy two pairs of wings - two on the left, and two on the right. In our case, four "living entities" are mentioned in the constellation of Ophiuchus - possibly planets. The Bible, for instance, tells us that "every one had four wings" (Ezekiel 1:6). See the mediaeval book of Borman dating from 1596, for example ([1045]), which gives the position of Ophiuchus as well as that of his wings.

The synodal translation tells us that the "living creatures" also had four faces each. N. A. Morozov points out the missing words "one obscured" and gives his own translation: "he was the one with four faces, and it was he in his mystery who had possessed four wings" (Ezekiel 1:6).

The synodal translation tells us that "they four had their faces and their wings. Their wings were joined one to another, and they turned not when they went; they went every one straight forward" (Ezekiel 1:9). It is obvious that the reference is to the sectors, or the wings on the celestial sphere. It is natural that they should be joined together.
N. A. Morozov's translation proceeds to tell us that "the procession of these creatures was immutable, and the concavity of their pass was like the concavity of a circumference, and all four faces shone like polished brass."

### 1.4. The constellations of Leo, Taurus and Aquila

Let us now regard a mediaeval map - [1256] or [1257] by S. Lubienietski, for instance (see fig. 4.1), and study the constellations in the south of the sky,


Fig. 4.2. The constellation of the Ophiuchus against the background of the Milky Way. A mediaeval book titled Astrognosia, XV century. Book archive of the Pulkovo Observatory (St. Petersburg). Also see [544], Volume 1, page 218, ill. 57.
next to Sagittarius. On the right we see Ophiuchus and the Serpent, with Leo on his right and Taurus on his left. On top, near the peak of the trajectory of the sphere's rotation, we can see Aquila in the centre, above all of the constellations. The human hands of Sagittarius and Hercules can be seen rising from beyond the equinoctial, as described in the prophecy: "and they had the hands of a man under their wings" (Ezekiel 1:8).

This astronomical picture is explicitly described in Ezekiel's prophecy. The Bible says the following (in N. A. Morozov's translation):
"The outline of Leo was to the right of all four, with the outline of Taurus to the right of all four, and Aquila above the four" (Ezekiel 1:10).

Since Morozov's translation differs from the synodal at times, we shall demonstrate the difference by the following example. The synodal text of this quotation is as follows: "they four had... the face of the lion, on the right side: and they four had the face of the ox on the left side; they four also had the face of an eagle" (Ezekiel 1:10). The similarity is apparent; however, N. A. Morozov's translation makes a lot more sense.

According to the Bible, "as for the likeness of the living creatures, their appearance was like burning coals of fire, and like the appearance of lamps" (Ezekiel 1:13). What we see here is an astronomical comparison of the planets with lamps and coals. "And


Fig. 4.3. A mediaeval picture of the ten celestial spheres as concentric wheels. Taken from the Latin book by J. Ch. Steeb titled Coelum Sephiroticum Hebraeorum (The Sephirotic Skies of the Jews), Maguntiae, 1679 ([1412]). Book archive of the Pulkovo Observatory (St. Petersburg). Also see [543], page 15, ill. 5.
the living creatures ran and returned as the appearance of a flash of lightning [in zigzags - A. F.]" This must refer to the forthright and retrograde movement of planets on the celestial sphere (see figs. 3.19, 3.20 and 3.21).

### 1.5. The Biblical description of the mediaeval "wheels," or planetary orbits

We shall now return to the mediaeval charts. They often depict planet orbits as concentric wheels, with the Earth in the centre. They reflect the initial concepts of the mediaeval astronomers who used to regard the Earth
as the centre of the universe. Such imagery is clearly pre-Copernican. One should, however, bear in mind that the planetary orbits would occasionally be drawn in that manner as recently as the XVII-XVIII century.

The concentric planetary orbits can be observed in the mediaeval book by J. Steeb ([1412], see fig. 4.3). The wheels bear the planetary names and insignia.

The first wheel, which is also the greatest, is the empyrean.

The second wheel is the sphere of immobile stars.
The third wheel is the celestial ocean.
The wheels to follow are those of Saturn, Jupiter, Mars, the sun, Venus, Mercury, and the moon.


Fig. 4.4. According to the mediaeval cosmological concept, the planetary orbits had the shape of concentric wheels. Taken from the book titled Canonum Astronomicum, 1553 ([1319]). Book archive of the Pulkovo Observatory (St. Petersburg). Also see [543], page 54, ill. 22.

Planetary orbits are also drawn as concentric wheels in the book by Orontius Finaeus Delphinatis allegedly dating from 1553 ([1320], fig. 4.4). The orbital wheels can rotate independently. Concentric wheels, or several concentric planetary orbits, can be seen in Sacro Bosco's (or Sacrobusto's) book allegedly dating from 1516 ([1384], fig. 4.5). One should emphasize that the felloes of the wheels are covered in stars, or eyes, which is quite natural, since the orbits are celestial objects and exist amidst myriads of stars.

Wheel-like orbits are drawn in another book by Sacro Bosco (or Sacrobusto) allegedly dating from the XVI century ([1385]). The felloes of the concen-
tric orbital wheels bear the images of the Zodiacal constellations filled with stars, q.v. fig. 4.6.

Wheel-like orbits with felloes covered in stars can also be seen in the book by Corbinianus allegedly dating from 1731 ([1077] and fig. 4.7). The orbital wheels roll over the zodiacal belt. In general, one has to remark that mediaeval science had developed an extremely complex articulation system for the orbital wheels in order to explain planetary movements. This science was cast into oblivion by Copernicus, who placed the sun in the centre of the system instead of the Earth. However, this sophisticated geocentric system used to flourish before Copernicus.


Fig. 4.5. Planetary orbits as concentric wheels. Taken from a mediaeval book by J. de Sacro Bosco (or Sacrobusto) titled Sphera Materialis, 1516 ([1384]). Book archive of the Pulkovo Observatory (St. Petersburg). Also see [543], page 118, ill. 65.

Let us return to the Biblical prophecy of Ezekiel. The Bible says:
"Behold one wheel upon the earth by the living creatures [planets? - A. F.], with his four faces. The appearance of the wheels and their work was like unto the colour of a beryl: and they four had one likeness [or identical construction - A. F.]: and their appearance and their work was as it were a wheel in the middle of a wheel... As for their rings, they were so high [above the ground -A. F.] that they were dreadful; and their rings were full of eyes [full of stars! A. F.] round about them four. And when the living creatures went, the wheels went by them: and when the living creatures were lifted up from the earth, the
wheels were lifted up in line with them [the rotation of the planetary orbital wheel - A. F.]. Whithersoever the spirit was to go, they went... and the wheels were lifted up over against them: for the spirit of the living creature was in the wheels. When those went, these went; and when those stood, these stood; and when those were lifted up from the earth, the wheels were lifted up in line with them." (Ezekiel, 1:15-16, 1:18-21)

The Biblical observer quite explicitly describes planets and their quotidian movement over the orbital wheels. The description is so clear that identifying the "living creatures" with planets appears quite natural.

By the way, many late mediaeval painters who il-


Fig. 4.6. Mediaeval wheel-like orbits. The terrestrial globe is in the centre, and the planetary orbits surround it. Taken from a book by Sacro Bosco (or Sacrobusto) titled Opusculu de Sphaera... clarissimi philosophi Ioannis de Sacro busto, Viennae Pannoniae, 1518 ([1385]). Book archive of the Pulkovo Observatory (St. Petersburg). Also see [543], page 131, ill. 72.


Fig. 4.7. Mediaeval Egyptian cosmology. The wheel-like orbits roll across the zodiac. Taken from Firmamentum Firmianum by Corbinianus dating from 1731 ([1077]). Book archive of the Pulkovo Observatory (St. Petersburg). Also see [543], page 254, ill. 136.
lustrated the Bible without understanding the correct astronomical meaning of the "eyes round about them four" would interpret this literally and draw a multitude of eyes covering the entire body of the animal. The result was of dubious aesthetic value, and could serve as yet another illustration of the distortions one gets when later commentators fail to understand the original meaning of the ancient text.

### 1.6. Parallels with the astronomical symbolism of the Apocalypse

What we encounter later in the prophecy of Ezekiel resembles direct quotations from the Apocalypse, a New Covenant book: starlit sky, semblance of a crystal, etc.

According to the Bible, "the likeness of the firmament upon the heads of the living creature was as the colour of the terrible crystal, stretched forth over their heads above. And under the firmament were their wings straight, the one toward the other... and every one had two, which covered on that side, their bodies. And when they went, I heard the noise of their wings... when they stood, they let down their wings" (Ezekiel 1:22-24).

Also: "And above the firmament that was over their heads was the likeness of a throne [the constellation of the Throne, q.v. above - A. F], as the appearance of a sapphire stone: and upon the likeness of the throne was the likeness as the appearance of a sapphire stone: and upon the likeness of the throne was the likeness as the appearance of a man above upon it" (Ezekiel 1:26).

This is virtually identical to the Revelation of St. John, where we encounter the following passage: "and behold, a throne was set in heaven, and one sat on the throne... and there was a rainbow [the Milky Way A. F.] round about the throne, in sight like unto an emerald" (Revelation 4:2-3). See the previous paragraph.

### 1.7. Biblical cherubim, chariots, and mediaeval planetary orbital wheels

Let us remind the reader that planets were often represented as chariots in the Middle Ages. More on this can be seen in the paragraph above that deals with the Apocalypse. Chariots would be drawn by horses, and occasionally fantasy animals. A planet would ride a chariot, and the gigantic orbital wheels would bear the planetary insignia, or zodiacal constellations where the wheels were rolling. Let us point out that planets move over the zodiac, and the symbolism used here was typical for the Middle Ages.

It is amazing that the book of Ezekiel describes virtually identical symbols. This fact alone would give sufficient cause to inquire whether this Old Covenant book could have been written in the Middle Ages, around the XIII-XVI century A.D.

The Bible tells us the following: "behold, in the firmament [in the sky yet again - A. F.] that was above the head of the cherubim there appeared over them as it were a sapphire stone, as the appearance of the likeness of a throne [the Throne constellation - A. F.]" (Ezekiel 10:1).

The word "cherubim" (KHRBIM or RKHBIM) can also be used to refer to a chariot ([543], page 72). The 10th chapter of Ezekiel's prophecy that we quote tells us about several new celestial observations of the Biblical author that are unlike the ones mentioned in the first chapter (see above). He refers to planetary chariots, or the Cherubim moving across the firmament, or the celestial dome, somewhere near the Throne constellation.

The Bible says:
"And when I looked, behold the four wheels by the cherubim, one wheel by one cherub [chariot - A. F.], and another wheel by another cherub: and the appearance of the wheels was as the colour of a beryl stone [the reference is probably made to each planet possessing an orbit of its own - A. F.]. And as for their appearances, they four had one likeness, as if $a$ wheel had been in the midst of a wheel... they turned not as they went... and their whole body, and their backs, and their hands, and their wings, and the


Fig. 4.8. This picture shows us that the Chariot constellation (on the left) was replaced by Ursa Major (on the right). Taken from Cosmographicus Liber Petri Apiani mathematici studiose collectus, Landshutae, impensis P. Apiani, 1524 ([1013]). Book archive of the Pulkovo Observatory (St. Petersburg). Also see [543], page 91, ill. 53.


Fig. 4.9. A mediaeval picture of the Ophiuchus holding the equinoctial in his hands. There are grading points on the equinoctial, making it look like a measuring-rope. Taken from the Firmamentum Firmianum by Corbinianus, 1731 ([1077]). Book archive of the Pulkovo Observatory (St. Petersburg). Also see [543], page 105, ill. 57.
wheels, were full of eyes round about, even the wheels that they four had." (Ezekiel 10:9-12)

We shall quote the next fragment in the translation of N.A. Morozov: "The names of these wheels... the one in the rear bore semblance to a Chariot." It is possible that what we see here is a reference to Ursa Major, which used to be represented as a chariot. This rare mediaeval depiction can be seen on the chart from the 1524 Apianus book, for instance ([1013], fig. 4.8).

Let us carry on with quoting Morozov's translation: "the second had the likeness of a man and the third, that of a lion; the fourth had the likeness of an eagle. The chariots went upwards. They were the same living creatures as I have seen" (Ezekiel 10:14-15). The Biblical observer points out that the chariots and the living creatures that he describes in the first chapter are one and the same. Could they be planets?

We witness mediaeval astronomy on the pages of
the Biblical prophecy yet again: planets on their orbital wheels moving across the celestial sphere.

The Bible says that "when the cherubim [the chariots - A. F.] went, the wheels went by them: and when the cherubim lifted up their wings to mount up from the earth, the same wheels also turned not from beside them. When they stood, these stood; and when they were lifted up, these lifted up themselves also: for the spirit of the living creature was in them" (Ezekiel, 10:16-17).

### 1.8. The Biblical description of mediaeval cosmology as a celestial temple

One should definitely point out another remarkable astronomical fragment in the book of Ezekiel. Morozov's translation is as follows: "there was a likeness of a Man together with the likeness of a Serpent.

He had a land-chain and measuring cane in his hands and stood at the gates" (Ezekiel 40:3).

An entire page is to follow, dedicated entirely to the descriptions of various measurements and numeric coefficients of the celestial temple. Some surveyor is conveying the measurements. Who could he be, and what exactly is the temple that the Bible describes in such great detail, giving the locations of rooms, partitions, entrances and exits, pillars, their size, and so on? The answer is amazingly simple. It suffices to turn to mediaeval star charts yet again.

The 1731 book by Corbinianus, for instance ([1077]) contains a picture of Ophiuchus as a man who holds the equinoctial in his hands in the shape of a chain, or rope, or lasher, q.v. fig. 4.9. The semblance between the equinoctial and a measuring rope or land-chain is obvious, since the equinoctial has degree marks upon it. This is how most ancient star charts depict it. We can also see a vertical cane on this picture - the lower solstice meridian, which the Ophiuchus holds in his hand vertically. Therefore, the ancient maps portray him as a measurer. We see that this mediaeval map of constellations is represented in the Old Covenant book quite faithfully.

The celestial temple is depicted as a large hall on dozens of late mediaeval charts as a well-known astronomical object, exactly the way the Biblical prophecy refers to it. A temple, or a hall in the sky can be seen in the book by P. Apianus, for instance ([1013], fig. 4.10). Similar celestial palaces can be seen in the book by Bacharach dating from 1545 ([1021]) - on the so-called Egyptian Zodiac. See also [543], pages $81-82$, ills. 39-50 and 51 . The celestial hall merely reflects the cosmological concepts of the mediaeval astronomers. We can see planets, their orbits, the zodiac, constellations, their movement, etc. This is the pre-Copernican mediaeval cosmology.

The plan of the celestial temple as a building that has planetary orbital wheels and a zodiacal wheel revolving inside it can be seen in the XVI century book by Sacro Bosco (or Sacrobusto) - see [1385] and fig. 4.11. Another similar representation from a different book by Sacro Bosco ([1383]) is shown in fig. 4.12. This picture reflects the entire mediaeval cosmology. Angels move within a hall, revolving the eaves, the pales, and the heavy zodiacal belt that has planetary orbital wheels sliding across it.

We may be told that the mediaeval astronomers merely drew the "extremely ancient" Biblical images on their charts, which came to them from the pages of the Bible "out of deep antiquity." This interpretation is highly dubious, in our opinion. Most probably, the astronomical objects were of a primary nature, and not their literary descriptions - in the Old Testament, for instance. All the astronomical images listed above are far from being "illustrations to the Bible." They are filled with concrete scientific meaning: orbital wheels, equinoctials, meridians, star hours, etc. These concepts were introduced by mediaeval astronomers who pursued pragmatic and scientific ends, which were far away from the literary paradigm. It was only afterwards that poets and writers began to create their literary images after having studied the star charts. Mediaeval cosmology - the celestial temple with its orbital wheels etc, wasn't created by poets, but rather by astronomy scholars. The poets merely followed them in order to chant praises to science.

The conclusion is rather clear. All the astronomical fragments from the Biblical book of Ezekiel are manifestations of mediaeval, or possibly late mediaeval, scientific culture. Late mediaeval star charts, as well as Biblical texts, were apparently created in the XI-XVI century A.D. within the same paradigm of scientific ideology. Scaligerian chronology that came into existence somewhat later is nevertheless persistent in separating them by a temporal gap of $1500-$ 2000 years.

## 2.

## THE BIBLICAL PROPHECY OF ZECHARIAH AND THE DATE OF ITS CREATION

Scaligerian chronology tries to convince us that the prophecy of Zechariah was written between 520 and 518 в.с. - about seventy years after the book of Ezekiel, that is. N. A. Morozov suggests to translate the word Zechariah as "The Thunderer Remembers" ([544], Volume 1, page 252). The entire book, as well as the prophecy of Ezekiel, or "The Lord Shall Overcome," is concerned with the same topic, namely, that some God-to-come didn't forget his promise of advent. He merely postpones it in order to punish people for their lack of faith.

The combination YHVH was pronounced as


Fig. 4.10. A mediaeval model of the celestial temple. We can see celestial mechanisms of all kinds, pillars, corbeils, etc. Taken from Petri Apiani Cosmographia, 1540, or Cosmographicus Liber Petri Apiani mathematici studiose collectus, Landshutae, impensis P. Apiani, 1524 ([1013]). Book archive of the Pulkovo Observatory (St. Petersburg). Also see [543], page 129, ill. 71.


Fig. 4.11. A picture of the celestial temple from the Opusculu de Sphaera... clarissimi philosophi Ioannis de Sacro busto. Book archive of the Pulkovo Observatory (St. Petersburg). Also see [543], page 111, ill. 61.


Fig. 4.12. Mediaeval concept of cosmology, or the construction of the celestial temple. The angels rotate the axes, the wheels, and the zodiacal belt. Taken from the Opusculum Johannis de Sacro busto spericum, cu figures optimus ei novis textu in se, sine ambiguitate declarantibus by J. de Sacro Bosco (Leipzig, 1494). See [1383]. Book archive of the Pulkovo Observatory (St. Petersburg). Also see [543], page 118, ill. 64.

Jehovah by the translators of the Bible; it is often translated as The Lord God. "YHVH" can also be the future tense of the verb "to be" - "God-to-be," or "God-to-come." Latins transformed this word into Jovis, or Jupiter - an abbreviation of Jovis-Pater, or JovisFather. The Greeks transformed this name into Zeus. The historian Eunapius who had allegedly lived in 347-414 A.D. writes that "the Italians call Zeus Iovius" ([132], page 86).
N. A. Morozov suggests translating the name YHVH, or Jehovah, as "Thunderer," since it is a widely used synonym for J-Pater (Jupiter). One has to remember that believers haven't always had the right to pronounce God's full name aloud, and called him Adonai, or Lord, instead. This is probably the reason for the existence of the abovementioned abbreviation - the full form YHVH transformed into YAH or IAH, or even single letters I or J, which gave birth to the name Jupiter, or J-Pater - God the Father.

This is how this word is written in the Biblical title of the book of Zechariah. ZECHAR-IAH is written here instead as the more complete ZECHAR-YHVH, or "The Thunderer Remembers."

All of this, together with the distinct astrological hue of certain Biblical texts referring to Jehovah ([544]) leads one to the thought that the Thunderer, whom the prophets of the Old Testament await with such eagerness, isn't some unknown pre-Christian
deity, but, rather, the very same God that says "I am the Alpha and Omega, the beginning and the end" to John in the first chapter of the Apocalypse (Revelation $1: 8$ ). None other than Jesus Christ, in other words. The Apocalypse proclaims the Second Coming and Doomsday. The prophets of the Old Testament of the XIV-XVI centuries A.D. are expecting his advent.

The book of Zechariah (ZECHAR-YHVH) is filled with descriptions of the same events that we find in the Gospels. The actual prophecy mentions "Joshua the great priest" often enough (Zechariah 3:1). It is significant that Scaligerian chronology is forced to acquiesce that the prophecies contained in the books of the Old Covenant "predict" the advent of Jesus Christ, as well as certain evangelical events. Let us but give one example.

The book of Zechariah tells us the following:
"And I said unto them, if ye think good, give me my price; and if not, forbear. So they weighed for my price thirty pieces of silver. And the Lord said unto me, Cast it unto the potter: a goodly price that I was prised at of them. And I took the thirty pieces of silver and cast them to the potter in the house of the Lord... Woe to the idol shepherd that leaveth the flock!. His arm shall be clean dried up, and his right eye shall be utterly darkened." (Zechariah 11:12-13, 11:17)

It is assumed nowadays that all of this was written centuries before Jesus and the legend of the apostle Judas who betrayed him for thirty pieces of silver. Compare the passage from Zechariah to the following from the Gospels:
"and said unto them, What will ye give me, and I will deliver him unto you? And they covenanted with him for thirty pieces of silver... And he cast down the pieces of silver in the temple, and departed, and went and hanged himself. The chief priests took the silver pieces and said, It is not lawful for to put them into the treasury... and they... bought with them the potter's field, to bury strangers in."(St. Matthew 26:15; 27:5-7)

This alone should tell us that the testamentary book "The Thunderer Remembers," or "Zechariah" was written after the Crucifixion - which occurred in the XI century a.d. by our reconstruction.

The fact that the versions of the Gospels that have survived until our day make frequent and extensive references to the books of prophets most probably means that they all were written around the same
time, or, alternatively, that the editing of the Gospels lasted for a long enough time, after their creation in the XII-XIII century A.D., to incorporate such references.

The analysis of the astronomical fragments of the book "The Thunderer Remembers" is based on the same principle as the analysis of Revelation and the book "The Lord Shall Overcome," or Ezekiel. We shall thus cut the details short, and give a brief summary. Details can be found in [543].

In the book of Zechariah we encounter the same four planetary chariots as described in Ezekiel. This time the reference to the "four chariots" remained in the synodal translation as well (Zechariah 6:1). One marks the uniformity of the symbolism found in Zechariah and Ezekiel. Actually, according to the Scaligerian point of view, Biblical prophecies were written in the same epoch and belong to the same literary tradition. We see no reason to argue with this, and share the opinion of historians.
N. A. Morozov believed that Chapter 6 describes a horoscope that he dated to 453 A.D. the earliest. However, despite the fact that this description is clearly astronomical, it is rather hard to use it for obtaining a reliable horoscope.

## 3. <br> THE BIBLICAL PROPHECY OF JEREMIAH AND THE DATE OF ITS CREATION

According to N. A. Morozov, the word "Jerem-Iah," or IERMNE-IAH translates as "The Thunderer Shall Cast a Bolt" ([544], Volume 1, page 267). This is apparently a title as opposed to the author's name yet again. Scaligerian chronology dates the book to the alleged years 629-588 в.с. - the same epoch as Ezekiel, that is. Their ideological proximity is duly noted, even the use of the same literary style and form. Since these considerations only refer to relative chronology, we find no reason to argue with historians.

The book contains another reference to the god who declares his intent to keep the promise that he once gave, that he will soon come to earth at the time of great afflictions in order to judge the people. This looks like yet another variation of the Apocalypse.

The impending advent of God is symbolized by a poised mace hanging in the sky. The synodal trans-


Fig. 4.13. A mace-shaped comet. Taken from the mediaeval $A s$ tronomia by Bacharach, dated 1545. Book archive of the Pulkovo Observatory (St. Petersburg). Also see [543], page 185, ill. 94.


Fig. 4.14. A mace-shaped comet. Taken from the mediaeval Astronomia by Bacharach, dated 1545. Book archive of the Pulkovo Observatory (St. Petersburg). Also see [543], page 188, ill. 96.
lation offers "a rod of almond tree" as an alternative (Jeremiah 1:11). However, the Hebraic text says MKLSHKD, which stands for "a poised stick, a mace ready to strike, or a club ([543], page 184). This is why the translation should run as follows: "I said, I see a poised mace [almond rod]. Then said the Lord unto me, Thou hast well seen" (Jeremiah, 1:11-12).

As with the other prophetic books treated presently, Jeremiah contains a large number of astronomical fragments. We shall refrain from analysing them here, since an in-depth analysis is given in [543]. According to N. A. Morozov, this refers to a comet that appeared in the sky.

Pictures of comets can be found in many mediaeval books on astronomy. Comets were oftentimes represented as fantasy images whose purpose was to intimidate. A club or a poised mace is a mediaeval image that was frequently used to denote a comet.

Bacharach's book allegedly dating from 1545 , for instance, depicts a comet as a mace (see fig. 4.13). The same book contains another picture of a comet as a mace surrounded by stars (see fig. 4.14). The book


Fig. 4.15. A mace-shaped comet. Taken from the Theatrum Cometicum, etc. by Lubienietski, Amstelodami, 1666-1668 ([1256]). Book archive of the Pulkovo Observatory (St. Petersburg). Also see [544], page 195, ill. 101.
of Stanislaw Lubienietski dating from 1666-1668 depicts a comet similarly ([1256], fig. 4.15).

A particularly vivid description of a comet is given in the following fragment of "The Thunderer's Bolt," or "Jerem-Iah": "What seest thou? And I said, I see a seething pot; and the face thereof is toward the north. Then the Lord said unto me, Out of the north an evil


Fig. 4.16. A comet shaped as a boiling cauldron concealing a face. Taken from the mediaeval Astronomia by Bacharach, dated 1545. Book archive of the Pulkovo Observatory. Also see [543], page 185, ill. 93 .
shall break forth upon all the inhabitants of the land" (Jeremiah, 1:13-14).

Bacharach's astronomy allegedly dating from 1545 has a most remarkable illustration where one sees a comet that looks like a gigantic round face seething with flames and heat, surrounded by stars incinerated by the flames (see fig. 4.16). The illustration is done in such a manner that the spectator has the illusion of seeing the top of a boiling cauldron.

Thus, the book of Jeremiah doubtlessly contains a mediaeval description of some comet. The actual fact that the description refers to a comet was noted a long time ago. D. O. Svyatsky wrote about it in his Halley Comet in the Bible and the Talmud. He tried to date this comet, but without any success. It is also possible that the very title of the book, "The Thunderer's Bolt," is related to the appearance of a comet in the sky.

There is no reliable horoscope in the prophecy of Jeremiah, despite the fact that we have seen some fragments that were clearly astronomical in nature. Dating the book astronomically is far from simple. Using the description of the comet for a dating is also impossible. Comets in general are poor assistants in matters of astronomical dating since their descrip-
tions are usually rather vague and fanciful. Furthermore, there is no reliable historical proof for numerous reappearances of periodical comets which could provide some basis for "comet datings." We shall consider comets in more detail in Chrons.

## 4.

## THE BIBLICAL PROPHECY OF ISAIAH AND THE DATE OF ITS CREATION

The prophecy of Isaiah is one of the longest in the Bible. It is allegedly dated to 740 b.c. According to N. A. Morozov, the word "Isaiah" means "Forthcoming Freedom." This prophecy is also among the most famous. N. A. Morozov had been of the opinion that it contained the description of a comet, which he attempted to date - unsuccessfully, in our opinion, since, as we shall demonstrate below, comets are hardly suitable for independent dating.

The book is full of memories of Christ. It isn't without reason that this particular prophecy is often referred to as the Fifth Gospel ([765]). Let us cite several "Jesus fragments" from the book of Isaiah as examples:
"Behold my servant, whom I uphold; mine elect, in whom my soul delighteth; I have put my spirit upon him: he shall bring forth judgement to the Gentiles" (Isaiah 42:1). The reference is most probably to John - a follower of Jesus and the author of the Revelation that predicted Doomsday.
"As many were astonied at thee; his visage was so marred more than any man" (Isaiah 52:14).
"He is despised and rejected of men; a man of sorrows, and acquainted with grief: and we hid as it were our faces from him; he was despised, and we esteemed him not. Surely he hath borne our griefs, and carried our sorrows: yet we did esteem him stricken, smitten of God, and afflicted. But he was wounded for our transgressions... the chastisement of our peace was upon him; and with his stripes we are healed. All we like sheep have gone astray... and the Lord hath laid on him the iniquity of us all. He was oppressed, and he was afflicted, yet he opened not his mouth: he is brought as a lamb [sic! - A. F.] to a slaughter, and as a sheep before her shearers is dumb, so he openeth not his mouth. He was taken from prison and from judgement... for the transgression of my people was
he stricken. And he made his grave with the wicked [compare with the Gospels - "there they crucified him, and the malefactors, one on the right hand, and the other on the left" (Luke 23:33) - A. F.], and with the rich in his death [another reference to the Gospel - buried by Joseph - A. F.]... by his knowledge shall my righteous servant justify many; for he shall bear their iniquities." (Isaiah 53:3-9, 53:11)

And so on, and so forth.
Scaligerian history attempts to prove to us yet again that all of this was written many centuries before Jesus Christ was crucified. We deem this to be highly dubious. This text was most probably created after the XII century a.d., long after the "Passion of Christ." We should also point out that if one translates the words "salvation" and "saviour" which are scattered all across the text of Isaiah in great abundance, we shall get the word "Jesus." See details in [543].

## 5. <br> THE BIBLICAL PROPHECY OF DANIEL AND THE DATE OF ITS CREATION

Historians used to date this book to 534-607 в.c. ([765]). However, this point of view was subsequently revised. Nowadays the book is considered to have been written around 195 в.c., so the date was moved about four centuries forward. This fact alone should tell us that there is no reliable way of estimating the independent dating of the book in Scaligerian chronology. The book of Daniel is considered to be the last prophecy ([765]). If Scaligerite historians can keep ignoring the relation of other prophecies from the Old Testament to the Revelation, the prophecy of Daniel is in a privileged position. The parallel with the Apocalypse here is so obvious that historians were forced to admit its existence.

Apparently, this is exactly why the dating of the book of Daniel started travelling forwards in time it was necessary in order to get closer to the Scaligerian dating of the Apocalypse pertaining to the first centuries of the new era. The historians say the following in this regard: "its nature [that of the book of Daniel - A. F.] demands calling it apocalyptic rather that prophetic" ([765], pages 93-94).

According to N. A. Morozov, the name Daniel translates as "The Truth of God" ([544], Volume 1,


Fig. 4.17. Picture of a comet next to a human hand writing something acrtoss the sky. Taken from a mediaeval book by S. Lubienetski titled Historia universalis omnium Cometarum, 1681 ([1257]). Book archive of the Pulkovo Observatory (St. Petersburg). Also see [543], page 208, ill. 106.
page 274). Once again we are confronted with the possibility that it is the title of the book and not the name of the author. The Biblical critics have established that it is the most recent prophecy from the Bible - it makes references to previous prophets, for one thing. Considering our new results concerning the dating of Biblical books, this prophecy is most probably late mediaeval in its origin.

Apparently, this book contains no precise astronomical horoscope. However, it contains a wonderful description of a comet. Although "comet datings" are not to be trusted the slightest bit, and can only serve as secondary proof for independent astronomical research, we shall give a brief account of the comet description contained in the book of Daniel.

This book is widely known for its legend about the prophet Daniel who had explained the inscription,
"MENE, MENE, TEKEL, PERES," written by a fiery hand on the wall of a palace, to king Belshazzar.

The Bible says: "In the same hour came forth fingers of a man's hand, and wrote over against the candlestick [lamp - A. F] upon the plaster of the wall of the king's palace: and the king saw the part of the hand that wrote" (Daniel 5:5).
"And this is the writing that was written, MENE, MENE, TEKEL, UPHARSIN." (Daniel, 5:25).

Let us also quote Morozov's translation of the Hebraic text, which differs from the synodal translation somewhat.
"This very hour a finger appeared [ATSBEN in Hebraic, whereas the plural would be "ATSBEUT" A. F.] in the hand of a stately man [the Hebraic text says DI-ID-ANSH, or "the hand of a mighty person," while ID indicates possession, and not an actual part of the hand, so there is a human hand that holds some finger - A. F.], and he began to write towards the lamp of night on the plasterwork of the princely hall" (see [543], page 213).

What could a "finger in the hand of a stately man" possibly refer to, and one that wrote on the walls of a "princely hall" - most probably the sky - at that? We have already witnessed that astronomical topics are abundant and obvious in the Bible. It suffices to take a look at the mediaeval illustration to S. Lubienietski's Cometography dating from 1681 ([1257], see fig. 4.17).

We can observe a cloud of dust on the starlit sky, and a hand that grasps a branch protruding from the cloud. The branch ends with a twig that resembles a finger, which the hand uses for tracing out some illegible inscription. We see a comet directly above the hand, depicted as a gigantic fiery star with a tail.

It is very likely that the prophecy of Daniel really contains the description of a comet, since it says that the hand wrote towards the Lamp of Night, or, most probably, the moon. N.A. Morozov was of the opinion that "stately man" referred to the constellation of Ophiuchus. We have discussed this identification above.

The terrified king proceeds to turn to KSHDIA, or "astrologers" ([543]). This is normal, since the profession of the mediaeval astrologers implied interpreting events observed on the celestial sphere (Daniel 5:7). Finally, Daniel explains the inscription to the king:
"And this is the writing that was written, MENE, MENE, TEKEL, UPHARSIN. This is the interpretation of the thing: MENE; God hath numbered thy kingdom... TEKEL; Thou art weighed in the balances... PERES; Thy kingdom is divided, and given to the Medes and the Persians" (Daniel 5:25-28).

The Hebraic text has MNA-MNA, TKL, U PRSIN, which can be translated as "the measurer has measured, Libra and towards Perseus." We have already pointed out that Ophiuchus was identified with the measurer of the celestial sphere on many mediaeval maps - see fig. 4.9 from the book by Corbinianus dating from 1731 ([1077]). Therefore, "Daniel" as applied to the Measurer is most possibly a second reference to Ophiuchus - in other words, a stately man as depicted on mediaeval star charts. This gives one the idea that some comet may have moved towards Perseus from Libra, passing through Ophiuchus.

Having analyzed the information about comets that has reached our age, Morozov made the assumption that this could have been the comet of the alleged year 568 A.D. or 837 A.D. However, comet dating can by no means be seen as dependable. We shall elaborate on this point in Chrons.

We shall conclude with the observation that the
"ancient" Hebraic has no future tense, and so inferences of future time have to be determined according to the context. Therefore some text written in the present tense and referring to the events of the present and the past could be transformed into text written in the future tense, according to the perception of later readers ([543]). Could this be the reason why Hebraic literature contains so many prophecies?

## Our reconstruction

Biblical prophecies contain astronomical fragments whose analysis allows for the formulation of a hypothesis about these books being mediaeval or even late mediaeval in origin. This conclusion concurs well with the results of using new empirico-statistical methods in relation to the Bible, transferring the time of its creation into the epoch of the XI-XVI century A.D. See more about this below. Let us remind the reader that the astronomical dating of the Revelation yields the date of 1486 A.D. This is why the proximity of the Old Testament prophecies to the New Testament Book of Revelations might indicate that all of them were created in the XV-XVI century a.d. We shall point out certain fragments from the book of Daniel that refer to XVI century events in Chron6.

## CHAPTER 5

## The methods of dating the ancient events offered by mathematical statistics

In our opinion, the main task of chronological analysis is to create independent statistical methods for the dating of ancient events. Only after that can one proceed to recreate chronology as a whole on the basis of the results obtained. A single method - even as efficient as the astronomical method described above - is not enough for a profound study of the problem, because dating is an extremely sophisticated task that requires different methods of cross-verification. Advanced modern methodology of mathematical statistics makes it possible to offer a new approach to the dating of events described in ancient chronicles. This chapter describes new empirico-statistical methods developed by the author and his colleagues, as well as certain ways of applying them to chronological analysis.

This program was implemented in the following way.

1) New empirico-statistical methods of dating applicable to the events were developed, based on several statistical principles (models) proposed by the author in [884]-[886], [888]-[891], [895]-[905], [1129]-[1132], and [1135]. For a detailed account, see [MET1] and [MET2]. The primary principles, as well as the models based thereupon, were laid out by the author in his report at the 3rd International Conference on Probability Theory and Mathematical Statistics, Vilnius, 1981 ([885]).

We proposed:

- The maxima correlation principle;
- The small distortions principle (for ruler dynasties);
- The frequency damping principle, the frequency duplication principle, and the geographic map "improvement" principles.
The development of these methods was then related in a report made at the 4th International Conference on Probability Theory and Mathematical Statistics, Vilnius, 1985 ([901]) and the 1st International Congress of the Bernoulli Society for Mathematical Statistics and Probability Theory, 1986 ([1130]). Later on, new empirico-statistical models were proposed and verified experimentally in a series of works by V. V.Fedorov, A. T. Fomenko, V. V. Kalashnikov, G. V. Nosovskiy, and S. T. Rachev ([357], [590]-[613], [723], [1140] and [868]).

2) Those principles and models, as well as their efficiency, were verified by a sufficient amount of authentic material from medieval and contemporary history of the XVI-XX century, proving accuracy of the results obtained by these methods.
3) The same methods were applied to chronological material of ancient history normally dated to periods preceding the X-XIV century a.d. See [884], [886]-[888], [891], [895], [897], [898], [900], [903]
and [905]. Strange "repetitions" and "recurrences" were discovered in Scaligerian version of the ancient and medieval history, the ones that we shall be referring to as "phantom duplicates".
4) All of these phantom duplicates were ordered into a system on the global chronological map outlined by the author in his articles [886], [888], [894], [896] and [905]. We do not absolutely consider the suggested methods to be of a universal nature, their applicability limits are clearly defined (see below). The only criterion for the correctness of results obtained is the conformity we discovered between the dates calculated by different methods, including the astronomical dating method described earlier.
5) On the basis of the global chronological map representing "the Scaligerian textbook of ancient history", we managed to restore a tentative origin of the Scaligerian version of the ancient and mediaeval chronology. We shall encapsulate some of those methods below.

## 1.

## THE LOCAL MAXIMA METHOD

### 1.1. The historical text volume function

The maxima correlation principle, and a method based thereupon, were proposed and developed by the author in [884], [885], [888] and [1129].

Let us assume that we discovered a historical text $X$, e.g., a previously unknown chronicle relating previously unknown events within a significant time interval, from year $A$ to year $B$. Moreover, we may know nothing of the chronology in which these years were recorded. We shall hereinafter mark this time interval as $(A, B)$. A typical situation: dates of events described in a chronicle are counted down from some event of local importance, such as the foundation of a town, accession of a ruler, etc. In such cases we would say that the chronicle dates the events in a relative chronology, which would allow us to distinguish these from the absolute dates in terms of B.c. or A.D. A natural question arises, namely: "How does one restore the absolute dates of events described in an antique document?" - for instance, the Julian date for the foundation of a town used to calculate the dates of the events?

Certainly, if we already know some of the events described in a dated chronicle, then we can "link" these events to the contemporary time scale. However, if such identification is impossible, the task of dating becomes more complicated. Moreover, the events described in the chronicle discovered may turn out to have already been known to us, though the appearance of their description is still beyond recognition because the chronicle is written in a different language, the chronicler uses completely different names, nicknames, geographic names, etc. Therefore, one might as well use a method of empirico-statistical nature, which occasionally makes it possible to date events on the basis of formal quantitative characteristics of the text under study.

Let us assume that a historical text $X$ is broken up into fragments $X(t)$, each corresponding to a comparatively short time interval, for example, a year (or a decade) number $t$. There exist numerous examples of such texts - e.g., the per annum chronicles, or those describing events year after year, "per annum": diaries, many historical literary works, history textbooks and monographs. We shall be referring to the fragments $X(t)$ as "chapters". They line up naturally in a chronological sequence according to the internal relative chronology of the chronicle in question. Many historical texts explicitly feature such "fragmentation into chapters", each describing a single year. Such are, for instance, many Russian chronicles ([671], [672]), as well as the famous Radzivilovskaya Letopis (Povest Vremennykh Let) / The Radzivil Chronicle (Story of Years of Time) [715]. The famous Roman book Liber Pontificalis, (T. Mommsen, Gestorum Pontificum Romanorum, 1898) is of a similar nature.

Various characteristics of the information volume reported by chronicle $X$ about year $t$ can be measured as:

1) vol $X(t)=$ number of pages in "chapter" $X(t)$. Call this number the volume of "chapter" $X(t)$. The volume can be zero if year $t$ is not described in chronicle $X$, or missing. Instead of pages, one can count the number of lines, symbols, and so on. That neither affects the idea, nor the application of the method.
2) The total number of times year $t$ is mentioned in chronicle $X$.
3) The number of names of all historical characters mentioned in "chapter" $X(t)$.
4) The number of times a certain specific name (character) is mentioned in "chapter" $X(t)$.
5) The number of references to some other text in "chapter" $X(t)$.

The fund of quantitative characteristics like this is fairly large and important - each one, as we see, assigns a specific number to each year $t$ described in the chronicle. In general, different numbers will correspond to different years; therefore, volumes of "chapter" $X(t)$ will largely be changing as the number (year) $t$ changes. We shall call the succession of volumes $X(A), \ldots, X(B)$ the volume function of the per annum text $X$.

### 1.2. The maxima correlation principle

Thus, we assume a certain historical period from year $A$ to year $B$ in the history of one state $S$ is described in a per annum chronicle $X$ exhaustively enough, that is, chronicle $X$ has already been, or can be, broken up into pieces - "chapters" $X(t)$, each describing one year $t$. We shall calculate the volume of each such piece - e. g., the number of words or symbols, pages, and so on - and then present the obtained numbers as a graph, with years $t$ on the horizontal axis, and volumes of "chapters", or vol $X(t)$, on the vertical axis (fig. 5.1). The result shall be a graphical representation of the volume function for chronicle $X$.

A respective volume function graph for another per annum chronicle $Y$, describing the year-after-year "flow of events" of the same epoch $(A, B)$, will, as a matter of fact, look different (fig. 5.1). The point is that the personal interests of chroniclers $X$ and $Y$ play a major part in the distribution of volumes - e.g., the information focus and per annum distribution in chroni-


Fig. 5.1. The volume graphs for the two chronicles, $X$ and $Y$, relating the events of the same historical epoch.
cle $X$ focussed on the history of art, and military chronicle $Y$ will differ substantially. For example, chronicler $X$ of a "defeated party" would describe the defeat of his army in a sparing and reserved manner, in just a few lines. On the contrary, chronicler $Y$ of a "victorious party" would render the same battle in great detail, enthusiastically and eloquently, on several pages.

How vital are those differences? Or, are there characteristics of volume graphs that can only be defined by the time interval $(A, B)$, the history of a state $S$, and unambiguously characterise all, or almost all, chronicles describing this time interval and this state?

Years $t$ where the graph peaks, or reaches its local maximum, turn out to be a crucial characteristic of volume graph vol $X(t)$. The fact that the graph peaks at a given point $t$ means that this year is described by the chronicle in greater detail - for example, on more pages than the adjacent ones. Therefore, the peaks of the graph, or its local maxima, indicate years a chronicler described in detail on the time interval $(A, B)$. In different chronicles $X$ and $Y$, absolutely different years can be "described in detail".

What is the reason for such an uneven description of different years? A possible explanation: a chronicler described an "ancient year" in greater detail because more information on that "ancient year" was available - such as a bulk of old documents larger than that for adjacent years.

The course of our further argumentations is as follows.

1) We shall formulate a theoretical model, or statistical hypothesis, that will allow us to predict what years from the time interval $(A, B)$ will be reported in detail by a later chronicler, not a contemporary of the ancient events he describes.


Fig. 5.2. The graph of the "primary information fund" $C(t)$, and the graph of the "remaining information fund" (the texts that survived until the epoch $M$ ) peak almost simultaneously.
2) Then, we shall mathematically formulate that statistical model, or hypothesis.
3) We shall test its correctness on the fairly extensive reliable historical material of the XVI-XX century.
4) Upon discovering experimental proof for the theoretical model, we shall offer a method suitable for the dating of ancient events.

Let $C(t)$ be the volume of all texts written about the year $t$ by its contemporaries (fig. 5.2). As above, we shall construct a numeric volume graph of the time interval $(A, B)$. We certainly are not aware today of the precise appearance of this graph $C(t)$. The fact is, the original texts written by contemporaries of the events ascribed to year $t$ became gradually lost over the course of time, and only a certain part has survived. The graph $C(t)$ can be called the primary information fund graph. Let us assume that contemporaries described certain years of the epoch $(A, B)$ in greater detail, that is, recorded an especially large amount of information about these years. We are not discussing reasons for this "original unevenness" as fairly irrelevant to us now. In the sense of the volume graph $C(t)$ such years -"described by contemporaries in detail" - will be noted for peaks of the graph on these precise years.

A question: 'How does the loss of information occur, which may eventually distort graph $C(t)$ and decrease its altitude?' Let us relate the information loss model.

Although the altitude of the graph $C(t)$ decreases over the course of time, nonetheless, the more prolific the chronicles of a given year, the more texts dating from that year will survive.

To relate the model, it is useful to fix a certain moment in time $M$ to the right of point $B$ on fig. 5.2 , and construct a graph $C_{M}(t)$ showing the volume of texts that "survived" until the moment $M$ and describe the events of year $t$ in the epoch $(A, B)$.

In other words, the number $C_{M}(t)$ shows the volume of the original ancient texts from year $t$ that survived until the "fund observation moment" in year $M$. The graph $C_{M}(t)$ can be referred to as the graph of the "residual information fund" that survived from the epoch $(A, B)$ until the year $M$. Now our model may be restated in the following way.

Peaks on both the residual fund volume graph $C_{M}(t)$ and the original primary information fund graph $C(t)$
must occur approximately in the same years of the time interval $(A, B)$.

The model is obviously quite difficult to test as it is, because the primary information fund graph $C(t)$ is unknown today. But it is still possible to verify one of the consequences of the theoretical model (hypothesis).

Since later chroniclers $X$ and $Y$ describing the same historical period $(A, B)$ and the "flow of events" are no longer contemporaries of those ancient events, they have to rely on more or less the same set of texts available in their time. Thus, they would describe in greater detail "on the average" the years from which more texts survived, and in less detail the years of which little information was available. That is, the chroniclers should increase the detail level of their rendition for the years that yielded more old texts.

In the language of volume graphs, the model looks as follows. If chronicler $X$ lives in epoch $M$, then he will rely on the residual fund $C_{M}(t)$. If the other chronicler $Y$ lives in epoch $N$ that is generally different from epoch $M$, then he relies on the available information fund $C_{N}(t)$. See fig. 5.3.

It is quite natural to expect the chroniclers $X$ and $Y$ to work in good faith on the average, therefore describing in greater detail those years of the ancient (from their point of view) epoch $(A, B)$ from which more information and old texts are available.

The above means that the peaks on the volume


Fig. 5.3. The graphs of the remaining information funds peak around the same period of time as the graph of the primary graph, $C(t)$. The chronicle volume functions $X$ and $Y$ peak in roughly the same points as the volume graphs for the information that survived until their epoch.
graph vol $X(t)$ and the graph $C_{M}(t)$ will occur in the same years. In turn, peaks on graph vol $Y(t)$ and graph $C_{N}(t)$ will occur approximately over the same years, fig. 5.3.

But the peaks of the residual fund graph $C_{M}(t)$ are close to those of the original, or primary graph $C(t)$. Likewise, the splash points of the residual fund graph $C_{N}(t)$ are close to the splash points of the primary graph $C(t)$. Hence, splashes on the volume graphs for chronicles $X$ and $Y$, or the graphs vol $X(t)$ and $\operatorname{vol} Y(t)$, must occur approximately at the same time, in "the same" points of the time axis. In other words, their local maxima points must distinctly correlate, fig. 5.1.

In doing so, the amplitudes of graphs vol $X(t)$ and vol $Y(t)$ can certainly differ substantially, fig. 5.4, which does not appear to affect the arguments stated.

The final formula for the maxima correlation principle is as follows, preceding the reasoning regarded as the primary consideration.

## The maxima correlation principle

a) If two chronicles (texts) $X$ and $Y$ are a priori dependent, or describe the same "flow of events" of historical period $(A, B)$ of the same state $\mathbf{S}$, then local maxima (splashes) on volume graphs of the chronicles $X$ and $Y$ must occur simultaneously on the time interval $(A, B)$. In other words, the years "described in detail in chronicle $X$ " and the years "described in detail in chronicle $Y$ " must be close or coincident, fig. 5.4.
b) On the contrary, if chronicles $X$ and $Y$ are a priori independent, i.e., describe either different historical periods ( $A, B$ ) and ( $C, D$ ), or different "flows of events" in different states, then the volume graphs for chron-


Fig. 5.4. Volume graphs of the dependent chronicles $X$ and $Y$ which relate the events of roughly the same epoch, peak almost simultaneously. However, the peaks may significantly differ from each other in size.
icles $X$ and $Y$ reach their local maxima in different points. In other words, the peaks of the graphs vol $X(t)$ and vol $Y(t)$ should not correlate, q.v. in fig. 5.5. In doing so, we are supposed to have provisionally combined (identified) segments $(A, B)$ and $(C, D)$ of the same length before comparing the two graphs.

We shall conditionally call all other pairs of texts, i.e., neither a priori dependent nor a priori independent, neutral, and make no assertions regarding them.

This principle is confirmed if, for the majority of pairs of actual and large enough dependent chronicles $X$ and $Y$, i. e., those describing the same "flow of events", the peaks on volume graphs for $X$ and $Y$ do actually occur approximately at the same time, in the same years, while the magnitude of these peaks can be substantially different.

On the contrary, for actual independent chronicles, the peaks should not correlate in any way. For specific dependent chronicles, the synchronism of volume graph splashes can only be approximate.

### 1.3. Statistical model

The general idea is as follows. For quantitative evaluation of peak proximity we shall calculate the number $f(X, Y)$ - the sum of numbers $f[k]$ squared, where $f[k]$ is the distance in years between the peak " $k$ " of volume graph $X$ and the peak " $k$ " of volume graph $Y$. If the peaks on both graphs should occur simultaneously, then the peaking moments with identical numbers will coincide, and all numbers $f[k]$ shall equal zero. Upon reviewing a fairly large fund of au-


Fig. 5.5. Volume graphs of independent chronicles $X$ and $Y$ relating to completely different epochs, peak in different points (after the superposition of time intervals $(A, B)$ and ( $C, D)$ ).
thentic texts $H$ and calculating the value of $f(X, H)$ for each of them, we then choose only those texts $H$ for which this value does not exceed the value of $f(X$, $Y$ ). Upon calculating the portion of such texts in the whole fund of texts $H$, we obtain a coefficient that, according to the hypothesis of random vector $H$ distribution, can be interpreted as probability $p(X, Y)$ ([904], [908], [1137] and [884]). If the coefficient $p(X, Y)$ is small, then the chronicles $X$ and $Y$ are dependent, or describe approximately the same "flow of events". If the coefficient is large, then the chronicles $X$ and $Y$ are independent, that is, they report of different "flows of events".

Now we pass on to a more detailed description of the statistical model. Doubtlessly, the peaks on real volume graphs can only be simultaneous approximately. To estimate just how simultaneous the peaks on both graphs are, the mathematical methods of statistics allow us to define a certain number $p(X, Y)$ that measures the mismatch of the years described in detail in chronicle $X$, and the years described in detail in chronicle $Y$. It turns out that if the proximity of peaks on both graphs is regarded as random, the number $p(X, Y)$ can be seen as the probability coefficient of this event (which, however, is not all that important for the efficiency of the method). The smaller this number, the greater the coincidence of the years described in detail in $X$ with those described in detail in $Y$. We shall formulate a mathematical definition of coefficient $p(X, Y)$.

Let us examine the time interval $(A, B)$ and volume graph vol $X(t)$ that reaches local maxima in certain
points $m_{1}, \ldots, m_{n-1}$. For the sake of simplicity, we consider each local maximum (peak) to culminate exactly in one point. In general, these points, or years, $m_{i}$ break up the time interval $(A, B)$ into a number of segments of different length, qv in fig. 5.6. Measuring the length of these segments in years, that is, measuring the distance between the points of adjoining local maxima $m_{i}$ and $m_{i+1}$, we obtain a sequence of integers $a(X)=\left(x_{1}, \ldots, x_{n}\right)$. This means that the value of $x_{1}$ represents the distance from point $A$ to the first local maximum, the value of $x_{2}$ is the distance from the first local maximum to the second, and so on, the value of $x_{n}$ representing the distance from the last local maximum $m_{n-1}$ to the point $B$.

This sequence can be represented by vector $a(X)$ in Euclidean space $R^{n}$ of dimension $n$. For instance, in case of two local maxima, i.e., if $n=3$, we have an integer-valued vector $a(X)=\left(x_{1}, x_{2}, x_{3}\right)$ in three-dimensional space. Let the vector $a(X)=\left(x_{1}, \ldots, x_{n}\right)$ be known as the local maxima vector for the chronicle $X$.

For the other chronicle $Y$ we have, generally speaking, a different vector $a(Y)=\left(y_{l}, \ldots, y_{m}\right)$. We assume that chronicle $Y$ describes events of time interval ( $C$, $D)$, the length of which is equal to that of time inter$\operatorname{val}(A, B)$, i. e., $B-A=D-C$. To compare volume graphs of chronicles $X$ and $Y$, we shall combine the two previous time segments $(A, B)$ and $(C, D)$ of the same length, and superpose them over each other. Naturally, the number of local maxima of the graphs vol $X(t)$ and vol $Y(t)$ can be different. However, without rigid restrictions of similarity, it is possible to say that the number of maxima is identical, and thus vectors $a(X)$


Fig. 5.6. Chronicle volume graph peaks divide time interval $(A, B)$ into smaller intervals.


Fig. 5.7. Local maxima vectors for $a(X)$ and $a(Y)$ of the two chronicles compared ( $X$ and $Y$ ) can be conventionalized as two vectors in Euclidean space.
and $a(Y)$ of two comparable chronicles $X$ and $Y$ have the same number of coordinates. Indeed, if the maxima number of two comparable graphs is different, then it is possible to proceed as follows. We shall consider certain maxima multiple, i.e., believe several local maxima to have merged at this point. In doing so, lengths of relevant segments corresponding to these multiple maxima can be considered to equal zero. Stipulating this, we can apparently equalize the number of local maxima on the volume graphs of the chronicles $X$ and $Y$. Of course, such an operation - the introduction of multiple maxima - is not unique. We shall settle on a certain variant for the introduction of multiple maxima so far. Later on, we shall get rid of this ambiguity by minimizing all necessary proximity coefficients along all possible variations of multiple maxima introduction. We shall note that the multiple maxima introduction means the appearance of void components, i.e., segments of zero length, in certain places of vector $a(X)$.

Thus, comparing chronicles $X$ and $Y$, we can assume that both vectors $a(X)=\left(x_{1}, \ldots, x_{n}\right)$ and $a(Y)=$ $\left(y_{1}, \ldots, y_{n}\right)$ have the same number of coordinates and
are therefore situated in the same Euclidean space $R^{n}$. We shall note that the sum of the coordinates of each vector is the same, equalling $B-A=D-C$, or the length of the time interval $(A, B)$. Thus,

$$
x_{1}+\ldots+x_{n}=y_{1}+\ldots+y_{n}=B-A
$$

Now we shall consider the set of all integer-valued vectors $c=\left(c_{1}, \ldots, c_{n}\right)$, the coordinates of which are non-negative with the sum $c_{1}+\ldots+c_{n}$ equalling the same value, namely, $B-A$, or the length of the time interval $(A, B)$. We shall denote the set of all those vectors with the letter $S$. Geometrically, those vectors can be presented as originating from the beginning of coordinates, or from the point 0 in $R^{n}$. Let us consider the ends of all such vectors $c=\left(c_{l}, \ldots, c_{n}\right)$, all of them situated on a "multi-dimensional simplex" $L$ defined in the space $R^{n}$ by one equation

$$
c_{1}+\ldots+c_{n}=B-A
$$

where all coordinates $c_{l}, \ldots, c_{n}$ are real non-negative numbers. Set $S$ is presented geometrically as a set of "integer points" on simplex $L$, or a set of all points with integer-valued coordinates, from $L$.

It is clear that the ends of the local maxima vectors $a(X)$ and $a(Y)$ for chronicles $X$ and $Y$ belong to the set $S$, fig.5.7.

Now we shall fix the vector $a(X)=\left(x_{1}, \ldots, x_{n}\right)$ and examine all vectors $c=\left(c_{l}, \ldots, c_{n}\right)$ with real coordinates belonging to the simplex $L$ and such as to comply with an additional correlation,
$\left(c_{1}-x_{1}\right)^{2}+\ldots+\left(c_{n}-x_{n}\right)^{2} \leq\left(y_{1}-x_{1}\right)^{2}+\ldots+\left(y_{n}-x_{n}\right)^{2}$.
We shall denote the set of all such vectors $c=\left(c_{1}\right.$, $\ldots, c_{n}$ ) as $K$. These vectors are mathematically described as remote from the fixed vector $a(X)$ on a distance not exceeding the distance $r(X, Y)$ from vector $a(X)$ to vector $a(Y)$. By referring to the distance between the vectors, we mean the distance between their ends. We shall recall that the value

$$
\left(y_{1}-x_{1}\right)^{2}+\ldots+\left(y_{n}-x_{n}\right)^{2}
$$

is equal to the squared distance $r(X, Y)$ between vectors $a(X)$ and $a(Y)$. Therefore, set $K$ is part of simplex $L$, fitting the " $n$-dimensional" ball with the radius of $r(X, Y)$ and the centre in the point $a(X)$.

Let us now calculate how many "integer-valued vectors" set $K$ and set $L$ have each. We shall denote the
values obtained as $m(K)$ and $m(L)$, respectively. As a "preliminary coefficient" $p^{\prime}(X, Y)$ we shall use a ratio of these two values, i. e.,

$$
p^{\prime}(X, Y)=m(K) / m(L)
$$

that is,

$$
p^{\prime}(X, Y)=\frac{\text { number of "integer points" in set } K}{\text { number of "integer points" in set } L} .
$$

Since set $K$ is only a part of set $L$, the number $p^{\prime}(X$, $Y)$ is enclosed in the segment $[0,1]$.

If vectors $a(X)$ and $a(Y)$ coincide, then $p^{\prime}(X, Y)=0$. If, on the contrary, the vectors are far away from each other, then the value $p^{\prime}(X, Y)$ is close to, and can even equal, one.

We shall note a useful, though not mandatory hereinafter, interpretation of the number $p^{\prime}(X, Y)$. Let us assume that vector $c=\left(c_{p}, \ldots c_{n}\right)$ randomly runs across all vectors from set $S$, and in doing so, it can appear in any point of this set, with equal probability. In such cases, the random vector $c=\left(c_{l}, \ldots\right.$ ,$c_{n}$ ) is said to be uniformly distributed over the set $S$, or among the set of "integer points" ( $n-1$ )-dimensional simplex $L$. Then, the value $p^{\prime}(X, Y)$ we defined allows for a probability interpretation, as being equal to the probability of a random event, when the distance between random vector $c=\left(c_{1}, \ldots, c_{n}\right)$ and the fixed vector $a(X)$ does not exceed the distance between vectors $a(X)$ and $a(Y)$. The smaller this probability, the less accidental the proximity of vectors $a(X)$ and $a(Y)$. In other words, their proximity in this case indicates a certain dependence between them. And the smaller the value $p^{\prime}(X, Y)$, the stronger this dependence.

The uniformity of distribution of the random vector $c=\left(c_{1}, \ldots, c_{n}\right)$ on simplex $L$, or rather on set $S$ of its "integer points", may be justified by the fact that this vector depicts the distance between adjacent local maxima of the volume function of "chapters" of historical chronicles or other similar texts describing the given time interval $(A, B)$. In considering various chronicles relating the history of different states in different historical epochs, it is quite natural to assume that a local multiple maxima may appear "with equal probability" in any point of time interval $(A, B)$.

The described construction was completed in assumption that we fixed a certain variant of multiple
maxima introduction for volume graphs of chronicles. Variants like that exist in great abundance, no doubt. We shall consider all such variants and for each of them, calculate a separate value $p^{\prime}(X, Y)$, upon which we shall take the least of all calculated values and denote it as $p^{\prime \prime}(X, Y)$, or minimize the coefficient $p^{\prime}(X, Y)$ through all possible methods of local multiple maxima introduction of graphs vol $X(t)$ and vol $Y(t)$.

We shall eventually recall that, upon calculating the coefficient $p^{\prime \prime}(X, Y)$, chronicles $X$ and $Y$ appeared to be in unequal positions. The fact is that we were considering an " $n$-dimensional ball" of radius $r(X, Y)$ with its centre in point $a(X)$. In order to eliminate the apparent discrepancy between chronicles $X$ and $Y$, we shall simply swap them and repeat the construction described above, now taking the point $a(Y)$ as the centre of the " $n$-dimensional ball". As a result, a certain value will be calculated, which we denote as $p^{\prime \prime}(Y$, $X)$. In the capacity of "symmetrical coefficient" $p(X$, $Y$ ), we shall take a simple average of the values $p^{\prime \prime}(X$, $Y)$ and $p^{\prime \prime}(Y, X)$, i. e.,

$$
p(X, Y)=\frac{p^{\prime \prime}(X, Y)+p^{\prime \prime}(Y, X)}{2}
$$

For the sake of clarity, we shall explain the meaning of the preliminary coefficient $p^{\prime}(X, Y)$ on the example of a volume graph with only two local maxima. In this case, both vectors,

$$
a(X)=\left(x_{1}, x_{2}, x_{3}\right) \text { and } a(Y)=\left(y_{1}, y_{2}, y_{3}\right),
$$

are vectors in 3-dimensional Euclidean space, their ends lying on a two-dimensional equilateral triangle $L$ that truncates the same number $B-A$ from the coordinate axes in the space $R^{3}$. See fig. 5.8. If we mark the distance between points $a(X)$ and $a(Y)$ as $\mid a(X)-$ $a(Y) \mid$, set $K$ shall be the intersection of triangle $L$ and the three-dimensional ball, the centre of which is in point $a(X)$ and the radius equal to $|a(X)-a(Y)|$.After that, we need to calculate the number of "integer points", or the points with integer-valued coordinates, in set $K$ and triangle $L$. Taking the ratio of the numbers obtained, we arrive at coefficient $p^{\prime}(X, Y)$.

For specific calculations, it is quite convenient to use an approximate method of calculating coefficient $p(X, Y)$. The fact is that the computation of the number of integer points in set $K$ is quite difficult, but ap-


Fig. 5.8. Vectors $a(X)$ and $a(Y)$ define the "ball", part of which becomes included in simplex $L$.
pears to be possible to simplify by proceeding from the "discrete model" to the "continuous model". It is well known that if ( $n-1$ )-dimensional set $K$ in ( $n-1$ )dimensional simplex $L$ is rather large, then the number of integer points in $K$ is approximately equal to ( $n-1$ )-dimensional volume of set $K$. Therefore, from the very beginning it is possible to use the ratio of ( $n-1$ )-dimensional volume $K$ to ( $n-1$ )-dimensional volume $L$ as the preliminary coefficient $p^{\prime}(X, Y)$, i. e.,

$$
p^{\prime}(X, Y)=\frac{(n-1) \text {-dimensional volume } K}{(n-1) \text {-dimensional volume } L} .
$$

For instance, in case of two local maxima, ratio

$$
\frac{\text { area of set } K}{\text { area of traingle } L}
$$

should be taken as the coefficient $p^{\prime}(X, Y)$.
When the value of $B-A$ is small, the "discrete coefficient" and the "continuous coefficient" are certainly different. But we in our researches deal with several decades' and even several hundred years' time intervals $B-A$, therefore for our purposes we can, without making too great an error, use the "contin-
uous model" $p^{\prime}(X, Y)$ in all confidence. Precise mathematical formulae for the calculation of the "continuous coefficient" $p^{\prime}(X, Y)$ and for its lower and upper boundaries are presented in [884], page 107.

Let us present one more specification of the statistical model described above. When working with specific volume graphs of historical texts, one should "smoothen" those graphs in order to eliminate minute random peaks. We have made our graph even by "proximity averaging", that is, by replacing the value of the volume function at each point $t$ by a simple average of three values of the function, namely, at points $t-1, t$ and $t+1$. In the capacity of "final coefficient" $p(X, Y)$, its value as calculated for such "smoothed graphs" should be taken.

The maxima correlation principle stated above will be confirmed if, for the majority of pairs of a priori dependent texts $X$ and $Y$, the coefficient $p(X, Y)$ turns out small, and for the majority of the a priori independent texts it turns out large, on the contrary.

### 1.4. Experimental test of the maxima correlation principle. Examples of dependent and independent historical texts

In 1978-1985 we conducted the first extensive experiment in the computation of values $p(X, Y)$ for several dozen pairs of specific historical texts: chronicles, annals, and so on. See details in [904], [908], [1137] and [884].

Coefficient $p(X, Y)$ turned out to distinguish between a priori dependent and a priori independent pairs of historical texts well enough. It was discovered that for all examined pairs of actual chronicles $X, Y$ describing obviously different events (different historical epochs or different states), i.e., for all independent texts, the number $p(X, Y)$ fluctuates from 1 to $1 / 100$, where the number of local maxima ranges from 10 to 15 . On the contrary, when historical chronicles $X$ and $Y$ were a priori dependent, that is, relate the same events, the number $p(X, Y)$ for the same number of maxima doesn't exceed $10^{-8}$.

Thus, the spread between the coefficient values for dependent and independent texts is approximately 56 orders of magnitude. We shall emphasize the fact that it is not the absolute value of calculated coefficients that is of importance here, but the fact that the
"zone of coefficients for a priori dependent texts" is separated by several orders of magnitude from the "zone of coefficients for a priori independent texts". Let us present several examples. Exact values of volume functions for especially interesting chronicles are presented in the Appendix at the end of the book, in order to avoid the overload of current narration.

## Example 1.

Volume graphs for two a priori dependent historical texts are presented in fig. 5.9, fig. 5.10 and fig. 5.11.

Namely, in the capacity of text $X$ we took a historical monograph Essays on the History of Ancient Rome by V. S. Sergeyev, a contemporary author. -Vol.1-2, OGIZ, Moscow, 1938.

In the capacity of text $Y$ we took an "ancient" source, The History of Rome by Titus Livy. - Vol.1-6, Moscow, 1897-1899.

According to Scaligerian chronology, these texts describe events in the time interval of the alleged years 757-287 в.с. Thus, here $A=757$ в.с., $B=287$ в.c. Both texts describe the same historical epoch and approximately the same events. Primary peaks of the volume graphs obviously occur at virtually the same time.

For quantitative comparison of functions, it is necessary to smoothen out the "ripples", or the secondary peaks that can be superimposed over the main, initial oscillations on the graph. When computing coefficient $p(X, Y)$ we have smoothed these


Fig. 5.9. Volume functions of the chronicle of the "ancient" Titus Livy and a modern textbook by Sergeyev. One sees a very explicit correlation. Part one.


Fig. 5.10. Volume functions of the chronicle of the "ancient" Titus Livy and a modern textbook by Sergeyev. Part two.


Fig. 5.11. Volume functions of the chronicle of the "ancient" Titus Livy and a modern textbook by Sergeyev. Part three.
graphs to emphasize only their main local maxima, not exceeding 15 in number. It turned out that $p(X, Y)=2 \times 10^{-12}$. The small value of the coefficient indicates a dependence between the texts compared, which comes as no surprise in this particular case. As we have already noted, both texts describe the same historical time interval of the "ancient" Rome. The small value of coefficient $p(X, Y)$ proves the fact that if we consider the observed proximity of splash points on both graphs as a random event, then its probability is extremely small. As we can see, the contemporary author V. S. Sergeyev reproduced the "ancient" original in his book quite accurately. He certainly supplemented it with his own considerations and commentaries, which, however, turn out to have no influence on the character of dependence between those texts.

Now, we shall use the book of V. S. Sergeyev as "chronicle" $X^{\prime}$ once again, and as the "chronicle" $Y^{\prime}$, the same book, but with the order of the years in the text replaced by the opposite one - in other words, as if we have read the book by Sergeyev "back to front". In this case, $p\left(X^{\prime}, Y^{\prime}\right)$ turns out to equal $1 / 3$, a value substantially closer to 1 than the previous, demonstrating the independence of compared texts - hardly surprising, since the operation of "inverting the chronicle" yields two a priori independent texts.

## Example 2.

We shall regard the following a priori dependent historical texts as examples - the two Russian chronicles:

X - Nikiforovskaya Letopis (The Nikiforov Chronicle) [672],

Y - Supraslskaya Letopis (The Suprasl Chronicle) [672].

Both chronicles cover the time interval of the alleged years 850-1256 A.D.

Their volume graphs are presented in fig. 5.12. Both volume graphs of the "chapters" covering the alleged years of 850-1255 A.D. have 31 peaks occurring virtually simultaneously, falling over the same years. The calculation yields $p(X, Y)=10^{-24}$, a fairly small value; therefore, the dependency between those texts is confirmed. In Chron1, Appendix 5.1, we present precise numeric data for the volume functions of these chronicles.

## Example 3.

We now shall consider two other Russian chronicles:

X - Kholmogorskaya Letopis (The Kholmogory Chronicle) [672],

Y - Povest Vremennykh Let (Story of Years of Time).

Both chronicles cover the time interval of allegedly


Fig. 5.12. Volume graphs for dependent chronicles: the Supraslskaya and the Nikiforskaya. The graph peaks are almost simultaneous.


850-1000 A.D. Volume graphs of the chronicles reach their local maxima virtually simultaneously as well, which is again not by accident but in the order of things - otherwise, the sole chance out of $10^{15}$ would have been realized. Here, $p(X, Y)=10^{-15}$. These two chronicles are dependent in the stated time interval. Fig. 5.13 simultaneously presents three volume graphs - for Supraslskaya Letopis, Nikiforovskaya Letopis,
and Povest Vremennykh Let. The last chronicle is "richer", therefore, its graph has more local maxima, and its dependence is not so obvious. Nevertheless, an explicit dependence between those three graphs is also revealed after smoothing. We shall describe our comparison of the "rich" and "poor" chronicles in the next chapters. The volume distribution of the mentioned chronicles is given in Chron1, Appendix 5.1.

## Example 4.

An example from mediaeval Roman history. $X$ - The History of the City of Rome in the Middle Ages, a fundamental monograph by F. Gregorovius, a German historian, Volumes 1-5 ([196]). This book was written in the XIX century and based on a great number of mediaeval documents, secular as well as ecclesiastical.

Y - Liber Pontificalis (T. Mommsen, Gestorum Pontificum Romanorum, 1898). This "Book of Pontiffs", the list and biography of the mediaeval Roman Popes, was restored by Theodor Mommsen, a German historian of the XIX century, from mediaeval Roman texts. Here, $p(X, Y)=10^{-10}$, which demonstrates an obvious dependence between these two texts. To assume such proximity is accidental, a single chance out of 10 billion would have been realized.

And so on. The several dozen examples of historical texts we have processed, - a priori dependent as well as a priori independent, - confirmed our theoretical model. Thus, we managed to reveal regularities that allow us to statistically characterize dependent historical texts, or those covering the same time interval and the same "flow of events" in the history of the same region or the same state. In the meantime, experiments have demonstrated the following: if two historical texts $X$ and $Y$, on the contrary, are independent, or describe obviously different historical epochs, different regions, or essentially different "flows of events", then the peaks on volume graphs vol $X(t)$ and vol $Y(t)$ occur in substantially different years. In the latter case, a typical value of coefficient $p(X, Y)$, with local maxima varying from 10 to 15 , fluctuates from 1 to $1 / 100$. Here is a typical example.

## Example 5.

We now return to the "ancient" history of Rome. In the capacity of compared texts $X$ and $Y$, we have taken two other fragments from the book Essays on the History of Ancient Rome by V. S. Sergeyev ([767]). The first fragment covers the alleged years 520-380 в.С., and the second - the alleged years $380-240$ в.с. These periods are considered independent. The computation of coefficient $p(X, Y)$ yields $1 / 5$, a striking value that differs from typical values $-10^{-12}-10^{-6}-$ for a priori dependent texts with a similar value of local maxima by several orders of magnitude. Thus,
these two texts, or the "two halves" of the book by V. S. Sergeyev, are truly independent.

Above, we have used a numeric characteristic of volume for the "chapter". However, as our research has demonstrated, a similar statistical regularity becomes apparent for fairly large historical texts when other numerical characteristics are used - for instance, the number of names in each "chapter", the number of references to other chronicles, etc.

In our computational experiment we compared:
a) ancient texts with ancient texts;
b) ancient texts with contemporary texts;
c) contemporary texts with contemporary texts.

As we have already mentioned, other numeric characteristics of texts were analyzed along with volume graphs of "chapters". For instance, graphs for number of names mentioned, numbers of a specific year's mentions in the text, the frequency of references to some other fixed text, and so on ([904], [908], [1137] and [884]). The same maxima correlation principle turns out to be true for all of these characteristics namely, the peaks on graphs for dependent texts occur virtually simultaneously, and as for independent texts, their peaks do not correlate at all.

We shall formulate one more consequence of our basic model, which is the statistical hypothesis.

If two historical texts are a priori dependent, that is, if they describe the same "flow of events" on the same time interval in the history of the same state, then the peaks on corresponding graphs for any pair of numerical characteristics stated above occur approximately in roughly the same years. In other words, if a year is recorded by both chronicles in more detail than the adjoining years, then the number of references to this year, as well as the number of character names mentioned for that year, and so on, will increase (locally) in both chronicles. The situation for a priori independent texts is directly the opposite - no correlation between the stated numeric characteristics is due.

The "secondary maxima correlation principle" proved correct when tested on specific, a priori dependent, historical texts ([884], pp.110-111).

### 1.5. Method of dating applied to historical events

Since our theoretical model is supported by the results of experiments, we can now propose a new


Fig. 5.14. Volume graphs for dependent chronicles: that of the Dvina Book of Chronicles, and its shorter edition. Both graphs peak practically simultaneously.
method of dating applicable to ancient events, albeit not a universal one, and describe the main idea thereof.

Let $Y$ be a historical text covering an unknown "flow of events", whose absolute dates are lost. Let years $t$ be counted in the text from some event of local importance, for instance, the foundation of a town or the coronation of a king, whose absolute dates remain unknown to us. We shall calculate the volume graph of "chapters" for text $Y$ and compare it with the volume graphs of other texts, for which we know the absolute dating of events described. If text $X$ is revealed among those texts, and value of $p(X, Y)$ is small, or has the same order of magnitude as pairs of dependent texts (under $10^{-8}$ for the corresponding number of local maxima, for instance) - then a conclusion can be made, with a sufficient probability of coincidence, or the proximity of the "flows of events" described in those texts. Moreover, the smaller the value $p(X, Y)$, the greater this chance.

Also, both texts under comparison may appear completely different - for instance, two versions of the same chronicle written in different countries, by different chroniclers and in different languages.

This method of dating was experimentally tested on mediaeval texts with a priori known dates, and the newly acquired datings coincided with those. Now, let us give a few typical examples.

Example 6.
In the capacity of text $Y$, we have chosen a Russian chronicle, the so-called short edition of the Dvinskoy Letopisets (The Dvina Book of Chronicles), describing the events falling into the time interval of 320 years ([672]). We shall try and date the events recorded in this chronicle using said method. Looking through all chronicles published in The Complete Russian Chronicles, we shall soon discover text $X$, for which the peaks on volume graph vol $X(t)$ occur virtually in the same years as those on graph vol $Y(t)$ of chronicle $Y$, fig. 5.14.

While comparing the graphs, we made sure to have preliminarily superimposed time intervals $(A, B)$ and $(C, D)$ over each other. The result of calculation is $p(X, Y)=2 \times 10^{-25}$. Therefore, these two chronicles most probably describe approximately the same "flows of events". Thus, we manage to date the events recorded in text $Y$ in a fairly formal way, on the basis of the sole comparison of statistical characteristics pertinent to the texts. Chronicle $X$ turns out to be a lengthy edition of the Dvinskoy Letopisets ([672]). This chronicle is considered to describe the "flow of events" of 1390-1707 A.D.

As a result, the dating of the text $Y$ we obtained coincides with its standard dating, which proves the efficiency of our method.
The Suprasl'skaya chronicle
$A=1336$
$A=1336$
$\vec{a}($ Supr $)=(3,2,2,3,3,4,4,2,3,3,3,3,2,1)$
$\begin{aligned} \vec{a}(\mathcal{A c a d}) & =(3,2,2,3,4,3,4,2,3,3,3,3,2,1) \\ \Delta & =(0,0,0,0,-1,1,0,0,0,0,0,0,0,0)\end{aligned}$
The Academic chronicle

Fig. 5.15. Graphs of dependent chronicles - the Supraslskaya and the Akademicheskaya, on the interval of 1336-1374 A.D. The peaks of the volume graphs occur identically all the time, with just one exception. The locations of local maxima of the graph are marked with thick black dots underneath the graphs - in case of the Supraslskaya Chronicle, these two chains of dots are nearby each other. One sees that the peak points only fail to coincide once. The two chronicles are thus clearly of a dependent nature.

## Example 7.

We shall take the Russian Akademicheskaya Letopis (Academic Chronicle) ([672]) as "text $Y$ with unknown dating". Following the example described above, we soon discover text $X$, namely, a part of the Supraslskaya Letopis ([672]) presumably describing the years 1336-1374 a.d. The peaks on the volume graph vol $X(t)$ turn out to occur virtually in the same years as those on the volume graph vol $Y(t)$, fig. 5.15.

Calculation yields the following result: $p(X, Y)=$ $10^{-14}$. Such a small value of the coefficient clearly testifies to the dependence of these two texts. Since chronicle $X$ is dated, we can date chronicle $Y$, too. The obtained dating of text $Y$ coincides with its dating as known before.

Our research was based on several dozen similar texts of the XVI-XIX century, and in each case the calculated dating of the "unknown text $Y^{\text {" coincided }}$ with its actual dating.

In fact, we have learnt nothing new from the examples related above, because the dating of the short edition of the Dvinskoy Letopisets, for instance, had been known in advance, and we had no reasons to
doubt its correctness, since it belongs to the XIVXVIII century, that is, the epoch of more or less dependable chronology. Nevertheless, we shall soon see our method yield a number of very interesting results for chronicles attributed to earlier epochs, or the ones preceding the XIV century A.D.

The maxima correlation principle was formulated above in general, without any attempts to go deep into statistical detail, because we were only trying to be understood by our readers as fast as possible. Meanwhile, a strict mathematical presentation of the method and its clarifications demand a substantially more detailed study. We would refer our readers wishing to delve into the described method to such scientific publications as [884] and [892].

Coefficient $p(X, Y)$ can conditionally be called PACY - the Probability of Accidental Coincidence of Years as described in detail by chronicles $X$ and $Y$.

A further development and adjustment of the idea is presented in the works of V. V. Fedorov and A. T. Fomenko ([868]), as well as A. T. Fomenko, V. V. Kalashnikov and S. T. Rachev ([357]). It was further revealed that the maxima correlation principle mani-
fests itself most explicitly when one compares historical texts of approximately the same volume and "density of description". Moreover, in some cases not only the local maxima points for a priori dependent texts, but also their volume functions, or amplitudes, turned out to correlate! The correlation of volume function amplitudes is visible particularly well when one compares "fairly poor" texts, or chronicles with large lacunae - considerable time intervals not reflected in the chronicle. The process of writing "fairly poor" chronicles turns out to be subject to a fairly interesting principle - "respect for information", or "preservation of rarities", a regularity discovered by A. T. Fomenko and S. T. Rachev ([723] and [1140]). For preliminary research in this direction and the formulation of the principle of respect for information, see the works [723] and [1140], as well as in the paragraph below written by A. T. Fomenko and S. T. Rachev.

The maxima correlation principle was successfully applied to the analysis of certain Russian chronicles dating from the period of "strife" falling over the end of the XVI - beginning of the XVII century A.D. See related works by A. T. Fomenko and L. E. Morozova ([902] and [548]). N. S. Kellin also participated in this research actively. See below for the part written by A. T. Fomenko, N. S. Kellin, and L. E. Morozova.

## 2.

VOLUME FUNCTIONS OF HISTORICAL TEXTS AND THE AMPLITUDE CORRELATION PRINCIPLE

This section contains quotations from works by A. T. Fomenko and S. T. Rachev.
(S. T. Rachev, doctor of physics and mathematics, Professor, specialist in the field of probability theory and mathematical statistics, Research Fellow of the Institute of Mathematics of the Bulgarian Academy of Sciences; currently works in the USA.)

### 2.1. Dependent and independent chronicles. The correlation of volume function maxima

We shall relate the results published by the authors in [723] and [1140]. As above, we shall call two historical chronicles $X$ and $Y$ dependent if they can be traced back to a common original source and record
approximately the same events on the same time interval $(A, B)$ in the history of the same region.

On the contrary, we shall consider two chronicles independent if they record events of substantially different time intervals $(A, B)$ and $(C, D)$, or pertain to manifestly different geographical regions. We shall consider two time intervals substantially different if their intersection on the time axis (their common part) does not exceed half of their length. Hereinafter, for the sake of simplicity, we shall assume that the chronicles under comparison describe time intervals of the same length, namely $B-A=D-C$.

Let chronicle $X$ describe events from time interval $(A, B)$, and parameter $t$ run through the years from year $A$ to year $B$. As above, we shall mark the part of the chronicle that describes the events of year $t$ as $X(t)$. For the sake of brevity, we shall conventionally call fragments $X(t)$ chapters. Let us calculate the volume of each fragment in certain units, such as line quantity or pages. In the examples below, the volume of chapters is calculated in lines. However, the choice of measurement units is not of great importance here. During statistical processing we normalized the volume of chapters dividing them by the total volume of the chronicle, thus levelling a possible discrepancy in the choice of volume measurement units. We come up with the function $\operatorname{vol} X(t)$ that we shall refer to as the volume function of the chronicle.

The correlation principle for local maxima points of volume graphs was formulated and experimentally tested by A. T. Fomenko in [884]. The main idea behind the principle and the methods pertaining thereto is as follows: dependence or independence of chronicles can in certain cases be established via the comparison of their volume functions. Generally speaking, local maxima points of volume graphs built for dependent chronicles should "correlate" (in the proper precise sense, see above), while independent chronicles should not display any "correlation", fig.5.1.

In their work [357], A. T. Fomenko, V. V. Kalashnikov and S. T. Rachev, applied the general idea of volume function correlation for dependent chronicles, and the absence of such correlation for independent chronicles, to volume functions themselves, considering their amplitudes. Since the research involved the amplitudes of graphs, this enhanced form of the correlation principle should have been tested on specific


Fig. 5.16. Volume graphs of a rich chronicle and a poor one.
chronicles. This was performed in [357] with the assistance of N. Y. Rives. Detection methods for dependent and independent chronicles as related in [357] turned out to be fairly efficient for the comparison of chronicles whose volumes are similar. However, the picture became distorted when chronicles of substantially different volumes were compared. The current work specifies a new class of chronicles, for which the enhanced form of the local maxima amplitude correlation principle is correct.

The maxima correlation principle discovered by A. T. Fomenko relied upon the fact that different chroniclers relating the events of the same historical epoch, would generally use the same volume, or information fund, that was available in their epoch. That is why, as our statistical experiments have proved, they would describe in greater detail only the years that yielded a large number of texts. Other years got described in less detail.

We shall recall the notion of primary information volume for the events of epoch $(A, B)$. Let $C(t)$ be the volume of all documents written by the contemporaries of year $t$ about the events of that year, fig. 5.2. Now, let $X$ and $Y$ represent the chroniclers who did not live in the epoch $(A, B)$, but were willing to write


Fig. 5.17. The poor initial zone of a chronicle, and a richer zone following it.
its history. Let $M$ (or, respectively, $N$ ) stand for the year in which chronicler $X$ (or, respectively, $Y$ ) creates the chronicle for the epoch $(A, B)$.

We shall recall that $C_{M}(t)$ is the volume of documents that survived from the epoch $(A, B)$ until the moment $M$, or the epoch of chronicler $X$, - in other words, the remainder of primary texts surviving until $M$. Graph $C_{M}(t)$ is the volume graph for the surviving information concerning the events of epoch ( $A$, $B$ ). $C_{N}(t)$ is defined similarly.

The maxima correlation principle ensues from the following. Each chronicler $X$, describing the epoch $(A, B)$, "on the average" speaks in greater detail about the years in which the graph $C_{M}(t)$ peaks - in other words, the more documents from epoch $(A, B)$ are available to chronicler $X$, the more detailed is his description of that time, qv in fig.5.3.

### 2.2. Rich and poor chronicles and chronicle zones

The definition of a poor chronicle or a rich one becomes intuitively clear from fig. 5.16 . We shall call the chronicle with the "majority" of volumes vol $X(t)$ equalling zero poor, where most of the years haven't been described by a chronicler. On the contrary, we shall call the chronicle with the "majority" of volumes vol $X(t)$ different from zero and fairly large rich, meaning that chroniclers provided ample information about the epoch $(A, B)$.

In fact, with actual examples it is sometimes difficult to categorize a chronicle as either poor or rich; therefore, the introduction of new definitions - poor zone and rich zone of a chronicle - would be expedient. Fig. 5.17 presents a relative volume graph of a chronicle with a poor beginning and a rich ending. Our research experience with specific chronicles makes it clear that the beginning of a long chronicle


Fig. 5.18. The rich and the poor zones may alternate within one and the same chronicle.
is a poor zone, and its ending is a rich zone, as a rule, although there are chronicles with a poor zone "in the middle", qv in fig. 5.18.

### 2.3. Significant and insignificant zeroes of volume functions

In our study of a specific chronicle we shall assume the first year for which $\operatorname{vol} X(A)$ differs from zero as the leftmost point $A$ on the time axis. The year is described by a chronicler, in other words, we shall call the zero of a volume graph significant if it is located to the right from the first non-null value, fig.5.19. If the zero is to the left from the first nonnull value of the graph, we shall call it insignificant. An insignificant zero indicates that the chronicler knows nothing about that particular year, but likewise the preceding years in general. A significant zero indicates that, although the chronicler knows nothing about the events of that particular year, he knows something about some of the previous years.

From this moment on, we refrain from normalising the volume function, since we want to consider the magnitude of local maxima amplitudes in our research.

### 2.4.The information respect principle

Let us consider a certain historical epoch $(A, B)$ and a chronicler $X$ who lives in year $M$, where $M$ is a much larger value than $B$, fig.5.20. Describing the events of the epoch $(A, B)$, the chronicler $X$ has to rely on the surviving information fund $C_{M}(t)$ still available in his time. Our idea is that chronicler $X$ treats the poor and the rich zones of the surviving information fund differently.


Fig. 5.19. Significant and insignificant zeroes of the chronicle volume function.


Fig. 5.20. The scribe accurately and scrupulously copies the "poor" zone of the remaining information fund of his time, and treats its richer zones with less reverence, selecting materials the way he sees fit.

We shall briefly formulate the model, or the information respect principle, in the following way.

A chronicler's respect for surviving information is in inverse proportion to its volume.

The intuitive justification of this principle is clear. If some information survived in a "barren environment", the years in its vinicity being void of data, the chronicler is obliged to value those scarce shreds of information miraculously spared by time. He copies them quite painstakingly, irrespective of his personal attitude towards their contents. Moreover, a chronicler in a poor zone of survived information fund has little space. This chronicler is limited in his freedom of action by the fairly small volume of surviving information. Therefore, the chronicler reproduces in good faith (by and large), the amplitudes of the volume function $C_{M}(t)$ for the information surviving in its poor zones.

The situation is different in what concerns the rich zones. A chronicler faces the necessity to select important things from a vast array of data. But the larger the volume of surviving information, the less does the chronicler appreciate individual pieces thereof, which often leads to distortions of volume graph amplitudes of the rich zones. Our statistical experiments have proved its veracity. The chronicler is free to be as subjective as he pleases: he can choose the data of a single kind and be "intentionally indifferent" towards the rest of the information.

### 2.5. The amplitude correlation principle of volume graphs in the poor zones of chronicles

We shall draw consequences from the information respect principle.

Let two chroniclers $X$ and $Y$ describe the same events on the same time interval $(A, B)$. Each of them "copies" the volume graph of the poor zones of the surviving information fund, or the events of epoch ( $A$, $B$ ) fairly well. Therefore, the poor zones of the volume graphs built for chronicles X and Y shall resemble each other. Now we can formulate the model - the amplitude correlation principle of the poor zones.
a) If chronicles $X$ and $Y$ are dependent, that is, they describe approximately the same events and trace back to a common original source, their volume graphs vol $X(t)$ and vol $Y(t)$ will correlate quite well in their poor zones. However, there may be no amplitude correlation between their rich zonez at all (once the graphs are superimposed).
b) If chronicles $X$ and $Y$ are independent, the poor zones of their volume graphs shall also be independent, which means that one should expect no amplitude correlation (after the superimposition of the graphs).

That is, in case of poor dependent chronicles not only do the peaks of comparable graphs correlate, but also their amplitudes.

### 2.6. Description and formalization of the statistical model

We shall now consider the time period $(A, B)$ and introduce the coordinate $x$ varying from 0 to $B-A$ thereon, where $B-A$ corresponds to the length of the time period that we are interested in. It is clear that $x=t-A$. Let $f(x)=\operatorname{vol} X(x)$ be the volume function of chronicle $X$. We shall mark as $G(x)$ the function

$$
G(x)=f(0)+f(1)+\ldots+f(x),
$$

or the integral of function $f$ from 0 to $x$. We shall call this function the accumulated sum of chronicle $X$, and consider a normalized accumulated sum

$$
F(x)=G(x) / \text { vol } X
$$

where vol $X$ represents the total volume of the chronicle $X$. The normalized accumulated sum is presented


Fig. 5.21. Function graphs $F(x)$ and $g(x)=1-F(x)$.
as a non-decreasing graph with values increasing from 0 to 1 , the character of their growth being different for various chronicles.

Let us consider a new function $g(x)=1-F(x)$. See fig. 5.21. Its graph does not increase. Foregoing mathematical precision, we shall formulate the next model.

The function $g(x)=1-F(x)$ should behave as function $\exp \left(-\lambda x^{\alpha}\right)$ in the poor early zone of the chronicle.

In mathematical statistics, distributions of such kind known as Weibull-Gnedenko distributions. They are used in mathematical statistics for the description of similar processes.

Therefore, we have two degrees of freedom at our disposal: the parameter $\lambda$ and the parameter $\alpha$. If we replace one with the other, we can try to approximate the function $1-F(x)$. Should we succeed in applying the model to specific chronicles, it shall be proven.

The statistical experiment that involved actual chronicles demonstrated that the decrease of graph


Fig. 5.22. A representation of two parameters - the shape and the volume of the chronicle in question - with a point on a plane.
$1-F(x)$ is indeed fairly well approximated by the function $\exp \left(-\lambda x^{\alpha}\right)$, given a suitable choice of values for $\lambda$ and $\alpha$.

As a result, we can cover each chronicle - or, rather, its beginning - with poor zone thereof. The two numbers $\lambda$ and $\alpha$ will reflect the character of the chronicle's volume function behaviour. We shall call $\lambda$ the parameter of the chronicle's volume, and $\alpha$ the parameter of the chronicle's form.

The parameter $\alpha$ turns out to be more important to us since, as statistical experiments have demonstrated, it is this very parameter that corresponds best to the distribution character of individual scarce peaks of volume graphs within the poor zone of a given chronicle. Parameter $\alpha$ will be the first to indicate whether chronicles are dependent or independent. Parameter $\lambda$ is fairly responsible for the chronicle's volume, since it demonstrates how rich or how poor a given chronicle really is.

So, our hypothesis, or statistical model may now be formulated in the following way.
a) If chronicles $X$ and $Y$ are dependent, their pairs of corresponding parameters ( $\alpha_{X}, \lambda_{X}$ ) and ( $\alpha_{Y}, \lambda_{Y}$ ) will be similar, stipulating that they are calculated for the poor zones of the chronicles.
b) If the chronicles $X$ and $Y$ are independent, their pairs of corresponding parameters $\left(\alpha_{X}, \lambda_{X}\right)$ and ( $\alpha_{p}$, $\lambda_{Y}$ ) should be at some distance from each other.

It is convenient to picture the pair of numbers ( $\alpha$, $\lambda$ ) as a point on an ordinary plane with Cartesian coordinates $\alpha$ and $\lambda$. See fig. 5.22.

### 2.7. The hypothesis about the increase of the "form" parameter of a chronicle in the course of time

We shall now consider two different historical epochs with unequal primary information funds rich in one case and poor in the other. In the former case, we assume the volume of this fund to be more or less constant for each year. Then, it can be demonstrated (with mathematical details omitted) that the value of $\alpha$ of a poor fund should be smaller than that of a rich fund ([723], [1140]). See also articles 2.13 2.15. In other words, poor primary funds are characterized by small values of $\alpha$, and rich primary information funds, by large values.

But the closer historical epoch $(A, B)$ is to our time, the more primary information funds survive. Today, for instance, written information is, by and large, kept better than in the distant past. Therefore, the value of parameter $\alpha$ should "on the average" increase, as we shift the time period $(A, B)$ under study from left to right on the time axis, bringing it closer to us.

### 2.8. A list of processed Russian chronicles and their characteristics

1) Povest Vremennykh Let (Chronicle of Years Elapsed). See Literary Memorials of the Ancient Russia. The Dawn of the Russian Literature. Moscow, 1978.

This famous chronicle covers the history of Russia, allegedly between the IX and XII century A.D. The main part of the chronicle describes the epoch of the alleged years 850-1110 A.D. in consensual chronology. The chronicle begins with a poor zone approximately one hundred years long, starting with the alleged year 850 A.D. and ending with the alleged year 940 A.d. The next part of the chronicle, beyond 1050-1110 A.D., is fairly rich.
2) Nikiforovskaya Letopis (The Nikiforov Chronicle), from the Byelorussian-Lithuanian group of chronicles. See The Complete Russian Chronicles, Volume 35, Moscow, 1980. The period of 650 years between the alleged years 850 A.D. and 1450 A.D. was chosen for our research.
3) Supraslskaya Letopis (The Suprasl Chronicle), from the Byelorussian-Lithuanian group of chronicles. See The Complete Russian Chronicles (CRC for short),
volume 35, Moscow, 1980. The period for which this chronicle provides the dates is that of the alleged years $850-1450$ A.D. This chronicle, as well as the Nikiforov Chronicle, can be ranked among poor texts in comparison with the richer Povest Vremennykh Let.
4) Akademicheskaya Letopis (The Academy Chronicle). See CRC, volume 35, Moscow, 1980. We have researched the period of 1338-1378 A.D. This chronicle is intermediate between poor and rich texts.
5) Kholmogorskaya Letopis (The Kholmogory Chronicle). See CRC, volume 33, St. Petersburg, 1977. It covers the period of the alleged years 850-1560 A.D. This chronicle contains both rich and poor zones.
6) Dvinskoy letopisets (The Dvina Book of Chronicles). Short and full editions. See CRC, volume 33, St. Petersburg, 1977. It covers the period of 1390-1750 A.D. This chronicle contains both rich and poor zones.

All these chronicles begin with poor zones, which comes as no surprise. A. T. Fomenko calculated the corresponding volume functions. See Chroni, Appendix 5.1. Among the listed chronicles, there are $a$ priori dependent and a priori independent ones. For instance, among the a priori dependent are:
a) Nikiforovskaya Letopis and Supraslskaya Letopis;
b) Povest Vremennykh Let and Nikiforovskaya Letopis, therefore Supraslskaya Letopis, too.
c) Short and full versions of Dvinskoy letopisets.

Examples of a priori independent chronicles are as follows: the part of Dvinskoy letopisets that covers the XIV century A.D., and the next one covering the XV century A.D.

The fact of dependence or independence of the listed chronicles has been confirmed in [884] and [868] on the basis of the maxima correlation principle, qu above.

### 2.9. The final table of the numeric experiment

All listed chronicles were divided into pieces covering approximately 100 years, each one examined with the method stated above. As a result, the parameters $\alpha_{x}$ and $\lambda_{x}$, and the correlation coefficient $r$ indicating how well the corresponding graph $\exp \left(-\lambda x^{\alpha}\right)$ approximates the decreasing graph $1-F(x)$, were calculated (see table 5.1).

Table 5.1

| Symbol | Chronicle | Epoch (A.D.) | $\alpha$ | $\lambda$ | $r$ |
| :--- | :--- | :---: | :---: | :---: | :---: |
| P1 | Povest Vremennykh Let | $854-950$ | 1.847 | $3.9 \times 10$ | 0.953 |
| P2 | Povest Vremennykh Let | $918-1018$ | 3.003 | $1.6 \times 10$ | 0.955 |
| P3 | Povest Vremennykh Let | $960-1060$ | 2.497 | $4 \times 10$ | 0.956 |
| P4 | Povest Vremennykh Let | $998-1098$ | 2.378 | $1.3 \times 10$ | 0.954 |
| N1 | Nikiforovskaya Letopis | $854-960$ | 1.511 | $9.3 \times 10$ | 0.966 |
| N2 | Nikiforovskaya Letopis | $960-1060$ | 2.406 | $5 \times 10$ | 0.917 |
| N3 | Nikiforovskaya Letopis | $1110-1210$ | 3.685 | $7 \times 10$ | 0.660 |
| N4 | Nikiforovskaya Letopis | $1236-1340$ | 0.341 | 0.488 | 0.768 |
| N5 | Nikiforovskaya Letopis | $1330-1432$ | 1.390 | $3.9 \times 10$ | 0.953 |
| S1 | Supraslskaya Letopis | $854-950$ | 1.604 | $8.2 \times 0$ | 0.969 |
| S2 | Supraslskaya Letopis | $960-1060$ | 2.584 | $3 \times 10$ | 0.943 |
| S3 | Supraslskaya Letopis | $1110-1210$ | 3.617 | $7.8 \times 10$ | 0.656 |
| S4 | Supraslskaya Letopis | $1236-1340$ | 0.405 | 0.384 | 0.808 |
| S5 | Supraslskaya Letopis | $1330-1432$ | 2.354 | $1.6 \times 10$ | 0.983 |
| S6 | Supraslskaya Letopis | $1432-1450$ | 2.089 | $1.3 \times 10$ | 0.977 |
| A | Akademicheskaya Letopis | $1336-1374$ | 2.185 | $8 \times 10$ | 0.960 |
| D1 | Dvinskoy Letopisets | $1396-1498$ | 0.648 | 0.119 | 0.844 |
| D2 | Dvinskoy Letopisets | $1500-1600$ | 4.060 | $2.2 \times 10$ | 0.875 |
| K | Kholmogorskaya Letopis | $852-946$ | 1.311 | $7.3 \times 10$ | 0.960 |



Fig. 5.23. Numeric parameters of shape and volume of the Russian chronicles that we have studied as points on a plane. The points marked by crosses stand for supplementary Russian chronicles which will be covered in more detail later on.

All the resultant value pairs $(\alpha, \lambda)$ were represented as points on a plane, fig. 5.23 , with values of $\alpha$ from 0 to 6 plotted along the horizontal axis. In our experiment, we have not yet encountered values of $\alpha$ exceeding 5. Along the vertical axis we plotted the values of $\lambda$, but had to use a shifting, alternating scale. In particular, the first horizontal strip corresponds to the values of $\lambda$ between 0 and 0.0001 , the step size equalling 0.00001 ; the next horizontal strip corresponds to the values of $\lambda$ between 0.0001 and 0.001 (scale factor 0.0001 ), and so on. Points on fig. 5.23 represent pairs of numbers $(\alpha, \lambda)$ that we calculated for the chronicles marked with respective abbreviations next to the points.

### 2.10. Interesting consequences of the numeric experiment. The confirmation of the statistical model

As we can see, in all cases considered, the decreasing function $1-F(x)$ is very well approximated by the function $\exp \left(-\lambda x^{\alpha}\right)$, given suitable choice of parameters $\alpha$ and $\lambda$. See the last column of the table 5.1,
where the values of the correlation coefficient $r$ are apparently extremely close to 1 . Thus, our statistical model is confirmed by the Russian chronicles under study - in particular, it turns out that the volume functions of large historical chronicles can be modelled using the Weibull-Gnedenko distribution, a fact fairly interesting and useful in itself.

### 2.11. Comparison of a priori dependent Russian chronicles

We must make sure that points representing a priori dependent chronicles, or their fragments, must be closely grouped on the plane $(\alpha, \lambda)$. For instance, Nikiforovskaya Letopis and Supraslskaya Letopis were broken up into pieces: 850-950 A.D., 960-1060 A.D., 1110-1310 A.D., 1236-1340 A.D., and 1330-1432 A.D.

Example 1. Fig. 5.23 makes it evident that the corresponding points $N 1$ and $S 1$, or the first fragments of Nikiforovskaya Letopis and Supraslskaya Letopis respectively, virtually coincide on the plane ( $\alpha, \lambda$ ).

Example 2. Points N2 and S2 are also very close.
Example 3. Points N3 and S3 virtually coincide.
Example 4. Points N4 and S4 virtually coincide.
Example 5. Points N5 and S5, on the contrary, "come apart" on the plane, indicating the absence of amplitude correlation. And indeed we find ourselves in the rich zone of the chronicle, where our rule is not necessarily applicable.

Example 6. Volume graphs of Nikiforovskaya Letopis and Supraslskaya Letopis are presented in fig. 5.24. The amplitude correlation of these chronicles, comparably poor in volume, is visible perfectly well and confirmed by our numeric experiment.

Example 7. The following pair of comparable chronicles is especially interesting, because we compare a poor and a rich dependent text, - namely, Povest Vremennykh Let and Nikiforovskaya Letopis, or Supraslskaya Letopis. The volume graph of Povest Vremennykh Let is presented in fig. 5.24. There is no explicit visual amplitude correlation. Only at the beginning of all three chronicles, Povest Vremennykh Let, Nikiforovskaya Letopis, and Supraslskaya Letopis is the amplitude correlation present; from about 950 A.D., it gradually becomes diluted.

Example 8. Povest Vremennykh Let was broken up into pieces: 854-950 A.D., 918-1018 A.D., 960-1060


Fig. 5.24. Volume graphs of the Suprasl chronicle, the Nikiforov chronicle and the Povest Vremennykh Let with the rich and the poor zones emphasized.
A.D. and 998-1098 A.D. The point P1, that is, the one corresponding to the period of 854-950 A.D., seems to be far away on the plane $(\alpha, \lambda)$ from the virtually coinciding points N1 and S1, which correspond to the pieces of Nikiforovskaya Letopis and Supraslskaya Letopis of 854-950 A.D., qv in fig. 5.23. However, we shall recall that the main parameter for us is $\alpha$, or the form parameter. Comparing values of $\alpha$ for points P1 and the pair of points N1 and S1, or simply projecting these points onto the horizontal axis, we can see that all three values of $\alpha$ are very close to each other. Therefore, the rich chronicle P1, or the Povest Vremennykh Let, is actually dependent in relation to the two poor chronicles S1 and N1, i.e., Supraslskaya Letopis and Nikiforovskaya Letopis. Thus, our method makes it possible to discover the dependency between poor and rich chronicles with certainty.

Example 9. The points P3, N2 and S2 virtually coincide, q.v. in fig. 5.23.

Example 10. Finally, let us compare points $P 4$ and $N 2, S 2$ corresponding to the chronicles describing close historical epochs. We can see that all three points are very close to each other on the plane. We have completely exhausted the Povest Vremennykh Let.

Therefore, our amplitude correlation principle for dependent texts in their poor zones has been confirmed, - in certain cases, even for the rich zones of chronicles.

### 2.12. Comparison of a priori independent Russian chronicles

To avoid qualms about the obvious independence of compared chronicles, we shall restrict ourselves to the texts recording time periods after 1300 A.D. only, those close to our time.

Example 11. Let us, for instance, break up the Dvinskoyletopisets into two parts: 1396-1498 A.D. and 15001600 A.D. We have had no reason to doubt their inde-
pendence. Turning to fig.5.23, we can see the corresponding points D1 and D2 to be far away from each other indeed - in diametrically opposite ends of the field filled with points representing the results of our experiment.

Example 12. Let us review Nikiforovskaya Letopis of 1110-1210 A.D. and its segment of 1236-1340 A.D. Although, according to consensual chronology, they refer to different historical epochs, one cannot assert obvious independence of the two chronicles a priori since they describe events preceding 1300 a.d. Nonetheless, fig. 5.23 makes it clear that their corresponding points N3 and N4 are far away from each other on the plane $(\alpha, \lambda)$, which probably indicates their independence.

The experiments we performed with other independent chronicles (tables omitted) demonstrate that obvious independence of chronicles manifests itself in a substantial remoteness of points representing them on the plane $(\alpha, \lambda)$.

### 2.13. Growth of form parameter over the course of time for the Russian chronicles after the XIII century

If we examine the Russian chronicles distributed over the interval between the alleged IX-XVII centuries A.D., we shall see that this effect is not represented in fig. 5.23 with sufficient clarity. However, the situation becomes much clearer if we reduce ourselves to the chronicles beginning approximately from 1200 A.D. and closer to our time - in other words, from the moment when consensual chronology may be trusted (to some extent, at least). The plane in fig. 5.23 is broken down into segments in accordance with different scales for parameter $\lambda$. Let us compare the positions of points found within one strip and related to the events that supercede the year 1200.

Fig. 5.23 distinctly demonstrates that for all of three such points found within the fourth segment, - namely, points N4: 1236-1340, S4: 1236-1340, D1: 1396-1498, - parameter $\alpha$ does actually grow over the course of time.

The third segment contains only two such points: N5: 1330-1432, and S6: 1432-1450. As we see, parameter alpha grows over the course of time as well, since point $S 6$ is located to the right of point N5.

The second strip in fig. 5.23 contains only two such points - S5: 1330-1432, and A: 1336-1374. These values $\alpha$ are very close to each other, virtually coinciding. This is understandable, since the epochs described in texts $A$ and $S 5$ are close by.

The first segment has four points. Only one of them, $D 2$, describes the period after 1200; therefore, it is impossible to verify our hypothesis within this segment. Nevertheless, one cannot fail to note that, if we examine all these four points formally, the value of parameter $\alpha$ shall evidently increase over the course of time as well, although we certainly cannot trust the Scaliger-Miller chronology before the year 1200.

Let us now compare the positions of points N4: 1236-1340, and N5: 1330-1432, disregarding the values of $\lambda$. Point N5 is evidently located to the right of point $N 4$, which goes to say that parameter $\alpha$ does actually grow over the course of time.

The same is also true for points D1 and D2. Point D2: 1500-1600 is located to the right of point D1: 1396-1498, and here parameter $\alpha$ grows over the course of time as well.

Finally, the mutual arrangement of points S4: 1236-1340, S5: 1330-1432, and S6: 1432-1450 also confirms our hypothesis about the growth of parameter $\alpha$ over the course of time.

The growth of parameter $\alpha$ over the course of time that we discovered assumes a natural explanation: the more recent the chronicle, the "more uniform" its volume function. And yet it is impossible to make an unambiguous conclusion about the growth of parameter $\alpha$ over the course of time for individual chronicles on the basis of a small number of experiments. Extra research is necessary.

### 2.14. Growth of the average form parameter over the course of time for groups of Russian chronicles of the XIII-XVI century

In certain instances of the preceding paragraph, we may have attempted to measure rough values "too accurately". Therefore, it is more natural to examine not just various chronicles and their parts, but rather the groups of chronicles approximately related to one period of, say, 50 or 100 years. Then, the average values of the parameter for these groups of texts should be compared. Let us examine the texts beginning with


Fig. 5.25. The chronological shift of 300-400 years and its manifestation in the Russian history. One sees a "shaded group" of chronicles next to each "white group". The gap in time between them equals three or four centuries.

1200 a.D. and those closer to us. See the result in fig. 5.25. The points, or the chronicles corresponding thereto, are united into several groups corresponding to different periods of history.

Group of years 1236-1340 - two chronicles: N4 and S4.

Group of years 1330-1450 - four chronicles: N5, S5, S6, A.

Group of years 1500-1600 - one chronicle D2.
In fig. 5.25 it is distinctly evident that each next group is located to the right of the preceding one, which matches the growth of parameter $\alpha$ over the course of time. The only exception is chronicle D1: 1396-1498, found next to the group of chronicles pertaining to the years 1236-1340. Thus, the "integration of the picture" makes the growth of parameter $\alpha$ with the flow of time manifest itself explicitly enough.

### 2.15. Growth of the average form parameter over the course of time for groups of Russian chronicles dating from the alleged IX-XIII century

Russian chronicles found in this epoch are united into several groups describing close historical periods, namely:

The alleged years 854-950 - four chronicles: N1, K, S1, P1.

The alleged years 918-1098 - five chronicles: $N 2$, S2, P2, P3, P4.

The alleged years 1110-1210 - two chronicles: S3 and N3.

In fig. 5.25 it is distinctly evident that each of these groups is located to the right of the preceding one, which again indicates the growth of parameter $\alpha$ over the course of time.

Conclusion. In Russian chronicles believed to date back to the alleged IX-XIII century A.D., and those currently dated to the XIII-XVI centuries A.D., parameter $\alpha$ grows evenly over the course of time on the average, which confirms our statistical hypothesis. But the even growth of parameter $\alpha$ over the course of time discovered by the authors of the present book now enables the use of this effect for establishing the correctness or inaccuracy of the chronology recorded in various chronicles. Let us cite an example.

### 2.16. Chronological shift of 300 or 400 years inherent in Russian history

Fig. 5.25 vividly demonstrates an exceptionally interesting phenomenon.
a) The group of Russian chronicles that date from the alleged years $918-1098$ is characterized by approximately the same values of parameter $\alpha$ as a group of later Russian chronicles dating from 1330-1430. Moreover, for both groups of chronicles the growth rate of $\alpha$ over the course of time is more or less the same. In fig. 5.25 these two groups of texts are positioned in such a way that their projections on the horizontal axis are close by. In this case, the Scaligerian and Millerian dating of these two groups of chronicles differs by approximately 300-400 years. Thus, we reveal a chronological shift of approximately 300-400 years inherent in the Romanovian version of Russian history.
b) The very same effect also manifests in the comparison of the group of Russian chronicles allegedly dating from 854-950, and the group of more recent Russian chronicles of 1236-1340 and 1330-1430. The group of $854-950$ is located in fig. 5.25 between the groups of 1236-1340 and 1330-1430. Consequently, the values of parameter $\alpha$ for the two groups of chronicles, which are normally set apart by approximately 300-400 years, once again prove to be very close to each other. Another chronological shift of 300-400 years is found in the Romanovian version of Russian history.
c) We see a perfectly similar effect when we compare the parameters $\alpha$ for a group of Russian chronicles allegedly dating from 1110-1210 and 1500-1600. The values of $\alpha$ prove to be in sufficient propinquity once again. We see the same chronological shift of approximately 400 years again.

Important conclusion. Comparison of the values of parameter $\alpha$ shows that our statistical experiment with a large group of Russian chronicles revealed a chronological shift of 300-400 years inherent in the Romanovian version of Russian history. Apparently, certain Russian chronicles, and therefore the events described therein, were dated incorrectly. As a result, certain actual events of the XIV-XVI century A.D. "slipped backwards in time" by 300-400 years and gave birth to their "phantom reflections" in the epoch of the alleged IX-XIII century A.D. We shall see further on that this 300-400 year shift inherent in Russian history is also revealed by means of completely independent methods.

### 2.17. Conclusions

1) A new empirico-statistical model that allows us to statistically recognize dependent and independent chronicles, as well as the statistical principles of respected information and amplitude correlation for the poor zones of chronicles, have been formulated.
2) Our model and both of the principles, or statistical hypotheses, were tested in a numeric experiment on the material of Russian chronicles. The model and both of the principles have been confirmed by trustworthy and reliably dated material.
3) It allows us to propose a procedure for the recognition of dependent and independent chronicles.
4) We have obtained the following statistical con-
clusions as a result of our analysis of several Russian chronicles.

4a. A damping graph $1-F(x)$, where $F(x)$ is a normalized accumulated sum of the volume function of a given chronicle, can be approximated sufficiently well by the function $\exp \left(-\lambda x^{\alpha}\right)$ with a suitable selection of parameters $\alpha$ and $\lambda$.
4b. For dependent chronicles $X$ and $Y$, points ( $\alpha_{X}$, $\lambda_{X}$ ) and ( $\alpha_{Y}, \lambda_{Y}$ ) that correspond to them on the plane $(\alpha, \lambda)$ are close.
4 c . For independent chronicles $X$ and $Y$, points ( $\alpha_{X}$, $\lambda_{X}$ ) and ( $\alpha_{Y}, \lambda_{Y}$ ) that correspond to them on the plane ( $\alpha, \lambda$ ), are, au contraire, distant.
4 d . Parameter $\alpha$, and sometimes also parameter $\lambda$, usually characterize an entire group of chronicles that relate the events of the specified period. In other words, parameter $\alpha$ is in a certain sense an "invariant of historical epoch", likewise its chronicles. This effect may be considered established for Russian chronicles of the XIV-XVII century, or more or less reliably dated texts.
5) Our statistical experiment involving a large group of Russian chronicles revealed a chronological shift of 300-400 years inherent in the Romanovian version of Russian history.

# 3. <br> THE MAXIMA CORRELATION PRINCIPLE AS APPLIED TO THE SOURCES RELATED TO THE EPOCH OF STRIFE IN RUSSIAN HISTORY (1584-1619) 

This section contains quotations from works of A. T. Fomenko, N. S. Kellin and L. E. Morozova

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We shall now demonstrate how the maxima correlation principle formulated by A. T. Fomenko manifests itself in a group of dependent historical texts related to the epoch of strife in Russia (late XVI - early XVII century a.d.). We have divided each of 20 texts into per annum fragments, or pieces describing the events of separate years, and then N. S. Kellin and
L. E. Morozova calculated volumes of all those "chapters" - namely, the number of words contained in each "chapter". The results were formalized in a unified Table 5.2, where the volume of per annum fragments from 1584 to 1619 is indicated for each of the 20 texts.

Here is the list of the investigated texts:

1) Povest o Chestnom Zhitii, 2) Povest Kako Voskhiti, 3) Povest Kako Otmsti, 4) Zhitie Dmitriya (Touloupova), 5) Zhitie Dmitriya (Maliutina), 6) Skazanie o Grishke, 7) Skazanie o Fyodore, 8) Skazanie o Samozvantse, 9) Povest Shakhovskogo, 10) Zhitie Iova, 11) Skazanie Avraamiya (1st edition), 13) The Chronographer of 1617,14 ) Vremennik Timofeyeva, 15) Povest Katyreva (1st edition), 16) Povest Katyreva (2nd edition), 17) Inoye Skazaniye, 18) Piskaryovskiy Letopisets, 19) Noviy Letopisets.

Three more texts were added later: 20) Izvet Varlaama, 21) Belskiy Letopisets and 22) Skazaniye o Skopine.

Below we cite Table 5.2 containing the per annum fragment volumes for the first 19 texts. The years are plotted along the horizontal axis, and the numbers of
texts along the vertical. Years are indicated in abbreviated form: $84,85,86$, etc. instead of 1584,1585 , 1586 , etc.

All these historical texts basically describe the same events - therefore they are dependent, based on the same fund of surviving information. Table 5.2 shows that correlation between the peaks, of the local maxima of volume functions for these texts, is expressed quite clearly. It is evident that the peaks on almost every graph occur virtually simultaneously, in particular, this concerns the years: $1584,1587,1591$ and 1598.

Now let us consider the result of the second numeric experiment, wherein the 19 previous texts were followed by three additional texts (see above), with time limits extended as well - in particular, the interval of 1584-1598 A.D. was supplemented with that of 1598-1606, and a table similar to the preceding one was plotted. In Table 5.3, the symbol ( $\bullet$ ) marks the positions of local maxima for all 22 historical texts within the range between 1584 and 1606 A.D.

It is distinctly evident that the peaks of all volume functions occur virtually simultaneously, which is explained by the dependence of these texts. Consequently,

Table 5.2

|  | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1:$ | 432 | 288 |  | 200 | 375 | 376 | 1112 | 1632 |  |  |  |  |  |  | 2784 |
| $2:$ | 140 | 455 |  | 458 |  |  |  | 105 |  |  |  |  |  |  | 196 |
| $3:$ | 230 |  |  | 800 |  |  |  | 157 |  |  |  |  |  |  | 380 |
| $4:$ | 120 |  |  |  |  |  |  | 740 |  |  |  |  |  |  | 48 |
| $5:$ | 180 |  |  | 500 | 400 | 300 | 306 | 500 |  |  |  |  |  |  | 400 |
| $6:$ | 152 |  | 52 | 180 |  |  |  | 76 |  |  |  |  |  |  | 68 |
| $7:$ | 240 | 200 | 206 | 240 | 200 | 208 | 210 | 2884 |  |  |  | 20 | 22 | 26 | 756 |
| $8:$ | 20 |  |  |  |  |  |  | 93 |  |  |  |  |  |  | 128 |
| $9:$ | 128 |  |  |  |  |  |  | 600 |  |  |  | 20 | 26 | 28 | 360 |
| $10:$ | 240 | 200 | 100 | 102 | 106 | 450 |  | 60 | 56 | 52 | 51 | 50 | 50 | 52 |  |
| $11:$ | 44 |  |  | 42 |  |  |  | 108 |  |  |  |  |  |  | 306 |
| $12:$ | 54 |  |  | 42 |  |  |  | 347 |  |  |  |  |  |  | 112 |
| $13:$ | 312 |  |  | 172 | 43 | 42 |  | 132 |  |  |  |  |  |  | 324 |
| $14:$ | 900 |  |  | 120 |  |  |  | 4420 | 26 | 22 | 20 | 20 | 26 | 28 | 3000 |
| $15:$ | 150 |  |  | 120 |  |  |  | 300 |  |  |  |  |  |  | 500 |
| $16:$ | 152 |  |  | 86 |  |  |  | 300 |  |  |  | 10 | 10 | 12 | 434 |
| $17:$ | 264 |  |  | 675 |  |  |  | 863 | 92 | 90 |  | 90 | 92 | 94 | 1034 |
| $18:$ | 325 | 75 | 50 | 44 | 32 | 46 | 122 | 430 | 86 | 35 | 140 | 20 | 20 | 110 | 1160 |
| $19:$ | 441 | 99 | 150 | 152 | 54 | 54 | 189 | 1548 | 522 | 36 | 342 | 648 | 50 | 50 | 540 |

Table $5 \cdot 3$

|  | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 00 | 01 | 02 | 03 | 04 | 05 | 06 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1: | - |  |  |  |  |  |  | - |  |  |  |  |  |  | - |  |  |  |  |  |  |  |  |
| 2 : |  | - |  | $\bullet$ |  |  |  | - |  |  |  |  |  |  | - |  |  |  | - |  | - |  |  |
| 3: | $\bullet$ |  |  | - |  |  |  | - |  |  |  |  |  |  | $\bullet$ |  |  | - |  |  |  |  | - |
| 4: | - |  |  |  |  |  |  | - |  |  |  |  |  |  | - |  |  | - |  |  |  |  | - |
| 5: | - |  |  | $\bullet$ |  |  |  | - |  |  |  |  |  |  | $\bullet$ |  |  |  |  |  |  |  | - |
| 6: | - |  |  | - |  |  |  | - |  |  |  |  |  |  | - |  |  |  |  |  |  |  | - |
| 7: | $\bullet$ |  |  | $\bullet$ |  |  |  | $\bullet$ |  |  |  |  |  |  | - |  |  | - |  |  |  |  | - |
| 8: | - |  |  |  |  |  |  | - |  |  |  |  |  |  | - |  |  |  | - |  |  |  | - |
| 9: | - |  |  |  |  |  |  | - |  |  |  |  |  |  | - |  |  |  |  |  |  |  | - |
| 10: | $\bullet$ |  |  |  |  | - |  | - |  |  |  |  |  | - |  |  |  |  |  | - |  |  | - |
| 11: | - |  |  | - |  |  |  | - |  |  |  |  |  |  | - |  |  |  |  |  | - |  | - |
| 12: | - |  |  | - |  |  |  | - |  |  |  |  |  |  | - |  |  | - |  | - |  | - |  |
| 13: | - |  |  | $\bullet$ |  |  |  | - |  |  |  |  |  |  | $\bullet$ |  |  |  |  |  |  |  |  |
| 14: | - |  |  | - |  |  |  | - |  |  |  |  |  |  | - |  |  |  |  |  |  |  | - |
| 15: | - |  |  | - |  |  |  | - |  |  |  |  |  |  | - |  |  | - |  |  |  | - |  |
| 16: | - |  |  | - |  |  |  | - |  |  |  |  |  |  | - |  |  |  |  | - |  |  | - |
| 17: | - |  |  | - |  |  |  | - |  |  |  |  |  |  | - |  |  |  |  |  |  |  | - |
| 18: | - |  |  |  |  |  |  | - |  | $\bullet$ |  |  |  |  | - |  | $\bullet$ |  |  | - |  | - |  |
| 19: | $\bullet$ |  |  | $\bullet$ |  |  |  | - |  |  | - |  |  |  | $\bullet$ |  | $\bullet$ |  |  | $\bullet$ |  |  | $\bullet$ |
| 20: | - |  |  | - |  |  |  | - |  |  |  |  |  |  | - |  |  |  | - |  |  |  | - |
| 21: | - |  |  | $\bullet$ |  |  |  | - |  | $\bullet$ |  |  |  |  |  | - | - |  |  |  | - |  | - |
| 22 : |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |  | - |  |  | - |  | - |  |

this confirms the peak correlation principle for the volume functions of dependent texts.

This dependence of texts can be expressed numerically. Let us introduce the following "distance" between volume functions vol $X(t)$ and vol $Y(t)$ for the two texts $X$ and $Y$, each divided into clusters of separate per annum fragments $X(t)$ and $Y(t)$, respectively. Let us recall that the fragments $X(t)$ and $Y(t)$ describe the events of a single year $t$.

Let parameter $t$ vary within the time interval from year $A$ to year $B$. Let us designate by $t(X, 1), t(X, 2)$, $\ldots, t(X, N)$ the years in which such peaks, or local maxima, occur on volume graph vol $X(t)$.Accordingly, let us designate the peaks of the volume graph vol $Y(t)$ by $t(Y, 1), t(Y, 2), \ldots, t(Y, M)$.

For each point $t(X, i)$, let us find the point nearest to it in the sequence $t(Y, 1), t(Y, 2), \ldots, t(Y, M)$. Let it be a certain point $t(Y, k)$. Let $p(i)$ designate the distance between them in years, or the absolute difference value $t(X, i)-t(Y, k)$. In other words, we shall
find out which local maximum of $Y$ is the nearest to the selected local maximum of $X$.

Similarly, having swapped the roles of $X$ and $Y$, for each point $t(Y, j)$ we shall attempt to find the nearest point to it in the sequence $t(X, 1), t(X, 2), \ldots, t(X, N)$. Let it be a certain point $t(X, s)$. Let $q(j)$ designate the distance between them in years, or the absolute value of difference $t(Y, j)-t(X, s)$.

Finally, we assume the following sum as "the distance between $X$ and $Y^{\prime \prime}$ :
$R(X, Y)=p(1)+p(2)+\ldots+p(N)+q(1)+q(2)+\ldots+q(M)$.
The meaning of the distance $R(X, Y)$ is completely clear. For each local maximum of function vol $X(t)$ we find the nearest local maximum of function vol $Y(t)$, determine the distance between them in years, and add up the resulting values. Then we repeat this operation after swapping the positions of chronicles $X$ and $Y$. Summing up the resulting values, we come up with $R(X, Y)$. It is clear that $R(X, Y)=R(Y, X)$.


Fig. 5.26. Histograms for dependent and independent historical texts.


Fig. 5.27. Histogram for the dependent texts 1-22.


Fig. 5.28. Histogram for independent texts.

If distance $R(X, Y)$ equals zero for a certain pair of texts $X$ and $Y$, their volume function graphs peak simultaneously. The greater the distance, the worse the correlation between their local maxima points. It is also possible to examine the asymmetric distance between $X$ and $Y$, assuming that

$$
p(X, Y)=p(1)+p(2)+\ldots+p(N) .
$$

The asymmetric distance between $Y$ and $X$ is estimated similarly,

$$
q(Y, X)=q(1)+q(2)+\ldots+q(M)
$$

Let us give a numeric estimate for degree of dependence between historical texts 1-22 listed above, for which end we shall calculate a $22 \times 22$ square matrix of two-by-two distances $R(X, Y)$, where $X$ and $Y$ pass through all texts $1-22$, independently from each other. Now let us calculate a frequency histogram. Now we have to consider the horizontal axis, whereupon we shall mark the integer points: $0,1,2,3, \ldots$ and plot the following graph. Let us calculate the number of zeroes in the matrix $\{R(X, Y)\}$ calculated earlier. The resulting value will be plotted on the vertical axis where the horizontal coordinate equals zero. Then we shall calculate the number of unities in the matrix $\{R(X, Y)\}$, plot the resulting value on the vertical axis where horizontal coordinate equals 1 , and so on. We shall come up with a certain graph known as frequency histogram. What can a study of this histogram tell us?

If the chronicles selected for our analysis are de-
pendent, the majority of two-by-two distances between the chronicles must be expressed in small values, which means that the chronicles must be close to each other, the implication being that the majority of matrix elements $\{R(X, Y)\}$ must be "small" or close to zero. In that case, however, the absolute maximum of the frequency histogram must be shifted to the left, meaning that there must be a large set of small frequencies. On the contrary, if there are many independent texts among those under investigation, the maximum of the frequency histogram gets shifted to the right, qv in fig. 5.26. The share of "large" and "medium" two-by-two distances between chronicles should therefore increase.

This observation makes it possible to evaluate the degree of dependence or independence for a group of chronicles by plotting an appropriate frequency histogram based on matrix $\{R(X, Y)\}$. Namely, a shift of the maximum to the left indicates a possible dependence of chronicles, while a shift of the maximum to the right indicates a possible independence.

This idea was used to evaluate the dependency degree for historical texts 1-22 enumerated above. Fig. 5.27 shows the experimental histogram of the matrix $\{R(X, Y)\}$ for texts 1-22. This matrix proved to possess many small values, therefore the maximum of the histogram got visibly shifted to the left. This indicates the dependence of historical texts 1-22.

As a comparison, let us plot a histogram of independent texts. To present an example, we decided to compare the three chronicles $A, B, C$ mentioned below with the preceding texts $1-22$. The three additional chronicles are:

A: Povest Vremennykh Let, the alleged years 850-1110 A.D.,
B: Akademicheskaya Letopis, the alleged years 1336-1446 A.D.,
C: Nikiforovskaya Letopis, the alleged years 850-1430 A.D.
For each of them, a volume function was calculated with all local maxima found. Let us calculate all two-by-two distances of $\{R(X, Y)\}$, where $X$ passes through the three chronicles $A, B, C$, and $Y$ passes through the historical texts $1-22$. We shall come up with a rectangular $3 \times 22$ matrix $\{R(X, Y)\}$. Then we shall build a frequency histogram as shown in fig. 5.28. The ostensibly different nature of this histogram is distinctly visible - its maximum got shifted
to the right. This indicates the independence of the two groups of texts: $\{A, B, C\}$ and $\{$ texts $1-22\}$. Each of these groups can certainly contain dependent texts.

## 4.

## THE METHOD USED FOR THE RECOGNITION AND DATING OF ROYAL DYNASTIES The small dynastic distortions principle

### 4.1. The formulation of the small dynastic distortions principle

The small dynastic distortions principle and the method based upon it were conceived and developed by the author in [884], [885], [888], [1129], [895] and [1130].

Let us assume a historical text was found, with a reference to a royal dynasty unknown to us and indications of their reign durations. The question arises whether this dynasty might be unknown to us and therefore in need of dating, or a known dynasty described in uncommon terms - for example, the names of rulers are altered, etc.? We can find the answer with the aid of the procedure described below ([904], [908], [1137], [885] and [886]).

Let us examine the $k$ value of any successive actual rulers or kings from the history of some state or region. We shall agree to call this sequence an actual dynasty; its members mustn't necessarily be related, though. Frequently, a single actual dynasty gets described in different documents, by different chroniclers, and from different points of view - for example, the activity of rulers, their significance, personal qualities, and so forth, with different attitudes expressed. Nevertheless, there are the "invariable" facts, the description of which is less dependent on sympathies or antipathies of the chroniclers. These more or less "invariable facts" include, for example, the duration of given king's reign. Usually there are no special reasons for a chronicler to distort this intentionally. However, chroniclers would frequently encounter natural difficulties while calculating the reign duration of a given king.

These natural difficulties are as follows: incompleteness of information, distortions inherent in documents etc. This vould accasionally lead to situations where chronicles or tables compiled by different chroniclers were at odds with each other in what concerned
the reign duration of a single monarch. Such discrepancies could be significant, as in the case of the pharaohs in the tables of H. Brugsch ([99]) and the Chronological Tables of J. Blair ([76]). For example, the tables of J. Blair, reaching up to the beginning of the XIX century, contain information about all the primary historical dynasties, complete with reign durations. Blair's tables are all the more valuable to us since they were compiled in an epoch adjacent to the time when Scaligerian chronology was first introduced. Therefore, they contain clearer signs of "Scaligerite activity" which were subsequently buried under layers of paint and plaster by historians of the XIX-XX century.

Thus, every chronicler that describe the actual dynasty $M$ calculates the reign duration of its kings in his own way, to the best of his abilities and possibilities. Thus, every chronicler comes up with a certain sequence of numbers $a=\left(a_{1}, a_{2}, \ldots, a_{k}\right)$, where the value of $a_{i}$ represents the actual reign duration of the ruler corresponding to the value of $i$, possibly erroneously. Let us recall that value $k$ represents the total number of kings in the dynasty. We agreed to call this sequence of extracted values, a dynasty of annals, convenient to be represented as vector $a$ in Euclidean space $R^{k}$.

Another chronicler describing the same real dynasty $M$ may assign somewhat different reign durations to the same kings. As a result, another dynasty of annals $b=\left(b_{1}, b_{2}, \ldots, b_{k}\right)$ will appear. Thus, the same actual dynasty $M$, described in different chronicles, may become reflected as different dynasties of annals $a$ and $b$. The key issue here is the gravity of the resulting distortions. In such cases, errors and objective difficulties impeding a precise determination of an actual reign duration shall play a significant part. We describe the basic types of errors below.

Let us formulate a statistical model, or a hypothesis, which we shall call the small distortions principle.

## The small distortions principle

## AND REIGN DURATIONS.

If the two dynasties reflected in annals $a$ and $b$ are "slightly" different, the annals in question refer to the same actual dynasty $M$. We call such dynasties of annals dependent.

On the contrary, if the two dynasties from annals $a$ and $b$ identify as the two actual dynasties of $M$ and $N$, they differ "considerably". We call them independent.

The remaining pairs of dynasties shall be referred to as "neutral".

In other words, according to this hypothetical model, different chroniclers could slightly distort the same actual dynasty in their chronicles. In any case, the resulting differences proved to be smaller "on the average" than the differencies between unrelated, or independent, actual dynasties.

The hypothesis or the model formulated above requires experimental verification. In case of its validity, an important quality will be revealed, one that characterizes the activity of ancient chroniclers. The dynasties of annals that appeared in the description of the same actual dynasty differ from one another and from their prototype less than veritably different actual dynasties.

Is there a natural numeric coefficient, or measure $c(a, b)$, which could be computed for each pair of dynasties from annals $a$ and $b$ and turn out "small" for dependent dynasties and "large" for independent ones? After all, this coefficient must give us the ability to distinguish between dependent and independent dynasties. We have discovered this coefficient.

It turns out that, in order to evaluate the "proximity" of the two dynasties $a$ and $b$, it is possible to introduce the numeric coefficient $c(a, b)$, similar to the coefficient $P A C Y=p(X, Y)$ as described above. This coefficient $c(a, b)$ also stands for probability. Let us first describe the general conception of calculating the coefficient $c(a, b)$. A given dynasty as reflected in chronicles may be conveniently presented as a graph with the numbers of kings on the horizontal axis, and the durations of their reigns on the vertical. We shall call that dynasty $q$ "similar" to the two dynasties $a$ and $b$ if the graph of dynasty $q$ doesn't differ from the graph of dynasty $a$ to any greater extent than the difference between the two respective graphs built for dynasties $a$ and $b$. See details below in [904], [1137], [885], [886] and [884].

The part that dynasties "similar" to dynasties $a$ and $b$ constitute in the set of all dynasties is transcribed as $c(a, b)$. In other words, we calculate the ratio:

$$
\frac{\text { quantity of dynasties "similar" to } a \text { and } b}{\text { total quantity of dynasties described in chronicles }}
$$

Chroniclers may determine the reign durations of kings with an error. We can only extract their ap-
proximate values from chronicles. It is possible to describe the mechanisms of probability leading to such errors mathematically. Furthermore, we considered two additional errors that the chroniclers may have made: the permutation of two successive kings and the replacement of two successive kings by one "king" with a summary duration of rule.

The coefficient $c(a, b)$ can be referred to as $P A C D$, which stand for Probability of Accidental Coincidence of Dynasties $a$ and $b$.

### 4.2. The statistical model

Let us now provide a formal definition of coefficient $c(a, b)$, designating the set of all actual dynasties with the length of $k$, comprising a total of $k$ sequential kings, as $D$. Set $D$ will comprise the dynasties known to us from surviving historical sources. We have compiled an almost complete list of such dynasties from a large number of different chronological tables listed below. We came up with a list of all groups of 15 successive kings regnant between the alleged years of 4000 b.c. and 1900 A.D. in Europe, the Mediterranean region, the Middle East, Egypt, and Asia.

Every chronicle description of a dynasty can be represented by a vector in $k$-dimensional Euclidean space $R^{k}$. In our specific experiment we assumed $k=$ 15, qv above. We consider two dynasties essentially different if the number of kings, or actual rulers listed for both dynasties does not exceed $k / 2$, or one half of the entire dynasty. Two randomly chosen real dynasties may intersect and have common members, since we may declare this or the other king "the progenitor of a dynasty".

Along with dependent and independent dynasties, there also exist "intermediate" or "neutral" pairs of dynasties wherein the number of common kings, or actual rulers, exceeds $k / 2$ " (although the dynasties are not considered dependent). It is clear that if the total number of dynasties in question is large, the quantity of intermediate or neutral pairs of dynasties shall be relatively small. Therefore, the most attention should be paid to dependent and independent pairs of dynasties.

The small distortions principle as formulated above means that in practice, "on the average", chron-
iclers made insignificant mistakes, which means that they would not distort actual numerical data greatly.

Let us now discuss the errors most frequently made by chroniclers in calculating the reign durations of ancient kings. We found these three types of errors while working on a large number of actual historical texts. These particular errors proved to most frequently result in the distortion of actual durations of rules of kings.

Error one. The permutation or confusion of two adjacent kings.

Error two. The replacement of two kings by one, whose duration of rule equals the sum of durations of both rules.

Error three. Inaccuracy in calculating the very reign duration per se. The longer the duration, the greater error the chronicler would usually make in its determination.

These three types of errors may be described and simulated mathematically. Let us begin with errors (1) and (2). We shall examine a dynasty $p=\left(p_{1}, p_{2}, \ldots\right.$, $\left.p_{k}\right)$ from the set $D$. We shall call vector $q=\left(q_{1}, q_{2}, \ldots\right.$, $q_{k}$ ) a virtual variation of vector (dynasty) $p$, and designate it as $q=\operatorname{vir}(p)$, if each coordinate $q_{i}$ of vector $q$ is derived from coordinates of vector $p$ in one of the two following procedures (1) and (2).
(1) Either $q_{i}=p_{i}$ (the coordinate does not change), or $p_{i}$ coincides with $p_{i-1}$, or $p_{i}$ coincides with $p_{i+1}$, i.e., with one of the "adjacent coordinates" of vector $p$.
(2) Either $q_{i}=p_{i}$, or $q_{i}$ coincides with the number $p_{i}+p_{i+1}$.


Fig. 5.29. Each $p$ dynasty spawns a certain set $\operatorname{vir}(p)$ of virtual dynasties. They are represented geometrically as "clouds", or "globular clusters" surrounding point $p$ in space.


Fig. 5.30. "Globular clusters" $v i r(M)$ and $\operatorname{vir}(N)$ corresponding to two $a$ priori independent and different dynasties $M$ and $N$ that are separated by a considerable distance.

It is clear that each such vector (dynasty) $q$ may represent a dynasty as described in chronicles, resulting from the actual dynasty $p$ as a "reproduction thereof" due to errors (1) and (2) made by chroniclers. In other words, we take each real dynasty $p=$ ( $p_{1}, p_{2}, \ldots, p_{k}$ ) from list $D$ and apply "disturbances" (1) and (2) to it, which means that we either swap the positions of two adjacent values $p_{i}$ and $p_{i+1}$, or substitute a certain value of $p_{i}$ by the sum $p_{i}+p_{i+1}$, or $p_{i-1}+p_{i}$. For each value of $i$, we shall perform the above operations just once, that is, we do not consider "long iterations" of operations at the same position of $i$. As a result, we come up with a certain number of virtual dynasties $\{q=\operatorname{vir}(p)\}$ from one dynasty $p$. The number of such virtual dynasties is easy to calculate.

Thus, each "point" from set $D$ is "multiplied" and generates a certain set of "virtual points" surrounding it, a "cloaking cloud", or a "globular cluster",
fig. 5.29. We may come across some of the resultant virtual dynasties in a certain chronicle (in this case they will be chronicle dynasties), while others shall merely remain "theoretically possible", or "virtual".

By uniting all virtual dynasties obtained from all actual dynasties $p$, as comprised by our list of dynasties $D$, we come up with a certain set $\operatorname{vir}(D)$, or the "cloaking cloud" for the initial set of dynasties $D$.

Thus, for each actual dynasty $M$ the set of chronicle dynasties describing it can be pictured as "globular cluster" $\operatorname{vir}(M)$. Let us now consider the two actual dynasties $M$ and $N$. If the small distortions principle that we formulated above is accurate, then globular clusters $\operatorname{vir}(M)$ and $\operatorname{vir}(N)$ corresponding to two a priori independent, or individual actual dynasties $M$ and $N$ do not intersect in space $R^{k}$, which means that they must be arranged at a sufficient distance from each other, qv in fig. 5.30.

Now let $a$ and $b$ stand for two certain dynasties from set $\operatorname{vir}(D)$, such a pair of chronicle dynasties qv in fig. 5.31. We would like to introduce a certain quantitative measure of proximity between two dynasties, or "measure the distance between them" - in other words, we shall estimate just how distant they are from each other. The easiest method would be as follows. Regarding both dynasties as vectors in space $R^{k}$, it would be possible to take the Euclidean distance between them, or calculate the number $r(a, b)$, the square of which assumes the form of

$$
\left(a_{1}-b_{1}\right)^{2}+\ldots+\left(a_{k}-b_{k}\right)^{2} .
$$

However, numeric experiments with specific chronicle dynasties reveal that this distance does not make it possible to confidently separate dependent and independent pairs of dynasties. In other words,


Fig. 5.31. A demonstrative visual representation of the reign lengths of dynasties $a$ and $b$ as graphs.


Fig. 5.32. Density function demonstrating the distribution of points pertinent to the set $\operatorname{vir}(D)$.
such distances between a priori dependent chronicle dynasties, and those between a priori independent ones, turn out comparable to each other. They appear to have "the same order of magnitude".

Moreover, it is impossible to determine the "similarity" or "dissimilarity" between two given dynasties, or, to be more precise, the graphs of their rule, "at a glance". Visual similarity of two graphs can indicate nothing. It is possible to give examples of a priori independent dynasties whose reign graphs shall be "very similar", although sans actual dependence. It turns out that visual proximity can easily lead to confusion in this problem. A reliable quantitative estimation is necessary, one that would eliminate unsteady subjective considerations like "similar" or "dissimilar".

Thus, the aim is to explain whether such a natural measure of proximity does at all exist within the set of all virtual dynasties, which would make it possible to confidently separate dependent dynasties from independent ones, or make the "distance" between $a$ priori dependent dynasties "small", and the "distance" between a priori independent dynasties "large". Moreover, these "small" and "large" values should be essentially different from one another, for example, by one or several orders of magnitude.

Such a measure of proximity, or "distance between dynasties", appears to actually exist. We will now turn to the description of this coefficient $c(a, b)$.

Thus, we plotted a set of dynasties $D$ in space $R^{15}$. Two most typical errors usually committed by chroniclers were simulated. Each dynasty from set $D$ was subjected to disturbances of types (1) and (2). In this case, each point from $D$ multiplied into several points,
which led to the increase of the set. We designated the set obtained as $\operatorname{vir}(D)$. The set $\operatorname{vir}(D)$ turned out to consist of approximately $15 \times 10^{11}$ points.

We will consider "dynastic vector $a$ " to be a random vector in $R^{k}$, passing through the set $\operatorname{vir}(D)$. Then, on the basis of the set $\operatorname{vir}(D)$ we can build probability density function $z$. With this aim in mind, the entire space $R^{15}$ was divided into standard cubes of sufficiently small size, so that no point of the set $\operatorname{vir}(D)$ would fall on the boundary of any cube. If $x$ is an internal point of a cube, then we may assume that

$$
z(x)=\frac{\begin{array}{c}
\text { the number of points from the set vir(D) } \\
\text { falling into the cube }
\end{array}}{\text { the total quantity of points in the set vir }(D)} .
$$

It is clear that for a point $x$, which lies on a boundary of any cube, it is possible to consider $z(x)=0$. Function $z(x)$ reaches its maximum in the area of especially high concentration of dynasties from the set $\operatorname{vir}(D)$, and it drops to zero where there are no points from set ( $D$ ), fig. 5.32. Thus, the graph of function $z(x)$ clearly shows how the set of virtual dynasties $\operatorname{vir}(D)$ is distributed across the space $R^{k}$, telling us where this set is "dense", and where it is rarefied.

Now we are given two dynasties

$$
a=\left(a_{1}, \ldots a_{k}\right) \text { and } b=\left(b_{1}, \ldots, b_{k}\right),
$$

and we want to estimate how close or distant they are. Let us plot a $k$-dimensional parallelepiped $P^{\prime}(a, b)$ with its center in point $a$, whose diagonal sahll be represented by vector $a-b$, fig. 5.33 . If we project the parallelepiped $P^{\prime}(a, b)$ on the $i$-coordinate axis, we will come up with a segment with the ends

$$
\left[a_{i}-\left|a_{i}-b_{i}\right|, a_{i}+\left|a_{i}-b_{i}\right|\right]
$$



Fig. 5.33. Parallelepipeds $P^{\prime}(a, b)$ and $P(a, b)$.

As a preliminary coefficient $c^{\prime}(a, b)$ we will assume the number
the number of points of the set vir(D)
$c^{\prime}(a, b)=\frac{\text { falling in } P^{\prime}(a, b)}{\text { the total number of points in the set vir }(D)}$.
It is obvious that the value of $c^{\prime}(a, b)$ is the integral of density function $z(x)$ along the parallelepiped $P^{\prime}(a, b)$.

The meaning of this preliminary coefficient $c^{\prime}(a, b)$ is clear. It is natural to call dynasties, or vectors of $\operatorname{vir}(D)$, falling into parallelepiped $P^{\prime}(a, b)$, "similar" to dynasties $a$ and $b$. In fact, each of these dynasties is located no further from dynasty $a$ than dynasty $b$ is located from dynasty $a$. Consequently, as a measure of proximity between dynasties $a$ and $b$, we take the part of dynasties "similar" to $a$ and $b$ in the set of all dynasties $\operatorname{vir}(D)$.

However, such coefficient $c^{\prime}(a, b)$ is not sufficiently good yet, since it does not consider the circumstance that chroniclers could determine certain reign durations erroneously - the longer the reign, the larger the error. In other words, we have to take into account the error of chroniclers (3) discussed above.

Let us switch to the simulation of error (3). Let $T$ stand for a given reign duration. It can obviously be considered a random variable determined for "the set of all kings". Let us designate the number of kings ruling for $T$ years as $g(T)$. In [884] the author of the present book experimentally calculated this frequency histogram $g(T)$ (distribution density of the indicated random value) with the aid of Chronological Tables by J. Blair ([76]). Let us assume $h(T)=1 / g(T)$ and call $h(T)$ a function of the chroniclers' errors. The lower the probability that a random variable, or the dura-


Fig. 5.34. A "scribe error function" calculated experimentally.
tion of reign, assumes the value of $T$, the greater the error $h(T)$ in the determination of duration $T$. In other words, chroniclers calculate "short" reign durations better, making insignificant mistakes. On the contrary, chroniclers would be prone to claculating long reign durations making greater errors. The longer the reign, the greater the possible error.

The error function $h(T)$ for indicated probability density of a random value (reign duration) was determined experimentally ([884], p. 115). Let us divide the segment $[0,100]$ of integer axis $T$ into ten segments of identical length, namely:
$[0,9],[10,19],[20,29],[30,39], \ldots[90,99]$.
Then it appears that:
$h(T)=2$, if $T$ varies from 0 to 19 ,
$h(T)=3$, if $T$ varies from 20 to 29 ,
$h(T)=5([T / 10]-1)$, if $T$ varies from 30 to 100.
The integer part of number $s$ is designated as $[s]$, fig. 5.34.

Let us now consider the errors of chroniclers while plotting the "environment" for point $a$. For this end, we expand the parallelepiped $P^{\prime}(a, b)$, transforming it into the larger parallelepiped $P(a, b)$, where point $a$ is again at the centre, and segments with the ends

$$
\left[a_{i}-\left|a_{i}-b_{i}\right|-h\left(a_{i}\right), a_{i}+\left|a_{i}-b_{i}\right|+h\left(a_{i}\right)\right]
$$

are orthogonal projections thereof onto the coordinate axes.

It is clear that parallelepiped $P^{\prime}(a, b)$ lies entirely within the large parallelepiped $P(a, b)$, qv in fig. 5.33. Vector $a-b+h(a)$ is the diagonal of this large parallelepiped, where vector $h(a)$ is

$$
h(a)=\left(h\left(a_{1}\right), \ldots, h\left(a_{k}\right)\right)
$$

We can call it the vector of chroniclers' errors.
Thus, we simulated all three basic errors that the chroniclers could make while calculating reign durations. The final coefficient $c(a, b)$ measuring the proximity or distance from each other of two dynasties $a$ and $b$, is represented by the following value:

$$
c(a, b)=\frac{\begin{array}{c}
\text { the number of points from the set } \operatorname{vir}(D) \\
\text { falling in } P(a, b)
\end{array}}{\text { fotal number of points in the set } \operatorname{vir}(D)} .
$$

It is clear that the value of $c(a, b)$ is the integral of density function $z(x)$ along the parallelepiped $P(a$, $b$ ). In fig. 5.35 , the value of $c(a, b)$ is symbolically pre-


Fig. 5.35. Coefficient $c(a, b)$ presented as the volume of a prism, or an integral of the function $z(x)$ along the parallelepiped $P(a, b)$.
sented as the volume of a prism with parallelepiped $P(a, b)$ as its base, limited from the top by the graph of function $z$. Number $c(a, b)$ may be interpreted as the probability that a random "dynastic vector" distributed in space $R^{k}$ with density function $z$ proves to be at some distance from point $a$, keeping within the distance between points $a$ and $b$, with the error $h(a)$ taken into account. In other words, the random "dynastic" vector distributed with the density function $z$ falls into the environment $P(a, b)$ of point $a$ with the "radius" $a-b+h(a)$.

It is evident from the above that the respective roles of dynasties $a$ and $b$ in calculation of the coefficient $c(a, b)$ are different. Dynasty $a$ was placed into the centre of parallelepiped $P(a, b)$, and dynasty $b$ determined its diagonal. Certainly, it was possible "to grant equal rights" to dynasties $a$ and $b$, likewise the preceding coefficient $p(X, Y)$. In other words, we could swap the positions of dynasties $a$ and $b$, calculate coefficient $c(b, a)$, and come up with the arithmetic mean value of $c(a, b)$ and $c(b, a)$. We refrained from this for two reasons. Firstly, as certain experiments have shown, replacement of coefficient $c(a, b)$ by its "symmetric analogue" does not actually affect the results. Secondly, in certain cases dynasties $a$ and $b$ may have unequal rights in the sense that one of them may be original, and the second, a mere duplicate, or a phantom reflection. In this case it is natural to place dynasty $a$, which is supposed to be the original, in the centre of the parallelepiped, and consider "phantom reflection" $b$ a "disturbance" of dynasty $a$. The resulting differences between coefficients $c(a, b)$ and $c(b, a)$, albeit minute, may serve as useful material for further, more complex research, which has not been performed yet.

### 4.3. Refinement of the model and computation experiment

The small distortion principle as formulated above was verified with coefficient $c(a, b)$.

1) For verification purposes we have used the Chronological Tables by J. Blair ([76]) containing virtually all basic chronological data from the Scaligerian history of Europe, the Mediterranean, the Middle East, Egypt, and Asia between the alleged years 4000 в.с. and 1800 A.D. These data were then complemented with lists of rulers and their reign durations taken from other tables and monographs, mediaeval as well as contemporary. Let us mention the following books here, for example: C. Bemont and G. Monod ([64]), E. Bickerman ([72]), H. Brugsch ([99]), A. A. Vasilyev ([120]), F. Gregorovius ([195] and [196]), J. Assad ([240]), C. Diehl ([247]), F. Kohlrausch ([415]), S. G. Lozinsky ([492]), B. Niese ([579]), V. S. Sergeyev ([766] and ([767]), Chronologie égiptienne ([1069]), F. K. Ginzel ([1155]), L. Ideler ([1205]), L'art de vérifier les dates des faits historiques ([1236]), T. Mommsen ([1275]), Isaac Newton ([1298]), D. Petavius ([1337]) and J. Scaliger ([1387]).
2) As we have already noted, under a "dynasty" we understand a sequence of actual rulers of a given country, irrespectively of their titles and kinship. Subsequently, we shall sometimes refer to them as kings for the sake of brevity.
3) The existence of co-rulers sometimes makes it difficult to arrange dynasties into a sequence. We accepted the simplest principle of ordering - by average reign durations.
4) We shall refer to the sequence of values representing the reign durations of all rulers that have reigned in a given country throughout its entire history (where the length of a sequence is not limited $a$ priori), a dynastic current. Sub-sequences resulting from our neglect of certain co-rulers will be called dynastic jets. Each jet must be even, which means that the middles of reign durations must increase monotonously. A dynastic jet must also be complete, or cover the entire historical period included in a given flow without gaps or lapses; superimpositions of reign dates are in order here.
5) For practical application, the above requirements may be somewhat disrupted due to natural rea-
sons, - for example, one or several years of interregnum may be missing from a chronicler's narration, insignificant gaps must therefore be acceptable. We take one year as the allowable maximal length of a gap. Furthermore, the analysis of dynastic currents and jets should account for the possibility of distortion resulting from the abovementioned errors (1), (2), and (3) made by chroniclers.
6) Another reason for the distortion of a clear formal picture stems in the fact that the beginning of a given king's reign is sometimes hard to determine for certain. For example, should we start counting from the moment of actual accession, or from the moment of formal inauguration? Different tables provide diverse information about the beginning of rule of Friedrich II: $1196,1212,1215$, or 1220 A.D. At the same time, it is usually easy enough to date the end of a rule - in most cases, the death of a king. Thus, several versions of a single monarch's reign duration are in need of "bifurcation". Fortunately, we seldom come across more than three versions. All of them are included in the general dynastic current. Thus, none of the jets under study should contain different versions of the same reign.
7) A complete list $D$ of all chronicle dynasties with the length of 15 , that is, a list of all dynasties of 15 successive kings, was compiled for each state from the geographical regions mentioned above, utilizing chronological data that we collected from the Scaligerian version. Moreover, a single king could appear in several 15 -member dynasties, that is to say, dynasties may "overlap". Let us enumerate the basic dynastic currents subjected to statistical analysis. They are as follows: the bishops and popes in Rome, patriarchs of Byzantium, Saracens, high priests of Judah, GraecoBactrians, exarchs from Ravenne, dynasties of Egyptian pharaohs, mediaeval dynasties of Egypt, Byzantine dynasties, the Roman empire, Spain, Russia, France, Italy, Ottoman = Ataman empire, Scotland, Lacedaemon, Germany, Sweden, Denmark, Israel, Judah, Babylon, Syria, Portugal, Parthia, the kingdom of Bosporus, Macedonia, Poland and England.
8) Having applied the disturbances of types (1) and (2), see above, to list $D$ of chronicle dynasties, we came up with approximately $15 \times 10^{11}$ virtual dynasties, that is, set $\operatorname{vir}(D)$ appears to contain approximately $15 \times 10^{11}$ points.

### 4.4. Result of the experiment: coefficient $c(a, b)$ positively distinguishes between the dependent and independent dynasties of kings

The computational experiment of 1977-1979 that M. Zamaletdinov, P. Puchkov, and yours truly performed together confirmed the small distortions principle. Namely, the value of $\operatorname{PACD}=c(a, b)$ turned out to never exceed $10^{-8}$, usually fluctuating between $10^{-12}$ and $10^{-10}$, for a priori dependent dynasties from chronicles $a$ and $b$. In probabilistic interpretation, it means that if we examine the observed proximity of two dependent chronicle dynasties as a random event, its probability shall be minute - such events are exceptionally rare, there is a single chance of a hundred billion.

We also discovered that if two dynasties of annals $a$ and $b$ refer to two $a$ priori different real dynasties, coefficient PACD $=c(a, b)$ "is substantially larger" the minimal value possible is $10^{-3}$, which is regarded as "large". Likewise, in the case of coefficient $p(X, Y)$, we are certainly not interested in the absolute values of $P A C D=c(a, b)$ but, rather, the difference of several orders of magnitude between the "dependent zone" and the "independent zone", qv in fig. 5.36.

Thus, coefficient PACD made it possible to discover the essential difference between a priori dependent and a priori independent chronicle dynasties.

### 4.5. The methods used for the dating of royal dynasties and the detection of phantom dynastic duplicates

We have estimated that coefficient $c(a, b)$ makes it possible to distinguish between dependent and independent pairs of chronicle dynasties with reasonable certainty. The important experimental condition is that the mistakes of chroniclers are never "too grave". In any case, their errors are substantially smaller than the value distinguishing between independent dynasties.

This makes it possible to propose a new method useful for recognition of dependent chronicle dynasties and chronological placement of unidentified dynasties within the framework of the experiment. Just as we did in the paragraph above, for each unidentified dynasty $d$ we shall calculate the value of coefficient
$c(a, d)$, where $a$ denotes known and dated chronicle dynasties. Let us assume that we have discovered dynasty $a$, whose coefficient $c(a, d)$ is small, which means that it does not exceed $10^{-8}$. This makes it possible for us to say that dynasties $a$ and $d$ are dependent with the probability of $1-c(a, d)$, - in other words, chronicle dynasties $a$ and $d$ obviously correspond to one actual dynasty $M$, the dating of which is already known to us. Thus, we can date chronicle dynasty $d$.

This procedure was tested on mediaeval dynasties with known datings. The efficiency of the procedure was fully confirmed ([904] and [908]).

The same method makes it possible to identify phantom duplicates in the "Scaligerian history textbook". If we find two dynasties of annals $a$ and $b$, for which coefficient $c(a, b)$ does not exceed $10^{-8}$, we can assume, even having only seen two copies of the same actual dynasty $M$ multiplied in various chronicles, and then placed in different parts of the "Scaligerian textbook".

Let us reiterate that any conclusions or hypotheses appealing to "similarities" or "dissimilarities" between dynasties may only be considered sensible if they are based on extensive numeric experiments, similar to the ones performed by the authors. Otherwise, vague subjective considerations may arise - they are hardly worthy of being discussed.

## 5.

## THE FREQUENCY DAMPING PRINCIPLE The method used for ordering historical texts chronologically

The frequency damping principle, as well as the method based on it, was proposed and developed by the author in [884], [886], [888], [1129], [891], [895], [898], [901] and [1130].

The present method makes it possible to find a chronologically correct order of separate text fragments, reveal duplicates contained therein through analysis, or the sum total of proper names mentioned in the text. As in the foregoing procedures, we aim at creating a method of dating based on numeric, or quantitative characteristics of texts, not necessarily stipulating the analysis of their semantic content, which may be ambiguous and vague. If a document mentions any "famous" characters previously known


Fig. 5.36. Coefficient $c(a, b)$ allows to differentiate between the dependent and the independent dynastic pairs.
to us, which were already described in other chronicles accompanied by reliable datings, it allows us to date the events described therein. However, if such identification does not immediately succeed, and, furthermore, if the lifetimes of several generations are described with a large number of previously unknown characters mentioned, then the task of character identification becomes more complicated. For the sake of brevity, let us call a text fragment describing the lifetime of a single generation "a generation chapter".

We shall consider the average length of one "generation" to be the average reign duration of actual kings described in available chronicles. This average reign duration, calculated by the author of this book while working on Blair's chronological tables ([76]), turned out to equal 17.1 ([884]).

While working with actual historical texts, one may sometimes come across the problem of isolating the "generation chapters" contained therein. In such cases we restricted ourselves to approximated division of a given text into consequtive fragments. Let chronicle $X$ describe the events of a sufficiently large time interval $(A, B)$, which covers at least several generations of characters. Let us divide $X$ into "generation chapters" $X(T)$, where $T$ represents the ordinal number of the generation described in fragment $X(T)$ in the numeration of "chapters" fixed in the text.

The question arises of whether those "generation chapters" are numbered correctly, as ordered in the chronicle. If this numeration is lost or ambiguous, how does one restore it? In other words, how does one arrange the "chapters" related to each other chronologically? For the overwhelming majority of actual
historical texts, the following formula appears to apply: full name $=$ character. It means the following:

Let the time interval described by a chronicler be sufficiently long - for example, several decades or centuries. As we have witnessed during the analyses of a large collection of historical documents, in the overwhelming majority of cases, different characters have different full names. A full name may consist of several words, for example, Charles the Bald. In other words, the number of different persons with identical full names is negligibly small in comparison with the number of all characters. This is correct for several hundred historical texts that we have researched, referring to Rome, Greece, Germany, Italy, Russia, England, etc. This is not surprising. In fact, a chronicler is interested in distinguishing between different characters in order to avoid confusion, and the easiest way to attain this is to assign different full names to different persons. This simple psychological circumstance is confirmed by calculations.

Let us now formulate the frequency damping principle describing a chronologically correct order of "generation chapters".

With the correct numeration of "generation chapters" in place, a chronicler passing from descriptions of one generation to the next changes characters as well. In other words, when he describes the generations preceding generation $Q$, he says nothing about the characters of this generation, since they have not been born yet. Then, in his description of generation $Q$, the chronicler mostly speaks about the characters of this generation, since the events described are directly connected to them. Finally, passing to the description of subsequent generations, the chronicler mentions the previous characters in decreasing frequency, since he describes new events, the characters of which replace the ones departed.

It is important to emphasize here that we do not refer to any individual names, but rather a complete reservoir of all names used in generation $Q$.

Briefly, our model is formulated as follows. Every generation gives birth to new historic characters. As generations change, these characters change, too.

Despite its seeming simplicity, this principle proved useful in the creation of the method of dating. The frequency damping principle has an equivalent re-definition. Since the characters are virtually un-
ambiguously identified by their full names (name $=$ character), we will study the reservoir of all full names contained in the text. We will usually omit the term "full", while constantly implying it. Moreover, the overwhelming majority of historical names proved to be "simple", consisting of a single word. Therefore, while processing large historical texts with a significant fund of names, it is possible to consider just the "elementary name units", dividing occasional full names into separate words they consist of.

Let us examine a group of all names introduced in "generation chapter" $Q$. Let us agree to refer to them all Q-names, and to corresponding characters as to $Q$-characters. We will designate the number of all references to all of these names in this "chapter", with multiplicities, as $K(Q, Q)$. Let us then calculate the frequency of references made to the same names in "chapter" $T$. Let us designate the resulting value as $K(Q, T)$. If the same name is repeated several times, or with a multiplicity, then all those references shall be calculated. Let us plot a graph placing the number of "chapters" along the horizontal axis, and values of $K(Q, T)$ along the vertical, where $Q$ is a constant, and $T$ is a variable, building a separate graph for each $Q$. The frequency damping principle shall then be formulated as follows.

With the chronologically correct numeration of "generation chapters", every graph $K(Q, T)$ has to assume the following form: to the left of point Q , the graph equals zero; point Q is the absolute maximum of the graph; then the graph incrementally decreases, fading out more or less evenly, $q v$ in fig. 5.37.

We shall consider the graph from fig. 5.37 ideal. The formulated principle must be verified experimentally. If it proves accurate, and the "chapters" of a given chronicle are put in a correct chronological sequence, then all experimental graphs must be close to the ideal graph. The experimental verification has completely confirmed the frequency damping principle ([904] and [908]). Let us give some typical examples.


Fig. 5.37. The theoretical "ideal" frequency damping graph.

## 6.

## APPLICATION OF THE METHOD TO SOME CONCRETE HISTORICAL TEXTS

Example 1. Roman History by Titus Livy, M., 1887-1889, vv. 1-6. All graphs $K(Q, T)$ for the parts of History that describe periods of $750-500$ в.c. and 510-293 в.C., proved virtually identical to the ideal graph, which means that the overwhelming majority of names appearing in the description of a generation by Titus Livy for the first time were most frequently mentioned by Livy's description of this particular generation, then gradually lost and forgotten. Consequently, the frequency damping principle is confirmed, and the relative order of "generation chapters" in Livy's History is most likely chronologically correct. On the contrary, a comparison of the two indicated parts of Livy's text proved the frequency damping principle false, which may indicate that the the oeuvre in question contains duplicates and repetitions.

Example 2. Liber Pontificalis, see [196], publ. T. Mommsen, Gestorum Pontificum Romanorum, 1898. This is the famous "Book of (Roman) Popes (pontiffs)". Out of this set of texts, let us select the segments describing the periods of

1) $300-560 \mathrm{~A} . \mathrm{D} .$,
2) $560-900 \mathrm{~A} . \mathrm{D}$. ,
3) $900-1250 \mathrm{~A} . \mathrm{D}$. ,
4) $1250-1500$ A.D.

All frequency graphs $K(Q, T)$ for indicated texts 1-4 prove to virtually coincide with the ideal graph, which confirms the frequency damping principle and the correctness of "chapter" alignment within each of the enumerated historical fragments.

Let us point out one of the consequences of this experiment. It turns out that "ancient names were not in fashion" over the course of substantial time intervals, which is by no means obvious. Surely, certain ancient names are still used today, such as Peter, Mary, etc. But, as we discovered, these names are either not full, or the percentage of such "survived ancient" names is truly minute as compared to the bulk of "extinct names". The presence of rare "surviving" names means that in the course of movement from left to right, experimental graphs $K(Q, T)$ decrease to a certain non-zero constant rather than zero.

Example 3. We used the following original sources as text $X$ describing the period of 976-1341 A.D. in the history of Byzantium:

1) Michael Psellus, Chronography, Moscow, 1987, describing the period of 976-1075.
2) Anna Comnena, An Abridged Legend of the Deeds of Czar Alexis Comnenus (1081-1118), St. Petersburg, 1859.
3) John Kinnam, A Brief Review of the Reign of John and Manuel Comnenus (1118-1180), St. Petersburg, 1859.
4) Nicetas Aconiatus, v. 1, History Beginning from the Reign of John Comnenus (1118-1185), St. Petersburg, 1860.
5) Nicetas Aconiatus, v. 2, History from the Reign of John Comnenus (1186-1206), St. Petersburg, 1862.
6) George Acropolite, Chronicle (1203-1261), St. Petersburg, 1863.
7) George Pachymeres, Story of Michael and Andronicus Palaeologi (1255-1282), St. Petersburg, 1862.
8) Nicephorus Gregoras, Roman History (12041341), St. Petersburg, 1862.

We processed all those texts by selecting all proper names contained therein and calculating the frequency allocation of references thereto. Said collection of texts contains several dozen thousand references to full names, with multiplicities. All frequency graphs $K(Q, T)$ in the intervals of 976-1200 and 12001341 proved virtually identical with the ideal. Thus, the frequency damping principle has been proven true. Apart from that, it became clear that the chronological order of texts within each of the time intervals indicated is correct.

Example 4. F. Gregorovius, The History of the City of Rome in the Middle Ages, St. Petersburg, vols. 1-6, 1902-1912. The parts picked out from this text describe

1) $300-560 \mathrm{~A} . \mathrm{D}$. ,
2) $560-900$ A.D.,
3) $900-1250 \mathrm{~A} . \mathrm{D}$. ,
4) $1250-1500$ A.D.

Each of the fragments was divided into "generation chapters". We selected all proper names and traced the frequency of references thereto. The complete reservoir of names contains several dozen thousand references. The frequency damping principle proved to be true, and the enumeration (ordering) of "chapters" in each of the texts 1-4 turned out chronologically correct.

A similar result is obtained for Kohlrausch's monograph The History of Germany, Moscow, Volumes $1-2,1860$, out of which we have chosen the segments describing

1) 600-1000 A.D.,
2) $1000-1273 \mathrm{~A} . \mathrm{D}$. ,
3) $1273-1700 \mathrm{~A} . \mathrm{D}$.

## 7.

## THE METHOD APPLIED TO THE DATING OF EVENTS

We have processed about several dozen large historical texts. For all such texts describing the events of the XVI-XX century, the frequency damping principle was confirmed. Hence the procedure of chronologically correct ordering of "generation chapters" in a text, or a set of texts, where this order is disrupted or unknown. Let us examine the entirety of "generation chapters" contained in chronicle $X$ and number them in a certain order. We shall then calculate the value of $K(Q, T)$, with the assigned numeration of "chapters", for each "chapter" $X(Q)$. All the values of $K(Q, T)$, with variables $Q$ and $T$, are naturally arranged into square ma$\operatorname{trix} K\{T\}$ sized $n \times n$, where $n$ represents the total number of "chapters". In the ideal theoretical case, frequency matrix $K\{T\}$ assumes the form displayed in fig. 5.38.

Fig. 5.38 displays zeroes below the main diagonal, while the absolute maximum for each line is located on the main diagonal. In this case, each line of each graph fades away evenly.

A similar damping pattern is observed for the columns of the matrix, which means that the usage frequency of the names of earlier origins in "chapter" $X(Q)$ also fades as generation $T$, which gave birth to these names, moves away from generation constant $Q$.


Fig. 5.38. A "well dampened" frequency matrix of the chronologically correct chapter disposition without any duplicates.

To evaluate the frequency damping rate, it is convenient to use the average graph

$$
K_{\mathrm{aver} .}(T)=\frac{\text { the sum of values } K(Q, P)}{n-T},
$$

where $P-Q=T$.
The summation of this formula is performed for all pairs ( $Q, P$ ), for which the difference $P-Q$ is fixed and equals $T$. In other words, graph $K_{\text {aver. }}(T)$, built via averaging the matrix $K\{T\}$ over its diagonals parallel to the main one, represents an "average line" or "average column" of the frequency matrix. Here $T$ varies from 0 to $n-1$.

Experimental graphs may certainly fail to coincide with theoretical ones.

If we now alter the numeration of "chapters" in the chronicle, the numbers $K(Q, T)$ will also change, due to the rather sophisticated redistribution of "names appearing for the first time". Consequently, frequency matrix $K\{T\}$ and its elements will also change. We shall alter the order of "chapters" in the chronicle with the aid of different transpositions $s$, each time calculating a new frequency matrix $K\{s T\}$, where $s T$ is the new numeration corresponding to transposition $s$. We shall search for the order of chronicle "chapters", which will make every, or almost every, graph assume the shape shown in fig. 5.37. In this case, the experimental frequency matrix $K\{s T\}$ will be closest to the theoretical matrix in fig. 5.38. The order of "chapters" in the chronicle for which the deviation of the experimental matrix from the "ideal" will turn out the smallest should be considered chronologically correct and desirable.

Our method is also applicable to the dating of events. Let us regard a historical text $Y$, which is simply known to describe certain events (of one single generation) from epoch ( $A, B$ ) already covered in text $X$ divided into "generation chapters", their order being chronologically correct. How can we identify the particular generation described in text $Y$ that is of interest to us? In this case we only want to use quantitative characteristics of texts, without appealing to their semantic content, since the latter may be ambiguous, allowing for a wide variety of interpretations.

The answer is as follows. Let us add text $Y$ to the corpus of "chapters" in chronicle $X$, considering $Y$ a new "chapter" and assigning a certain value of $Q$
thereto. Then we find the optimal, chronologically correct order of all the "chapters" of the resulting "chronicle", and in doing so, the correct place for the new "chapter" Y. In the simplest case, by plotting a graph $K(Q, T)$ for it, and changing its position in relation to other "chapters", one can make this graph as close as possible to the ideal. The position $Y$ assumes among other "chapters" can be considered desirable, which makes it feasible to date the events described in Y. The procedure is also applicable when we do not examine the entire bulk of names, but rather just one or a few, for instance, a hanful "famous names". However, in this case, an additional analysis is necessary, since a decrease in the number of used names shall render the results unstable.

The method was tested on large texts containing a multitude of names with reliable datings known $a$ priori. In all those cases the efficiency of the method was confirmed.

## 8.

## THE FREQUENCY DUPLICATION PRINCIPLE

## The duplicate detection method

The present method is, in a way, a particular case of the previous, but considering the importance of dating, we dedicated a separate section to the duplicate detection method proposed by the author in [884], [886], [888], [1129], [891], [895], [898], [901] and [1130].

Let the time interval $(A, B)$ be described in chronicle $X$ as divided into "generation chapters" $X(T)$, with correct chronological enumeration on the average but also containing a pair of duplicates, such as two duplicate "chapters" describing the same generation. Let us examine the simplest situation when the same "chapter" is found in chronicle $X$ exactly twice, namely, under number $Q$ and number $R$. Let $Q$ be less than $R$. Our procedure makes it possible to reveal and identify these duplicates. In fact, it is clear that the frequency graphs $K(Q, T)$ and $K(R, T)$ assume the shape displayed in fig. 5.39.

The first graph obviously does not comply with the frequency damping principle, therefore, it is necessary to transpose "chapters" within chronicle $X$ in order to attain better compliance with the ideal graph. $K(R$, $T$ ) equals zero in every case, since "chapter" $X(R)$ does


Fig. 5.39. Frequency graphs for duplicate cases.
not possess a single "new name" - they have all been introduced in $X(Q)$. It is clear that the best concurrence with the ideal graph in fig. 5.37 will be achieved when these two duplicates are placed next to each other, or simply identified as duplicates.

Thus, if we discover two graphs whose shape resembles the graph from fig. 5.39 among the "chapters" of a chronicle whose enumeration is correct in general, these "chapters" are most likely ro be duplicates, - that is to say, they describe approximately the same historical events, and should be identified as two copies of the same chapter. All of the above applies to cases with several duplicates - three and more.

This method was also tested on experimental material. For the sake of simplicity and demonstrability, we have processed an edition of The History of Florence by Machiavelli, 1973 (Leningrad), with detailed commentaries. It is clear that the commentary may be considered a series of "chapters" duplicating the main text of Machiavelli. The main text was divided into "generation chapters", which made it possible to build a square frequency matrix $K\{T\}$, also covering the commentary to History. This matrix assumed the shape conditionally displayed in fig. 5.40 , where thick inclined segments consist of squares filled with maxima. It means that our procedure is valid for exposing known duplicates, in this case the commentary to the main text of Macchiavelli's History.


Fig. 5.40. An approximated frequency matrix for Machiavelli's History of Florence. One sees duplicates, or repetitions.

# 9. <br> <br> STATISTICAL ANALYSIS OF THE BIBLE 

 <br> <br> STATISTICAL ANALYSIS OF THE BIBLE}

### 9.1. Partition of the Bible into 218 "generation chapters"

The following example is of great importance for the analysis of Scaligerian chronology. The Bible contains several dozen thousand references to names. Two series of duplicates are known to exist in the Bible namely, each generation described in Samuel 1, Samuel 2, Kings 1, Kings 2, is described again in the Chronicles 1, Chronicles 2. The author of the present book divided the Old and the New Testaments into separate "generation chapters", qv below.

The table below displays, in parentheses, numbers of "chapter generations" selected by the authors, and also refers to particular fragments of the Bible constituting a certain "generation chapter". The canonical division of the Bible into standard chapters and verses can be used for reference. See, for example, the 1968 edition of the Bible, Moscow, Moscow Patriarchy, based on the Synodal edition of 1912.

First comes the division of Genesis:
$(1)=$ ch. 1-3 (Adam, Eve),
(2) $=4: 1-16$ (Cain, Abel),
(3) $=4: 17$ (Cain got to know his wife...),
(4) $=4: 18$ (Herod was born to Enoch...),
(5) $=4: 18$ (Mehujael gave birth to Methuselah...),
(6) $=4: 18$ (Methuselah gave birth to Lamech...),
(7) $=$ 4:19-24 (And Lemech took two wives...),
$(8)=4: 25-26$ (Adam got to know more of [Eve] ...) + 5:1-6 (Here comes the genealogy of Adam...),
(9) $=$ 5:7-11 (Upon Enoch's birth...),
$(10)=5: 12-14$ (Kenan lived seventy [170] years...),
$(11)=5: 15-17$ (Mahalaleel lived sixty five [165] years...),
$(12)=5: 18-20$ (Horeb lived one hundred and sixty two years...),
$(13)=5: 21-27,(14)=5: 28-31$,
$(15)=$ ch. $5: 32+$ ch. $6+$ ch. $7+$ ch. 8 ,
(16) $=\mathrm{ch} .9$,
$(17)=10: 1$,
$(18)=10: 2$,
$(19)=10: 3$,
$(20)=10: 4$,

$$
\begin{aligned}
& (48)=10: 32, \\
& (49)=11: 1-9, \\
& (50)=11: 10-12, \\
& (51)=11: 13-14, \\
& (52)=11: 15-16, \\
& (53)=11: 17-19, \\
& (54)=11: 20-21, \\
& (55)=11: 17-19, \\
& (56)=11: 24-25, \\
& (57)=11: 26-27, \\
& (58)=11: 28, \\
& (59)=11: 29-32, \\
& (60)=\text { ch. } 12, \\
& (61)=\text { ch. } 13, \\
& (62)=\text { ch. } 14-24, \\
& (63)=25: 1-2, \\
& (64)=25: 3, \\
& (65)=25: 4, \\
& (66)=25: 5-10, \\
& (67)=25: 11-18, \\
& (68)=25: 19-26, \\
& (69)=25: 27-34, \\
& (70)=\text { ch. } 26-33, \\
& (71)=\text { ch. } 34-36, \\
& (72)=\text { ch. } 37-38, \\
& (73)=\text { ch. } 39-50 .
\end{aligned}
$$

The book of Genesis ends here.
(74) $=$ The book of Exodus,
(75) $=$ The book of Leviticus,
(76) $=$ The book of Numbers,
(77) $=$ The book Deuteronomy,
$(78)=$ The book of Joshua,
(79) = The book of Judges, ch. 1,
$(80)=$ The book of Judges, ch. 2,
(96) $=$ The book of Judges, ch. 18,
$(97)=$ The book of Judges, ch. 19-20,
$(98)=$ The book of Ruth,
$(99)=$ The First book of Samuel, ch. 1-15,
$(100)=$ The First book of Samuel, ch. 16-31,
(101) = The Second book of Samuel,
$(102)=$ The First book of Kings, ch. 1-11,
(103) $=$ The First book of Kings), ch. 12,
(104) $=$ The First book of Kings), ch.13,
$(112)=$ The First book of Kings, ch. 22,
$(113)=$ The Second book of Kings, ch. 1,
$(114)=$ The Second book of Kings, ch. 2,
$(135)=$ The Second book of Kings, ch. 23,
$(136)=$ The Second book of Kings, ch. 24-25,
$(137)=$ The First book of Chronicles, ch. 1-10,
$(138)=$ The First book of Paralipomenon Chronicles, ch. 11-29,
$(139)=$ The Second book of Chronicles, ch. 1-9,
$(140)=$ The Second book of Chronicles, ch. 10,
$(166)=$ The Second book of Chronicles, ch. 36,
$(167)=$ The book of Ezra,
$(168)=$ The book of Nehemiah,
$(169)=$ The book of Esther,
(170) $=$ The book of Job,
(171) $=$ Psalms,
(172) $=$ Proverbs,
$(173)=$ The book of Ecclesiastes or Preacher,
$(174)=$ Song of Solomon,
$(175)=$ The book of Isaiah,
$(176)=$ The book of Jeremiah,
(177) $=$ Lamentations,
$(178)=$ The book of Ezekiel,
$(179)=$ The book of Daniel,
$(180)=$ The book of Hosea,
$(181)=$ The book of Joel,
(182) $=$ The book of Amos,
$(183)=$ The book of Obadiah,
$(184)=$ The book of Jonah,
$(185)=$ The book of Micah,
(186) $=$ The book of Nahum,
(187) $=$ The book of Habakkuk,
$(188)=$ The book of Zephaniah,
(189) $=$ The book of Haggai,
$(190)=$ The book of Zechariah,
(191) $=$ The book of Malachi.

The Old Testament ends here.

The New Testament follows:
$(192)=$ The Gospel of St. Matthew,
$(193)=$ The Gospel of St. Mark,
$(194)=$ The Gospel of St. Luke,
$(195)=$ The Gospel of St. John,
$(196)=$ The Acts of the Holy Apostles,
$(197)=$ The Epistle of St. James,
$(198)=$ The First Epistle of St. Peter,
$(199)=$ The Second Epistle of St. Peter,
$(200)=$ The First Epistle of St. John,
$(201)=$ The Second Epistle of St. John,
$(202)=$ The Third Epistle of St. John,
(203) $=$ The Epistle of St. Jude,
$(204)=$ The Epistle of St. Paul to Romans,
$(205)=$ The First Epistle of St. Paul to Corinthians,
(206) $=$ The Second Epistle of St. Paul to Corinthians,
$(207)=$ The Epistle of St. Paul to Galatians,
$(208)=$ The Epistle of St. Paul to Ephesians,
$(209)=$ The Epistle of St. Paul to Philippians,
$(210)=$ The Epistle of St. Paul to Colossians,
(211) $=$ The First Epistle of St. Paul to Thessalonians,
(212) $=$ The Second Epistle of St. Paul to Thessalonians,
$(213)=$ The First Epistle of St. Paul to Timothy,
$(214)=$ The Second Epistle of St. Paul to Timothy,
$(215)=$ The Epistle of St. Paul to Titus,
$(216)=$ The Epistle of St. Paul to Philemon,
$(217)=$ The Epistle of St. Paul to Hebrews,
$(218)=$ The Revelation of Apostle St. John the Evangelist (Apocalypse).
Thus, the Old Testament consists of 191 "generation chapters", and the New Testament is comprised of "generation chapters" 192-218. Let us start with examining the first 170 "generation chapters" covering the so-called historical books of the Old Testament.

### 9.2. Detection of the previously known duplicates in the Bible with the aid of the frequency damping principle

In 1974-1979, V. P. Fomenko and T. G. Fomenko undertook an enormous job of compiling a complete list of all the names found inside the Bible, taking into account all of their multiplicities, and the precise distribution of references to names across all of the "generation chapters". They came up with the total of about 2,000 names mentioned in the Bible, while the number of references to them, including multiplicities, amounted to several dozen thousand. Thus, it became possible to plot all frequency graphs $K(Q, T)$, where number $T$ runs through enumerated "chapters".

The graphs plotted for the "chapters" of 1-2 Samuel $+1-2$ Kings turned out similar to the graph in fig. 5.39 , which means that the names appearing in these "chapters" for the first time "revive" in their former


Fig. 5.41. An approximated frequency matrix for the Bible. One sees repetitions (duplicates).
quantity in the corresponding "chapters" of 1-2 Chronicles. The relevant part of matrix $K\{T\}$ is presented in fig. 5.41 . Two parallel diagonals filled with the absolute maxima of lines are marked with two bold lines.

The square frequency matrix of Biblical names is depicted in greater detail in fig. 5.42. The most essential concentrations of high frequencies are marked by accumulations of black dots. Statistical duplicates both previously known and new, first discovered in our statistical experiment, are distinctly visible.

Thus, our method has successfully revealed and identified the duplicates inherent in the Bible, already known as such previously. Let us emphasize that our methods operate only with quantitative, numeric characteristics of texts, and require no "insight into the semantic content" of chronicles. This is a distinctive advantage of the new methods, since they do not rely on subjective - and therefore ambiguous - interpretations of old texts.

The application of the described statistical methods is sometimes facilitated by the enormous task of exposing repetitive text fragments already performed for many historical texts by commentators. The term "repetition" may apply to a name, as well as the description of a certain event, etc. For example, identical descriptions, lists of names, identical religious formulae, etc., are repeated many times over in the Bible; all of them have long ago been discovered, systematized, and assembled in the so-called apparatus of parallel places. In particular, next to certain verses there are references to the verses in the same or other
books of the Bible considered to be their "repetitions", or "parallels". If historical text $X$ under investigation possesses such apparatus, or an equivalent thereof, our duplicate detection method is applicable, considering repetitive fragments to be "repetitive names".

Example. Let us examine every book of the Bible - both the Old and the New Testament. We have earlier presented the partition of the Bible into 218 "generation chapters". Let us number them in the order they follow each other in the canonical sequence of the books of the Bible. The apparatus of "repetitions", or parallel places in the Bible is known to contain about 20 thousand repetitive verses.

For each "generation chapter" $X(Q)$, we shall calculate the number of verses which have never appeared in any of the preceding "chapters" $X(T)$ and were only introduced in $X(Q)$, denoting their quantity as $P(Q, Q)$. Then we shall calculate the repetition frequency of these verses in subsequent "generation chapters" $X(T)$, and denote the obtained numbers as $P(Q, T)$, after which all 218 frequency graphs $P(Q, T)$ can be plotted. They differ from graphs $K(Q, T)$ only in verses taken instead of names, and in verse repetition vs. name repetition. Verses that do not duplicate each other or some other verse are examined here as "unique names". The bulk of this enormous job was performed by V. P. Fomenko.

Subsequently, in case of correct chronological order of "generation chapters" and the absence of duplicates, frequency graphs of the verse repetitions $P(Q, T)$ must attain the approximate shape of the ideal damping graph as shown in fig. 5.37. As well as with names, a chronicler speaking about events of generation $Q$, given the order of the events described is correct, does not report anything about these events in the preceding "generation chapters", since these events have not yet occurred. The chronicler would recall the events of generation $Q$ less frequently in subsequent "generation chapters". Subsequently, a "chronologically correct" frequency graph must have its absolute maximum in point $Q$, equal zero to the left of $Q$, and evenly fade out to the right of $Q$.

Our experiment has confirmed the frequency damping principle for all fragments of the Bible enumerated below:

1) Genesis, ch. 1-5,
2) Genesis, ch. 6-10,


Fig. 5.42. A detailed frequency matrix for the Bible. The duplicates are clearly visible.
3) Genesis, ch. 11,
4) Genesis, ch. 12-38,
5) Genesis, ch. 59-50, + Exodus + Leviticus + Numbers + Deuteronomy + Joshua + Judges, ch. 1-18,
6) Judges, ch. 19-21, + Ruth $+1-2$ Samuel, 1 Kings +2 Kings, ch.1-23,
7) 1-2 Chronicles + Ezra + Nehemiah.

Frequency graphs $P(Q, T)$ for each of the texts 17 turned out to possess the shape of a damping theoretical graph in fig. 5.37 , which means that the frequency damping principle is confirmed for these indicated cases, and the order of "generation chapters" in each of the texts 1-7 is more or less correct from the chronological point of view, without any essential duplicates.

If all the "generation chapters" of a given chronicle are numbered correctly in general, we can reveal duplicates among them by plotting graphs of "verse repetitions" $P(Q, T)$. If two "chapters" $X(Q)$ and $X(R)$ are duplicates, their frequency graphs $P(Q, T)$ and $P(R, T)$ shall possess the shape presented in fig. 5.39. This procedure has also been experimentally tested for the example described above, namely, 1-2 Samuel + 1-2 Kings duplicate 1-2 Chronicles.

The construction of frequency graphs $P(Q, T)$ for the Bible revealed the "chapters" of 1-2 Samuel + 1-2 Kings and 1-2 of Chronicles to be absolute duplicates from the viewpoint of frequency graphs $K(Q, T)$ as well, which indicates a complete concurrence between the results of both procedures. In this case it should be noted that the apparatus of "parallel places" is not at all identical with the apparatus of "name repetitions", since many fragments and verses of the Bible containing no names at all are still considered "parallel".

### 9.3. New, previously unknown duplicates discovered in the Bible. General scheme of their distribution inside the Bible

We shall now relate a summary of results obtained from the application of our method to "ancient" and mediaeval chronological materialpertinent to the epochs generally believed to predate the XIII-XIV century. We were surprised to identify a number of duplicates which are considered individual entities in Scaligerian history, and currently dated to completely different epochs.

Let us apply, for example, the duplicate detection procedure based on frequency graphs $K(Q, T)$ and $P(Q, T)$ to the Bible - namely, to the books of the Old Testament from Genesis to Esther. We will present the result as conditional line $B$, with identical symbols and letters denoting the duplicates discovered, or certain fragments of the Bible that appear to describe the same events, as it follows from the test of duplicating frequency principle described above.

Thus,

$$
\begin{gathered}
\text { line } B=T K T N T K T K T N T T R T S[a] \\
P
\end{gathered}
$$

This result of ours means that the entire historical part of the Old Testament consists of several fragments: $T, K, N, P, R, S[a]$, some of which are repeated in the Bible several times and installed in different places of the Biblical canon, represented as the "long" chronicle line $B$ described above. In other words, many fragments of the Old Testament indicated on chronicle line $B$ apparently describe the same events.

This conclusion contradicts Scaligerian chronology, according to which different books of the Bible, except for 1-2 Samuel +1 1-2 Kings and 1-2 Chronicles, describe different events. Let us explain now the meaning of the symbols placed along the Biblical chronicle line $B$ by naming the fragments of the Bible that they represent.

Thus, $B=$
$T=$ Genesis, ch. 1-3;
$K=$ Genesis, ch. 4-5;
$T=$ Genesis, ch. 6-8;
$N=$ Genesis, ch. 9-10;
$T=$ Genesis, ch. 11:1-9;
$K=$ Genesis, ch. 11:10-32;
$T=$ Genesis, ch. 12;
$K=$ Genesis, ch. 13-38;
$T=$ Genesis, ch. 39-50;
$T=$ Exodus;
$N / P / R=$ Leviticus + Numbers + Deuteronomy + Joshua + Judges, ch. 1-18;
$T=$ Judges, ch. 19-21;
$T=$ Ruth $+1-2$ Samuel +1 Kings, ch. 1-11;
$R=1$ Kings, ch. 12-22 +2 Kings, ch. 1-23;
$T=2$ Kings, ch. 24;
$S[a]=2$ Kings, ch. $25+$ Ezra + Nehemiah + Esther.

Thus, the sequence of fragments $T R T S[a]$ at the end of the chronicle $=$ line $B$, as repeatedly described in 1-2 Chronicles. These two last series of duplicates are the only ones known before. Other duplicates presented above weren't known before. This is how these duplicates within "chapters" 1-170 in the Bible manifest on the frequency matrix $K\{T\}$ : Two series of previously known duplicates - "chapters" 98-137 and "chapters" 138-167 duplicating them - lead to the manifestation of a new diagonal, along with the maxima filling the main diagonal, also filled with maxima and parallel to the main one in case of the lines numbered 98-137, fig. 5.41 and fig. 5.42.

These diagonals are depicted in fig. 5.41 as black inclined segments. Lines 138-167 virtually consist of zeroes. Remaining duplicates are revealed through local peaks approximately identical in size, arranged on intersections of the appropriate lines and columns corresponding to duplicates. The duplicates of series $T$, those most frequently encountered in the Old Testament, are depicted in fig. 5.42.

Then we had additionally analyzed frequency matrices $K\{T\}$ and $P\{T\}$. Each series of duplicates that we discovered was grouped into a singular generation chapter, and then matrices $K\{T\}$ and $P\{T\}$ were calculated again. It turned out that the new matrices built after the identification of duplicates differ from the initial ones notably and correspond to the frequency damping principle substantially better.

The application of our method to the complete frequency matrix $K\{T\}$ with the size of $218 \times 218-$ the entire Bible, broken up into 218 generation chapters, revealed that the current Scaligerian chronology of the books that constitute the Old and New Testament is incorrect. It turns out that in order to make the sequence of Biblical "chapters" 1-218 chronologically correct, it is necessary to shuffle "chapters" 1191, i.e., the Old Testament, and "chapters" 192-218, i.e., the New Testament, in a specific manner - the books of the Old Testament and the New Testament should be mixed and moved into each other the way the teeth of two combs do. We omit the details of this rearrangement due to the sheer bulk of this material, and shall only present one example below, which is representative enough.

After the "rearrangement" and the identification of duplicates we discovered that the matrices $K\{T\}$
and $P\{T\}$ transform into almost ideally damping graphs for both the Old and the New Testament.

These results indicate that, most probably, the books of the Old and the New Testament were created more or less simultaneously, within the same historical epoch, and it was only much later that Scaligerian chronology arbitrarily pulled them apart, making them distant from our time as well as from each other. Moreover, some books of the New Testament were most likely created earlier than the Old Testament. Let us recall that Scaligerian chronology assures us that the Old Testament was created several hundred years before the New Testament.

### 9.4. A representative example: the new statistical dating of the Apocalypse, which trasposes it from the New Testament into the Old

Let us illustrate the effect of mixing the books of the Old Testament and the New Testament with the example of the Apocalypse (Revelation of St. John) - the last book of the New Testament in Scaligerian sequence. This book was therefore assigned the last number (218) in our numeration of the "Scaligerian generation chapters".

If this current location of the Apocalypse in the Bible were chronologically accurate, its frequency column graph of names $K\{T, 218$ ), with $Q=218$, would resemble the lower graph in fig. 5.43.

However, the actual frequency graph built for the Apocalypse is entirely different! See the upper graph in fig. 5.43. It is surprising that the maximum of the graph isn't reached in the "chapters" adjacent to the Apocalypse, or number 218, but, rather, in the remote "chapters" 70-80 as represented the name frequency graph, and the remote chapters 74-77 and 171-179 on the frequency graph of parallel places and references.

In other words, the absolute maximum of both graphs pertains to the Old Testament and not the New, currently separated from the Apocalypse by several hundred years. Thus, we have revealed an explicit contradiction to the frequency damping principle, soundly confirmed earlier in reliably dated texts whose chronological sequences are correct. We already know how to react in such cases - we must rearrange the Biblical "chapters" in such a way that their frequency graphs begin to fade


Fig. 5.43. A frequency graph for the Biblical Apocalypse. It is amazing that the graph peaks on the chapters that are located at some distance from the actual Apocalypse, and not the ones in its immediate vicinity. It indicates that the current location of the Apocalypse in the Biblical canon is apparently incorrect.
out. We shall eventually come up with the chronologically accurate order of "chapters" for the Bible.

This chronologically correct "mixing" of the Biblical books was described above. It is interesting that, with the "mixing", we discovered that the New Testament Apocalypse appears to be near the Old Testament prophecies and "chapters" 69-75 - in particular, the Old Testament prophecy of Daniel, which is in perfect conformity with a well-known viewpoint that the prophecy of Daniel is "an Apocalypse in many ways similar to one from the New Testament" ([765], p.136).

## 10. <br> THE METHOD OF FORM-CODES The comparison of two long currents of regal biographies

This method was proposed and developed by the author of this book in [884] and [885].

Fund phrases and adopted words used for referring
to rulers, for instance, are common for the Scaligerian history. Chroniclers are believed to have sometimes assigned to their contemporary rulers the qualities and deeds of long-deceased ancient kings. Scaligerian history tries to convince us that this strange "love of anachronisms" was typical for chroniclers. Presumably lacking reliable information about the life of their contemporary kings, chroniclers are believed to have provided their kings with "splendorous biographies" of great rulers who had died long before their time their biographies were presumably known better than the biographies of contemporary rulers, which is fairly strange in itself. Such cases must have occurred, but most likely not very often. Our studies have shown that this bizarre "Scaligerian effect" deserves a closer study, since it conceals something much more serious than a mere "passion for anachronisms".

To reveal and study such fund phrases, repetitions, and duplicates, we introduced the concept of form code, or formalized biography ([904] and [908]). An
actual ruler described in chronicles acquires "a chronicle biography", which can have nothing in common with his true biography and be completely legendary. We are not discussing here the issue of how accurately the chronicle biography of a given king reflects reality - this past reality is beyond our current knowledge. Therefore, we can hardly restore authentic ancient biographies, and we do not have to do it now. Our aim is to try and reveal, among many biographical texts, those actually describing the same person. Though written by different people, their duplicate nature was not detected by later mediaeval chroniclers and chronologists, and they ended up in different parts of "Scaligerian history textbook", as well as different historical epochs, transforming into biographies of allegedly unrelated characters. Thus, one actual character would become "multiplied" on the pages of chronicles and spawn several phantom reflections of himself.

Having studied a large number of historical biographies, we developed the table we call the form-code table (FC). The form-code table hierarchically streamlines the facts of a given "biography" in order of decreasing invariance related to subjective evaluations of chroniclers. The form-code consists of 34 items, each one containing several sub-items:

1) Gender -
a. male;
b. female.
2) Lifetime.
3) Reign duration. The end of a reign is almost always reflected unambiguously and usually coincides with the death of a king. The beginning of a reign sometimes allows for several versions, q.v. below. All versions are presumed equal.
4) Social status and position held -
a. czar, emperor, king;
b. military leader;
c. politician, public figure;
d. scientist, writer, etc.;
e. religious leader, Pope, bishop, etc.
5) Death of a ruler -
a. natural death in a peaceful environment;
$b$. killed on a battlefield by enemies or lethally injured;
c. assassinated as a result of a plot during a peaceful period;
d. assassinated as a result of a plot during the war;
$e$ e exotic circumstances of death.
6) Natural disaster coinciding with the REIGN -
a. famine;
b. flood;
c. epidemics;
d. earthquakes;
$e$. eruptions of volcanoes; in this case, the duration of disasters and their datings are also marked.
7) Astronomic phenomena coinciding with the reign -
a. existent (started explicitly, with indication of dates);
b. nonexistent;
c. eclipses;
d. comets;
e. "starbursts".
8) Wars during the rule -
a. existent;
b. nonexistent;
9) $W=$ the number of wars.
10) Basic time characteristics of wars $W_{1} \ldots$, $W_{P}$. Namely, $a_{k}=$ the year of the reign war $W_{k}$ takes place or begins; $c_{\{k, x\}}=$ time interval from war $W_{k}$ to war $W_{x}$.
11) Scale of war $W_{k}$ according to the chronicle, for each number " $k$ " -
a. large;
$b$. small.
More accurately, this item corresponds to the volume of chronicle text describing war.
12) Number of enemies in war $W_{k}$ and the relations between them - allies, enemies, neutral forces, mediators, etc.
13) Geographical localization of war $W_{k}-$
a. near the capital;
b. within the state;
c. outside the state, an external war, precisely where;
d. simultaneously internal and external war.
14) The result of the war -
a. victory;
b. defeat;
c. uncertain outcome.
15) Peace treaties -
a. conclusion of a peace treaty with an uncertain outcome;
b. conclusion of a peace treaty after a defeat.
16) On seizure of the capital -
a. seized;
b. not seized.
17) The fate of the peace treaty -
a. broken (by whom);
b. not broken during the reign in question.
18) The conquest or collapse of the capital: exact circumstances.
19) The geography of military campaigns.
20) Participation of the ruler in the war -
a. positive;
b. negative.
21) Plots against the ruler -
a. existent;
b. nonexistent.
22) Geographical localization of plots, wars and revolts.
23) The name of the capital, translated into different languages.
24) The names of the state and the people, translated.
25) Geographical localization of the capital.
26) Geographical localization of the state.
27) Legislative activity of the ruler -
a. reforms and their nature;
b. publication of a new code of laws;
c. restoration of old laws - precisely which.
28) Exhaustive list of the ruler's names, with translations.
29) Ethnic affiliation of the ruler as well as his family and the members of the family.
30) Ethnic affiliation of the nation, tribe, or clan.
31) Foundation of new cities, capitals, etc.
32) Religious situation -
a. introduction of a new religion;
b. struggle between sects, with details;
c. religious revolts and wars;
d. church councils, ecclesiastical convergences.
33) Dynastic struggle within the ruler's clan, assassination of relatives, enemies, claimants, etc.
34) Remaining facts of the "biography". We will not differentiate them in detail and conditionally name point 34 "the remainder of a given biography".

Let us denote the enumerated points $F C-1, F C-2$,
...,FC-34. Thus, each "chronicle biography" can now be recorded as a table with some cells optionally left empty if no relevant information about a character is available. Let us assume that a certain chronicle describes a certain actual dynasty; let us then number its rulers and, guided by this chronicle, compile the form-code table for each of them. We will come up with a sequence of form-codes, which we shall refer to as the form-code flow of a given dynasty. Since the same actual dynasty can be described by different chronicles, it can also be presented by different flows of form-codes.

How can we find out whether two different chronicles describe the same actual dynasty, or two individual and unrelated dynasties? If the chronicles in question contain reign durations, one can apply the recognition procedure to chronicle dynasties, see above. However, if no numeric data were preserved, this task becomes notably complicated. So, how is it possible to recognize the same royal dynasty in a multitude of form-code flows? To solve this problem, we have developed a procedure based on the analogue of the "small dynastic distortions" principle, which can be formulated in brief as follows.

If the form-code flows of two dynasties are only marginally different, they refer to the same actual dynasty. If two form-code flows pertain to two different dynasties, these flows shall be manifestly different.

How can one compare form-code flows of two dynasties and estimate the degree of their "similarity"? Let $F C$ and $F C^{\prime}$ stand for the form-codes of two rulers from different dynasties whose original numbers coincide. Let us compare these two form-codes blow by blow, estimating the discrepancies between the respective form-code items. These estimates shall differ from item to item, depending on the importance and degree of invariance characterizing the compared "biographical facts" as compared to the subjective opinions of the chroniclers. Having experimented with a number of "chronicle biographies", we developed the following system of indices, which makes it possible to reveal possible dependencies faster.

For items 1-10, with the exception of the point 3 (reign duration), we shall use the indices $0,+1$ and -1 .

For items 11-21 we shall use the indices $0,+1 / 2$ and $-1 / 2$.

For items $22-33$, we shall use $0,+1 / 3$ and $-1 / 3$.
A comparison of form-code items can lead to three possible outcomes, which can be illustrated by the example of itel 5, or FC-5: "circumstances of a given ruler's demise".
a) Compared data coincide. For example, both FC and $F C^{\prime}$ report that both kings under comparison died a natural death. In this case we will assign the index of +1 to this pair of items to indicate a coincidence, and record it as $E_{5}=+1$.
b) Compared data are manifestly different and contradictory. For example, FC reports a natural death, and $F C^{\prime}$ refers to the "plot and assassination" scenario. In this situation, we shall use the index of -1 , indicating contradictory information, and record $E_{5}=-1$.
c) Compared data are neutral and the items neither coincide, nor contradict each other. For example, $F C$ reports "the death of a king", and $F C^{\prime}$ reports assassination. In this case we shall use the index of 0 to indicate a neutral situation and record $E_{5}=0$.

Thus, for each pair of items marked $i$ (compared form-codes) we come up with a certain value of $E_{i}$. Consequently, it is possible to calculate the sum of all of the resulting values of $E_{j}$ for the pair of form-codes $F C$ and $F C^{\prime}$ corresponding to the pair of rulers under comparison:

$$
f\left(F C, F C^{\prime}\right)=E_{1}+E_{2}+E_{4}+E_{5}+\ldots+E_{33} .
$$

Let us recall that we do not examine coefficient $E_{3}$ here, as we have developed a different procedure for the comparison of rign durations, described in detail above.

Experiments with specific historical form-codes demonstrated that the value of coefficient $E_{i}$ has to be considered equal to zero in many cases, since quite often, comparable data neither coincide nor contradict each other. Thus, the importance of the indices +1 and -1 , when they appear, is growing. Furthermore, it turned out that, in the overwhelming majority of cases, $E_{34}$ has to be assumed equal to 0. Apparently, comparison of the respective "remainders of biographies" usually reveals such a diversity of secondary unimportant data that actual comparison is rendered impossible. For example, in the "remainder of biography" $F C$-34, one king is said to have loved art and even sung, and the other king is said to have had black hair. This information can certainly
be taken into consideration, but renders all attempts of comparison meaningless. Naturally, in such cases the index of $E_{34}$ had to be assumed equal to zero.

Let us now compare the two chronicle dynasties of $a$ and $b$, each consisting of $k$ successive kings. After we "fill in the form" for each ruler, or compile their form-codes, we end up with the following form-code sequence

$$
F C_{1}, F C_{2}, F C_{3}, \ldots, F C_{k}
$$

for dynasty $a$, and another sequence, or flow of formcodes

$$
F C_{1}^{\prime}, F C_{2}^{\prime}, F C_{3}^{\prime}, \ldots, F C_{k}^{\prime}
$$

for dynasty $b$.
A sequence of form-codes

$$
\left(F C_{1}, F C_{2}, F C_{3}, \ldots, F C_{k}\right)
$$

can naturally be referred to as the form-code flow of dynasty $a$. Let us denote it as $F C(a)$. Similarly, we call the form-code sequence

$$
\left(F C_{1}^{\prime}, F C_{2}^{\prime}, F C_{3}^{\prime}, \ldots, F C_{k}^{\prime}\right)
$$

the form-code flow of dynasty $b$ and denote it as $F C(b)$.
In other words, the form-code flow of a dynasty is simply a sequence of form-codes of its kings, or actual rulers.

Now we want to compare form-code flows $F C(a)$ and $F C(b)$ of two dynasties, $a$ and $b$. For each compared pair of form-codes, we calculate coefficient $f\left(F C_{i}, F C_{i}^{\prime}\right)$, which makes it finally possible to determine the following value:
$e(a, b)=\frac{f\left(F C_{1}, F C_{1}^{\prime}\right)+f\left(F C_{2}, F C_{2}^{\prime}\right)+\ldots+f\left(F C_{k}, F C_{k}^{\prime}\right)}{k}$.
which is simply the arithmetic mean value of all coefficients $f\left(F C_{i}, F C_{i}^{\prime}\right)$. In other words, we compare, step by step, each pair of successive kings from the two compared dynasties, calculate the "proximity quotient" $f\left(F C_{i}, F C_{i}^{\prime}\right)$ for each pair, and then compute arithmetic mean values for all the kings of the dynasty.

Thus, the proximity or distance of form-code flows for the two dynasties $a$ and $b$ can be transcribed as a pair of numbers

$$
(c(a, b), e(a, b))
$$

where coefficient $c(a, b)=P A C D$, as described above.
We omit the description of numeric experiments in form-code flow comparison for chronicle dynasties, and only report the result: the procedure described
above allows for confident distinction between the "dependent form-codes" and the "independent formcodes". More details can be found in [904], [908] and [884]. Experimental verification confirmed the correctness of the small distortions principle in this case as well. The form-code flows of a single dynasty turned out to differ from each other essentially less than those of different dynasties, which enables the dating of the dynastic form-code flows according to the system described above.

Below we shall present specific examples of dependent form-code flows characterizing certain pairs of $d u$ plicate dynasties. This comparative material is very useful, since it shows how vividly two duplicates, or different descriptions of the same actual dynasty manifest themselves in chronicles.

To conclude, let us dwell upon one important circumstance. The procedure of form-code comparison as described above is by no means a "tribute to the statistical fashion", but rather an extremely useful research tool. It is important that the procedure be aimed at comparing long sequences of chronicle biographies and not isolated pairs. For example, we shall compare a sequence of twenty biographies of kings from one dynasty to a sequence of twenty biographies of kings from another dynasty (see examples below). A conclusion about the dependence of two dynasties can only be based on the proximity of two lengthy biographical sequencies.

Let us note that the proximity or "similarity" of just two separate isolated historical biographies does not necessarily point out any chronological duplication. It doesn't require that much effort to find a pair of "similar biographies" of two different historical figures from our contemporary epoch by pulling out similar, sometimes surprisingly similar, facts of their lives. Moreover, in some cases a great many "similar facts" can be collected. At the same time, it is absolutely clear that these facts should not lead to any chronological conclusions, and all these coincidences can turn out random. But when we reveal two close long sequences, or two long "flows" of amazingly similar biographies, it is an entirely different matter. When a formal statistical procedure exposes a pair of "similar long flows of biographies" in an enormous collection of ancient documents, - not "at a glance", but in a formal way, we have clearly stumbled upon something
very serious. Besides, our methods make it possible to evaluate, albeit roughly, the probability of how occasional this "proximity" is. If the probability of a random coincidence is low, it confirms our suspicion about having actually encountered a "multiplication" of the same actual dynasty in different chronicles.

Let us re-emphasize the following important circumstance unambiguously traced in all the examples of pairs of dependent dynasties $a$ and $b$, which we have discovered and will demonstrate soon. For example, let $a$ stand for the Roman dynasty, and $b$-the German dynasty. It turns out that:

- The biography of the first Roman king "is similar" to the biography of the first German king.
- The biography of the second Roman king "is similar" to the biography of the second German king.
- The biography of the third Roman king "is similar" to the biography of the third German king.
- And so on, until the end of the entire dynasty comprised of fifteen or twenty kings.
In this case, biographies of kings are unique within both the Roman and the German dynasty. This means that among fifteen or twenty biographies of Roman rulers, there is not a single "similar" pair; likewise, each of the fifteen or twenty biographies of German kings is unique and has got nothing in common with other biographies from the same dynasty. But the flow of Roman biographies proves to be amazingly "similar" to the flow of German biographies. If this similarity, statistically evaluated, strikes us as "very strong", it indicates that we encountered a pair of duplicate dynasties, as well as a serious contradiction inherent in Scaligerian history.


## 11. CORRECT CHRONOLOGICAL ORDERING METHOD AND THE DATING OF ANCIENT GEOGRAPHICAL MAPS

In [908] and [904] the author has also proposed a chronologically correct ordering procedure applicable to ancient maps. Each geographical map reflects the state of human science for the respective epoch of its compilation. Maps are obviously getting better as scientific ideas develop, which means as a whole, the quantity of erroneous geographical data decreases, with more correct data coming to replace them.

Having studied many ancient maps, we composed an optimum map-code, which makes it possible to represent each map, presented graphically or described verbally, as a table similar to FC, which can be conditionally referred to as map-code. A map-code is based on the same principle as a form-code, and consists of several dozen items and indications. Let us only present the beginning of this table.

1) Type of map:
a. Globe.
b. Flat map.
2) 

a. World map (map of the world).
b. Regional map (of a separate region, which one precisely).
3) In case of world maps, the following parameters should be indicated:
a. structure of the "boundary of the world" (water, land, etc.).
b. arrangement of poles, equator, tropics and climate zones.
4) Orientation of the map expressed the following terms:
a. Names of primary parts of the world (the North, etc.).
b. Such terms as "above", "below", and so forth.
c. The placement of a given map's North (top or bottom) and East(right or left).
5) Depiction or description of seas in the following terms:
a. "Rivers", or narrow ducts.
b. Vast reservoirs.
6) Definition of basic reservoirs:
a. Oceans.
b. Seas.
c. Lakes.
d. Rivers.
7) For each reservoir, its name, in translation. Visual or descriptive characteristic of the shape of the reservoir, direction of flow, etc.

And so on, and so forth.
The geographical size of a region described in a single item of the map-code (sea etc.) should not be too large so as to minimize the possible influence of distorting projections used by different cartographers to compile flat maps.

An experimental check performed in 1979-1980
made it possible to formulate and confirm the following geographical map improvement principle.

If a correctly enumerated (ordered) sequence of geographical maps is studied, the transition from old maps to newer ones is characterized by the following two processes:
A) Incorrect signs, or indications failing to correspond to actual geography, disappear from geographical maps forever. In other words, "errors are not repeated on maps".
B) Once a correct indication appears on a geographical map, such as the presence of a strait, a river, or a more correct coast line, - it is fixed and retained on all subsequent maps. In other words, veracious information is never forgotten by cartographers.

Due to the role that maps have always played in navigation and military science, this map improvement principle is quite comprehensible and simply reflects vital practical needs. The principle we formulated was later verified by the system of preceding points. We fix a certain enumeration (ordering) of maps, then build a frequency graph $L(Q, T)$ for each number $Q$, where number $L(Q, Q)$ is equal to the number of geographical features appearing on the map with number $Q$ for the first time, and number $L(Q, T)$ shows how many of them remained on the map with number $T$.

Map ordering (enumeration) should be recognized as chronologically correct if all graphs $L(Q, T)$ are close to the ideal damping graph in fig. 5.37 , and incorrect in the opposite case. In particular, maps that are visually similar prove to be close chronologically as well. Each historical epoch can be characterized by its unique collection of maps. The verification of the principle was hindered by scarcity of authentic ancient maps available to date, but we have nevertheless managed to collect enough maps to make the verification of our theoretical model possible.

We found out that the sequence of mediaeval maps begins in the XI-XII century A.D. with absolutely primitive maps, very far from reality. Then the quality of maps improves more or less evenly until we finally come across fairly correct maps and globes of the XVI century A.D. At the same time, this quality improvement is developing quite slowly.

Thus, for instance, the level of geographical knowledge in Europe of the XVI century a.d. was still very
far from the contemporary. The map of 1522 , compiled by Occupario and kept in the State Historical Museum of the city of Moscow, depicts Europe and Asia in proportions that blatantly contradict reality. In particular, Greenland is represented as a peninsula in Europe; the Scandinavian Peninsula stretches out as a thin stripe; the Bosporus and the Dardanelles are extended out of proportion, the Black Sea is skewed along the vertical axis, the Caspian Sea is horizontally elongated and literally beyond recognition, etc. The only region depicted more or less correctly is the Mediterranean coast, although Greece is represented as a triangle without Peloponnesus.

Ethnographic indications on Occupario's map and other maps of that epoch are even further away from those ascribed to this period by Scaligerian history. For example, Dacia is placed in Scandinavia; Albania is on the shore of the Caspian Sea; Gottia (Goths?) is located on the Scandinavian peninsula; China is simply absent; we see Judei in the north of Siberia, etc. The map of Cornelius Niccolai, 1598, is also guilty of similar distortions, but to a lesser degree already. And finally, the globe of the XVII century, kept in the State Historical Museum of the city of Moscow, reflects reality sufficiently well.

The procedure described above makes it possible to date maps, including the "ancient" ones, in accordance with the diagram described above. The results are quite unexpected. Let us quote just a few examples.

1) The well-known map from the Geographia by Ptolemy, the Basler publication of 1545 (see, for example, [252], page 97), is nowadays considered "very ancient". However, it doesn't pertain to the II century A.D., but rather the XV-XVI century A.D., or the epoch of the book's publication by the "ancient" Ptolemy, which makes us recall a perfectly similar situation with the Ptolemy's Almagest, qv in Chron3. We reproduce this map in fig. 5.44.
2) An equally famous "ancient" map entitled Tabula Pentingeriana, reproduced in [544], Volume 3, pages 232-233, cannot possibly date from the beginning of the new era and the epoch of Augustus, being typical for the XIII-XV century A.D., which makes its Scaligerian dating more than a thousand years off the mark.
3) Let us also present the results for a series of "ancient" maps, which turn out to be later reconstruc-
tions based on their verbal descriptions taken from certain "ancient" texts, see [252], the following maps in particular:

Hesiod, the alleged VIII century b.c.;
Hekataeus, the alleged VI-V century b.c.;
Herodotus, the alleged V century в.с.;
Democritus, the alleged V-IV century в.c.;
Eratosthenes, the alleged 276-194 в.с.;
the "globe" of Crater, the alleged 168-165 в.с.
When dated by the method described above, all these maps fail to correspond with their Scaligerian datings, demonstrating traits that place them in the period of the XIII-XVI century a.d. See Chrons to find out more about the dating of geographical maps.

In fig. 5.45 we reproduce the famous map of Hans Rüst, dating from 1480 ([1160], page 39). This map is remarkable in many respects. It shows the authentic level of geographical knowledge typical for the end of the XV century, - mind you, the fifteenth century! This level is obviously extremely low and primitive. This is not a map yet, but rather a "painted list", with verbal references to countries, peoples, and certain cities. Several geographical regions can already be recognised, albeit hardly. This is apparently the very dawn of cartography, its first clumsy steps. This is why all of the allegedly "ancient", picturesque maps corresponding to the much higher level typical for the maps of the XIVXV century, were "transposed into the past" only because of the erroneous Scaligerian chronology and actually date from the the XVII-XVIII century.

In fig. 5.46 and fig. 5.47 we present a fragment of a map of Abyssinia and Congo from the Atlas of G. Mercator and J. Hondius, allegedly dating from 1607 ([90], pages 72-73). Contemporary commentators tell us the following: "In the bottom left corner, in the cartouche, we see the legend in Latin: Abyssinia, or the domain of Presbyter John... in Africa... Legends of a Christian state... the blissful reign of the righteous, ruled by a priest - Presbyter John - had been told all across Europe ever since the beginning of the XII century" ([90], page 73 ). Pay attention to the fact that in another cartouche, on the top, the African country of Congo is referred to as a Christian state: Congi Regni in Africa Christiani, qv in fig. 5.47. Thus, in the beginning of the XVII century cartographers believed the domain of Christian Presbyter John to have extended not only into Asia and Europe, but also Africa, qv in Chron5.


Fig. 5.44. World map from the Geography by the "ancient" Ptolemy. Taken from [1353], map 2.


Fig. 5.45. A mediaeval map by Hans Rüst dating from 1480. One sees that the geographical science was still pretty rudimentary at the end of the XV century. Taken from [1160], page 39.


Fig. 5.46. A fragment of the map of Abyssinia and Congo from the Atlas of Mercator-Hondius, 1607. Taken from [1160], pages 72-73.


Fig. 5.47 A close-in of a fragment of the map of Abyssinia and Congo with a legend inside the cartouche. Taken from [90], pages 72-73.

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Fig 5.49 A close-in of a fragment of the map by Apianus locating Judea to the East from India. Taken from [1459], sheet XXIII, map 61.

Some more remarkable mediaeval maps: fig. 5.48 shows the map of the world by Petrus Apianus, made allegedly in 1520 ([1459], sheet XXIII, map 61). Let us point out that the American continent is already represented on this map. Enormous regions of China and Burma located to the East of India are called Judah. See names Iudia and Iudiame on the map, fig. 5.49. The Far East is named India Superior. It is interesting that Siberia is named Scythia: Scitia Extra. The European part of Russia is named Tartaria, fig. 5.50.

Fig. 5.51 shows a map allegedly dating from 1538, Solinus, Basel ([1459], map 71). One should notice that all of Europe to the North of Greece is named Moskovia, fig. 5.52. This map contains many other fascinating names, which do not fit into the Scaligerian version of history and geography.

Fig. 5.53 presents a rare map of Jerusalem dating from the alleged XIV century ([1177], page 475). We
see Christian crosses on the buildings of Jerusalem. It is very interesting that in the bottom left corner we see an Ottoman mosque with two tall minarets, fig. 5.54. Apparently, this medieval map depicts Czar-Grad (King-City) $=$ Jerusalem of the Gospels, with Ottoman mosques and Christian temples. Such maps blatantly contradict the Scaligerian version of history and doubtlessly irritate contemporary historians. In this case, commentators use the formula "an approximated map of Jerusalem", as if they were urging the readers to distrust the information presented on the map ([1177], page 475).

Fig. 5.55 shows the map of the World compiled by Isidorus, in the alleged VII century A.D., but published in a book dating from the alleged XV century ([1177], page 302). We see an extremely primitive map, compiled in the XV century the earliest and reflecting the cosmology of the XV century cartographers.


Fig. 5.50. A close-in of a fragment of the map by Apianus showing Russia, or Tartaria. Taken from [1459], sheet XXIII, map 61.

In fig. 5.56 we see a fragment of the world map compiled by Gregor Reisch, allegedly dating from 1515 ([1009], page 65). Judging by its level, it postdates the early XVI century. America is present. Russia is called Tartaria. White Russia (Belaya Rus') is shown in the north of Russia. Moreover, there are several Tartarias on the map, qv in fig. 5.57.

Fig. 5.58 represents the world map compiled by Macrobius, the "ancient" Roman philosopher. The map, however, has only appeared in the book allegedly dating from 1483 ([1009], page 16). It is clearly evident that the level of geographical knowledge is still very primitive. Most likely, this map reflects the ideas of cartographers of the XV-XVI century.

Fig. 5.59 shows a fragment of the map of "the Holy Land", allegedly dating from 1556 ([1189],
page 94). We see the city of Saint George next to Asur! On the left of the map we find a city named Indi - probably the "city of India". The city names of Skandalium and Skandaria are rather interesting, since they contain the root Skanda or Scandia.

Fig. 5.60 reproduces a fragment of an ancient map dating from 1649, whereupon the German river Moselle is named River Mosa - possibly, "the river of Moses" ([1189], page 171). Why and when such Biblical geographical names appeared, and how they eventually disappeared from the territory of the Western Europe, is discussed in Chron6.

Fig. 5.61 shows a fragment of a well-known world map of Schedel, allegedly dating from 1493 ([1459], map 44). The extremely low level of geographical ideas typical for the end of the XV century is clearly visible, see fig. 5.62.

Fig. 5.51. A map allegedly dated to 1538 , Solinus, Basel. Taken from [1459], sheet XXV, map 71.


Fig. 5.52. Fragment of a map allegedly dated to 1538. Taken from [1459], sheet XXV, map 71.


Fig. 5.53. A map of Jerusalem allegedly dating from the XIV century. We can observe buildings with Christian crosses, as well as an Ottoman mosque with minarets in this mediaeval city. Taken from [1177], page 475.


Fig. 5.54. Fragment of a map of Jerusalem. Taken from [1177], page 475.

Fig. 5.55. World map compiled by Isidorus in the alleged VII century A.D. that was published in a XV century book. Taken from [1177], page 475.



Fig. 5.56. A world map by Gregor Reisch allegedly dating from 1515. Taken from [1009], page 65.


Fig. 5.57 A close-in of a fragment with several Tartarias. Taken from [1009], page 65.


Fig. 5.58. A world map by the "ancient" late Roman philosopher Macrobius that only appeared in a book allegedly dating from 1483. Taken from [1009], page 16.


Fig. 5.59. Fragment of a map of the "Holy Land" allegedly dating from 1556. Taken from [1189], page 94.


Fig. 5.60. The German river Mosel is called Mosa on a map dating from 1649. Could this mean "the Moses river"? Taken from [1189], page 171.


Fig. 5.61. A map by Schedel allegedly dating from 1493. One sees just how far the geographical concepts of the mediaeval cartographers were from reality. Taken from [1459], sheet XII, map 44.


Fig. 5.62. Europe on Schedel's map. Taken from [1459], sheet XII, map 44.

# The construction of a global chronological map and the results of applying mathematical procedures of dating to the Scaligerian version of the ancient history 

1. 

ANCIENT AND MEDIAEVAL history textbook in the consensual SCALIGER-PETAVIUS DATINGS

In 1974-1980 the author analyzed the Scaligerian chronology of ancient and mediaeval history of Europe, the Mediterranean, Egypt, and the Middle East with the following idea in mind: the historical and chronological data of Blair's tables ([76]) and 14 others indicated in the bibliography were complemented by information from more than two hundred other texts - chronicles, annals, etc., - which collectively contain descriptions of virtually all main events that took place in said regions allegedly between 4000 в.с. and 1900 A.D., in Scaligerian dating. All this information - wars, kings, main events, empires, etc. - was then displayed graphically on a plane as a global chronological map stretched along the horizontal time axis. It took several years to compile this map. At different times, different participants of the New Statistical Chronology project, which has emerged as a result, would assist the author.

Each epoch, with all of its events in Scaligerian dating, was depicted on the map in detail, in its due place on the time axis. Every event was shown on the plane as a point or a horizontal segment. The date of an
event was determined by projecting a point or segment onto the time axis. The beginning of a segment corresponded to the beginning of an event, and the end of a segment marked the end of an event, - for example, the reign of a king. If epochs $(A, B)$ and $(C, D)$, as described by different chronicles, were simultaneous or overlapping for different countries, they were depicted on the global chronological map one on top the other in vertical development, to avoid confusion resulting from their identification with one another.

Therefore, this global chronological map depicts a most complete "textbook" on ancient and mediaeval history for all indicated regions in Scaligerian dating.

## 2. <br> MYSTERIOUS DUPLICATE CHRONICLES INSIDE THE "SCALIGER-PETAVIUS TEXTB00K"

A graphic representation of the global chronological map takes up an area of several dozen square metres. Various duplicate detection procedures (as described above and in [904], [908], [883]-[886]) were applied to the data represented on this map. In particular, values of coefficients $p(X, Y)$ were calculated for different pairs of chronicles and texts $X, Y$ covering long time intervals. Numbers $c(a, b)$ for dif-
ferent dynasties $a$ and $b$, and coefficients $e(a, b)$ measuring proximity of map-code flows for dynasties $a$ and $b$ have been calculated, and map-codes of ancient maps examined. As a result, we unexpectedly discovered pairs of epochs that Scaligerian history considers different and independent, possessing extremely small coefficients $p(X, Y), c(a, b)$, etc., typical for a priori dependent chronicles, dynasties and map-codes. An example to explain this:

We discovered that the history of the "ancient" Rome for the period of the alleged years 753-236 years b.c. duplicates the history of mediaeval Rome for the period of the alleged years $300-816$ years A.D. Therefore, this chronological shift equals some 1050 years. Now, more precisely:

## Example 1.

1) The mediaeval epoch $(A, B)$, allegedly covering the period of 300-816 A.D., is described, for example, in a fundamental work by F. Gregorovius entitled History of the City of Rome in the Middle Ages, Volumes 1-5, St. Petersburg, 1902-1912. We used this text as "mediaeval chronicle $X$ ". In Chronı, Appendix 6.1 we present the partition of the work [196] into fragments in accordance with the chronological instructions by F. Gregorovius. We also present the distribution of per annum volumes here.
2) The "ancient" epoch ( $C, D$ ), allegedly spanning the years $1-517 \mathrm{ab}$ urbe condita, is described in
"chronicle $Y$ " that we compiled from two following texts:

2a) Roman History by Titus Livy, Volumes 1-6, Moscow, 1897-1899, describing events allegedly spanning the years 1-459 ab urbe condita. After that, the text of Livy comes to a sudden end. His subsequent books are considered lost. In Chroni, Appendix 6.2, we present the distribution of per annum volumes in the books by Titus Livy. In doing so, "year zero" of Livy must be identified as approximately the year 300 A.D. of $F$. Gregorovius.

2b) To fill up the end of the "ancient" period ( $C$, $D)$ allegedly from year 459 up to 517 ab urbe condita, we have used a relevant part of a contemporary monograph - Essays on History of Ancient Rome by V. S. Sergeyev, Moscow, 1928, OGIZ. In doing so, we relied on the strong dependence of the book by Sergeyev on the one by Livy that we discovered, with the coefficient of proximity $p=2 \times 10^{-12}$. See fig. 5.9 and fig. 5.10 in Chroni, Chapter 5.

The calculation of the coefficient $p(X, Y)$, where $X$ stands for Gregorovian oeuvres describing mediaeval Rome, and $Y$ is the sum of books by Titus Livy and Sergeyev describing the "ancient" Rome, shows that $p(X, Y)=6 \times 10^{-11}$ - a very small value. If we discard Sergeyev's text and compare text $X^{\prime}=$ the part of Gregorovius' text allegedly from 300 to 758 A.D., and text $Y^{\prime}=$ the part of the Roman History by Livy covering the alleged years 1 to 459 ab urbe condita, then


Fig. 6.1. The peak correlation of the volume functions for the "ancient" Titus Livy and his description of the "ancient" Rome ([482]) as compared to that of the modern work of E. Gregorovius ([196]) describing Rome in the Middle Ages.


Fig. 6.2. The peak correlation of the volume functions for the "ancient" Titus Livy and his description of the "ancient" Rome ([482]) as compared to that of the modern work of F. Gregorovius ([196]) describing Rome in the Middle Ages. Continued.


Fig. 6.3. The peak correlation of the volume functions for the "ancient" Titus Livy and his description of the "ancient" Rome ([482]) as compared to that of the modern work of F. Gregorovius ([196])describing Rome in the Middle Ages. Continued.
calculation yields $p\left(X^{\prime}, Y^{\prime}\right)=6 \times 10^{-10}$. This is another minute value.

Both results indicate a dependence between the two epochs described in different places of "the Scaligerian textbook" - namely, the "antiquity" and the Middle Ages. To be more precise, we have discovered a dependence between the original sources describing these epochs. This dependence manifests itself explicitly and is of the same nature as that between texts describing events known to be "the same", fig. 6.1, fig. 6.2 and fig. 6.3. The chronological shift which identifies the "antiquity" as the Middle Ages is one of approximately 1050 years.

## Example 2.

We have similarly compared the graphs of per annum volumes of the book by V. S. Sergeyev ([767]) which describes "antique" Rome in the years 1-510 ab urbe condita, and the book by F. Gregorovius ([196]) which describes mediaeval Rome between the alleged years 300 A.D. and 817 A.D. The result is represented in fig. 6.4, fig. 6.5 and fig. 6.6. The correlation between the principal peaks on both graphs is clearly visible and indicates a strong dependence between these texts. This result was fairly predictable, since, as we have already seen, Sergeyev's book is a fairly faith-
ful copy of the oeuvre written by the "ancient" Titus Livy. The chronological shift here approximately equals 1050 years.

## Example 3.

The comparison of the per annum volumes of the "ancient" work by Titus Livy and the mediaeval work by C. Baronius ([50]) yields a similar result, indicating a dependence between the descriptions of "ancient Rome" and "mediaeval Rome". We examined the book by Baronius Deeds, Ecclesiastic and Secular, from the Nativity to 1198. - Moscow, 1913. Printing house of P. P. Ryabushinsky. (Baronius, Annales ecclesiastici a Christo nato ad annum 1198.) This oeuvre was first published in 1588-1607 in Rome, as 12 volumes. In Chroni, Appendix 6.3 we provide the distribution of per annum volumes in the work of Baronius as calculated by us.

The fundamental "ancient" work of Titus Livy, in several volumes, describes the Regal Rome, or the First Roman empire in our terms, and the "ancient" Roman republic. In general, Titus Livy spans the time interval from year 1 to 380 ab urbe condita. The Scaligerian conversion of dates yields an interval of the alleged years 753-373 в.с.

The first part of the mediaeval work by C. Baronius


Fig. 6.4. The peak correlation of the volume functions for the modern book by V.S. Sergeyev describing the "ancient" Rome ([767]) as compared to that of the modern work of E. Gregorovius ([196]) describing Rome in the Middle Ages.


Fig. 6.5. The peak correlation of the volume functions for the modern book by V. S. Sergeyev describing the "ancient" Rome ([767]) as compared to that of the modern work of F. Gregorovius ([196]) describing Rome in the Middle Ages. Continued.


Fig. 6.6. The peak correlation of the volume functions for the modern book by V. S. Sergeyev describing the "ancient" Rome ([767]) as compared to that of the modern work of F. Gregorovius ([196]) describing Rome in the Middle Ages. Continued.


Fig. 6.7. The peak correlation of the volume functions for the "ancient" Titus Livy and his description of the "ancient" Rome ([482]) as compared to the description of the mediaeval Rome by Caesar Baronius (Baron, or Barin? [the archaic Russian word for "Master", or "Gentleman"]) ([50]).


Fig. 6.8. The peak correlation of the volume functions for the "ancient" Titus Livy and his description of the "ancient" Rome ([482]) as compared to the description of the mediaeval Rome by Caesar Baronius ([50]). Continued.


Fig. 6.9. The peak correlation of the volume functions for the "ancient" Titus Livy and his description of the "ancient" Rome ([482]) as compared to the description of the mediaeval Rome by Caesar Baronius ([50]). Continued.


Fig. 6.10. The peak correlation of the volume functions for the "ancient" Titus Livy and his description of the "ancient" Rome ([482]) as compared to the description of the mediaeval Rome by Caesar Baronius ([50]). Continued.
is dedicated to the Second and the Third Roman empires, or the epoch between the beginning of the new era and the alleged year 400 A.D.

Both books are divisible into per annum fragments, or pieces describing exactly one year each, qv in Chroni, Appendix 6.3. By calculating the respective volumes of such "chapters" we get a sequence of numbers - the volume function for a given book. Then we draw the annual volume graph for each book, showing the degree of detail for every year. Let us compare the volume graphs for the "ancient" Titus Livy and the mediaeval Caesar Baronius, superimposing them over each other. We identify Titus Livy's year 1 ab urbe condita as Caesar Baronius' year 17 A.d.

Our comparison of the graphs built for Livy and Baronius is shown in fig. 6.7, fig. 6.8, fig. 6.9 and fig. 6.10. The graphs are explicitly "similar". Notwithstanding the different quantity of local maxima in the two graphs, whenever a peak or a close group of peaks appear on Livy's graph, a pronounced "hump", formed by several closely situated peaks, unmistakably raises on Baronius' graph. Roughly speaking, the "humps" on Livy's graph and the graph of Baronius occur more or less simultaneously.

The application of the empirico-statistical procedure described above confirms that local peaks on both graphs correlate perfectly well - that is, the chronicles of the "ancient" Livy and the mediaeval Baronius are dependent. In other words, they apparently describe the same period in the history of the same region. To put it simply, "ancient" Rome and mediaeval Rome can be identified as the same state of the same historical epoch. The thing is, certain sources "remained immobile" and were later named mediaeval. Others were artificially shifted deep into the past and dubbed "ancient" afterwards. In general, both tell the same story.

Thus, the chronological shift identifying the "antiquity" as the Middle Ages equals to approximately 1050 years.

Then all $(A, B)$ and $(C, D)$ epochs that looked abnormally close from the viewpoint of coefficient $p(X$, $Y$ ) were marked on the global chronological map. Let us name such epochs $p$-dependent. We mark them with identical symbols on the chronological map. Let us reiterate: when we refer to the "dependence of historical epochs", we naturally don't imply that certain actual periods in the history of civilizations are "de-
pendent" and duplicate each other. We have found no data to suggest anything like that. We only assert the dependence of certain chronicles, actually describing the same historical period but erroneously dated to different epochs in the "Scaligerian textbook."

## 3. <br> MYSTERIOUS DUPLICATE REGAL DYNASTIES INSIDE THE "TEXTBOOK OF SCALIGER-PETAVIUS"

We then carried out an independent experimental study of the "Scaligerian textbook", or the global chronological map with the application of the dependent dynasty recognition procedure. Let us recall that for said purpose we have compiled lists of all the rulers in the range spanning the alleged years 4000 B.C.- 1900 A.D. for the regions indicated. In particular, we used the chronological tables ([76]); a list of other tables and books was cited above. The dependent dynasty recognition procedure was applied to this set of dynasties featured in the annals. The experiment has unexpectedly revealed particular pairs of featured dynasties $a$ and $b$, which used to be considered independent in every respect, whose proximity coefficient of $c(a, b)$ has nonetheless proved minute, pertaining to the same order of magnitude as for a priori dependent dynasties: $10^{-12}$ to $10^{-8}$. The results related above indicate a most probable correspondence of these dynasties to the same "flow of events". A few examples are to follow.

## Examples of the dependent

## historical annalistic dynasties

Example 1 is shown in fig. 6.11, fig. 6.12, fig. 6.12a.
$a=$ the second "ancient" Roman Empire actually founded by Lucius Sulla in the alleged years $82-83$ b.c., ending with Caracalla and the alleged year 217 A.D.
$b=$ the third "ancient" Roman Empire restored by Lucius Aurelian in the alleged year 270 A.D. and ending with Theodoric the Gothic in the alleged year 526 A.D. Here $c(a, b)=10^{-12}$ dynasty $a$ obtained from dynasty $b$ by shifting the latter by approximately 333 years backwards.

Thus, if we regard the proximity of these dynasties as random, its probability is $10^{-12}$ - that is, very low.

Second Roman Empire in the<br>1st c. B.C. -3 rd c. A.D.

Third Roman Empire in the
3 rd-6th cc. A.D.

1) Lucius Sulla $82-78$ (5)
2) Confusion $78-77$ (1)
3) Sertorius 78-72 (6)
4) Confusion 72-71 (2)
5) Pompey the Great 70-49 (21)
6) Pompey and Caesar 60-49 (11)
7) Confusion 49-45 (4)
8) Julius Caesar, winner in 1st Triumvirate 45-44 (1)
9) Triumvirs and Octavianus Augustus
(Octavian) 44-27 (17)
 306-324 (18)
10) Constantine Augustus 306-337 (31)

31 11) Birth of Basil the Great in 27th year since Constantine Augustus (27)
24 12) Constantius II 337-361 (24)
13) Constantius II and Constans 337-350 (13)
14) Julian 361-363 (2)
15) Confusion 363 (1)
16) Valentinian I $364-375$ (11)
17) Valentinian and Valens (Pallas?) 367-375 (11)
18) Valens $364-378$ (14)
19) Valens, Valentinian and Gratian 364-375 (11)
19*) Valens and Gratian 367-378 (11)
20) Jovian 363-364 (1) interchanged 18)
21) Confusion 378 (1)
22) Gratian and Valentinian II after Valens and Confusion 379-392 (13)
23) Theodosius I 379-395 (16)
24) Eugenius $392-394$ (2)
25) Eugenius co-ruling 392-394 (2)
26) Arcadius 395-408 (13)
27) Honorius 395-423 (28)

28 28) Aetius 423-444 or 423-438 (21)
29) Valentinian III 437-455 (18) or 444-455 (11)
30) Ricimer 456-472 (16)
31) Olybrius 472 (1)
32) Glycerius 473-474 (1)
33) Julis Nepos 474-475 (1)
34) Romulus Augustulus 475-476 (1)
35) Odoacer 476-493 (17)
36) Theodoric 493-526 (33) or 497-526 (29).

29 Well-known reforms. 37) End of Western 3rd Roman Empire.
Gothic war in mid-VI c. A.D.

Fig. 6.11. Reign correlation for the "ancient" Second Roman Empire (the alleged period between 82 B.C. and 217 A.D.) and the "ancient" Third Roman Empire (the alleged period between 270 and 526 A.D.).

Fig. 6.12. A superimposition of the Second and the Third Roman Empire (both presumably ancient) on the time axis with a rigid shift of about $330-360$ years. A general scheme. Just a couple of reign duration versions are given here; refer to the table in the text for the complete list.


Fig. 6.12a. A superposition of the Second and the Third Roman Empire (both presumably ancient) on the time axis with a rigid shift of about 330-360 years. A detailed scheme indicating the names of the rulers.

Fig. 6.13. The so-called "double-entry chronology" as obtained from the Bible that shows the temporal correlations between the Israelite and the Judaic kings.

These jets were discovered by the author; they differ from those suggested by N. A. Morozov


Fig. 6.14. Reign correlation of the "ancient" Biblical Israelite kingdom of the alleged years 922-724 B.C. and the "ancient" Third Roman Empire of the alleged III-VI century A.D.

These jets were discovered by the author; they differ from those suggested by N. A. Morozov


This parallelism is secondary, and generated by the main one, see below

Fig. 6.15. Reign correlation of the "ancient" Biblical Judaic kingdom of the alleged years 928-587 B.C., and the "early mediaeval" Eastern Roman Empire of the alleged IV-VII century A.D.

First period of the Roman episcopate in 141-314 A.D.

Second period of the Roman episcopate in 314-352 A.D.


Fig. 6.16. Reign correlation of two consecutive periods in the Papal history of the "early Middle Ages".

This parallelism is secondary in the sense that not only do both of these dynasties duplicate each other, but they themselves appear to be phantom reflections of a more recent original located closer to us.

Example 2 is shown in fig. 6.13 and fig. 6.14.
$a=$ "ancient" kings of Israel of the alleged years 922-724 в.с. ([72], p. 192). They are described in the Bible, 1-2 Samuel +1-2 Kings and Chronicles.
$b=$ dynastic jet from the "antique" Roman Empire, the alleged years 300-476 A.d. Here $c(a, b)=1.3 \times 10^{-12}$.

As in example 1, the small value of coefficient $c(a$, b) means a virtual coincidence of both featured dynasties. This parallelism is also secondary. Relative chronology of the kingdoms of Israel and Judah, restored from the information presented in the Bible, is shown on fig. 6.13. This is a so-called "dual entry", which makes it possible to see mutual arrangement of kings of Israel and Judah in time. For details of this "dual entry", see appendix 6.4 in the end of Chroni.

Example 3 is shown in fig. 6.13 and fig. 6.15.
$a=$ "ancient" kings of Judah of the alleged years $928-587$ в.с. [72], p. 192. They are described in the Bible, 1-2 Samuel +1-2 Kings and Chronicles.
$b=$ the dynastic jet from the "antique" and "early mediaeval" Eastern Roman Empire, allegedly of 300552 A.D. Here $c(a, b)=1.4 \times 10^{-12}$.

This parallelism is also secondary. The original for both phantom dynasties is located even closer to us, qu below.

The three pairs of dynasties discovered by our procedure proved close to the three pairs indicated by N.A. Morozov in [544]. However, the dynasties found by us differ, sometimes notably - especially in the third case - from the dynasties indicated in [544] on the grounds of plain selection. The fact that the three pairs indicated in [544] have not proved entirely optimal from the point of view of coefficient $c(a, b)$ is explained by N. A. Morozov as guided only by "visual similarity" of dynastic graphs. Our analysis did prove the existence of "visually similar", though obviously independent, pairs of dynasties. For this very reason, the task was set to develop a formal procedure making it possible to quantitatively distinguish between dependent pairs of dynasties and obviously independent ones.

All the remaining pairs of dependent dynasties listed below, as well as additional pairs indicated on the global chronological map (see further), have not been known before. We exposed them with the aid of the empiricostatistical dating methods as described above.

Example 4 is shown in fig. 6.16.
$a=$ the "early mediaeval" Popes of Rome, the alleged years 140-314 A.D.
$b=$ the "early mediaeval" Popes of Rome, the alleged years 324-532 A.D. Here $c(a, b)=8.66 \times 10^{-8}$. This parallelism perfectly conforms to the above parallelism between the two Roman Empires. See example 1.

Example 5 is shown in fig. 6.17 and fig. 6.18.
$a=$ the "mediaeval" Empire of Charles the Great from Pepin (Pipin) of Heristal to Charles the Fat, the alleged years 681-887 A.D.
$b=$ the dynastic jet from the "early-mediaeval" Eastern Roman Empire of the alleged years 324-527 A.D. Here $c(a, b)=8.25 \times 10^{-9}$.

Example 6 is shown in fig. 6.19 and fig 6.20.
$a=$ the mediaeval Holy Roman empire of the alleged years 983-1266 A.D.
$b=$ the dynastic jet of the "ancient" Roman Empire of the alleged years 270-553 A.D. Here $c(a, b)=$ $2.3 \times 10^{-10}$. Dynasty $b$ is derived from dynasty $a$ by shifting the latter by approximately 720 years backwards.

Example 7 is shown in fig. 6.21 and fig. 6.22 .
$a=$ the mediaeval Holy Roman Empire of the alleged years 911-1254 A.D.
$b=$ the mediaeval, allegedly German-Roman empire of the Habsburgs of 1273-1637 A.D. Here $c(a, b)$ $=1.2 \times 10^{-12}$. Dynasty $b$ is derived from dynasty $a$ by shifting the latter by approximately 362 years backwards as a rigid whole.

Example 8 is shown in fig. 6.23 and fig. 6.24 .
$a=$ the mediaeval Holy Roman Empire of the alleged years 936-1273 A.D.
$b=$ the second "antique" Roman Empire of the alleged years 82 в.с. -217 A.d. Here $c(a, b)=1.3 \times 10^{-12}$.

Example 9 is shown in fig. 6.25 and fig. 6.26 .
$a=$ the "ancient" kings of Judah, the alleged years


The average reign shift equals 359.6 years, which concurs with the rigid 360 year shift.
[1] Blair J. Chronological Tables Spanning the Entire Global History, Containing Every Year since the Genesis and until the XIX Century, Published in English by J. Blair, a Member of the Royal Society, London. Volumes 1 and 2. Moscow University Press, Moscow, 1808-1809.
[2] Bemont C., Monod G. The Mediaeval History of Europe. Petrograd, 1915.
[3] Cagnat R. Cours d'épigraphie latine. $4{ }^{\mathrm{e}}$ éd. Paris, 1914.
Fig. 6.17. Reign correlation between the "mediaeval" Carolingian Empire of the alleged years 681-888 A.D. and the "ancient" Third Roman Empire of the alleged years 324-527 A.D.
Jet from the Third Roman Empire


Fig. 6.18. A superimposition of the Carolingian Empire of the alleged years 681-888 A.D. over the Third Roman Empire of the alleged years $324-527$ A.D. on the time axis with a rigid shift of about 360 years.

The average reign shift equals 723 years, which is close to 720 years.

[1] Blair J. Chronological Tables Spanning the Entire Global History, Containing Every Year since the Genesis and until the XIX Century, Published in English by J. Blair, a Member of the Royal Society, London. Volumes 1 and 2. Moscow University Press, Moscow, 1808-1809.
[2] Bemont C., Monod G. The Mediaeval History of Europe. Petrograd, 1915.
[3] Cagnat R. Cours d'épigraphie latine. 4 éd. Paris, 1914.
[4] Gregorovius F. History of the City of Rome in the Middle Ages. St. Petersburg, 1902-1912.

Fig. 6.19. Reign correlation between the mediaeval Holy Roman Empire of the alleged X-XIII century A.D. and the "ancient" Third Roman Empire of the alleged III-VI century A.D.


A rigid shift of 362 years


The average reign end shift equals 373 years.
[1] Blair J. Chronological Tables Spanning the Entire Global History, Containing Every Year since the Genesis and until the XIX Century, Published in English by J. Blair, a Member of the Royal Society, London. Volumes 1 and 2. Moscow University Press, Moscow, 1808-1809.
[2] Bemont C., Monod G. The Mediaeval History of Europe. Petrograd, 1915.
[3] Kohlrausch. The History of Germany. Volumes 1 and 2. Moscow, 1860.
Fig. 6.21. Reign correlation between the mediaeval Holy Roman Empire of the alleged X-XIII century A.D. and the mediaeval Habsburg Empire of the XIII-XVII century with a rigid shift of about 360 years.
Holy Roman Empire in $10-13$ th cc. A.D.

Fig. 6.22. A superimposition of the Holy Roman Empire of the alleged X-XIII century A.D. over the mediaeval Habsburg Empire of the alleged XIII-XVII century A.D. on the time axis with a rigid shift of about 360 years.


This is one of the main parallels.
Fig. 6.23. Reign correlation between the mediaeval Holy Roman Empire of the alleged X-XIII century A.D. and the "ancient" Second Roman Empire Empire of the alleged I century B.C. - III century A.D.

Holy Roman Empire in the 10-13th c. A.D. (911-1307). In 911, start of the Saxon Dynasty, the whole jet lasting for 396 years
(Germanic reigns)

## Kingdom of Judah. Lasts 395 years (from the Bible)


[1] Blair J. Chronological Tables. Volumes 1 and 2. Moscow, 1808-1809.
[2] Bemont C., Monod G. The Mediaeval History of Europe. Petrograd, 1915.
[3] Kohlrausch. History of Germany. Volume 2. Moscow, 1860.
[4] Bickerman E. Chronology of the Ancient World. Moscow, 1975.
[4] Gregorovius F. The History of the City of Athens in the Middle Ages. St. Petersburg, 1900.
[B] The Bible.
Fig. 6.25. Reign correlation between the "ancient" Judaic kingdom of the alleged years $928-587$ B.C. and the mediaeval Holy Roman Empire of the alleged X-XIII century A.D.
Holy Roman Empire in the 10-13th cc. A.D.


A rigid shift of approximately 1840 years
Roman coronations of the emperors
of the Holy Roman Empire
in the X-XIII century A.D.
Kingdom of Israel started in 922 в.с. (according to the Bible).
For simplicity, year count starts from zero.


This is one of the main parallels.
[1] Blair J. Chronological Tables. Moscow, 1808-1809.
[2] Bickerman E. Chronology of the Ancient World. Thames \& Hudson, 1968.
[3] Bemont C., Monod G. The Mediaeval History of Europe. Petrograd, 1915.
[B] The Bible.

Fig. 6.27. Reign correlation between the "ancient" Israelite kingdom of the alleged years 922-724 B.C. and the mediaeval Holy Roman Empire of the alleged X-XIII century A.D.
Roman Empire in the 10-13th cc. A.D. 236-year dynasty of (mostly) Roman coronations


1276-1600
The Russian Horde Empire


From 1605 and on - the Great Embroilment in Russia.
The end of the Horde Empire. Dynasty change.
The beginning of the Romanov reign.
1273-1600 The Habsburg Empire

From 1618 and on - the beginning of the 30 -year war. The end of the old Habsburg empire. Dynasty change.

Fig. 6.29. Reign correlation between the Russian Czar-Khans of 1276-1600 A.D. and the rulers of the Habsburg Empire of 12731600 A.D.


Fig. 6.30. A superimposition of the Russian Czar-Khans of 1276-1600 A.D. over the rulers of the Habsburg Empire of 12731600 A.D. on the time axis. There is no chronological shift here.


Fig. 6.31. A triple superimposition of the early mediaeval Armenian Catholicoses, over the mediaeval Holy Roman Empire of the alleged X-XIII century, and the "ancient" Biblical Judean kings.


Fig. 6.32. Reign correlation between the First "early mediaeval" Byzantine Empire and the Second "mediaeval" Byzantine Empire (a rough scheme). The shift comprises about 340 years.


Fig. 6.33. Reign correlation between the Second "mediaeval" Byzantine Empire and the Third mediaeval Byzantine empire (a rough scheme). The shift comprises about 330 years.


Fig. 6.34. A triple superimposition of the First, the Second and the Third Byzantine Empire on the time axis with rigid shifts of 340 and 330 years (rough scheme).

928-587 в.c. described in the Bible, 1-2 Samuel + 1-2 Kings and Chronicles. See also pair number 3 in fig. 6.13.
$b=$ the dynastic jet of the mediaeval Holy Roman Empire of the alleged years 911-1307 A.D. Here $c(a, b)$ $=10^{-12}$. Every Roman-German Emperor of 911-1307 A.D. is represented with the period of his German reign, from the moment of his German coronation.

Example 10 is shown in figs. 6.27 and 6.28.
$a=$ the "ancient" kings of Israel of the alleged years 922-724 в.c. described in the Bible, 1-2 Samuel + 12 Kings and Chronicles, fig. 6.13.
$b=$ the dynasty consisting of mediaeval Roman coronations of the presumed German emperors in Italy in the alleged years 920-1170 A.D. Here $c(a, b)$ $=10^{-8}$. We are referring to the "dynasty" composed of intervals between adjacent Roman coronations of the emperors of the following dynasties believed to be German: Saxon, Salian or Franconian, and Swabian House of Hohenstaufens.

The two last pairs signify the superimposition of the allegedly ancient Biblical history as related in the Old Testament over the mediaeval European history of the X-XIV century A.D., and partially, with the Eastern European history of the XIV-XVI century. This parallelism that we have discovered differs from the identification proposed by N. A. Morozov in [544] by approximately one thousand years, and disagrees with Scaligerian chronology by two thousand years.

Thus, the periods of German reign are superimposed over the dynasty of Judah described in the Bible. The periods, mainly contained between adjacent Roman coronations of the same rulers of 9201170 A.D., are identified as the dynasty of Israel described in the Bible.

Running a few steps ahead, we feel obliged to warn about a possible misunderstanding. The rulers of the Holy Roman Empire of the German nation from the X-XIII century, and the Habsburgs from the epoch of the XIV-XVI century, should not be thought to have
been based in Germany or Italy. The centre (and the capital) of their empire must have been elsewhere see Chrons and Chron6. Let us note that the name itself, Habsburg or Hapsburg, might have initially consisted of two words: Hab+Burg, since Burg means "city". The Latin word $H A B$ (or HAP) could appear as a result of reading the word $H A B$, or $N E W$, in Latin. Latin H and Slavonic $\mathrm{H}(\mathrm{N})$ are written in a similar way, likewise Latin B and Slavonic B (V). Therefore, the name Habsburgs might have initially meant New City (Новый Гopoд, Novy Gorod) or New Citizens (Нов-Городцы, Nov-Gorodtsy). We will keep reminding the reader of this possible origin of the name Habsburg.

Let us briefly list other examples of duplicate dynasties. See details in [904], [908] and [909].

Example 11 is shown in fig. 6.29 and fig. 6.30.
Identification of Russian czar-khans of 1276-1600 A.D. as the Habsburg empire of 1273-1600 A.D. on the time axis. No chronological shift here. G. V. Nosovskiy and yours truly discovered this parallelism together; it is described in more detail in Chron7.

## Example 12 is shown in fig. 6.31.

Triple identification of the mediaeval Armenian Catholicos "dynasty" as the mediaeval Holy RomanGerman Empire of the alleged X-XIII century and the "ancient" kings of Judah described in the Bible. This parallelism is related in more detail in Appendix 6.5 to Chroni.

Example 13 is shown in fig. 6.32.
The mediaeval First Byzantine Empire of the alleged years 527-829 A.D. and the mediaeval Second Byzantine Empire of the alleged years 829-1204 a.d. See details in [904], [908]. This parallelism is described in more detail below.

Example 14 is shown in fig. 6.33, fig. 6.34, fig. 6.35 and fig. 6.36 .

The mediaeval Second Byzantine Empire of the alleged years 867-1143 A.D. and the mediaeval Third Byzantine Empire of 1204-1453 A.D. Triple identification of all of these three empires is shown in fig. 6.34, as a brief diagram; a detailed diagram indicating the names is presented in fig. 6.35 and fig. 6.36.

Example 15 is shown in fig. 6.37, fig. 6.38 and fig. 6.39.
The 410 year shift inherent in mediaeval Russian history was first discovered with the aid of the em-pirico-statistical methods described above, in Chroni, Chapter 5:2.16. Russian history of 945-1174 A.D. turns out to be largely a phantom reflection, or a duplicate of a later epoch of 1363-1598 A.D. G. V. Nosovskiy and yours truly discovered this important dynastic parallelism together. This identification is discussed in Chron4 in more detail.

Example 16 is shown in fig. 6.40 and fig. 6.41.
Superimposition of the "ancient" Greek history over the mediaeval Greek history with a 1810 year shift. See details in the following chapters. An enlarged fragment of this parallelism is shown in fig. 6.41. This brightly eventful parallelism identifies the fragment of mediaeval Greek history of 1250-1460 A.D. as the fragment of the "ancient" Greek history of the alleged years 510-300 в.с.

Example 17 is shown in fig. 6.42, fig. 6.43, fig. 6.44, fig. 6.45, fig. 6.46, and also in fig. 6.47 and 6.48 .

Identification of the mediaeval history of England of 640-1330 A.D. as the mediaeval history of Byzantium of 380-1453 A.D. with a rigid shift of 210-270 years forwards and of 100-120 years backwards. In this case, the duplicates identify as three Byzantine dynasties: Byzantium-1, Byzantium-2 and Byzantium-3, fig. 6.42. See Chron4 for details. The list of mutually identified English and Byzantine rulers is shown in fig. 6.43. For the chronological identification of these rulers, see fig. 6.44, fig. 6.45, fig. 6.46, fig. 6.47 and 6.48 .

Example 18 is shown in fig. 6.49 and fig. 6.50.
Two more dynastic parallelisms between fragments of the "ancient" Greek history and that of mediaeval Greece and Byzantium.

Example 19 is shown in fig. 6.51 and fig. 6.52.
In the early mediaeval Roman Empire of the alleged years 300-552 A.D. there is a dynastic jet parallel to "the Regal Rome" of Titus Livy, an "ancient" regal dynasty of seven kings. Here $c(a, b)=10^{-4}$. This is the smallest possible value for a dynasty of seven kings.

Example 20 is shown in fig. 6.52a.


On the left: a superposition of the First Bizantine Empire (527-829 A.D.) upon the Second Bizantine Empire (829-1204 A.D.) by durations of reign with a rigid 340 year shift. On the right: a superposition of the 867-1143 A.D. dynasty jet from the Second Byzantine Empire upon the Third Byzantine Empire (1204-1453 A.D.) by durations of reign with a rigid 330 year shift. Datings of reign are taken from [76], [195].

Fig. 6.35. Triple reign correlation of the First, the Second and the Third Byzantine Empire with shifts of 340 and 330 years. Detailed scheme with names.


A triple superimposition of the 1st, the 2nd and the 3rd Byzantine empires with rigid shifts of 340 and 330 years. Black triangles mark the duplic ates of the GTR war.

Fig. 6.36. A triple superimposition of the First, the Second and the Third Byzantine Empire on the time axis with rigid shifts of 340 and 330 years. Detailed scheme giving names.


Fig. 6.37. The shift of 410 years inherent in Russian history. Part one.


Fig. 6.38. The shift of 410 years inherent in Russian history (continued).


Fig. 6.39. A general view of the 410-year shift inherent in Russian history.


Fig. 6.40. Superimposition of the mediaeval and "ancient" history of Greece with a rigid shift of about 1810 years.
4.

## BRIEF TABLES OF SOME ASTONISHING DYNASTIC PARALLELISMS

The most fundamental statistical duplicates found by us are presented in the illustrations. The tables given below list kings or actual rulers "identified" as one and the same person, indicating the Scaligerian datings of their reigns. The reign durations are presented in brackets. Horizontal fragments in relevant figures correspond to reign durations. Vertical lines connect beginnings and ends of reigns superimposed over each other.

TABLE 1. Example 1, see fig. 6.11, fig. 6.12, fig. 6.12a.
$a=$ the "ancient" Roman Empire, actually founded by Lucius Sulla in the alleged years 82-83 в.c., ending
with Caracalla in the alleged year 217 A.D. Scaligerian reign datings as given for the first eight rulers of these dynasties are a version of the same dynastic jet. Periods of strife in the Empire are also indicated. We will conditionally call this Empire the Second Roman Empire.

- $b=$ the "ancient" Roman Empire, restored by Lucius Aurelian allegedly in 270 A.D. and ending with Theodoric the Goth allegedly in 526 A.D. Versions of imperial reigns are taken from [76], [1057] and [72]. In some cases, the reign of a given emperor is counted from the death of a co-ruler. We will conditionally call this empire the Third Roman Empire. Let us note that the Third Empire is richer in co-rulers than the Second Empire, therefore possessing a greater number of dynastic jets.

Dynasty $a$ is derived from dynasty $b$ by shifting the latter by approximately 333 years downward.


Fig. 6.41. A close-in of the superimposition of the mediaeval and the "ancient" history of Greece with a rigid shift of about 1810 years with more details.

1a. Lucius Sulla 82-78 в.с. (5 years).

- 1b. Lucius Aurelian 270-275 A.D. (5 years).

2a. Strife of 78-77 в.с. (1 year).

- $2 b$. Strife of 275-276 A.d. (1 year).

3a. Certorius 78-72 в.c. (6 years).

- 3 b. Prob 276-282 A.D. (6 years).

4a. Strife of 72-71 в.c. (2 years).

- $4 b$. Strife of 282-284 A.D. (2 years).

5a. Pompey the Great 70-49 b.c. (21 years).

- 5b. Diocletian the Great 284-305 A.D.
( 21 years).
6a. Joint rule of Pompey and Caesar 60-49 b.c.
(11 years).
- 6b. Joint rule of Diocletian and Constantius Chlorus 293-305 a.d. ( 12 years).
7a. Strife of 49-45 в.c. (4 years).
- 7b. Strife of 305-309 A.D. (4 years).

8a. Julius Caesar, the conqueror of the first triumvirate in 45-44 в.с. (1 year).

- 8b. Constantius Chlorus, the conqueror of the first tetrarchy in 305-306 A.D. (1 year), reign is counted from the end of Diocletian's reign.
9a. Triumvirs and Octavian August 44-27 в.c.
( 17 years).
-9b. Tetrarchs and Constantine August 306-324 A.D. ( 18 years).
10a. Octavian August 27 в.c. -14 A.d. ( 41 years), or ( 37 years), if 23 в.c. is considered the beginning of the reign.
- 10b. Constantine August 306-337 A.D.
(31 years). Reign number 12 begins from the death of Constantine in 337.
11a. Nativity of Jesus Christ in the 27th year of August Octavian (27 years interval).
- 11b. Birth of Basil the Great in the 27th year of August Octavian (27 years interval).
12a. Tiberius 14-37 (23 years).
- 12b. Constantius II 337-361 (24 years).

13a. Joint rule of Tiberius and Germanicus 6-19
( 13 years).

- 13b. Joint rule of Constantius II and Constans 337-359 ( 13 years). The beginning of the reign is counted from the end of the reign of Constantine Augustus, see number 10.
14a. Caligula 37-41 (4 years).
- 14b. Julian 361-363 (2 years). The beginning of the reign is counted from the end of the reign of Constantius II, see number 12.
15a. Strife of 41 A.D. (1 year).
- 15b. Strife of 363 A.D.(1 year).

16a. Claudius 41-54 (13 years).

- 16b. Valentinian I 364-375 (11 years).

17a. Joint rule of Claudius and Pallantius 41-54
(13 years).

- $17 b$. Joint rule of Valentinian and Valent (duplicate of Pallantius?) 364-375 (11 years).
18a. Nero 54-68 (14 years).
- 18b. Valens 364-378 (14 years).

19a. Joint rule of Nero, Burrus and Seneca 54-62
(8 years).

- 19b. Joint rule of Valens, Valentinian and Gratian 364-375 (11 years).
20a. Galba 68-69 (1 year).
- 20b. Jovian 363-364 (1 year). Rearrangement of rulers.
21a. Strife of 69 A.D. (1 year).
- 216 . Strife of 378 a.d.(1 year).

22a. Two Titus Vespasian's 69-81 (12 years).
The names of these two emperors coincide.

- $22 b$. Gratian and Valentinian II after the reign of Valens and the strife of 379-392 (13 years).
23a. Domitian 81-96 ( 15 years).
- 23b. Theodosius I 379-395 (16 years).

24a. Nerva 96-98 (2 years).

- 24b. Eugenius 392-394 (2 years).

25a. Joint rule of Nerva 96-98 (2 years).

- 25b. Joint rule of Eugenius 392-394 (2 years).

26a. Trajan 98-117 (19 years).

- 26b. Arcadius 395-408 (13 years).

27a. Adrian 117-138 (21 years).

- 27b. Honorius 395-423 (28 years).

28a. Titus Antoninus Pius 138-161 (23 years).

- 28b. Aetius 423-444 (21 years) or 423-438 (14 years). His reign ends with the beginning of the reign of Valentinian III, see number 29.
29a. Marcus Aurelius 161-180 (19 years).
- 29b. Valentinian III 437-455 (18 years) or 444-455 (11 years).
30a. Lucius Commodus 176-192 (16 years).
- 30b. Recimer 456-472 (16 years).

31a. Pertinax 193 (1 year).

- 31b. Olybrius 472 (1 year).

32a. Didius Julian 193 (1 year).

- 32b. Glicerius 473, 474 (1 year).

33a. Clodius Apophyllite 193 (1 year).

- 33b. Julias Nepos 474 (1 year).

34a. Pescennius Niger 193-194 (1 year).

- 34b. Romulus Augustulus 475-476 (1 year).

35a. Septimius Severus 193-211 (18 years).

- 35b. Odoacer 476-493 (17 years).

36a. Caracalla 193-217 (24 years). Famous reforms in the Second Empire.

- 36b. Theodoric 493-526 or 497-526. I.e., ( 33 years) or ( 29 years). Well-known reforms in the Third Empire.
37a. The end of the Second Roman Empire. Crisis of the middle of the III century A.D. The Gothic war. Shift of approximately 333 years.
- $37 b$. The end of the Third Roman Empire in the West. The famous Gothic war of the middle of the alleged VI century a.D.

This parallelism is secondary, that is, dynasties $a$ and $b$ themselves identified as a single dynasty are phantom reflections of a later original. We have complemented both dynastic jets with some additional interesting data different from the reign durations, which of course were left behind during the calculation of the dynastic proximity coefficient $c(a, b)$.

TABLE 2. Example 2, see the fig. 6.13, fig. 6.14.
$a=$ the "ancient" kingdom of Israel in the alleged years 922-724 b.c. described in the Bible, 1-2 Samuel $+1-2$ Kings and Chronicles. Different versions of reign durations, extracted from different chapters of the Bible, are presented in fig. 6.13 - the so-called "double entry". See details in Appendix 6.4.

- $b=$ the dynastic jet of the "ancient" Roman Empire, of allegedly 300-476 A.D., or the Third Roman Empire. Chronological shift separating these dynasties roughly equals 1300 years.

1a. Jeroboam $I$, the founder of the well-known "Jeroboam's heresy". Break-up with Rehoboam and warfare against him ( 22 years).

- 1b. Constantine I after the overthrow of Maxentius, i.e., 313-337 ( 24 years). Break-up with Licinius, his co-ruler, and war against him.
2a. Nadab (2 years).
- $2 b$. Constantine II 337-340 (3 years). The beginning of this reign is counted from the end of the reign of the preceding emperor Constantine $I$.
3a. Baasha (24 years). He is identified as Basil from the Third Roman Empire.
- 3b. Constantius II after death of Constantine II 340-361 (21 year). In his presence a well-known Saint Basil the Great lived. Pay attention to the similarity of the names: Jesus - Asa - Baasha.
4a. Elah (Elih?) (2 years).
- 4b. Julian (Elih?) 361-363 (2 years).

5a. Zimri (1 year).
-5b. Jovian 363 (1 year).
6a. Omri (12 years).

- 6b. Valentinian I 364-375 (11 years).

7a. Ahab (Wicked) (22 years). His struggle against
St. Elijah the Great Prophet. Lethally wounded during his flight from battlefield.

- 7b. Valent (Wicked) 364-378 (14 years). His struggle against Saint Basil the Great. Killed in flight from battlefield.
8a. Ahaziah (2 years). He rules in Samaria.
Samaria is identified as Rome in the Roman
Empire, see point $8 b$.
- 8b. Gratian after Valent and strife, 379-383 (4 years).
9a. Joram of Israel (12 years).
- 9b. Valentinian II 379-392 (13 years). The beginning of reign is counted from the end of Valent, see number 7.
10a. Jehu and prophet St. Elisha (28 years). Seizure of power.
- 10b. Alaric and St. John Chrysostom 378-403. Either ( 25 years?), or ( 32 years?).

11a. Jehoahaz (17 years).

- 11b. Theodosius I 379-395 (16 years).

12a. Jehoash of Israel ( 16 years).

- 12b. Arcadius 395-408 (13 years).

13a. Jeroboam II (41 years).

- 13b. Honorius 395-423 (28 years).

14a. Zechariah ( 6 months).

- 14b. Constantius III 421 (7 months).

15a. Shallum (1 month) or (1 year).

- 15b. John 423 (2 months).

16a. Interregnum (24 years).

- 16b. Interregnum-guardianship 423-444 ( 21 years).
17a. Menahem after interregnum (10 years).
Comes king Pul or Tul (10 years).
- 17b. Valentinian III after guardianship-interregnum 444-455 ( 11 years).
Comes Attila. Pay attention to the similarity of the names Tul and Attila. Without vowels, TL-TTL.
18a. Pekahiah (2 years).
- 18b. Petronius Maximus 455-456 (1 year).

19a. Pekah (20 years).
The advent of Tiglath-Pileser, whose name can
be translated as "migrant" [544].

- 19b. Recimer 456-472 (16 years).

The advent of Genserich and the Great Migration.
20a. Anarchy ( 9 years) either ( 6 years) or ( 12 years).

- 20b. Anarchy 472-475 (3 years).

21a. Hoshea, until his captivity (1 year).
Shalmanesser comes and captures Hoshea.

- 21b. Romulus Augustulus 475-476 (1 year).

Odoacer comes and captures Romulus.
$22 a$. The end of the independent kingdom of Israel. Hoshea was the last independent king of Israel.

- 22b. The end of the independent Third Roman Empire as a purely Roman state. Odoacer was already a German Czar.

This parallelism is secondary. Both duplicate dynasties are phantom reflections of a later original. The kingdom of Israel is derived from the Third Roman Empire after the chronological shift of circa 1300 years, which is the sum of the two basic shifts of approximately 1000 and 300 years.


Fig, 6.42. General scheme of the superimposition of mediaeval English history over mediaeval Byzantine history.


An identification of the English dynastic jet of 643-1327 A.D. with the Byzantine dynastic jet of 378-1453 A.D. by durations of reign. See more details in ChRON4, Part 2.

Fig. 6.43. Reign correlation between the English kings and the Byzantine emperors.


Fig. 6.44. A superimposition of mediaeval English history over mediaeval Byzantine history with a rigid shift. Part one.


Fig. 6.45. A superimposition of mediaeval English history over mediaeval Byzantine history with a rigid shift. Part two.


Fig. 6.46. A superimposition of mediaeval English history over mediaeval Byzantine history with a rigid shift. Part three.

TABLE 3. Example 3, see fig. 6.13, fig. 6.15.
$a=$ "ancient" kingdom of Judah, the alleged years $928-587$ в.с. ([72], page 192), described in the Bible, 1-2 Samuel + 1-2 Kings and Chronicles. Different versions of reign durations extracted from different chapters of the Bible are given in fig. 6.13. Jerusalem is considered the capital of Judah.

- $b=$ dynastic jet from the early mediaeval Eastern Roman Empire of the alleged years 300-552 A.D. New Rome i.e., Constantinople is considered the capital.

1a. Rehoboam ( 17 years).

- 1b. Licinius 308-324 (16 years).

2a. Abijah ( 3 years). His name means "the father of God" [544].

- 26 . Arius 330-333 (3 years) or (5 years) or (8 years), several versions. The founder of a well-known religious movement - Arianism.
3a. Asa (Jesus?) (46 years) or (41 years).
- 3b. The well-known Saint Basil the Great 333-378 (45 years). The name Basil, or Basileus, simply translates as King.
4a. Jehoshaphat (25 years).
- 4b. Theodosius I 379-395 (16 years).

5a. Jehoram of Judah (8 years). Separation of Edom
occurs in his epoch. Followed by a 76 -year inset. See details below.

- 5b. Arcadius 395-408 (13 years). Separation of the Western Roman Empire from the Eastern takes place during his reign.
6a. Uzziah ( 52 years). He participates in a church dispute, gets cursed and becomes "afflicted with leprosy".
- 6b. Theodosius II 408-450 + Marcian 450-457 (in total 49 years). The well-known ecclesiastical dispute at the Ephesian council.
7a. Interregnum (2 years). In 2 Chronicles, there is a lacuna here.
-7b. Attila's invasion of the Roman Empire, and anarchy 451-453 (2 years).
$8 a$. Jotham ( 16 years).
- 8b. Leo I 457-474 (17 years).

9a. Ahaz (16 years). Rezin king of Aram and Pekah attack Jerusalem. Ahaz requests help from Tiglath-Pileser, duplicate of Theodoric, see below.

- 9b. Zeno 474-491 (17 years). German leader Odoacer attacks Rome. Recimer, the Western Roman ruler, 456-472, is a probable duplicate of Biblical Rezin, see above. Zeno turns for help to Theodoric the Goth.


An identification of the English dynastic jet of 643-1036 A.D. with the Byzantine dynastic jet of 378-797 A.D. with a rigid shift of about 275 years.

Fig. 6.47. A general correlation scheme for the comparative history of England and Byzantium. Part one.


An identification of the English dynastic jet of 1041-1327 A.D. with the Byzantine dynastic jet of 1143-1453 A.D. with a rigid shift of about 120 years.

Fig. 6.48. A general correlation scheme for the comparative history of England and Byzantium. Part two.


Fig. 6.49. Parallelism between the "ancient" Greek kings and the mediaeval Byzantine emperors.

Anarchy and wars in Greece
The beginning of the despotical reign of Mistras in 1348


Fig. 6.50. Parallelism between the "ancient" kings of Lacaedemon and the mediaeval Greek despots of Mistras.


Fig. 6.51. Parallelism between the "ancient" First Roman Empire (Regal Rome as described by Titus Livy) and the "ancient" Third Roman Empire.


Fig. 6.52. The superimposition of the "ancient" First Roman Empire over the "ancient" Third Roman Empire with a rigid shift of about 1050 years.


Fig. 6.52a. The dynastic parallelism between the "ancient" royal Rome as described by Titus Livy, the Holy Roman Empire of the alleged X-XIII century, and Byzantium of the alleged X-XIII century.

10a. Hezekiah (29 years).

- 10b. Anastasius 491-518 (27 years).

11a. Manasseh ( 55 years) or ( 50 years). The famous king of Judah, blamed for a mass slaughter in Jerusalem - suppression of a revolt?
Let us note another association of the capital of Judah with the New Rome, or Constantinople.

- 11b. Two Justins, namely, Justin I 518-527 + Justinian I 527-565 or 518-565 (the total of 47 years). Justinian I suppresses the wellknown Nika rebellion in New Rome. Mass slaughter occurs.
12a. Inset of 76 years, consisting of four kings of Judah + Amon (translates as "they", 2 years). A total of five rulers, 78 years, as $76+2=$ 78 years.
- 12b. Five emperors: Justin II + Tiberius $I I+$ Maurice + Phoca + Heraclius, altogether 565641 (76 years).
13a. Josiah (31 year). The kingdom of Judah attacked by the pharaoh.
- 13b. Constans II 642-668 (26 years). The Roman Empire attacked by the Arabs.
14a. Jehoahaz (1 year).
- 14b. Constantine III 641-642 (1 year).

15a. Jehoiakim (11 years).

- 15b. Constantine IV 668-685 (17 years).

16a. Jehoiachin (1 year).

- 16b. Heracleon 641-642 (1 year).

17a. Zedekiah ( 11 years). King Nebuchadnezzar "takes the Jews captive".

- 17b. Justinian II, his first reign 685-695 ( 10 years). Wars of the Roman Empire, attack of the Arabs.
18a. The end of the kingdom of Judah. The famous Babylonian captivity of the Jews.
- $18 b$. The well-known crisis of the Roman Empire in the end of the alleged VII century A.D. The disintegration of the Eastern Empire.

This parallelism is secondary as well. Both duplicate kingdoms are phantom reflections of a later original. The chronological shift between the duplicates equals some 1300 years, being the sum of the two basic shifts of approximately 1000 years and 300 years.

TABLE 4. Example 4, see fig. 6.16.
$a=$ early mediaeval Popes of the alleged years 140314 A.D.

- $b=$ early mediaeval Popes of the alleged years 324-532 A.D.

Both versions of the pastorate are taken from [76], [492].

1a. St. Pius 141-157 (16 years).

- 1b. Sylvester 314-336 (22 years).

2a. St. Anicetus 157-168 (11 years).

- 2b. Julius I 336-353 (17 years).

3a. St. Soter, meaning "rescuer", 168-177 (9 years).

- 3b. Liberius, meaning "liberator", 352-367 ( 15 years).
4a. St. Eleutherius 177-192 ( 15 years).
- 4b. Damasus 367-385 (18 years).

5a. St. Victor 192-201 (9 years).

- 5b. Siricius 385-398 (13 years).

6a. Zephyrinus 201-219 (18 years).

- 6b. Anastasius, Innocent 398-417 (19 years).

7a. Calixstus 219-224 (5 years).

- 7b. Boniface 418-423 (5 years).

8a. Urban I 224-231 (7 years).

- 8b. Celestine 423-432 (9 years).

9a. Pontianus 231-236 (5 years).

- 9b. Sixtus III 432-440 (8 years).

10a. Fabian 236-251 (15 years).

- 10b. St. Leon = Leo I 440-461 (21 year).

11a. Strife 251-259 (8 years).

- 11b. Strife and Hilarius 461-467 (6 years).

12a. Dionysus 259-271 (12 years).

- 12b. Simplicius 467-483 ( 16 years).

13a. Felix I 275-284 (9 years) or Eutychianus?

- 13b. Felix II 483-492 (9 years).

Names of these duplicates just coincided.
14a. Eutychianus 271-275 (4 years), or Felix I?

- 14b. Gelasius 492-496 (4 years).

15a. Caius 283-296 (13 years).

- 15b. Symmachus 498-514 (16 years).

16a. Marcellinus 296-304 (8 years).

- 16b. Hormisdas 514-523 (9 years).

17a. Marcellus 304-309 (5 years).

- 17b. John I 523-526 (3 years).

18a. Eusebius 309-312 (3 years).

- 18b. Felix III 526-530 (4 years).


## 19a. Meltiades 311-314 (3 years).

- 19b. Boniface III 530-532 (2 years).

This parallelism is secondary as well. Both duplicate dynasties are phantom reflections of a later original.

TABLE 5. Example 5, see fig. 6.17, fig. 6.18.
$a=$ the Carolingians, or the mediaeval empire of Charles the Great from Pepin (Pipin) of Heristal to Charles the Fat, of the alleged years 681-887 A.D. Versions of reigns are taken from [76] and [64].

- $b=$ the dynastic jet from the early mediaeval Eastern Roman Empire of the alleged years 324-527 A.D. Versions of reigns are taken from [76], [1057], [323] and [333].

The chronological shift between these duplicate dynasties roughly equals 360 years.

1a. Pipin of Heristal 681-714 (33 years).

- 1b. Constantius II 324-361 (37 years).

2a. Charles Martel 721-741 (20 years).

- 2b. Theodosius I 379-395 (16 years).

3a. Pipin the Short 754-768 (14 years).

- 3b. Arcadius 395-408 (13 years).

4a. Charles the Great 768-814 (46 years).

- 4b. Theodosius II 408-450 (42 years).

5a. Carloman 768-771 or 772 (3 years) or (4 years). The famous "gift of Charles the Great" in the alleged year 774. Charles gives the lands of Italy to the Pope.

- 5b. Constantine III 407-411 (4 years). The famous "gift of Constantine I the Great" in the alleged IV century A.D. The emperor hands Rome over to the Pope.
6a. Louis I the Pious 814-833 (19 years).
Abdication. This is the epoch when "the antiquity is revived".
- 6b. Leo I 457-474 (17 years).

7a. Lothair the Western 840-855 (15 years).

- 7b. Zenon 474-491 (17 years).

8a. Charles the Bald 840-875 (35 years).

- 8b. Theodoric the Gothic 493-526 (33 years).

9a. Louis the German 843-875 ( 32 years).

- 9b. Anastasius 491-518 (27 years).

10a. Louis II the Western 855-875 (20 years).

- 10b. Odoacer 476-493 (17 years).

11a. Charles the Fat 880-888 (8 years).
Disintegration of the Carolingians' Empire in the West. War.

- 11b. Justin I 518-527 (9 years).

Disintegration of the "official" Third Roman Empire in the West. The well-known Gothic war of the alleged VI century A.D.

This parallelism is secondary as well. Both duplicate dynasties are phantom reflections of a later original. According to the time the reign ends, an average shift is 359.6 years, which coincides with the first basic rigid shift of 360 years.

TABLE 6. Example 6, see fig. 6.19, fig. 6.20.
$a=$ the mediaeval Holy Roman Empire of the alleged years 983-1266 A.D. Versions of reigns are taken from [76], [64] and [196].

- $b=$ the dynastic jet of the "ancient" Third Roman Empire of allegedly 270-553 A.D. Versions of reigns are taken from [72], [76], [1057], [196].

The chronological shift between these duplicate dynasties is approximately equal to 720 years.

1a. Otto III the Red, or Chlorus, 983-1002
(19 years). A duplicate of Julius Caesar who lived in the alleged I century в.с.

- 1b. Constantius I Chlorus 293-306 (13 years). Another duplicate of Julius Caesar with a 340-year shift.
2a. Henry II 1002-1024 (22 years).
- 2b. Diocletian 284-304 or 284-305 (21 years).

3a. Conrad II 1024-1039 (15 years).

- 3b. Licinius 308-324 (16 years).

4a. Henry III 1028-1056 (28 years).

- 4b. Constantine I 306-337 (31 year).

5a. Henry IV 1053-1106 (53 years). "Pope Hildebrand" acts in his time. In 1049, Hildebrand begins his activity in Rome; dies in 1085. His "reign" equals 36 years. In 1053, the famous ecclesiastical reform of Hildebrand begins. Also mark his famous struggle against Henry $I V$ in Canossa.

- 5b. St. Basil the Great (?) 333-378 (45 years). The chronological "distance" between Henry $I V$ and St. Basil the Great equals 728 years,
since $1106-378=728$ years. The chronological "distance" between the "birth" of Hildebrand and St. Basil the Great equals 720 years, since $1053-333=720$ years. The wellknown church reform of St. Basil the Great, or simply Basileus the Great, alias the Great king. The struggle between St. Basil the Great and emperor Valens (Evangelical Herod?).
6a. Henry V 1098-1125 (27 years).
- 6b. Honorius 395-423 (28 years).

7a. Lothair 1125-1138 (13 years).

- 7b. Theodosius I 379-395 (16 years).

8a. Conrad III 1138-1152 (14 years).

- 8b. Arcadius 395-408 (13 years).

9a. Frederick I 1152-1190 (38 years).

- 9b. Theodosius II 408-450 (42 years).

10a. Henry VI 1169-1197 (28 years).

- 10b. Valentinian III 425-455 (30 years).

11a. Anarchy and Philip Ghibelline 1198-1208 (10 years). Influential favourites: Subur, Petrus and Rainerius.

- 11b. Anarchy and Recimer 456-472 (16 years). Influential favourites: Severus, Petronius and Recimer. The names of the duplicates Subur and Severus are very similar. The names of the duplicates Petronius and Petrus are virtually the same. The names of the duplicates Rainerius and Recimer are possibly two versions of the same name as well.
12a. Otto IV 1201-1217 (16 years) or (17 years), or 1197-1218 (21 years). Conquest of Rome and the coronation of Otto $I V$. Let us note that Otto $I V$ is believed to have been a German.
- 12b. Anarchy and Odoacer 476-493
( 17 years). Conquest of Rome and the coronation of Odoacer. Odoacer is considered to have been the leader of the German Geruls.
13a. Frederick II as king of Rome between 1220
(year of the final coronation) and 1250 (30 years). Execution of Vineis. Cf. Boethius.
- 13b. Theodoric 497-526 (29 years). The version of reign is taken from [196]. Execution of Boethius. The names of the duplicates Vineis (Bineis) and Boetius are similar. The name Theodoric, i.e., Feodoric, is close to the name Frederick.
14a. Frederick II 1196-1250 (54 years) and the co-ruler

Otto IV up to 1218. The death of Frederick - the beginning of the well-known war in Italy in the XIII century a.d.

- 14b. Or: Theodoric + Odoacer, his co-ruler, 476526 (50 years). The death of Theodoric - the beginning of the famous Gothic war allegedly raging in Italy in the VI century A.D.
15a. Conrad IV 1237-1254 (17 years). His enemy Charles of Anjou.
- 15b. The Dynasty of the Goths, several Gothic kings, 526-542 (15 years). Roman commanders Belisarius and Narses were the enemies of the Goths.
16a. Manfred 1254-1266 (12 years).
- 16b. Totila 541-552 (11 years).

17a. Conradin 1266-1268 (2 years). Very young. His death in Naples. Defeated in a battle against Charles of Anjou near the city of Troy in Italy, not far from Naples. The end of the Holy Roman Empire of the X-XIII century A.D. Crush and fall of the dynasty of Hohenstaufens.

- 17b. Teia 552-553 (1 year) or (2 years). Very young. His death in Naples. Defeated in a battle against Narses near the city of Troy in Italy, near Naples. See below for the identification of this war as the famous Trojan war. The end of the Holy Roman Empire, allegedly in Italy. The defeat and decline of the dynasty of Goths.

According to the ends of reigns, the average shift equals 723 years, which virtually coincides with the rigid shift of 720 years identifying these two phantom dynasties as duplicates. This is one of the basic parallelisms, although the Holy Roman Empire of the XXIII century a.d. is a partial phantom in itself, a reflection of a later dynasty from the epoch of Habsburgs (Nov-gorod?) of the XIV-XVII century.

Note. Let us recall again that the name of this dynasty is written in the West as Habsburg or Hapsburg ([1447], page 363). It could originate from the word Hab-Burg, where Burg is city, and Hab could mean "main". Alternatively, since the Latin H and the Slavic $H(N)$ are transcribed in a similar manner, likewise the Latin B and the Slavic B (V), the Latin word HAB could be derived from the Slavic "Has" (Nav), i.e. New. Thus, Hab-Burg could have meant New City.

TABLE 7. Example 7, see fig. 6.21, fig. 6.22.
$a=$ the mediaeval Holy Roman Empire of the alleged years $911-1254$ A.D. Here, year 911 marks the beginning of the Saxon dynasty. Versions of reigns for both dynasties are taken from [76], [64], [415], [196].

- $b=$ the mediaeval, allegedly German/Roman Empire of Habsburgs (Nov-gorod?) of 1273-1637 A.D. Here, 1273 is the beginning of the Austrian house. Dynasty $a$ derives from dynasty $b$ by shifting the latter by 362 years backwards as a rigid whole.

1a. Conrad I 911-918 (7 years).

- 1b. Adolf of Nassau 1291-1298 (7 years).

2a. Henry I the Fowler 919-936 (17 years).

- 2b. Rudolf Habsburg 1273-1291 (18 years). Let us note that, in the beginning of this dynasty, Conrad I and Henry I correspond to the rearranged Adolf of Nassau and Rudolf Habsburg. There are no further rearrangements in the dynasties.
3a. Otto I the Great 936-973 (37 years). Here we see an identification: Alberic $I=$ Albrecht $I$. - 3b. Henry VII 1309-1314 (5 years) and Ludwig $V$ 1314-1347 (33 years). Total duration: 38 years.
4a. Otto II from the death of Otto I in 973 until his death in 983. Then + Otto III 983-1002. The total of ( 29 years).
- 4b. Charles IV 1347-1378 (31 year). Jumping ahead (for more detail see point 10), we must note that in the epoch of Habsburgs (Nov-gorodians?) only three eruptions of Vesuvius were registered, namely, in 1306, 1500 and 1631.
5a. Henry II 1002-1024 (22 years).
- 5b. Wenceslar 1378-1400 (22 years).

6a. Conrad II from his coronation in Rome in 1027 to his death in 1039 ( 12 years).

- 6b. Robert of Palatin 1400-1410 (10 years).

7a. Henry III the Black 1028-1056 (28 years). The great schism of churches at the time of "Pope Hildebrand" in 1054 a.d.

- 7b. Sigismund 1410-1438 (28 years). The great ecclesiastical schism of 1378-1417.
8a. Henry IV 1053-1106 (53 years).
- 8b. Frederick III 1440-1493 (53 years).

9a. Henry V 1098-1125 (27 years) or Henry $V$ from his coronation in Rome in 1111 to his death in 1125. Further + Lothair II 1125-1137. The total of ( 27 years) or ( 26 years).

- 9b. Maximilian I Pius 1493-1519 (26 years). During his reign, the first versions of Almagest by Ptolemy are published. Scaligerian version reflects this fact by stating that Almagest was allegedly written in the epoch of the Roman Emperor Antoninus Pius, who reigned in the alleged years 131-161 A.D.
$10 a$. The well-known eruption of Vesuvius in 11381139. The wars in Germany in 1143-1155. The revolt of Arnold of Brescia.
- 10b. The well-known eruption of Vesuvius in 1500. The beginning of the Italian wars waged by Germany 1494-1527. In 1512, there was a revolt in Brescia.
11a. Frederick I Barbarossa 1152-1190 (38 years), the famous emperor. Conquest of Rome by Frederick in 1154. Pope Adrian IV. The foundation of the Franciscan and Dominican orders, in 1223 and 1220.
- 11b. Charles V 1519-1556 (37 years), the famous emperor. Frederick the Wise and the war against Barbarossa took place during his reign. Conquest of Rome by Charles V in 1527. The shift of dates between the two "conquests of Rome", qv in 11a, equals 373 years. Pope Adrian VI. Foundation and official approval of the order of Jesuits in 1540.
12a. Henry VI since 1191, from his coronation in Rome until 1197 (6 years).
- 12b. Ferdinand 1556-1564 (6 years).

13a. Philip 1198-1208 (10 years).

- 13b. Maximilian II 1564-1576 (12 years).

14a. Frederick II 1211-1250 (39 years). Three of his coronations are known: in 1196, in 1211 and in 1220.

- 14b. Rudolf II 1576-1612 (36 years).

15a. Wilhelm 1250-1256 (6 years).

- 15b. Mathias $=$ Matthew 1612-1619 (7 years)

16a. Conrad IV 1237-1254 (17 years).

- 16b. Ferdinand II 1619-1637 (18 years).

17a. The end of the Empire 1250-1254 (4 years).

- 17b. The end of the Empire 1618-1619 (1 year).

18a. The war in Italy 1250-1268. The beginning of the 17 -year anarchy in Germany, in 1256.

- 18b. In 1618 the famous 30 -year war begins in Germany.

The chronological shift between these two duplicate dynasties equals 360 years. This is the first basic shift. The indicated parallelism is one of the basic ones. The dynasty of Habsburgs (Nov-gorodians?) is the original dynasty here. However, the Habsburgs of the XIII-XVI century should not be thought to have resided in the Western Europe, as it is believed nowadays. The parent state of the Habsburg Empire of this period was in a completely different place. See more detail in Chron7.

TABLE 8. Example 8, see fig. 6.23 , fig. 6.24 .
$a=$ the mediaeval Holy Roman Empire of the alleged years 936-1273 A.D. The duration of this empire is 292 years, from 962 or 964 up to 1254 . Versions of reigns for both duplicate dynasties are taken from [76], [1057], [196], [415], [72].

- $b=$ the "ancient" Second Roman Empire the alleged years 82-217 A.D. This empire lasts for 299 years, 82 to 217 A.D. The chronological "distance" between the duplicate empires approximately equals 1053 years.
$1 a$. The foundation of the Empire, three great emperors of the alleged X century A.D. Those are:
- Otto I the Great (the anarchy and the war),
- Otto II the Wild,
- Otto III the Red, or "Chlorus".
- $1 b$. The foundation of the Empire, three great emperors of the alleged I century в.с.:
- Pompey the Great (anarchy and war),
- Sulla Lucius (rearranged here with the first ruler),
- Julius Caesar, a duplicate of Chlorus from the Third Roman Empire.
$2 a$. Otto $I$ as the German king 936-973 ( 37 years). In his time - Octavian, son of Alberic. Let us recall that Julius Caesar from the Second Roman Empire, is a duplicate of Alberic. Octavianus is very young and comes to power at the age of 16 .
- $2 b$. Octavian Augustus since 23 or 27 b.c. until 14 A.D. ( 37 years). Octavian is considered a
foster son of Julius Caesar, very young; he came to power at the age of 19 .
3a. Otto II 960 (German coronation) - 983 (23 years).
- 3b. Tiberius 14-37 (23 years).
$4 a$. The Emperors are Roman kaisers, or caesars. The Empire is officially called Holy. There are virtually no gold coins of the Empire dating from the X-XIII century. They may have "traveled backwards" as a result of the Scaligerian chronological shift of 1053 years.
- $4 b$. The emperors are Roman caesars, or kaisers; moreover, they often bore the additional name Germanicus. The emperors are called Augustusus, or Sacred. A sufficient number of gold coins of the "ancient" Rome dating from this Scaligerian epoch is available.
5a.Henry II the Saint + Conrad the Salian 1002-1039 ( 37 years). Let us note that the large number of "Henries" in this empire is probably explained by a simple circumstance that Henry is not a name in the contemporary sense but a title. Henry is most likely Khan-Reich, i.e., Khan-Kingdom, meaning Khan-Sovereign. Besides, the large number of "Conrads" in the same empire is also probably explained by the fact that the name Con-Rad can be interpreted along the lines of Khan-Horde; it isn't a name in the contemporary sense but rather a title - King, or Khan of the Horde.
- 5 b. Octavian Augustus - "The Sacred", or "The Saint", 23 в.c. until 14 A.D. ( 37 years).
6a. Conrad II the Salian 1024-1039 (15 years). During his reign, "Pope Hildebrand" 1053-10731085. The well-known ecclesiastical reform, the treachery of Cencius, "the passions of Hildebrand" ([196]). Probably, "the history of Pope Hildebrand" is a reflection of the actual biography of Jesus Christ, who had lived in the same XII century A.D., albeit not in Italian Rome, but rather in the New Rome, or Constantinople. See details below.
- 6b. Germanicus 6-19 (13 years). During his reign, Jesus Christ who lived in the alleged years 1-33 A.D. The ecclesiastical reform, the treachery of Judas and "the Passions of Christ" described in the Gospel. When shifted by 1053 years forward, these events wind up
in the XI century A.D., known to us as the "biography of Hildebrand the Pontiff". The name Hildebrand or Hild-Brand may have simply meant Gold-Blazing, or Ablaze with Gold. (In reality, the lifetime of Christ should be dated to the XII century.)
7a. Henry III the Black 1028-1056 (28 years).
-7b. Tiberius + Caligula 14-41 (27 years).
8a. Henry IV 1053-1106 (53 years).
- 8b. Tiberius + Caligula + Claudius + Nero $14-$ 68 (54 years). This joint reign of four rulers could also have been reflected in the chronicles, in particular because their full names contain repeating short names. Indeed:
- Tiberius $=$ Tiberius Claudius Nero Julius

Caesar Augustusus,

- Caligula = Gaius Julius Caesar Augustusus Germanicus,
- Claudius = Tiberius Claudius Nero Drusus Germanicus Caesar Augustusus,
- Nero $=$ Lucius Domitius Ahenobarbus Tibe-
rius Claudius Drusus Germanicus Caesar [72], p. 236 .

9a. (?) Henry V the Black 1098-1125 as the German king (27 years). The more appropriate version of this reign is indicated in the next point 10. - 9b. (?) Claudius + Nero 41-68 (27 years). Or, see point 10 .
10a. Henry V the Black 1111-1125 as the Roman emperor (14 years).

- 10b. Nero 54-86 (14 years). This version does not contain any joint rules.
11a. Lothair 1125-1137 (12 years).
- 11b. Two Titus Vespasians 69-81 (12 years), that is, Titus Vespasian + Titus Vespasian. It is clear why the chronicle could have collated them into one ruler - their names coincide.
12a. The well-known eruption of Vesuvius, 1138-1139, a duplicate of the eruption of 1500 , see above.
- $12 b$. The famous eruption of Vesuvius of the alleged year 79 A.D., which has destroyed the "ancient" cities of Pompeii and Herculaneum.
13a. Conrad III 1138-1152 (14 years).
- 13b. Domitian 81-96 (15 years).

14a. Frederick I Barbarossa 1152-1190 (38 years). Mediaeval chronicles would sometimes confuse him with Frederick II [196].

- 14b. Trajan + Adrian 98-138 (40 years). Both emperors are named Trajan. The collation could have occurred due to proximity of their full names.
15a. Henry VI 1169-1197 (28 years).
- 15b. Antoninus Pius 138-161 (23 years).

16a. Philip Ghibelline 1198-1208 (10 years). - 16b. Lucius Verus 161-169 (8 years).

17a. Otto IV 1198-1218 (20 years). The famous equestrian statue of the "ancient" Marcus Aurelius is erected in his time ([196]), Volume 4, page 568 , commentary 74 . This equestrian statue is nowadays considered a famous relic of the "ancient Rome" ([196]), Volume 4. - 17b. Marcus Aurelius 161-180 (19 years).

18a. Frederick II 1211-1250 (39 years). His title contains the name Gattin, which can mean Gothic. - 18b. Commodus + Caracalla 180-217 (37 years). Duplicate of Theodoric the Goth from the Third Roman Empire, the alleged VI century A.D. 19a. Conrad V 1237-1254 (17 years).

- 19b. Septimius Severus 193-211 (18 years). 20a. Interregnum 1256-1273 (17 years). The end of the Holy Roman Empire of the X-XIII century A.D. The war in Italy in the middle of the XIII century A.D. To a considerable degree, this is the original of the Gothic war of the alleged VI century A.D. and the "ancient" Trojan war of the alleged XIII century b.c.
- 20b. Anarchy, Julia Maesa and her protégés 217-235 (18 years). The end of the Second Roman Empire. The war in Italy in the middle of the alleged III century A.D. Wars against the Goths.

This is one of the basic parallelisms, although the actual Holy Roman Empire of the X-XIII century is largely a mere phantom reflection of a later dynasty of Habsburgs (Nov-gorodians?) of the XIII-XVII century a.d. According to the ends of reigns, the average shift equals 1039 years, which is very close to the second basic chronological shift of 1053 years.

TABLE 9, Example 9, see fig. 6.25, fig. 6.26.
$a=$ the "ancient" kings of Judah of the alleged years 928-587 в.c. They are described in the Bible, 1-2 Sam-
uel, 1-2 Kings, and Chronicles. According to Scaligerian chronology, this kingdom was founded in 928 b.c. ([72]). According to the Bible, it had existed for 395 years. We will count the dates in the "Biblical part" of our table "from zero", conditionally accepting year 928 в.с. as "year zero". Versions of reigns are takening from the Bible and [72]. References to the Bible are indicated in the illustration as $[\mathrm{B}]$. Considering the parallelism, the Scaligerian year of 928 в.с. is identified as 911 A.D.

- $b=$ the dynastic jet of the mediaeval Holy Roman Empire of the German nation, alleged years 9111307 A.D. The majority of Roman/German emperors are represented here by periods of their German reigns, starting with their German coronation. The lifetime of the Empire equals 396 years, which almost coincides with the duration of kingdom of Judah. 911, the beginning of the Saxon dynasty. These two dynasties appear identified as each other when year 911 A.D. is superimposed over 928 b.c. Versions of reigns are taken from [76], [196], [64] and [415]. The rigid chronological shift of approximately 1838 years collates dynasties $a$ and $b$ perfectly. It is clear that $1838=928+911$.

1a. Rehoboam 0-17 (17 years).

- 1b. Henry I 919-936 (17 years).

2a. Abijah 17-20 (3 years).

- 2b. Lothair 947-950 (3 years).

3a. Asa 20-55 ( 35 years) or 20-61 ( 42 years).

- 3b. Otto I the Great 936-973 (37 years).

4a. Jehoshaphat 55-79 (24 years) or 61-86
( 25 years).

- 4b. Otto II 960-983 (23 years).

5a. Jehoram of Judah ( 8 years) according to the Bible or (6 years) according to [72] + Ahaziah (Ohoziah) of Judah ( 1 year). A total of ( 9 years) or ( 7 years), or the years 86-94 according to the Bible.

- 5b. Otto III the Red 983-996 ( 13 years), from his accession to the throne in 983 to his Roman coronation in 996. To be continued below.
6a. Athaliah $=$ Hotholiah 95-101 (6 years). See the dates in 2 Chronicles and 1-2 Kings.
- 6b. Otto III from his Roman coronation in 996 to 1002, or 996-1002 (6 years).
7a. Joash of Judah 92-130 (38 years) according to [72] or (40 years) according to the Bible.
- 7b. Henry II 1002-1024 + Conrad II 10241039 (the total of 37 years).
8a. Amaziah 130-159 (29 years).
- 8b. Henry III 1028-1056 (28 years).

9a. Uzziah from 159 according to [72] to 211, since he reigned for 52 years according to the Bible, or 43 years according to [72], that is, $211=159+52$ according to the Bible. His struggle with Azariah the chief priest. Thus, Uzziah reigns for ( 52 years) or (43 years). Excommunication of Uzziah. He ascended the throne at the age of 16 . Towards the end of his life he was "afflicted with leprosy" and lived "in a separate house". His son actually rules instead of him. See 2 Chronicles 26:21-23.

- 9b. Henry IV 1053-1106 (53 years). His struggle against "Pope Hildebrand". Let us recall that "Hildebrand" is a reflection of Jesus Christ from the XII century A.D. Another reflection is St. Basil the Great, or the Great King (duplicate of Uzziah), allegedly from the IV century A.D. The name Uzziah, most likely, simply means Zar or Czar (King). The well-known excommunication of Henry in Canossa. Henry ascended the throne at the age of 6 . In the end of the life he departed into a secluded castle. Treachery and coronation of his son Conrad in the lifetime of Henry. Son rules instead of the father ([196], Volume 5, pages 233-235).
10a. Jotham 211-227 (16 years), according to the Bible, or (7 years), according to [72]. - 10b. Lothair II 1125-1138 (13 years). 11a. Ahaz 227-243 (16 years), according to the Bible, or (20 years), according to [72]. - 11b. Conrad III 1138-1152 (14 years).

12a. Hezekiah 256-285 (29 years). The attack of Sennaherib king of Assyria and his retreat. See 2 Kings 19:35-36. Cf. Theodorich the Goth in the alleged VI century A.D.

- 12b. Henry VI 1169-1197 (28 years). The attack of Frederick $I$ on Rome in 1167. "Pestilence" among the German troops, their retreat. Hezekiah is probably identified in part as the well-known Frederick I Barbarossa, a contemporary of Henry VI.
13a. Manasseh 285-340 ( 55 years) according to the Bible, or (45 years), according to [72]. He is one of the most famous Biblical kings.
- 13b. Frederick II 1196-1250 (54 years). One of the most famous emperors of the Middle Ages.
14a. Amon 340-342 (2 years).
- 14b. Conrad IV 1250-1254 (4 years).

15a. Josiah 342-373 (31 years).

- 15b. Charles of Anjou 1254-1285 (31 years).
16a. Jehoahaz (less than 1 year) + Jehoiakim (11 years) + Jehoiachin (less than 1 year) + Zedekiah (11 years), which makes 373-397 ( 22 years) or ( 24 years). The actual end of the Kingdom of Judah.
- 16b. Strife of 1285-1307 (22 years) in Italy (?). The end of the Holy Empire of the X-XIII century A.D.
17a. Jehoiakim 374-385 (11 years).
- 17b. Adolf of Nassau 1291-1298 (7 years).
18a. Zedekiah 386-397 (11 years). - 18b. Albrecht I 1298-1308 (10 years).

19a. The famous Babylonian Captivity of the Jews under the yoke of Persia, 397-467 (70 years). Identification of "Persia" with P-Russia, Prussia, or B-Russia, or Belaya (White) Russia, or France (Paris) $=$ PRS without vowels.

- 19b. The well-known Avignon Captivity of "the Popes of Rome" and the Holy Throne in France, 1305 till January 1376, or 70 years. The second set of events described in the Bible as "the Babylonian captivity", see in Chron6.

Since year zero of the kingdom of Judah falls over the year 910 A.D. in the table. The chronological shift is approximately $928+910=1838$ years, which is close to the value of the third basic chronological shift of 1800 years. Although this parallelism is of a basic nature, the mediaeval dynasty of the Holy Roman Empire of the X-XIII century is in itself a partial reflection of a later dynasty of XIV-XVII century. That is why the epoch of the kingdom of Judah can be identified to a substantial extent as that of the XIV-XVI century A.D., though certain events might have taken place in the earlier epoch of XI-XIII century. For more details, see Chron7.

TABLE 10. Example 10, see fig. 6.27, fig. 6.28.
$a=$ the "ancient" kings of Israel of 922-724 в.с. described in the Bible, 1-2 Samuel + 1-2 Kings and in the books of Chronicles, fig. 6.13. In the Scaligerian history, the kingdom of Israel begins in 922 в.с. ([72]). The dates in the "Biblical part" of our table will be counted "from zero", that is to say, we will conditionally consider year 922 в.c. "year zero". Versions of reigns are taken from the Bible, 2 Chronicles and 1-2 Samuel + 1-2 Kings, and from [72]. References to the Bible are indicated in the illustration as [B]. With the parallelism we discovered, Scaligerian year 922 в.c. is identified as 920 A.D.

- $b=$ the dynasty comprised of mediaeval Roman reigns of the so-called German emperors in Italy in the alleged years 920-1170 A.D. This is "the dynasty" of the Holy Roman Empire of the X-XIII century, mostly assembled of intervals between neighbouring Roman coronations of the emperors from the following, allegedly German, dynasties: Saxon, Salian or Franconian, and the Swabian House - Hohenstaufens. With the rigid chronological shift of approximately 1840 years, dynasties $a$ and $b$ are identified as duplicates. It is clear that $1842=922+920$. Versions of reigns are taken from [76], [196] and [64].

1a. Jeroboam 0-22 (22 years). The foundation of the "ancient" kingdom of Israel.

- 1b. Hugh of Arles 926-947 (21 years), king of Italy. The foundation of the Empire of the XXIII century A.D.
2a. Nadab 22-24 (2 years).
- 2b. Lothair 947-950 (3 years), king.

3a. Baasha 24-48 (24 years). See the table 9, point 3. Let us recall that Asa of Judah is the duplicate of Otto I. Mind the explicit similarity of the names Asa and Baasha - probably versions of the name Jesus. Let us also recall the parallelism between Jesus Christ and his "Roman reflection" - Gregory Hildebrand. See the details below. In the "ancient" history, Jesus is considered to have been born in the reign the Roman Emperor Octavian in the beginning of the alleged I century A.D.

- 3b. Otto I the Great, from year 936 (the German coronation) until 960 (the beginning of the reign of Otto II), or since 936 (the

German coronation) until 962 (the Roman coronation). Thus, the duration of the reign is available in two versions: ( 24 years) or ( 26 years). His contemporary, Pope John XII under the name of Octavian. See parallel with Octavian Augustus. "Augustus" is translated as "sacred", which corresponds to John Octavian considered the Pope.
4a. Omri = Omvri 51-63 (12 years).

- $4 b$. The period from the Roman coronation of 962 to the German coronation of 973 (11 years). Note that the death of Otto I and the German coronation of Otto II occur in 973.
5a. Ahab 63-85 ( 22 years). "Double entry" kept in the Bible makes it possible to reveal the lacunae inherent in the dynastic stream of Israel, which we shall naturally note ([544], Volume 5). - $5 b$. The period from the German coronation of 973 to the Roman coronation of 996 ( 23 years).
6a. Ahaziah (2 years) + Joram of Israel (12 years), i.e., $85-99$ (in total sum 14 years). This is the first version of the reign of Joram according to the Bible. The complete list of all possible versions for Joram see e.g. in [544], v. 5.
- $6 b$. The period from the Roman coronation of 996 to the Roman coronation of 1014 ( 18 years).
7 a. Joram of Israel 94-106 ( 12 years). This is the second version of Joram from the Bible.
- $7 b$. The period from the Roman coronation of 1014 to the Roman coronation of 1027 ( 13 years).
8a. Jehu (28 years) + lacuna, strife (2 years), or 99-127-129 (a total of 30 years).
- $8 b$. The period from the Roman coronation of 1014 to the Roman coronation of 1046 ( 32 years).
9a. Jehoahaz (17 years) + Jehoash (16 years), i.e., 127-144-160 (in total 33 years).
- $9 b$. The period from the Roman coronation of 1046 to the Roman coronation of 1084 (38 years).
10a. Jeroboam II 160-201 (41 year). Note the appearing secondary identifications: Assyria $=\mathrm{P}$-Russia, the Hittites = the Goths, Persia $=$ P-Russia or France, Babylon $=$ Rome or Avignon.
- $10 b$. The period from the Roman coronation of 1084 to the Roman coronation of 1125 (41 years). In 1125 Henry $V$ dies, the Franconian dynasty ends and the new one begins - the Saxon dynasty.

11a. Menahem 203-213 (10 years).

- $11 b$. The period from the Roman coronation of 1125 to the Roman coronation of 1134 (9 years).
12a. Pekahia 215-235 (20 years).
- $12 b$. The period from the Roman coronation of 1134 to the Roman coronation of 1155 (21 year).
13a. Hoshea 235-243 (8 years). The wars with Assyria, the attack of Shalmaneser. The association of Assyria with P-Russia. The identification of "pharaohs", described in the Bible, as the Goths, the Turks, and the Franks. Without vowels, the names TRK and TRNK are evidently similar.
- 13b. Pope Alexander III from his accession to the throne in 1159 to the attack of Frederick I in 1167, or the period of 1159-1167 (8 years). 1143-1155, the Italian wars of Germany. In 1154, Rome is seized by Frederick I.

Although this parallelism is of a basic nature, the mediaeval dynasty of "Roman coronations" regnant in the Holy Roman Empire of the X-XIII century is in itself a mere reflection of a later dynasty of the XIV-XVII century. Details provided in Chron7. Therefore, the actual epoch of the Kingdom of Israel is largely the XIV-XVI century A.D., although certain events may have actually taken place in the deep antiquity, or the epoch of the XI-XIII century.

TABLE 11. Example 11, see fig. 6.29 and fig. 6.30.
G. V. Nosovskiy and yours truly discovered this parallelism together. More on this exceptionally important identification in Chron7.
$a=$ dynasty of Russian czars-khans of 1276-1600 A.D. The durations of reigns are taken from [775], [794], [161], [36], [362] and [145]. This period in Russian history is identified, without any chronological shift, as the history of Habsburgs, in other words, both empires are considered simultaneous in the Sca-
ligerian version. A detailed table of reigns of great Russian princes and Czar/Khans, with detailed references, is presented in Chron4.

- $b=$ the empire of the Habsburgs (Nov-gorod?) in 1273-1600 A.D. The durations of reigns are taken from the chronological tables by Blair ([76]) and the work by Oscar Jaeger ([304]).

1a. Vassili I of Kostroma 1272-1277 (5 years).
The beginning of the dynasty.

- $1 b$. The foundation of the Habsburg (Novgorod?) Empire. 1256-1273, anarchy and a 17year war. The first emperor, Rudolf Habsburg, begins to reign in 1272, simultaneously with the Russian ruler Vassily I of Kostroma. Both empires are founded virtually at the same time - 1272-1273 A.D.
2a. Dmitriy I of Pereyaslavl 1276-1294 (18 years) up to [362]. In [145] he is named Pereyaslavskiy (of Pereyaslavl), and also Nevskiy (of Neva)! See [145], page 165.
- 2b. Rudolf Habsburg 1273-1291 (18 years) after [76] and [304], Volume 2. The name Rudolf may once have sounded as Rudo-Lt, due to the frequent transition of F to T and vice versa. Horde-Lt or Horde Latin or Orda Lyudei (Slav. 'horde of people')?
3a. Andrew of Gorodets or Novgorod 1294-1304, then 1304-1328. A major confusion here, though. According to [145], he had initially reigned for one year only: 1293-1294. Then the source [145] mentions Andrew of Gorodets, Suzdal and Novgorod, yet again indicating the interval between 1302 and 1304 as the two years of his reign. In [36] the end of Andrew's reign is not mentioned at all, and in [36] Ivan Kalita is first called great prince after Andrew. Andrew reigned either ( 1 year), or ( 2 years), or ( 10 years), or ( 34 years). A certain strife here.
- 3b. No duplicate Habsburg emperor here.

4a. Michael the Saint, Prince of Tver and Vladimir 1304-1319 ( 15 years) according to [362],
Volume 4.

- 4b. Adolf I of Nassau 1291-1298 (7 years) (or 1292-1298 according to [304], Volume 2, page 395, a total of 6 years) + Alber I or Albrecht I 1298-1307 according to [76], or 1298-1308 ac-
cording to [304], Volume 2, page 398 (9 or 10 years). Thus, we have the total of ( 15 years), or ( 16 years) or ( 17 years) of reign. Reign durations of Michael the Saint and Adolf + Albrecht virtually coincide.
5a. George (Yuri, Gyurgi, Gyurgiy) Danilovich "of Moscow", son-in-law of Uzbek-Khan, 1319-1325 (6 years) according to [362]. In [145] he is crowned Great Prince, but indirectly, in reference to the death of his son.
- 5b. Henry VII of Luxemburg 1309-1314
(5 years) according to [76] or 1308-1313
(5 years) according to [304], v. 2, p. 406. Thus, we have three versions of the reign duration: (4 years) or (5 years) or (6 years: 1308-1314). Reign durations of George (6 years) and Henry VII (5-6 years) virtually coincide.
The name Henry = Hein-Rich could have stood for Khan-Reich, or Khan-Kingdom (Rich $=$ Reich $)$, or Khan-King ( Rich $=$ Rex). Thus, the name "Henry of Lux-Burg" could have meant Khan-Czar of the Excellent City. Reign durations of George ( 6 years) and Henry VII virtually coincide.
6a. Strife. Two short-term Russian rulers: Dmitriy of Vladimir the Bodeful-eyed 1325-1326 (1 year), according to [362], and Alexander 1326-1328 (2 years) according to [362]. Neither is mentioned in [145] at all. After them, the great principality passes to the alleged princes of Moscow (in fact, apparently, to those of Vladimir-Suzdal so far), starting from Ivan I Kalita, see the following point.
- 6b. The strife of 1308 (1 year) and Frederick of Austria 1314-1322 (8 years) according to [76]. Besides, a short period of strife occurred in 1313-1314, immediately after Henry VII. Here, the parallelism is blurred because of the strife.
7a. Ivan I Danilovich Kalita (let us note that "Kalita" is simply the title of Caliph or Khaliph!) 1328-1340 ( 12 years) according to [362] + son Simeon the Proud ('gordy' in Slavic - from Horde?) 1340-1353 (13 years) + son Ivan II the Meek Red 1353-1359 (6 years) according to [36], [362]. The total: ( 31 years) of reign.
- 7b. Ludwig of Bavaria 1314-1347 (33 years) according to [76] or 1313-1347 (34 year) accord-
ing to [304], Volume 2, page 414. The name Ludwig may have meant "ludovy", from the word Lyudi (people). The name Bavaria could have been a way of pronouncing the name Barbarian, Barbarous. In this case, the name Ludwig of Bavaria could have initially meant "the People Barbarous", to be slightly "dignified" by West European chronicles.
8a. Dmitri of Suzdal 1359-1363 (4 years), according to [362] (or 1360-1363-2 years) + Dmitriy Ivanovich Donskoy 1363-1389 (26 years), according to [362]. A total of (30 years) of reign. Chroniclers might easily unite them in one ruler, since they had shared the same name - Dmitriy.
- 8b. Charles IV 1347-1378 (31 year) according to [76]. Let us recall that the name of Charles (Karl) is simply the title of King (Korol). In other words, "the Fourth King".
9a. Vassili I Dmitriyevich 1389-1425 (36 years) according to all of the above mentioned sources. -9b. Wenceslar 1378-1400 (22 years) on [76]. The name Wenceslar could have meant either the Crown of Glory (Venets Slavy) or the Glorious Crown (Slavny Venets): alternatively it could have derived from the name of the Slavic Wends, or the Glorious Wends (Wendy Slarnye). The probable prototype of the name Venice.
10a. Murza Teginya in 1425 ([362]).
- 10b. Frederick, Prince of Brunswick in 1400 ([940]).
11a. Yuri Dmitriyevich 1425-1434 (9 years) according to [362], or 1425-1435 (10 years) according to [36].
- 11b. Robert (or Ruprecht) of Palatinum 14001410 (10 years) according to [76]. Note that the name Palatinum may have originated from the Slavic word palaty, or royal chambers (palace).
12a. Vassili the Cross-Eyed, reigned in 1434 for several months only ([362], Volume 5, chapter 3, column 154).
- 12b. Jobst or Jodocus, Margrave of Moravia in 1410. Reigned for circa 4 months. The name of Jodocus the Margrave is listed in the Lutheran Chronograph of the XVII century ([940], sheet 340 reverse).

13a. Vassili II the Dark, or blinded, 1425-1462
(37 years) according to [36] and [362], or, counting from the reign of his predecessor Yuri Dmitriyevich, 1434-1462 (28 years). He is sometimes assigned 14 or 12 years of reign ([362] and [145]). The duration of his reign indicated as 28 years is in perfect conformity with the reign duration of his double Sigismund, see the next point.

- 13b. Sigismund 1410-1438 (28 years) according to [76].
14a. Dmitri Shemyaka 1446-1450 (4 years) according to [362].
- 14b. Albert of Austria 1438-1440 (2 years).

See more on Austria in Chrons.
A possible translation: Eastern Realm, or Ost + Riki - Ost + Reich $=$ the Eastern state. The name Albert may have originated from Alba $=$ White. In that case, "Albert of Austria" is "The White Eastern Realm".
15a. Ivan III Vasilyevich the Great 1462-1505
(53 years) ([362]). Sometimes he is assigned 43 or 24 years of reign, as counted from the formal independence from the Horde. See
Chron4 for more details.

- 15b. Frederick III 1440-1493 (53 years) according to [76].
16a. Vassili III, alias Ivan $=$ Varlaam $=$ Gabriel, 1505-1533 (28 years) on [362].
- 16b. Maximilian I 1493-1519 (26 years) according to [76].
17a. Strife = Elena Glinskaya and Ivan Ovchina 1533-1538, followed by another Strife $=$ the Time of Seven Boyars, the guardianship council, 1538-1547 (the total of 14 years).
- 17b. In the empire of the Habsburgs this strife is formally not marked. There is no gap between the reigns of Maximilian I and Charles V here; therefore, formally we should enter a "zero value" - no gap in the reign duration table.
18a. Ivan IV Vasilyevich the Terrible 1533-1547-1584 ( 51 years or 37 years). 37 years, if 1547 is assumed as the beginning of the actual individual reign of the Terrible, or the end of the strife - Reign of Seven Boyars. See above.
- 18b. Charles V 1519-1556 according to [304], Volume 3, page 27, or 1519-1558 (39 years) according to [76]. Reign durations of the duplicate rulers coincide precisely: 37 years $=37$ years. Parallelism between the "biographies" of Charles V and Ivan "the Terrible" is related in Chron6.
19a. According to our studies presented in Chron4, four Czars, or Khans, were collated into one - "the Terrible". These are: Ivan IV
1547-1553, then Dmitriy 1553-1563, then
Ivan V 1563-1572 and finally Simeon
1572-1584. Therefore, after Ivan IV and
Dmitriy we should proceed to Ivan $V$
1563-1572 (9 years).
- 196. Ferdinand 1558-1564 (6 years) according to [76].
20a. Simeon 1572-1584 (12 years).
- 20b. Maximilian II 1564-1576 ( 12 years) according to [76].
$21 a$. The end of the parallelism and the end of the old Empire. Here we have the beginning of an unquiet period in the history of Russia. The following czars are Feodor Ioannovich 15841598 and him Boris Godunov 1598-1605; newt we have the Great Strife in Russia. The end of the royal dynasty reignant for a long time. After the Strife, a different dynasty comes to power - the Romanovs.
-21b. The end of the parallelism and the end of the old Empire.
Rudolf II 1576-1612, the next emperor, "copies" Rudolf I Habsburg from the very beginning of the Habsburg Empire. We approach the end of the old empire. In 16181619 the 30-year wars start in Germany ([76]). The initial, old empire of the Habsburgs ends here. The new dynasty of the Habsburgs, which came to replace it, is of an entirely different origin, qv in Chron7.

At this point we will interrupt our concise dynastic parallelism tables. The remaining parallelisms 12-19, indicated above, as well as a few others, will be described in more detail in the subsequent books of our seven-volume work.

# 5. <br> CONFORMITY OF RESULTS OBTAINED BY DIFFERENT METHODS 

### 5.1. General assertion

The following fact is of exceptional importance. Applying all the dating methods we developed to the Scaligerian history textbook, or the global chronological map, we come up with the same results every time. This implies that our new dates are in good conformity, although calculated with essentially different methods. In particular, the historical "Scaligerian epochs" characterized by similar value of close in the sense of the coefficient $p(X, Y)$, also turn out to have similar values of coefficient $c(a, b)$, not to mention the coefficient measurement proximity of dynastic forms-codes. Moreover, our results conform with astronomical datings - in particular, with the effect of the "ancient" eclipses shifted forward in time, which was, discovered in [544]. See the end of this chapter for more details.

### 5.2. The concurrence between the different methods illustrated by the example of Biblical Judaic reign identified as the Holy Roman Empire of the alleged X-XIII century A.D.

A vivid example of conformity between the method of dynastic parallelisms and the one based on correlation between volume function maxima. Let us recall this principle.

1) If chronicles $X$ and $Y$ are dependent, or describe approximately the same events from the same time interval in the history of the same region, then the local maxima points on their volume graphs must correlate.
2) If chronicles $X$ and $Y$ are independent, or describe substantially different historical epochs or different regions, then the maxima points on their volume graphs do not correlate.

Let us apply this principle to the "biographies" of the kings of Judah described in the Bible, and the "biographies" of the Roman/German emperors of the Holy Roman empire from the alleged X-XIII century A.D. We have already seen the Kingdom of Judah and the Holy Roman Empire of the alleged X-XIII century identified as duplicates, or different reflections of the same original; see table 9 in Chron1, Chapter 6.


Fig. 6.53. Reign duration and royal biography volume superimposition of the Biblical Judaic kingdom of the alleged years 928 587 B.C. over the Holy Roman Empire of the alleged X-XIII century A.D.

Let us verify this dynastic identification in a different way - compare "biographic volumes" pertaining to the kings of both dynasties. If the dynasties are dependent, then the peaks on their volume graphs are expected to be virtually simultaneous.

We understand "the biography of a king" as part of a text related to the events occurring in the reign of this king. If the text does not determine "the biographical boundaries" with sufficient clarity, we assume the first mention of the ruler in connection with the events of his epoch to be the beginning of the biography, the way we determined the end of the biography. However, the overwhelming majority of the cases presented no difficulty, as the texts we used would outline the boundaries of biographies with sufficient clarity.
a) The kings of Judah are described in the Bible, in 1-2 Samuel + 1-2 Kings and 1-2 Chronicles. V. P. Fomenko and T. G. Fomenko have counted the number of lines in the Bible for every king of Judah. The results are collected in Appendix 6.6 at the end of

Chron1. The resulting graph - a continuous line with white dotted circles - is depicted in fig. 6.53, with ordinal numbers of the kings of Judah plotted along the horizontal axis in the same order as listed in the Bible.
b) For each king of Judah, the Bible indicates the number of years he reigned. Intermittent disagreements between different indications of the Bible are thoroughly discussed in [544] and Appendix 6.4 to Chroni. Plotting durations of reigns of the kings of Judah along the vertical axis, we obtain the second curve shown in fig. 6.53 as a continuous line with white dots.

We use the same ordinal numbers along the horizontal axis indicating the kings of Judah for their duplicates, or the Roman and German emperors, qv in table 9, Chron1, Chapter 6. For example, dot \#1 on the horizontal axis refers to both Rehoboam and his double, emperor Henry I, etc.
c) Along the vertical axis, we plot the reign duration of each Roman/German emperor. The result is
presented in fig. 6.53 as a continuous line with asterisks.
d) The volume of "biography" for each RomanGerman emperor was calculated on the basis of several different but a priori dependent sources, the first one being Rome, Florence and Venice. Monuments of History and Culture by Y.V. Fedorova ([875]). The volume of each "biography" was measured in centimetres. A page of text in the book is 17 centimetres tall. The text describing emperor Lothair I, for instance, is 20 centimetres high. We emphasize that measurement units are of no importance, since we are only after the coincidence or difference of local peaks of the volume graphs. The resulting curve (volumes according to Fe dorova) is presented in fig. 6.53 as a line of dots.
e) The volume of "biography" for each RomanGerman emperor was calculated after the well-known book by C. Bemont and G. Monod The History of Europe in the Middle Ages ([64]), measured in lines. The resulting curve is shown in fig. 6.53 as a dotted line with points.
f) Finally, the volume of "biography" for each Ro-man-German emperor was calculated in accordance with The History of Germany by Kohlrausch ([415]). The resulting curve is shown in fig. 6.53 as a dotted line, scaling along the vertical axis compressed 10 -fold.

The result is as follows: six graphs in one figure.
A casual glance suffices for one to be convinced of a vivid correlation between the peaks of all the six curves. The peaks evidently occur virtually simultaneously.

This proves the dependence between the dynasty of the kings of Judah and the dynasty of Roman/German emperors. In other words, the Holy Empire of the alleged X-XIII century A.D. in secular chronicles and the kingdom of Judah of the alleged years $928-587$ b.c. in the Bible are but different reflections of the same dynasty.

By the way, we saw something new in this example. The graphs of reign durations and the graphs of biographical volumes turn out to satisfy the maxima correlation principle. In other words, this example revealed that the longer the king reigns, the more detailed the chronicle that describes him. On the contrary, if his reign is brief, the chronicle saves little space for him. A model like that is certainly accurate "on the average"; however, this dependence looks quite natural and is helpful for the exposure of new dependent historical dynasties.

## 6.

## THE GENERAL LAYOUT OF DUPLICATES IN "THE TEXTBOOK OF SCALIGER-PETAVIUS" The discovery of the three basic chronological shifts

The main result that the author came up with in 1977-1979 is that the "Scaligerian textbook" of ancient and mediaeval history is a collation of four virtually identical shorter chronicles, shifted by approximately 333, 1050, and 1800 years against their mediaeval original.

As an example, we shall describe part $E$ of the global chronological map, or the "Scaligerian textbook"- on the time segment from 1600 в.c. until 1800 A.D. in the history of Europe, including Italy, Germany, and


Fig. 6.54. A fragment of the global chronological map (or the Scaligerian history textbook). One sees the mechanism of the construction of the entire chronological map.

Greece. The result is presented as line $E$, whereupon "the Scaligerian historical epochs" are conditionally indicated by letters. In doing so, we denoted the discovered duplicates, - or epochs duplicating each other, proven close from the point of view of the methods described above - by identical letters. Such duplicates can also be conditionally referred to as "repetitions". Due to the enormous volume of material, we shall present a rough diagram here. Boundaries of time intervals are approximate. The letters in the numerator represent identical epochs. To assemble the information traditionally referring to a certain year on the global chronological map, one should draw a vertical segment through this year on line $E$ and assemble the fragments of epochs and events it carves on the numerator and denominator of the fraction. Fig. 6.54 shows a fragment of the global chronological map representing the principles of its projection onto the plane. Thus:
$\mathrm{E}=\mathrm{TKTNTTKTNTKTTKTNTT}(\mathrm{K}, \mathrm{R}, \mathrm{P}) \mathrm{T}(\mathrm{S}, \mathrm{N})$


Fig. 6.55 maintains the time scale. The chronicle line $E$ is the most important part of the "Scaligerian textbook". We see that it contains repetitions of duplicate epochs. Moreover, it can be regarded as a simple composition, or the "sum" of three chronological shifts. We will represent this composition as four lines - chronicles $S_{1}, S_{2}, S_{3}, S_{4}$, shown in the following table:

| K TN T TR TS | $S_{4}$ |
| :---: | :---: |
| shift by 1778 years K TN TR T S | $S_{3}$ |
| shift by 1053 years K TP T R T | $S_{2}$ |
| shift by 333 years$\frac{K}{R}$ $\frac{T}{\mathrm{P}}$  | $S_{1}$ |
| (K,R,P) T(S,N) | $S_{0}$ |

The same decomposition of chronicle $E$ considering the time scale can be seen in fig. 6.55. The short chronicle $S_{0}$, describing the epoch of the X-XVII century A.D., is the original. Moreover, very little information is available nowadays about the epoch of the XI-XIII century A.D.

## 7. <br> SCALIGERIAN TEXTBOOK OF ANCIENT HISTORY AS COLLATED FOUR DUPLICATES OF THE SHORT ORIGINAL CHRONICLE

By adding up all these "short chronicles" on the vertical axis, identifying and collating the identical letters positioned above each other, we obviously come up with "the long chronicle" $E$. Thus, we can record that

$$
E=S_{1}+S_{2}+S_{3}+S_{4} .
$$

It is important that all four lines, each depicting a certain short chronicle assembled from fragments of the "Scaligerian textbook", are virtually identical.

Morever, chronicle $S_{2}$ is attached to chronicle $S_{1}$ with a 333 years' shift backwards. Chronicle $S_{3}$ is attached to chronicle $S_{1}+S_{2}$ with a 1053 year shift. Finally, chronicle $S_{4}$ is attached to chronicle $S_{1}+S_{2}$ $+S_{3}$ with a 1778 year shift.

All three shifts are counted off the same point. These results completely conform to the independent conclusions obtained in [904] and [908] from the astronomical datings of eclipses and horoscopes.

This basic result of ours may be explained by stating that the "Scaligerian textbook" of ancient and mediaeval history of Europe and Asia is a laminated chronicle, or the collation of four virtually identical copies of the short chronicle $S_{i}$. The remaining three chronicles $S_{2}, S_{3}, S_{4}$ are derived from chronicle $S_{1}$ by shifting it backwards in time as a rigid whole by 333 , 1053 , and 1778 years, respectively. The indicated shift values are of course approximate.

In other words, "Scaligerian textbook",-and therefore contemporary history textbooks as well, - can be completely restored from their smaller part $S_{o}$, all of which lays to the right from year 960 A.D. In other words, each "Scaligerian historical epoch" located further to the left, below 960 year A.D., is only a phantom reflection of a more recent historical epoch, all of which lays to the right from year 960 A.D. It is the "original" of all the phantom duplicates generated therein. Fragments $(K),(R)$ and $(P)$ of the original chronicle $S_{o}$ contain very little data. The principal part of the chronicle $S_{0}$ is concentrated in its fragments $(T),(S),(N)$ located to the right of 1250 A.D., that is, closer to us.

The above implies that each "Scaligerian epoch" placed further right of 1000 A.D. is a reflection, or a

The Bible $=$ chronicle $B$


Fig. 6.55. The global chronological map. "Scaligerian history textbook" is presented as a compilation of four practically identical short chronicles.
duplicate of a more recent actual historical epoch of the XI-XVII century a.d. This epoch is actually the prototype of all the duplicates (reflections) generated thereby.

The period of the XVII-XX century A.D. contains no major statistical phantom duplicates. The interval of the X-XIII century appears to be the "sum" of two chronicles: a real one, describing certain events of the X-XIII century, and a phantom duplicate, introduced since the period of XIV-XVII century A.D. with a chronological shift of approximately 300 years backwards.

One of the last events that the chronological shift has shifted backwards from its actual epoch of XIVXVIII century was probably the activity the famous
mediaeval chronologist Dionysius Petavius (15831652). He is "reflected in the past", in particular, as Dionysius the Little, in the alleged VI century A.D. It is interesting that our empirico-statistical methods have not revealed any statistical duplicates for the events postdating Dionysius Petavius. One may state that after the death of Dionysius Petavius, there were no further chronological shifts in history. Most likely, this indicates that Scaliger and Petavius invented these shifts themselves and "multiplied history" in several copies. In the following chapters we shall discuss our hypothesis concerning their motivations.

The assertion that the stratification of the Scaligerian textbook is required not only for the history of Europe and the Mediterranean, but for the entire global
chronological map as well, in Scaligerian datings, including Asia, Egypt, etc., is the main result of the first stage of our studies falling over 1974-1980.

## 8.

## THE LIST OF PHANTOM "ANCIENT" EVENTS, THE EXPOSURE PHANTOM DUPLICATES, OR REFLECTIONS OF MEDIAEVAL ORIGINALS

Let us describe the phantom epoch blocks constituting Scaligerian chronicle $E$ in greater detail, moving from left to right along the time axis. Let us also point out the appropriate chronological milestones, or Scaligerian dates, which characterize each fragment of chronicle $E$. Let us explain that historical events, or even entire epochs, indicated with the same symbol, e.g. $N$, qv fig. 6.55 , appear to be chronological duplicates, or reflections of the same mediaeval original. The same information is represented in more detail in fig. 6.56, fig. 6.57 and fig. 6.58.

Thus: chronicle $E=$
$(T)=$ ancient Greek legends of Dardanus and "the Dardanus' flood".
$(K)=$ the legendary Trojan kingdom of seven kings, allegedly in 1460-1240 в.c.
$(T)=$ the famous Trojan War and the fall of Troy, allegedly dating from 1236-1226 в.с.
$(N)=$ dynasties of kings of the "ancient" Greece from the fall of Troy to the foundation of Rome.
$(T)=$ the second variant of dating for the fall of Troy, approximately 1-2 generations prior to the foundation of Rome, allegedly dating from 850-830 в.с. Such was the opinion of the "ancient" authors Hellanicus and Damastus ([579], pages 23-25, who lived in the alleged IV century в.с. This opinion was later supported by Aristotle. Hext we have the flight of Aeneas and Trojan survivors after the fall of Troy. The history of their descendants and their disembarkation in Italy.
$(T)=$ legends about Romulus and Remus, the foundation of Rome, the rape of the Sabines, allegedly dating from 760-753 в.с.
$(K / R)=$ the Regal Rome of seven kings, allegedly about 753-523 в.с. The Regal Rome is described by Titus Livy. We will sometimes refer to this kingdom as the First Roman Empire.
$(T)=$ expatriation of kings from Rome, the revolt in Rome, the war against the Tarquins, the fall of the

Regal Rome and the foundation of the "ancient" Roman republic in the alleged years 522-509 в.с.
$(N / S)=$ "ancient" republican Rome and "ancient" Greece, the Graeco-Persian wars, the Peloponnesian war, the Carthaginian (Punic) wars of Rome and empire of Alexander the Great, allegedly 509-82 в.с.
$(T)=$ the fall of republic in Rome, Sulla, Pompey, Caesar, Octavian and the civil wars in Italy, allegedly 82-23 в.c.
$(K / R)=$ Roman Empire between the alleged years $82-27$ в.C. and 217 A.D. The beginning of the new era is closely associated with the lifetime of Jesus Christ. We shall sometimes refer to this Empire as the Second Roman Empire.
$(T)=$ wars and crises in Italy, the middle of the alleged III century A.D.(235-251), wars against the Goths, the so-called "soldier emperors" in Rome and period of anarchy in the alleged years 217-251 A.D.
$(T)=$ restoration of the Roman Empire under Aurelian and the civil wars of this period, or the alleged years 270-306 A.D.
$(K / P / S / R)=$ the Roman Empire between the alleged years 306 and 526 a.d. We shall occasionally refer to this kingdom as the Third Roman Empire.
$(T)=$ the famous Gothic war in Italy, middle of the alleged VI century A.D., the collapse of the Western Empire of Rome, Justinian, Belisarius, Narses. The alleged years 535-552 A.D.
$(N / P / R)=$ mediaeval Papal Rome of the alleged years 553-900 A.D. and the Carolingians, as well as the Empire of Charlemagne from Pepin of Heristal to Charles the Fat, allegedly 681-887 A.D.
$(T)=$ the epoch of Alberic I and Theodora I in Rome, or the alleged years 901-924 A.D.
$(T)=$ the epoch of Alberic II and Theodora II in Italy, or the alleged years 931-954 A.D.
$((K, R, P) / S)=$ the Holy Roman Empire of the alleged years 962-1250 A.D.
$(T)=$ the famous war in Italy in the middle of the XIII century a.d., the fall of the Hohenstaufen dynasty and the establishment of the House of Anjou, Conrad, Manfred and Charles of Anjou, 1250-1268 A.D.
( $S, N$ ) = The Roman/German Empire of the Habsburgs (Nov-gorod?), 1273-1619 A.D., in the same period icludes the heyday of mediaeval Greece, the crusader states on the territory of Greece, then the Ottoman $=$ Ataman invasion, the fall of Constantinople



Fig. 6.57. A more detailed representation of the global chronological map and the system of chronological shifts. Part two.


Fig. 6.58. A more detailed representation of the global chronological map and the system of chronological shifts. Part three.
and the Byzantine Empire, and the formation of the Ottoman = Ataman Empire.

Furthermore, "Scaligerian textbook" E presents the dynasties of Byzantium beginning from the alleged years 330 A.D.; we shall refrain from listing them here. Let us recall that the epochs designated in fig. 6.55 as identical symbols are duplicates and consists of "the same events". This is true for the following famous wars, for instance:

1) The Trojan war of the alleged XIII century b.c.
2) The war against the Tarquins in Rome (the alleged VI century в.c.).
3) The civil war between Sulla, Pompey and Julius Caesar in Italy in the alleged I century b.c.
4) The civil war of the alleged III century A.D. in Rome.
5) The Gothic war in the middle of the alleged VI century A.D. in Italy.
6) The civil war of the alleged years 901-924 A.D. in Rome.
7) The civil war of the alleged years 931-954 A.D. in Rome.
8) The war in the early days of the Holy Roman Empire of the X-XIII century A.D.
9) The war in Europe - Italy in particular, falling over the middle of the XIII century a.d. Seizure of Constantinople, the fall of the Hohenstaufens and the establishment of the House of Anjou.

This last war of the XIII century A.D. is probably the mediaeval original of all the other "ancient" wars marked in Scaligerian chronicle $E$ with the conditional symbol $T$, qv in fig. 6.55. Let us present a curious table compiled with the assistance of our methods. It lists the main characters of the indicated nine duplicate wars superimposed over each other.

In other words, all the characters marked in the table with the letter " $a$ " are each other's duplicates. All the characters marked in the table with the letter " $b$ " are duplicates as well. All the characters from the " $c$ " series are also duplicates, or phantom reflections of the same mediaeval character. Finally, all the characters indicated with the letter " $d$ " also strike us as duplicates.

The details concerning the identification of these "ancient" and mediaeval characters and their formcodes are related in the following chapters and in Chrona.

1. The Trojan war of the alleged XIII century b.c.

- 1-a. Odysseus = Ulysses or Ullyses, possibly a.k.a. Achilles.
-     - 1-b. Agamemnon.
$-\square-1-c$. Achilles.
-■■■1-d. Patroclus.

2. The Tarquinian war of the alleged VI century в.c. in Rome.

- 2-a. Lartius + Martius Coriolanus.
-     - 2-b. Tarquin the Proud.
- ■ $-2-c$. Valerius.
-■■-2-d. Junius, son of Marcus Brutus.

3. The Civil war of the alleged I century в.с. in Rome.

- 3-a. Lucius Sulla and Cicero(n) (NRCC, if read in reverse).
-     - 3-b. Pompey the Great.
-     -         - 3-c. Julius Caesar.

■■■■3-d. Marcus Brutus.
4. The civil war in Rome of the alleged III century A.D.

- 4-a. Lucius Aurelianus.
- 4-b. Diocletian the Great.
- ■ - 4-c. Constantius Chlorus.
-■■■4-d. ?

5. The Gothic war of the alleged VI century a.d. in Rome.

- 5-a. Narses, Narcius.
-     - 5-b. Justinian and Theodora.
-■ - 5-c. Belisarius.
-■■-5-d. John II.

6. The civil war in Rome, the alleged years 901-924 A.D.

- 6-a. Alberic I (?) and Marocius (?).
-     - 6-b. Theophilactus and Theodora I.

■■■6-c. Alberic $I$.

-     -         -             - 6-d. John $X$.

7. The civil war in Rome, the alleged years 931-954 A.D.
-7-a. ?

-     - 7-b. Hugo and Theodora II.
-■-7-c. Alberic II.
-■■■7-d. John XI.

8. The foundation of the Holy Roman Empire of German nation of the X-XIII century A.D.

- 8-a. Otto I, Otto II, Octavian Augustus.
-     - 8-b. Otto III.
$-\square=8-c$. Alberic II.
-■■■8-d.?

9. The war in Europe and Italy fought in the XIII century a.D. The fall of the mediaeval city of Troy in Italy.

- 9-a. Charles of Anjou, NRCC, see below.
-     - 9-b. Innocent IV.
- ■-9-c. Charles of Anjou (?).
-■■-9-d. John XXI.
The same table is conveniently presented in a somewhat different manner. We list the four groups of duplicate characters, assigning numbers 1 to 9 to the wars they took part in according to the "Scaligerian textbook". In general, each of the four characters became "multiplied" as a result of chronicle errata - in approximately nine copies.
- $\mathrm{a}-1$. Odysseus $=$ Ulysses or Ullyses, possibly Achilles.

■ - a-2. Lartius + Martius Coriolanus.
-■■ a-3. Lucius Sulla and Cicero(N) (NRCC, if read in reverse).
-■■- a-4. Lucius Aurelianus.

```
\(\square ■ ■ \square \mathrm{a}-5\). Narses, Narcius, NRCS without vowels,
\(\square \square \square \square \square \square \mathrm{a}-6\). Alberic \(I\) (?) and Marocius (?).
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■■■■■■■■a-8. Otto I, Otto II, Octavian
    Augustus.
■■■■■■■■■a-9. Charles of Anjou, NRCC, see
    below.
- b-1. Agamemnon.
- - b-2. Tarquin the Proud.
-■■b-3. Pompey the Great.
-■■■b-4 Diocletian the Great.
-■■■-b-5. Justinian and Theodora.
-5-5-■-b-6. Theophilactus and Theodora I.
-■■■■■■b-7. Hugo and Theodora II.
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- c-1. Achilles.
-     - c-2. Valerius.
-■■c-3. Julius Caesar.
-■■■c-4. Constantius Chlorus.
-■■■■c-5. Belisarius.
■■■■■■c-6. Alberic I.
-     -         -             - -■■c-7. Alberic II.


d-1. Patroclus.
-     - d-2. Valerius.
-■■ d-3. Junius, son of Marcus Brutus.
-■■■d-4. ?
-■■■■d-5. John II.
-■■■■■d-6. John $X$.

- 



In our opinion, the discovered decomposition of the "Scaligerian textbook" into a sum of the three abovementioned shifts is naturally explained by the inevitable process of creating the global chronology and the history of antiquity, which was launched in the XVI-XVII century. Moreover, it was for the first time that the historical material accumulated by that time - separate texts, chronicles, etc., - was put in order.

However, as all these pieces were collated into a sin-
gle diagram, a serious error occurred. Four copies of the same short chronicle $S_{1}$ or $S_{\theta}$ (qv above) actually describing the same period in history of Europe and the Mediterranean region, became interpreted as different chronicles describing different events. Because of this, four almost identical chronicles were collated not in parallel, as they should have been, but rather in succession, with shifts of 333,1053 , and 1778 years, on the average. As a result, "short chronicle" $S_{1}$ gave birth to the arbitrary "extended Scaligerian chronicle" E. This was actually how the contemporary textbook on ancient and mediaeval history appeared. We tried to fathom the reasons that could have led to such confusion and generated such shifts. Since the analysis of this material requires significant historical digressions, we shall discuss it in the subsequent volumes of the present edition.

## 9.

## "ANCIENT" BIBLICAL HISTORY IDENTIFIED AS THE HISTORY OF EUROPE IN THE MIDDLE AGES

The "Scaligerian textbook" features other pieces, differing from the European-Asian chronicle $E$, which contain phantom duplicates and are also a sum, or a collation of several "shifted chronicles". This observation applies to the historical events described in the Bible. We have already reported many phantom duplicates revealed in the Bible. See the linear chronicle $B$ in fig. 6.55. In the description of this chronicle we intentionally used the same letter symbols as in the description of the "European" chronicle $E$. Incidentally, the Biblical chronicle $B$ proves to be virtually identical with the part of European chronicle $E$ that deals with the Eurasian history of the XI-XVI century. In a more accurate presentation it looks like this:
chronicle $E=$ T K TNT (chronicle $B$ )


Fig. 6.55 demonstrates the Biblical chronicle $B$ identified as a part of the Scaligerian European chronicle $E$ with regard to the time scale.

It is evident that the so-called historical part of the Bible, the Old Testament, identifies as a part of Scaligerian "European textbook" $E$ in the range from 850 в.c. to 1400 A.D. However, since the Bible contains a multitude of phantom duplicates, the Old Testament, likewise "Scaligerian textbook" $E$, can be completely restored from one of their parts - namely, the part found on the right of 900 A.D. on time axis. Furthermore, the entire Old Testament, as well as the entire Bible and the entire "chronicle $E$ ", can actually be restored from the part describing the mediaeval events of $1000-1600$ A.D. Apart from that, the New Testament probably describes events of the XI century A.D. that took place in New Rome, Constantinople.

In particular, the structure of said duplicates leads to the conclusion that the epoch of Christ, or the XII century A.D. according to the new chronology, was reflected in the ecclesiastical history of Italy of the XI century as "the epoch of Pope Gregory Hildebrand". As we have already noted, the name Hild-Brand could mean Ablaze With Gold. In Scaligerian interpretation of the world history, this very epoch of Hildebrand, or Pope Gregory VII, who had instigated the age of crusades, is marked by the well-known ecclesiactical schism of circa 1054 A.D., and the nascent reformist "church of Hildebrand" in Europe. However, the actual Pope Gregory Hildebrand should not be directly identified as Christ of the Gospel. On the contrary, the story about the activity of "Pope Hildebrand" in the Scaligerian version of Italian history is a mere reflection of the actual Evangelical events of the XII century A.D. "(with a shift of 100 years backwards in time) - though not in Italy, but most likely in New Rome, or Constantinople $=$ Jerusalem of that time. For more detail, see Chron5, Chron6 and "King of the Slavs".

We have identified Biblical chronicle $B$ as a part of Scaligerian European chronicle $E$ after the application of the empirico-statistical procedures as described above. Let us demonstrate this identification on the example of volume graphs compared with the help of coefficient $p(X, Y)$. Let us examine the period between 800 в.c. and 1300 A.D. in Scaligerian history of Italy and Europe as a whole.

We assumed the sum of two fundamental monographs, based upon a veriety of "ancient" and mediaeval documents streamlined according to Scaligerian
chronology, to be the "chronicle" $X$ describing the flow of events in the range from 800 b.c. until 1300 A.D. These are The Description of the Roman History and the Source Study by B. Niese ([579]), and The History of the City of Rome in the Middle Ages, a multi-volume work by F. Gregorovius ([196]). In doing so, the book by Niese covers an epoch between the alleged years 800 в.с. and 552 A.D., and the book by Gregorovius - 300 A.D. up to 1300 A.D. A collation of these two books in their common interval of 300552 A.D. shall yield the final "chronicle" $X$ covering a total of 2100 years, from 800 b.c. to 1300 A.D.

This summary text $X$ contains a fairly detailed chronological scale - Scaligerian, of course, which makes it possible to calculate the volume function vol $X(T)$. For the calculation of the volume function for the overall interval of 300-552 A.D. covered by both Niese and Gregorovius, we took the arithmetical value of their per annum volumes, so that none of the books would stand out, both presumed equally correct.

This "chronicle $X$ " was then broken up into separate fragments $X(T)$, which made it possible to plot the volume graph of "chapters" $X(T)$ along the entire 2100 year range from 800 в.с. until 1300 A.D.

Let us now examine the Old Testament in order to plot a volume graph of "chapters" for it and compare this graph to the appropriate graph for Scaligerian European chronicle $X$. The problem is that the Bible doesn't contain a detailed enough timescale. However, as we have already mentioned, it is possible to break up the Bible into virtually unambiguous "generation chapters" $B(T)$, with ordinal number $T$ varying from 1 to 218 . Let us examine the first 137 "generation chapters", from the Genesis up to 2 Kings. As 1-2 Samuel $+1-2$ Kings actually duplicate 1-2 Chronicles, "chapters" 138-167 duplicate "chapters" 98-137, and are of no interest to us now. "Chapters" 103-137 are described in 1-2 Samuel $+1-2$ Kings with detailed chronological indications, making it possible to determine the length of the time interval described therein with sufficient accuracy - it equals 341 years. A more detailed definition of this interval can be found in [904] and [908]. The same duration of this period is indicated in [72].

For the remaining Biblical generation chapters numbered 1-102, there are no such detailed chrono-
logical indications in the Bible. Therefore, to determine the length of the time interval described therein, we had to forego precision. The analysis of "chapters" 1102 showed that virtually each of them, while describing events of one generation, connects it with some central character, or the ruler. The duration of his "reign" can be accepted as the "length of generation". We have already noted that the average duration of ancient and mediaeval reigns as calculated from chronological tables ([76]), is 17.1 years, or 17 years if rounded.

This average value makes it possible to approximately estimate the period "covered" by 102 Biblical generations: $102 \times 17=1734$.

Thus, the Biblical generation chapters 1-137, or the historical part of the Old Testament minus the books with moralistic content, can be considered to describe a historical period of approximately 2075 years, since $1734+341=2075$ years. This figure runs very close to 2100 , or the length of the Scaligerian European period as described in "chronicle" $X$.

Therefore, the epochs of an approximately identical length can be assumed described in "chronicles" $X$ and the Bible $B$. That is why, while comparing their volume functions, one can simply superimpose these time intervals over each other without any compressions or stretches. In other words, both "chronicles" can be attributed to the same time scale.

Now let us compare the volume functions $\operatorname{vol} X(T)$ and $\operatorname{vol} B(T)$ calculated for "the Roman chronicle" $X$ and the Bible $B$. Let us regard the fragmentation of the entire range from 800 b.c. until 1300 A.D. into 19 fragments as the simplest time scale common for both texts. These fragments naturally appear on the time axis if we mark the locations of all duplicates of series $\{T\}$ that we discovered during the statistical analysis of the Bible. Duplicates of the type $\{T\}$ are fragments of the Bible, each one covering a relatively small time interval. By indicating them on the time axis we obtain a set of "points $\{T\}$ ", which can be used as boundaries of 19 fragments. The boundaries of the resulting fragments appear to be approximately set by the following Scaligerian dates:

800 в.с., $770,750,520,509,380,100$ в.С., 14 А.D., $98,235,305,493,552,715,901,1002,1054,1250$, 1263 and 1300 A.D.

The "points $\{T\}$ ", or the duplicates of the series
$\{T\}$, divide the Bible - more precisely, the historical part of the Old Testament - into 19 blocks. The volume of each block was calculated.

We have thus discovered the appropriate fragmentation of the sequence of "generation chapters" constituting chronicle B , into the following 19 groups:

1) the period of the alleged years $800-770$ в.с. is not described in the Bible;
2) the period of the alleged years 770-750 B.c. corresponds to "generation chapter" number 1;
3) the period of the alleged years 750-520 в.c. corresponds to "chapters" 2-14;
4) the period of the alleged years 520-509 b.c. corresponds to "chapter" 15 ;
5) the period of the alleged years 509-380 в.c. corresponds to "chapters" 16-23;
6) the period of the alleged years $380-100$ B.c. corresponds to "chapters" 24-39;
7) the period the alleged years from 100 в.c. to 14 A.D. corresponds to "chapters" 40-46;
8) the period of the alleged years 14-98 A.D. corresponds to "chapters" 47-50;
9) the period of the alleged years 98-235 A.D. corresponds to "chapters" 51-59;
10) the period of the alleged years 235-305 A.D. corresponds to "chapters" 60-62;
11) the period of the alleged years 305-493 A.D. corresponds to "chapters" 63-73;
12) the period of the alleged years 493-552 A.D. corresponds to "chapters" 74-78;
13) the period of the alleged years 552-715 A.D. corresponds to "chapters" 79-88;
14) the period of the alleged years 715-901 A.D. corresponds to "chapters" 89-97;
15) the period of the alleged years 901-1002 A.D. corresponds to "chapters" $98-102,141,142$;
16) the period of the alleged years 1002-1054 A.D. corresponds to "chapters" 143-147;
17) the period of the alleged years 1054-1250 A.D. corresponds to "chapters" 148-162;
18) the period of the alleged years 1250-1268 A.D. corresponds to "chapter" 163;
19) the period of the alleged years 1268-1300 A.D. corresponds to "chapters" 164-167.

At the end of the list we made use of the fact that Biblical "chapters" 141-167 duplicate "chapters" 103137. Thus, we introduced the same time scale in both


Fig. 6.59. The superimposition of the "ancient" Biblical history over mediaeval Eurasia. The volume function correlation is shown.
"chronicles": $X=$ the Scaligerian textbook and $B=$ the Bible. After this, the volumes of each of the 19 listed fragments were calculated. The volume of each fragment was averaged, or divided by the length of the described time period measured in generations. For example, the volume of the Biblical generation chapters 2-14, describing time interval 1 , equals 59 verses. The length of this interval is 13 generations. Consequently, the average volume per generation equals $59 / 13=4.54$. See the graphs in fig. 6.59. All local maxima, or the peaks of both volume graphs, are marked black.

Let us recall that in order to apply the maxima correlation principle, we need not worry about the value of the volume function amplitude. Only the peak distribution is important - the points of local maxima. Therefore, volume measurement units affect nothing. In the Bible, for example, we measured the volume in verses, and in the oeuvres of Niese and Gregorovius - in pages and fractions of a page.

It is amazing that all the peaks except one occur in the same points. It is also important that all the du-
plicate epochs ( $T$ ) indicated in fig. 6.59 as triangles virtually coincide with the peaks of the non-averaged volume graph for the "chapters" of the Bible, calculated for "generations" 1-137.

Thus, it is distinctly evident that all the local maxima, with a single exception, are reached simultaneously, on the same intervals. A vivid correlation of the "Biblical local maxima" and the "Roman local maxima" is available. See its quantitative expression below. Consequently, the two texts we compare - namely, "chapters" 1-137 of the Bible and the "Roman chronicle" $X$-are dependent. This, as we already know, can refer to flows of identical events.

It is noteworthy that all the duplicates of series $\{T\}$ indicated by triangles in fig. 6.59 all but coincide with the local maxima points of the non-averaged volume function of the Bible, calculated for generation chapters 1-137. In particular, we discover that all the duplicates of series $\{T\}$ stand out against the overall background of the Biblical "generation chapters", since they cause explicit local jumps and splashes of the volume function, at the very least.

Following the procedure of local maxima makes it possible to estimate the quantitative proximity of these two series of local maxima points: the "Biblical" and the "Roman". Let us calculate the lengths of segments into which the sequence of numbers $1,2 \ldots$, 19 is divided by these points. We will obtain the two following vectors $a(X)$ and $a(B)$. Namely,

$$
a(X)=(1,2,3,3,2,3,3,1), a(B)=(1,2,4,2,2,3,3,1) .
$$

The calculation returns $p(X, B)=1.4 \times 10^{-4}$, which indicates the dependence between "chapters" 1-137 of the Bible and the "Roman chronicle" $X$ for the number of local maxima equalling 8 . Let us note that for non-coincident vectors of local maxima in a discrete, integer model, q.v. above, the proximity of vectors is virtually ideal. The only divergence observed here is by one unit in two coordinates.

As we shall witness below, this statistical identification of the allegedly ancient "historical part" of the Bible rendering the mediaeval European history is confirmed by results of other independent procedures.

Let us now explain the reason why, referring to the discovered association of Biblical history with the Eurasian history of the III-XVI century A.D., we speak about the latter as a partially phantom historical period. As we have seen, our methods commanded a further shift of the entire Scaligerian version of Biblical history forward by at least 1800 years. Moreover, the initial events described in the Bible supposedly occur in the III-IV century A.D., while all of the more recent Biblical events develop until the XV-XVI century a.D. However, this result is far from being final. The point is that the Eurasian history of the III-XI century A.D. is also a phantom in itself, composed of reflection duplicates of the original events from the epoch of the XIXVII century A.D. As we shall see below, the original events are mostly located between the XIII-XVII century a.D. Furthermore, we revealed many other phantom duplicates in the Bible. That is why Biblical chronology should be substantially truncated, after which it should fit into the range of the XI-XVI century A.D. perfectly.

Below we will describe the further development of the empirico-statistical methods, based on the principle of frequency damping.

Thus, the maxima correlation principle leads to the conclusion that the "Roman chronicle" $X$ and the

Bible $B$ apparently describe the same events. This certainly contradicts the established viewpoint on the content of these "chronicles" and corresponding historical epochs.

The phantom nature of historical events comprising Scaligerian "chronicle" $X$ and the Old Testament $B$ implies, in particular, that we can identify the kingdoms of Israel and Judah, as described in 1-2 Samuel $+1-2$ Kings and 1-2 Chronicles, as the Holy Roman Empire of the alleged years 962-1300 A.D. We see good concurrence with the independent identification made above earlier with an independent procedure of duplicate dynasty detection. These dynasties are identified as duplicates owing to coefficient $c(a, b)$ being anomalously infinitesimal, which indicates a dependence between dynasties. Let us recall again that all the chronological results obtained by the methods described concur with each other well, which is a serious argument in favour of the objectivity of the discovered duplicate system.

The identification of the Biblical events as the events of the European (Italo-German) and East European history reveals the following duplicates in particular. The famous reign of the Biblical king Sedekiah, the wars against the pharaoh and against Nebuchadnezzar, the collapse of the Kingdom of Judah, the conquest of Jerusalem and the Babylonian captivity, become superimposed over the events of the late XIII century A.D. in Italy. Namely, the war in Italy, the seizure of Rome, the transfer of the pontificate from Rome to the city of Avignon in France, the complete subordination of the Papacy to the French crown, or the so-called "captivity of the Papacy". The 70-year Babylonian captivity in the Bible is a reflection of the well-known 70year Avingon captivity of Popes in 1305-1376 A.D. ([76]). Further Biblical events described in the books of Ezra, Nehemiah and Esther, such as the return to Jerusalem and "the restoration of the temple", - are partial reflections of the corresponding events that took place in Byzantium and Italy in 1376-1410 A.D.: the "return" of the Papal throne to Rome, and certain other major events from Russian history, or the history of the Great = "Mongolian" Empire in the XV-XVI century a.d. See Chron6.

For a more convenient comparison of Biblical events and their European equivalents, we shall provide the interpretation of the letter symbols used for
"chronicle" $B=$ the Bible, indicating the backbone of a relevant Biblical legend for each letter.

In this manner, chronicle $B$, or the Old Testament in the Bible =

Duplicate $T=$ the legend of Adam and Eve.
Duplicate $K=$ Cain and Abel, Enoch, Irad, Mehujael, Methuselah, Lamech, Seth, Enosh, Cainan, Mahalalel, Jared.

Duplicate $T=$ Noah, "the Flood", the death and the revival of humankind.

Duplicate $N=$ Shem, Ham, Japheth, "sons of Japheth".

Duplicate $T=$ "the Tower of Babel", scattering of nations.

Duplicate $K=$ Arphaxad, Shelah, Eber, Peleg, Reu, Serug, Nahor, Terah and Abraham.

Duplicate $T=$ Abraham, Sarah, the "struggle" against the pharaoh.

Duplicate $K=$ Abraham, Aran, the division into two kingdoms, main Biblical patriarchs - Isaac, Isav, Jacob, Judas and Joseph.

Duplicate $T=$ the history of Joseph in Egypt, serving the pharaoh and the "legend of a wife".

Duplicate $T=$ Moses, the war against the pharaoh, the Exodus and the laws of Moses.

Duplicate $N / P / R=$ the death of Moses, Joshua son of Nun, war and the conquest of "the promised land" and the legend of "the judges".

Duplicate $T=$ the sons of Benjamin, the war.
Duplicate $T=$ Ruth, Saul, Samuel, David.
The Original and Duplicate ( $K, R, P$ ) = kingdoms of Israel and Judah.

The Original and Duplicate $T$ = wars against the pharaoh, Nebuchadnezzar, the fall of the kingdom of Judah, the beginning of the Babylonian captivity (the analogue of the well-known "Avingon captivity of the Popes"), the destruction of Jerusalem.

The Original and the Duplicate $(S, N)=$ Babylonian captivity, the return from the 70 year captivity, the new "foundation of the temple" and the restoration of Jerusalem.

To identify these events as their European counterparts, one should turn to fig. 6.55 , fig. 6.56 , fig. 6.57 and fig. 6.58 whereupon one sees chronicle $B$, or the Biblical Old Testament, in the top part of the illustration, and compare its symbols to the content of respective "European symbols".

## 10.

## OUR HYPOTHESIS: HISTORY AS DESCRIBED IN SURVIVING CHRONICLES ONLY BEGINS AROUND THE $X$ CENTURY A.D. We know nothing of the events that took place before the $X$ century A.D.

Let us summarize somewhat. The disintegration of the global chronological map, or the "Scaligerian textbook" of ancient history, that we have discovered leads to a very important assertion. Namely, almost every event from the Scaligerian textbook dating from epochs preceding 900 or 1000 A.D. consists of phantom duplicates. Their mediaeval originals are located on the time interval of 900-1600 A.D. In particular, every event dated to earlier epochs in Scaligerian textbook is a sum of several (mostly, two, three or four) mediaeval events. In order to determine the exact datings of those events, we need to draw a vertical segment on the global chronological map and mark the events that it would intercept on four chronicle lines $S_{1}, S_{2}, S_{3}, S_{4}$. In other words, Scaligerian textbook is a stratified chronicle pasting together four virtually identical pieces shifted in relation to one another.
"Scaligerian textbook" contains no unexpected duplicates starting with the XVI century A.D. and later. Certain phantom duplicates do exist on the time interval between 900 and 1300 A.D., such as module $S$, qv in fig. 6.55. Its mediaeval original, namely, the Empire of Habsburgs (Nov-Gorod?), supercedes 1300 A.D. In particular, the part of the Scaligerian textbook describing the period between $1000-1300$ A.D., is a "sum", or a collation of two chronicles: a certain actual chronicle describing real events of $1000-1300$ A.D. (that chronicle must have been fairly scanty), and an actual chronicle describing the events of the Habsburg epoch of 1300-1600.

In general, the outline of the global chronology of Europe was created in the XVI-XVII century and described in the works of J. Scaliger and D. Petavius. It is here that the last period $S$ ends, after having travelled backwards in time due to chronological errors and spanning the phantom "ancient" duplicates - this is very important. See letters $S$ on the Scaligerian chronological map, fig. 6.55 , fig. 6.56 , fig. 6.57 and fig. 6.58. We shall reiterate that the entire Scaligerian chronological map is actually a stratified document.

Many events considered "ancient" nowadays are actually made up of certain later mediaeval events described in the derived chronicles $S_{2}, S_{3}, S_{4}$ identified as duplicates of chronicle $S_{1}$. The application of our empirico-statistical methods to the period of 16002000 A.d. has detected no phantom duplicates, which proves the chronological outline of 1600-2000 to be reliable as a whole. The "Scaligerian textbook" originated from the shorter chronicle $S_{0}$ as a result of chronological errors that we shall refer to later, as well as intentional distortions of mediaeval history. See Chrons, Chron6, Chronz.

The effect that we discovered has two possible explanations. The first is that all the parallelisms we found are sets of accidents. From this "accidental" stance, we can estimate the probability of all the coincidences that we discover. This is what we have done with the application of statistical methods. The probability turned out to infinitesimal, which allows us to put forth the hypothesis that all the recurring coincidences that we have discovered are by no means accidental.

This brings us to the second explanation we believe to deserve a closer study. The discovered disintegration of the Scaligerian textbook into a sum of four short chronicles is not accidental at all. Quite the opposite, we have come across traces of a fairly deliberate creation of artificially elongated "history", which the chronologists of the XVI-XVII century were actively involved in.

The division of the Scaligerian "history textbook" into four short chronicles gives us a preliminary answer to the two following fundamental questions:

1) what was the actual history like?
and
2) how and why did it give birth to the "Scaligerian textbook"?

Apparently, actual history, or the history described in written sources that have reached to our time, - begins from the X-XI century A.D. and on. Facts preceding the X century are fairly scarce, located between 300-1000 a.d. Virtually all epochs placed by the Scaligerian textbook before the X century a.D. are various phantom reflections of the events dating from the X-XVI century a.D. Biblical history - that is, the sum total of the events related in both the Old and the New Testament - fits into the interval between the $X$ century A.D. and XVI century A.D.

## 11. <br> AUTHENTIC HISTORY ONLY BEGINS IN XVII CENTURY A.D. History of the XI-XVI century is largely distorted. Many dates of the XI-XVI century require correction

The chronological outline, q.v. in fig. 6.55, leads to the need for "shifting" certain events of the X-XIII century forwards by approximately 330 or 360 years, since they might date from the Habsburg epoch of the XIVXVII century. Furthermore, fig. 6.55 proves that Scaligerian datings can be relied upon starting from the beginning of the XVII (seventeenth!) century A.D. only. History of the XIV-XVI century is largely distorted. The alteration of dates might not be as grave as it is in case of earlier epochs; however, the Scaligerian school introduced major distortions into the interpretation of many important events of the XIV-XVI century. We shall describe them in Chron5, Chron6 and Chron\%. Finally, the actual count of "years of the new era" starting from 1152 A.D., or, according to the erroneous mediaeval tradition reconstructed by the authors, from 1053 A.D., and not the "rounded date of 1000 A.D.", might add at least 50-150 years to the datings of books considered published in the XV-XVI century. The same applies to the lifetimes of kings, military commanders, writers, poets, painters and sculptors who lived in the XIV-XVI century. Many of them may have lived 50 years closer to our time.

## 12.

## THE RADICAL DISTINCTION OF OUR CHRONOLOGICAL CONCEPTION FROM THE VERSION OF N. A. MOROZOV

Our conception as expressed above is approximately as different from the version of N.A. Morozov as his concept had been from the Scaligerian. For example, according to N.A. Morozov, the primary Biblical events took place in the III-V century A.D., or about one thousand years later than the Scaligerian version suggests. The results of our methods place these events in the XI-XVI century A.D., which is about a millennium later than N. A. Morozov presumed.

We shall conclude by an example of how the system of three chronological shifts discovered by the


Fig. 6.60. Portrait of Emperor Maximilian Augustus Pius (1440-1519) by Albrecht Dürer. Taken from [1234], engraving 318.
author can facilitate the solution of certain historical mysteries. We shall remind the readers that the Al magest explicitly refers to the observations made at the time of Antoninus Pius, the emperor of the Holy Roman Empire. Contemporary historians consider this emperor "ancient", dating his reign to the II century A.D. At the same time, the astronomical facts contained in the Almagest explicitly refer to the XIXVI century a.d., likewise the completion dates of the Almagest, qv in Chrons. There is no contradiction. Let us turn to the chronological map in fig. 6.55. If the total shift is $1053+333=1386$, the "ancient" emperor Antoninus Pius shall emerge exactly in the XVI century, superimposed over the period of 1524-1547 A.D. We shall remind the reader that the Scaligerian dating of his reign is 138-161 A.D. ([76]).

It is very interesting that the "ancient" Antoninus Pius got superimposed precisely over the epoch of the first editions of the Almagest. The first Latin edition came out in 1537, the Greek - in 1538, the "transla-


Fig. 6.61. Another version of Dürer's engraving of Emperor maximilian Augustus Pius. Taken from [304], Volume 2, page 561. Mark the imperial bicephalous eagle over Maximilian's head.
tion" of Trebizond - in 1528, and so on, all of this during the reign of "Antoninus Pius" as stated in the Almagest. The author of the Latin edition deceived no one by inserting the name of the ruler regnant in the epoch of the observations into the text.

We have a marvellous opportunity to verify this result with yet another independent method. Since the Second Roman Empire of the alleged I-III century A.D. identifies as the Empire of the alleged X-XIII century, and the Empire of the Habsburgs, quabove, we can try and directly identify the emperor of the Habsburg (Nov-gorod?) epoch named Pius. The epoch immediately preceding the first publications of the Almagest - the early XVI century, - is associated with the famous emperor Maximilian I, 1493-1519. It must have been during his reign that the astronomical observations were carried out, provided the book was published immediately upon completion. The full name of this emperor turns out to comprise the following formula: Maximilian Kaiser Pius Augustus, $q v$ in the
engraving of A. Dürer, fig. 6.60. A slightly different version of the same print of Dürer is shown in fig. 6.61.

We see a good concurrence between various methods. Similarly, in the wake of chronological shifts as described above, the epochs of the "ancient" Alberti and the mediaeval Vitruvius coincide perfectly well.

## 13.

## THE HYPOTHESIS ABOUT THE CAUSE OF THE FALLACIOUS CHRONOLOGICAL SHIFTS INHERENT IN ANCIENT HISTORY

### 13.1. Chronological shift of 1000-1100 years as the consequence of Christ's lifetime getting misdated

The chronological shifts that we discovered could be explained by mistakes made by mediaeval chronologists of the XVI-XVII century A.D. in their dating of the mediaeval events. The first cause of mistakes is the imperfect recording of dates customary for the Middle Ages. Mediaeval chronologists made the the gavest mistake when they misdated the Nativity or the Crucifixion of Jesus Christ. They have introduced a millenarian error into their chronological scale, shifting the life of Jesus Christ from the XII century a.d. into the I century A.D. According to fig. 6.55, "the beginning of the new era" falls over 1053 A.D. However, this tradition was some 100 years off the mark. The true dating of Christ's lifetime is even closer to our time - namely, it falls over the second half of the XII century (1152-1185). That is to say, the chronologists had first misdated Christ's to the XI century instead of the XII, and then made a new mistake, the greatest one, having shifted the dates backwards by a thousand years more. This millenarian shift generated major confusion in the datings of numerous documents which counted years "since the Nativity of Jesus Christ". As a result, mediaeval events of the XII-XVII century A.D. as described in those chronicles became misdated and slid some 1100 years backwards. Just how could such a major dating error happen?

We shall formulate the hypothesis which can explain the existence of certain chronological shifts. Our idea can be encapsulated as follows.

1) Initially, dates were recorded as phrases and formulae, which were later abbreviated.
2) Initial meanings of abbreviations were subsequently forgotten.
3) Later chronologists suggested that the letters of there abbreviations really stood for numerals - after all, numerals were transcribed as letters at some point.
4) Substituting letters for digits (by standard rules), chronologists came up with erroneous "datings", fundamentally different from the originals.
5) Abbreviated formulations were plentiful, and their misinterpretation spawned a number of chronological shifts.
6) Each misinterpretation would generate a chronological shift.

The following example illustrates this idea fairy well.
> 13.2. The letter " X " had formerly denoted the name of Christ, but was eventually declared to stand for the figure of ten. The letter " 1 " formerly denoted the name "Jesus", but was eventually declared to stand for "one thousand"

One of the main chronological shifts has the value of 1053 (or 1153) years, or roughly a millennium. It could have resulted from the collision of two different date recording systems used by later chronologists.

The first method employed the abbreviated form of recording. For instance, "the III century since Christ" could be recorded as "X.III", "X" being the first letter of the Greek word XPICTOC (Christ). The letter "X" is one of the prevalent mediaeval anagrams for the name of Christ. Thus, the phrase "Christ's Ist century", when abbreviated, could read as "X.I", "Christ's IInd century" - "X.II", and so on. These abbreviations may have affected the contemporary designation of centuries. However, at some point, mediaeval chronologists suggested that the letter " X " in the beginning of a date should be interpreted as the figure of "ten". This interpretation automatically adds a thousand years to the initial date. Hence the erroneaous dating, a thousand years more ancient than the real one.

This hypothesis of ours concurs well with the known fact that mediaeval "Italians designated centuries by hundreds: trecento (or the 300's) - the XIV century, quattrocento (or the 400's) - the XV century, cinquecento (or the 500's) - the XVI century" ([242], page 25). However, these names of centuries point directly at the

XI century A,D.; making it the initial point of chronological reference, cince they ignore the consensual addition of the "extra millennium". Apparently, mediaeval Italians knew nothing of this millennium. As we are beginning to realise, the reason was very simple this "extra millennium" never existed.

Confronting with this effect of "ignored millennium", contemporary historians prefer to avoid explanations. At best, they recognize the existence of the effect, occasionally referring to the "convenience of the method". They insist that dates were easier to transcribe this way. They say, "In the XV-XVI century system of dating, hundreds and even thousands of years were often omitted" ([102], page 117). As it occurs to us, mediaeval chronologists acted in good faith transcribing tha dates as follows: 100 A.D., referring to either the year 1150 as per the consensual chronological scale (if the Nativity of Christ was misdated to 1050 A.D.), or circa 1250 (counting from the correct date of the Nativity in 1152). Somewhat later, Scaligerite chronologists declared that these "small values" stipulated the addition of a thousand years, - in certain cases, even several millenia. This was how they made mediaeval events seem "ancient".

Furthermore, the Latin letter "I" - the first letter of the word Iesus, which is the Greek spelling of the name Jesus, could have been the abbreviation of this name initially. Thus, the year 1300 , for instance, might have originally been transcribed as I.300, that is, "year 300 since Jesus" written the Greek way. This recording method conforms with the previous, because I300 $=$ year 300 of Jesus $=$ year 300 from the beginning of the XI century A.D., or the XII century, which is more correct. In this respect, we believe the next important fact to be worthy of special attention. In mediaeval documents, especially those of the XIV-XVII century, with dates written in letters, the initial symbol believed to symbolise millenia today was separated from the rest of the symbols used for tens or hundreds by dots. There is a multitude of such transcriptions - we cite a few examples below.

1) The title page of the book printed in Venice, allegedly in 1528 . The date is written as \{M.D.XXVIII.\}, with separating dots, $q v$ in fig. 6.62 .
2) Map of the world by Joachim von Watt, allegedly dating from 1534. The date is written as \{.M.D.XXXIIII.\}, with separating dots, qv in fig. 6.63 and fig. 6.64 .


Fig. 6.62. The date (the alleged year 1528) is written as "M. D. XXVIII., with separating dots. Taken from [1009], page 69.
3) The title page of the book by Johannes Drusius, allegedly printed in 1583. The date is written down as \{M.D.LXXXIII.\}, with separating dots intact, qv in fig. 6.65.
4) Publisher's sigil of Lodevic Elsevir. The date, allegedly 1597, is transcribed as \{(I).I).XCVII.\}, - with separating dots, as well as crescents facing left and right used for Latin letters " $M$ " and " $D$ ", $q v$ in fig. 6.66. This is a very interesting example, since the date is also transcribed in "Arabic" digits on the left band. The alleged date of 1597 is transcribed as I. 597 ( or I.595), fig. 6.67. Besides the dot separating the first "figure" from the remaining digits, we also see this alleged figure of "one" transcribed very recognizably as the Latin letter "I", or the first letter of the name Iesus (Jesus).
5) The alleged dating of " 1630 " is transcribed with crescents facing left and right on the title pages of printed books presented in fig. 6.68 and fig. 6.69. By the way, the title of the second book is also quite curious - Russia or Moscovia, also known as Tartaria ([35], page 55).
6) The date transcription of the alleged year 1506 on a print by Altdorfer, a German painter, $q v$ in fig. 6.70 , is of the utmost interest. A drawn copy of this date can be seen in fig. 6.71. The first figure of "one" is separated from the remaining digits by a dot, and clearly written as the Latin letter "I", or the first let-


Fig. 6.63. The date (the alleged year 1534) is written as ". M. D. XXXIIII.", with separating dots. Taken from [1009], page 71.


Fig. 6.64. Fragment saying ". M. D. XXXIIII." Taken from [1009], page 71.
ter of the name Iesus (Jesus). Apart from that, the alleged figure of 5 is transcribed in such a menner that it resembles the figure of 7 . Could the dating in question really stand for 1706 and not 1506 ? Just how reliable are the datings of the engravings and paintings ascribed to Altdorfer, who is presumed to have lived in the XVI century? Could he have lived later?
7) The date of 1524 on a print of Albrecht Dürer, qv in figs. 6.72 and 6.73 \{.i.524.\}, is transcribed in a truly striking manner. The first letter is explicitly separated from the remaining digit symbols by a dot; apart from that,we can very clearly see it transcribed as the Latin letter "i" with a dot! In other words, we are most likely to be looking at the first letter of the name iesus. The letter " $i$ " is also surrounded by dots from both sides. Another similar example of date transcription where the Latin letter " $i$ " is used in lieu of digit 1 commonly

## I. DRVSII

## EBRAICARVM

QV \&STIONVM, SIVE, Quxftionum ac Refponfionum libri duo, videlicet fecundus ac tertius.


In Academia Lugdunenfi.

## M. D. LXXXIII,

Fig. 6.65. The date (the alleged year 1583 ) written as "M. D. LXXXIII.", with separating dots. Taken from [35], page 29.


Fig. 6.66. The date (the alleged year 1597) is written as "(I), D. XCVII." - with divisive dots as well as left- and right-sided crescents for the transcription of the Roman letters M and D. On the left band on sees the date written with Arabic numerals. The alleged date (1597) is transcribed as I. 597 (or I. 595). The "figure of one" is separated from the other figures with a dot and written as the Roman letter I, or the first letter of the name Jesus (Iesus). Taken from [35], page 30.


Fig. 6.67. Fragment with the date I. 597. Taken from [35], page 30.
accepted nowadays and believed to stand for the alleged extra millennium, is presented in fig. 6.73a and fig. 6.73 b . This is an ancient engraving portraying Berthold Schwartz, the inventor of gunpowder. The photograph of the print was kindly provided by A. M. Isakov.
8) Let us reiterate: in archaic transcriptions of such dates as " 1520 ", the first digit 1 is apparently derived from letter "I" - the first letter of the name Iesus (Jesus) - initially written at the beginning of a date. In other words, datings used to look as follows: "The year 520 since Jesus", or, in short, I520. The original meaning was eventually forgotten, or cast into oblivion deliberately, and the letter " I " transformed into a reference to the extraneous millennium. Eventually, such formulae as "year 520 since Jesus" transformed into modern datings, and are currently interpreted as "year one thousand five hundred twenty", hence the millenarian chronological shift and the erroneous dating of the Nativity that we're accustomed to nowadays. However, we can still trace this former meaning of the digit 1.
N. S. Kellin reports having seen an ecumenical, poly-confessional church, with the stars and the stripes on the spire, in the campus of the Harvard University, Boston, USA. A memorial plaque on the church reads:

This stone from the fabric of
St. Savior's Church. Southwark. London now the Cathedral Church of that Diocese commemorates the Baptism of John Harvard there on November 6, J607.
Year 1607 is recorded as J607. This could only stand for Jesus-607; in other words, "year 607 since Jesus", or a direct reference to the Nativity of Jesus Christ in the XI century (let us recollect that the correct dating of the Nativity is 1152 A.D.). Note that the use of the letter "J" - the first letter of the name Jesus (instead of "I"), - is yet another piece of evidence to support our hypothesis.
N. S. Kellin discovered another example in the Closter Castle, New York, USA - a mediaeval castle purchased by Rockefeller in Roussillon, France, and transported to the USA, along with various collections from different European countries; in particular, Evangelical, Biblical and hagiographical scenes painted on glass circles of 20-25 centimetres in diameter, of German origin. The condition of those miniatures is excellent. One work is dated as J532. Historians now tend to de-


Fig. 6.68. The date 1630 on the title page of the book titled The Republic of Holland is written with crescents facing left and right. Taken from [35], page 49.
cipher that date as 1532 A.D., while we see another recording J-532, or "the year 532 since Jesus".

Thus, the mediaeval tradition of recording threedigit dates from the Nativity of Jesus Christ in the form of $J^{* * *}$ explicitly points at the name Jesus, or Jesus Christ, automatically indicating the date of his Nativity as the alleged XI century. However, the tradition makes an error here, since the correct dating of the Nativity falls over 1152, a century later.
9) A vivid example of the mediaeval tradition of transcribing dates as $J^{* * *}$ is shown in fig. 6.74 -an engraving by Georg Pencz, a XVI century painter. He records the date 1548 as J548, fig. 6.75.

There was yet another method of recording dates: words "since the Nativity of Jesus Christ" written without abbreviations - i.e. "III century since the Nativity of Christ", not "X.III century". Over the course of time, the knowledge of the letters " $X$ " and " $I$ " in the beginning of such formulae being the first letters of the names XPICTOC (Christ) and Iesus (Jesus) was lost. Instead, chronologists assigned arbitrary numeric val-


Fig. 6.69. The date 1630 on the title page of the book suggestively enough titled Russia or Moscovia, also known as Tartaria is written with left- and right-sided crescents. Taken from [35], page 55.
ues to those letters. Let us recall that letters were formerly used to denote digits. Thus, chronologists declared "X" should stand for "ten", and "I" for "one". As a result, phrases like "X.III" or "I.300" became perceived as "the thirteenth century" or "one thousand three hundred years".

According to our reconstruction, Jesus Christ lived in the XII century a.D., and the chronologists have placed its phantom reflection in Scaligerian history of the XI century, which became the biography of Pope Gregory Hildebrand, or Ablaze With Gold. Later, historians assigned to him "ordinal number VII", so nowadays we know him as Pope Gregory "VII", qv in fig. 6.76. It is noteworthy that a dove is depicted to the right of the head of Gregory "VII". Let us recall that the dove is a famous Evangelical image of the Holy Ghost. Therefore, the portrait of Gregory "VII" bears an explicit reference to the Gospel, which is perfectly natural, as we are beginnig to realise.
"Hildebrand" (Ablaze With Gold?) is considered to have been born in 1020 A.D. and been Pope from 1073


Fig. 6.70. The alleged date 1506 on an engraving by the German artist Altdorfer. The first "figure of one" is separated with a dot and visibly written as the Roman letter I, or the first letter of the name Jesus (Iesus). The alleged figure of 5 is written as a figure of 7 . Could the year have been 1706 and not 1506? Could Altdorfer have lived later than the XVI century? Taken from [1203], No. 2.


Fig. 6.71. Our drawn copy of the date from Altdorfer's engraving ([1203], No. 2).



Fig. 6.73a. An old engraving portraying Berthold Schwarz, the inventor of gunpowder. The date on the engraving is transcribed with the Roman letter " i " instead of the figure of 1 used today. Taken from [1121:1], an inset following the title page of the book.

Fig. 6.73b. A close-in of the date from the engraving portraying Berthold Schwarz. We can clearly see the Roman " $i$ " instead of 1 . Taken from [1121:1], an inset following the title page of the book.



Fig. 6.74. An engraving by Georg Pencz, a XVI century painter. The alleged date 1548 on this engraving is transcribed as J548, with the first letter of the name Jesus used in lieu of the first "digit". Taken from [714], page 30.

Fig. 6.75. Fragment with the date from the engraving by Pencz ([714], page 30). The drawn copy was made by the authors.


Fig. 6.76. Ancient miniature portraying "Pope Gregory VII Hildebrand", whose name translates as "ablaze with gold". Taken from [492], Volume 1, page 59.


Fig. 6.77. A rather late and most probably arbitrary portrait of Pope "Gregory VII" or "Hildebrand". Taken from [544], Volume 5, page 633, ill. 110.


Fig. 6.78. Another very late and thus apparently quite arbitrary portrait of Pope "Gregory VII", or "Hildebrand". From a XVIII century Latin book titled The Portraits of the Holy Pontiffs. Taken from [578], Volume 1, page 356, ill. 13.
till 1085 ([196]). His portraits, most probably of a later origin, are reproduced in fig. 6.77 and fig. 6.78. Let us reiterate - the Nativity falls over 1152 , qv in our book entitled "King of the Slavs". However, in some documents it may have become misdated by some 100 years backwards, ascribing the event to the middle or even the beginning of the XI century. This was followed by yet another chronological shift backwards of roughly 1050 or 1000 years, manifest in certain documents that used the detailed manner of recording dates, "since the Nativity of Christ the III century", instead of the abbreviation "X.III century". In other words, the shift of 1050 or 1000 years might reflect the difference between the detailed and abbreviated method of recording dates. The chronological shift generated by this mistake must have constituted about 1000 years. This error is clearly visible in Scaligerian chronology! What we see is one of the primary shifts inherent therein, qv on the global chronological map above.

We shall reiterate: such datings as "the III century since Christ", or the III century from the middle of the XI century A.D., could have been recorded as both "III century" and "X.III century". This is another possible explanation of misinterpreted datings and millenarian chronological shifts. The resulting system of shifts amounts to 1150 years (centenarian + millenarian).

### 13.3. Until the XVIII century, the Roman letters "I" or "J", or the first letters of the name Jesus, were still used in several European regions to denote "one" in recorded dates

Above we formulated the idea that old documents used to refer to the name of XPIETOE (Christ) by the first letter $X$ in the recording of dates, which was later declared to stand for the figure of ten. In a similar way, the letter $I$ or $J$ used to refer to the name of Jesus (Iesus), but was later declared to denote one thousand. The result: a millenarian chronological shift that cast many events of the XI-XVII century backwards in time.

We shall now present new information concerning this subject. Professor, Academician (IAELPS), Merited Employee of Oil and Gas Industry of Russian Federation, M. H. Musin was kind enough to draw our attention to a very rare book from his own private library - the 1937 edition of Annales de la Société Royale d'Archéologie de Bruxelles ([1012]) containing
a very interesting work by Chanoine F. Crooy Les orfèvres de Bois-le-Duc et leurs poinçons ([1012], pages 5-41). The book analyses ancient brass plates with the names of XVI-XVIII century Belgian goldsmiths of Bois-le-Duc etched on them, and presents examples of their sigils. We should stress that brass plates were used as official records for verifying the authenticity of each goldsmith's sigil. Therefore, these plates are of special interest to us, as they reproduce the style and form of the official documents from the territory of contemporary Belgium of the XVI-XVIII century.

The book [1012] provides photographs of all those brass plates with the names of the goldsmiths arranged in a column, with the current date and the specimen sigil of every craftsman etched right next to his name. It is the way the dates were transcribed on these plates that we consider extremely important today.

Names of the first 33 craftsmen aren't accompanied by any datings whatsoever. The first date appears in the bottom right corner of the plate in fig. 6.79. Historians tell us that the dating in question stands for 1642 A.D., qv in fig. 6.80 . However, we see the Roman letter "J", that is, the first letter of the name of Jesus used instead of the customary figure of one, with perfect clarity. Thus, this date most probably stands for "year 642 since Jesus ". But in this case, counting 642 years back from 1642 , we shall come up with 1000 A.D. as the approximate date of the Nativity. This differs from the correct dating of the Nativity ( 1152 A.D.) by 150 years.

In fig. 6.80, fig. 6.81, fig. 6.82, fig. 6.83, fig. 6.84, fig. 6.85 , fig. 6.86 , fig. 6.87 , fig. 6.88 , fig. 6.89 , fig. 6.90 , fig. 6.91 , fig. 6.92 , fig. 6.93 , fig. 6.94 and fig. 6.95 , we list all dates in the order they appear on the Belgian plaques. Namely, J642, i607, i607, j607, i.608, i615, i618, I618, i620, j620, j620, j624, i628, j63i, j63j, i635, i635, j637, j637, j64i, j642, J643, J647, J644, J65J, J65J, J65J, j652, J654, J654, j658, j659, I662, J662, j663, j665, j665, j666, j666, j66, j668, j670, j671, i672, i672, J674, j676, J676. J649, J677, J678, j679, 1679, j684, j685, j685, j686, j690, J692, J692, J693, J693 or J695, J696, J697, j703, J706, J706, J708, J708, J709, J709, j7j0, j7jj, J7JJ, J7J2, i7j2, j7i2, j725, j726, j734, i735, i735, i735, j738, i742, followed by a very curious transcription - jJ99. Most likely, the dating in question can be identified as 1744, although the figure of one is written as $j$, seven as J, and four as the modern "Arabic" nine. The subsequent dates are, $1745, \mathrm{i} 752$, $i($ or j$) 7-53$, J754, j 757 ,


Fig. 6.79. A copper plaque with the names and sigils of Belgian goldsmiths of the XVI-XVIII century. Taken from [1012], the appendices at the end of the book.


Fig. 6.80. The very first date, namely, J642, that we encounter on the consecutive Belgian plaques with the names of the XVI-XVIII century goldsmiths. The "figure of one" is written as the Roman letter J here - the first letter of the name Jesus. Taken from [1012], Appendices, Pl. I/2.


Fig. 6.81. XVII century dates on Belgian copper plaques. The alleged figure of 1 is written as the Roman letter " i " - see the two dates on top transcribed as i607, and the two dates in the bottom transcribed as 1608 and $\mathbf{i 6 1 5}$; it is also transcribed as the Roman letter " $j$ ", $q v$ in case of the date in the centre - j607. Taken from [1012], Appendices, Pl. I/3.


Fig. 6.82. XVII century dates on Belgian copper plaques. The dates are transcribed in the following manner: i618, i620, j620, j620, j624, i628, j63i, j63j, i635, i635, j637, j637, j64i and j642. Taken from [1012], Appendices, Pl. I/4.


Fig. 6.83. XVII century dates on Belgian copper plaques. The dates are transcribed as follows: J643, J647, J644, J65J, J65J, J65J, j652, J654, J654, j658, j659, I662 and J662. Taken from [1012], Appendices, Pl. II/1.


Fig. 6.84. XVII century dates on Belgian copper plaques. The dates are transcribed as follows: $j 663$, j665, j665, j666, j666, j666, j668, j670, j671, i672, i672, J674, j676 and J676. Taken from [1012], Appendices, Pl. II/2.


Fig, 6.85. XVII century dates on Belgian copper plaques. The dates are transcribed as follows: J649, J677, J678, j679 and 1679. Mark the fact that this is the first instance where we encounter the figure of one at the beginning of a date, in the modern fashion. The dates to follow are: $\mathrm{j} 684, \mathrm{j} 685, \mathrm{j} 685, \mathrm{j} 686, \mathrm{j} 690$, J692 and J692. Taken from [1012], Appendices, Pl. II/3.


Fig. 6.86. XVII and early XVIII century dates on Belgian copper plaques. The dates are transcribed as follows: J693, J693 or J695, J696, J697, j703, J706, J706, J708, J708, J709 and J709. Taken from [1012], Appendices, Pl. II/4.


Fig. 6.87. XVIII century dates on Belgian copper plaques. The dates are transcribed as follows: j 7 j 0 , j7jij, J7JJ, J7J2, i7j2, j7i2, 7725 and j726. Taken from [1012], Appendices, Pl. III/1.

Fig. 6.88. XVIII century dates on Belgian copper plaques. The dates are transcribed as follows: $\mathrm{j} 734, \mathrm{i} 735, \mathrm{i} 735, \mathrm{i} 735, \mathrm{j} 738$ and i742. As a matter of fact, the first "digit" is transcribed as the Greek letter $\lambda$ with a dot above. It is clearly visible that the date transcription had not yet been uniform by mid-XVIII century. Further one sees another date transcribed in a peculiar manner - jJ99. It most probably refers to 1744; however, the figure of one is transcribed as " j ", the figure of seven as " J ", and the figure of four resembles the modern Arabic 9. One also sees the following dates: 1745 transcribed as " $j$ " (or the Greek $\lambda$ ), 7 (or handwritten Slavic $G(\mathcal{J})$ ) 45, followed by i752. Taken from [1012], Appendices, Pl. III/2.


Fig. 6.89. A close-in of the date 1744 transcribed as jJ99, unusually enough by modern standards.

Taken from [1012], Appendices, Pl. III/2.


Fig. 6.90. XVIII century dates on Belgian copper plaques. The dates are transcribed as follows: i (or j) 7-53, J754, j757, J758, J758, J7-59, J7-59, j760, i (or j) 762 and i (or Greek $\lambda$ ) 763. Taken from [1012], Appendices, Pl. III/3.


Fig. 6.91. XVIII century dates on Belgian copper plaques. The dates are transcribed as follows: 1764 (the first digit is written in the modern manner), $j 764, j 764, j 768, j 768$ and j768. Taken from [1012], Appendices, Pl. III/4.

Fig. 6.92. Late XVIII century dates
on Belgian copper plaques. The dates are transcribed as follows: J78J, J78J, i783 and j785. Taken from
[1012], Appendices, Pl. IV/2.



Fig. 6.93. Late XVIII century dates on Belgian copper plaques. The dates are transcribed as follows: j789, 1798, j790, j79j, J79J and J793. Taken from [1012], Appendices, Pl. IV/3.


Fig. 6.94. Late XVIII century dates on Belgian copper plaques. The dates are transcribed as follows: J793, j (looking like the Roman S) 794, J795, J796, J798, 1799. Note that the last date is transcribed with the Arabic digit 1. See the close-in on the next illustration. Taken from [1012], Appendices, Pl. IV/4.


Fig. 6.95. A close-in of the last date from the Belgian tables. The first digit is already transcribed as the Arabic numeral that we are accustomed to nowadays. Taken from [1012], Appendices, Pl. IV/4.

J758, J758, J7-59, J7-59, j760, i(or j)762, i(or Greek $\lambda) 763,1764$ (here "one" is written in its "Arabic form" accepted nowadays), j764, j764, j768, j768, j768, J78J, J78J, i783, j785, j789, 1798, j790, j79j, J79J, J793, J793, j(as Latin S)794, J795, J796, J798, 1799. We shall note an "Arabic figure of one" used in the last transcription.

It is absolutely clear that in the overwhelming majority of cases the figure of one was written as either the Latin "I", or the Latin " $J$ ". This practice continued up to the end of the XVIII century; this is unambiguously implied in fig. 6.94 , where the penultimate date on the plate is still transcribed as j798 - that is, 1798 in the contemporary sense. Certain official documents in Belgium may have transcribed the figure of one as the Roman " $i$ " or " $j$ " even towards the end of the XIX century. However, the register of goldsmiths' names we have come across suddenly breaks off on year 1799 . We know nothing of what was happening thereafter.

It is extremely peculiar that as of the middle of the XVIII century, an especially persistent inconsistency in the recording of dates set on in the Belgian plates. See fig. 6.89, for instance. Could it mean that someone has deliberately edited the "earlier" and more regular, or "steadier", recordings of dates on the plaques? In other words, could the plaques have got antedated with the aid of previously rubbed soft brass after the middle of the XVIII century, when the recording of figures had more or less settled, even though the transcriptions still differed from the ones that we're accustomed to?

Finally, in the last dating, 1799, we can see the figure of one written in the "Arabic style" as used to date, qv in fig. 6.95.

Let us return to the very first date that we find on the Belgian plaques, qv in fig. 6.79 and fig. 6.80 -allegedly standing for 1642 A.D. There is something strange about it. The point is, in all the other cases the dates on the plaques form a non-decreasing sequence, while the very first date, that of 1642 , is obviously in the wrong place since it is followed by substantially earlier dates - namely, i607, j608, i615, and so on. How come year 1642 is about 50 years ahead? One might attribute it to confusion or a random dating mistake - someone may have confused the name of a goldsmith, or even several goldsmiths, shifting the date back or forth by 50 years. This may have happened, although in an official state document, such as a currency act related to operation with precious
metals, for instance, it should certainly look somewhat peculiar. Licensing documentation of that kind is assumed to have been kept under a vigilant watch in the XVI-XVIII century, as is the case nowadays. Therefore, we believe the following idea to be of relevance.

We must have stumbled upon surviving evidence of the fact that the sign of 6 formerly stood for the figure of five, whereas the sign of 5 , on the contrary, meant the figure of six. Thus, the figures five and six were swapped at some point. We have already discovered this fact and given a detailed description thereof in our book [RAR]: 4, pages 255-266. See also Chron4, Chapter 13:5. In other words, the date transcribed as 1642 in earlier documents might have stood for "The year five hundred and fourty-two since Jesus" and could by no means be interpreted as "one thousand six hundred and forty-two", as it is believed nowadays. If the dating transcribed as J642 is interpreted in this manner, the mystery is solved and the pieces begin to fit. The first date on the Belgian plaques is indeed 1542 recorded as J642, with the figure of 6 interpreted as the figure of five. Our hypothesis is in good conformity with the opinion of contemporary Belgium historians that the oldest names found on the brass plaques date back to 1538 , although this date, as far as the photographs reproduced in [1012] show, is not engraved on any of the plaques ([1012], page 9). The dating of "five hundred and forty-two" appears to have been engraved instead, qv in fig. 6.80, followed shortly thereafter by the dates iJ607, $\mathrm{j} 608, \mathrm{i} 615$, and so on. The correct chronological order is restored.

We should conclude by stating the following. The old tradition of recording dates with the first letter "i" or ";" referring to "years since Jesus" survived until the end of the XVIII century in many areas of the Western Europe. Moreover, the count of years began from the XI or the XII century A.D. Later on, when historical literature was being edited in the XVII-XVIII century, those old dates were obliterated and replaced by those customary to our age, with the figure of 1 used instead of the letters "I" and "J". However, in certain scarce documents from European archives, such as the list of Belgian goldsmiths, the old dates have fortunately survived. Those rare documents convey to us the atmosphere of the XVI-XVII century, which turns out to be significantly different from what the Scaligerite historians display to us.

### 13.4. How the chronological shift of 330 or 360 years could have occured

A similar mechanism may have inchoated the chronological shift of approximately 333 years or 360 years. Chronologists might have recorded dates pertaining to the end of the XV and the beginning of the XVI century in relative chronology, counting years from the moment of a given ruler's accession to the throne - the emperor Caesar Maximilian I, 14931519, for instance. We shall not elaborate upon the identity of the ruler known as Great Caesar, or Maximilian Kaiser the First to mediaeval chronologists. See Chrony for more details on this subject. The only thing important to us is that the chronologists of the Middle Ages may have used an abbreviated recording of the ruler's name, employing the date of his ascention to the throne for chronological reference, such as MCL, or Maxim Caesar the HeLlenic. In that case, a date such as "Maximilian Caesar's third year" would appear transcribed as MCL.III. After a while, the original meaning of the letters MCL was forgotten. The Scaligerite chronologists proposed to treat them as figures. Substituting figures for letters, they must have arrived at the "date" of 1153 . This fictitious date differs from the actual (1496), by 343 years: 1496 $-1153=343$. Thus, chronologists have automatically shifted the documents that used abbreviations similar to MCL(...) for recording dates by approximately 330 or 360 years backwards.

### 13.5. What Roman letters M, D, C as used in Roman dates stood for originally, in the Middle Ages

### 13.5.1. General idea

Many "Roman dates" found in old texts, epitaphs, etc., considered mediaeval or even "ancient" nowadays, begin with Latin letters $D, M, C$ and so on. We believe all these letters to have originally been abbreviations of various words, of their first letters. For example,
$D=$ Domini, or the Lord, Divine, etc.; alternatively, $D=$ Dom in the meaning of "regnant house", dynasty;
$M=$ Magnus, or great;
$C=$ Caesar, or caesar, kaiser, king, etc.
Those were different methods of recording medi-
aeval dates in relative chronology. Our ancestors may have counted the years from the beginning of the XI century, or the date of the Nativity, or some great mediaeval king of the XV century, for instance. But then the original meaning of abbreviations $D, M$ and $C$ was forgotten. The Scaligerite chronologists attached certain numeric meanings to those letters and declared that the Latin letter M had always meant "one thousand years", letter $D$ - "five hundred years", letter $C$ - "one hundred years", and so on. As a result, authentic mediaeval datings that had originally been precise to a greater or lesser extent, transformed into arbitrary references to phantom antediluvian epochs.

Nowadays, the Latin method of recording dates, Anno Domini (...) would normally be interpreted as "Year from the Nativity of our Lord", the word "Dominus" ("Domini") is translated exclusively as "The Lord" or "The Divine One". The date of the Nativity of Jesus Christ is presumed to have been meant in every case. However, the word Domini could have possibly stood for "The House" and referred to the regnant dynasty. The word Dom (House) did have that meaning in Russia. Some of the largest European cathedrals are still referred to as "Dom". Therefore, a date accompanied by the formula Anno Domini might have stood for "The Nth year of the Reigning House". That is, the count of years could have started from the accession of a Reigning House. This context causes an apparent ambiguity in the dating of inscriptions of this kind. The point is, different mediaeval chroniclers could refer to different regal dynasties. The major reigning Houses ascended to their thrones in the XIV century, as well as the XV and the XVI century. Converting dates of this kind into modern chronology might lead us to any odd results.

To sum it up, we shall list a few possible readings of the Latin recordings of dates.

Dates of the Anno D.(...), or Anno Domini (...), or Anno D. M. type might read as The Year of (Regnant) House (such-and-such). We must note that the word Anno, or year, was implied when omitted in writing.

Dates of the M.D.(...) type might be interpreted as "the year of the Great House (such-and-such)". The Latin $M$ here is the abbreviation of Magnus, or Great.

Dates of the M. C.(...) type might mean "the year of the Great King (such-and-such)", where $M$ stand for Magnus, and $C$ for Caesar.

Dates of the C. M.(...) type might also mean "the
year of The Great King (such-and-such)", as C may stand for caesar, king (czar), and $M$ for Magnus, or "The Great".

Dates beginning with $D$. could mean "the year of (reigning) House (such-and-such)".

By the way, the Latin word Domini might have formerly had another meaning apart from "Divine" and "The Lord", for instance, "The Great House". For example, a huge house may be referred to as Domina in Russian. This word is not considered very literary nowadays, yet it sounds very similar to the Latin "Domini".

Finally, the letter $M$ might as well have been interpreted as Maria, or Our Lady. Let us recall that in Western Europe, Virgin Mary was in some sense even more popular than Christ. Therefore, the usage of her name in Christian chronology looks perfectly natural.

### 13.5.2. Example: the date on the tomb of Empress Gisela

The next example makes it immediately obvious what various decodings of the same "Latin Date" might lead to. The famous Speyer Cathedral, also known as the Speyer Dom, houses several sepulchres of the emperors that reigned over the Holy Roman Empire in the alleged X-XIII century A.D. Conrad II, his wife Gisela, Henry III, Henry IV, Rudolf Habsburg (of Nov-Gorod?) and a host of other rulers are believed to be buried here ([1408], page 16). The fate of those sepulchres was dismal. Historians report that "in 1689 the tombs were completely destroyed" ([1408], page 17). Over and over we come across a striking fact - mass destruction and annihilation of old imperial graves appears to have afflicted Russia as well as Western Europe in the XVII century, qv in Chron5.

Remains of a few old tombs ascribed to the German rulers listed above were unearthed recently, during the excavations on the territory of the Speyer Dom, and later moved to the Dom and buried in a special crypt ([1408]). Unfortunately, one cannot see the old sarcophagi now, as they have all been replaced with contemporary concrete replicas - A. T. Fomenko and T. N. Fomenko witnessed that during their visit of 1998. We are familiar with this "replica practice" in what concerns the regal tombs in the Arkhangelskiy Cathedral in Moscow, where the old sarcophagi of Russian Czars and Grand Dukes were covered completely with massive replicas of the Romanovian epoch, effectively rendering the original epitaphs illegible, qv in Chron4.

In the museum of the Speyer Dom (Cathedral), which is located in the basement of the cathedral, one can only see a tiny remainder of the metallic, apparently leaden, coating on the coffin of Empress Gisela. She is thought to have been buried in 1043 ([1408], page 15). A fragment of the leaden sarcophagus is decorated with some Latin lettering, which appears to contain a date of some sort. We have managed to read the inscription, although its integrity leaves much to be desired. It begins with:

## ANNO DOM INCARN D CCCC XCVIIII-IOWNOV...

An explanatory plaque from the museum interprets the date as 999 A.D., llth of November. However, this date can be interpreted in an altogether different manner. Namely,

Year (ANNO) of the House (dynasty, DOM), from the Accession (INCARN), of the House (D)
four hundred (CCCC) and ninety-nine (XCVIIII).
The above reads as "The year four hundred and ninetynine from the Accession of the House".

Which dynasty exactly could be referred to in this manner, and where is the initial reference point that we should count these 499 years from? Answers can be most diverse. For example, counting from the Scaligerian date corresponding to the accession of the dynasty regnant in the Holy Roman Empire of the alleged X century, Empress Gisela - and her husband Conrad II as well - were buried in the $X V$ or even the XVI century A.D. Counting from the Nativity of Christ in the alleged XI century, we come up with the XVI century again. Let us recall that the Holy Roman Empire of the alleged X-XIII century is a partial reflection of the Habsburg dynasty regnant in the XIVXVI century. This circumstance might explain the relatively recent dating yielded by our interpretation.

We do not insist this to be the only way of deciphering the lettering on the tomb of the "ancient" Empress Gisela. Nonetheless, the very possibility that the inscription can be interpreted in the manner that concurs with our reconstruction ideally is hardly a mere coincidence.

### 13.5.3. Another example: the date on the headstone of Emperor Rudolf Habsburg

The same Speyer Dom houses an old gravestone from the tomb of King Rudolf Habsburg (Nov-Gorod?), who died in the alleged year 1291 ([1408],


Fig. 6.96. The gravestone of king Rudolf Habsburg who had allegedly died in 1291 . See [1408], page 17 , or [1407], page 13 .

#  IN YEAR <br> MONTH OF JULY ON DAY 

DFIVSIOH
PLORKSRVVDOLFVSDGITHBGSBVRG
RUDOLFUS DE HABSBURG
ROSRARORVSD:REX:ADROREGGY:SVI:XVHI
ROMAN
KING YEAR OF REIGN

Fig. 6.97 Our drawn copy of the inscription on Rudolf Habsburg's gravestone.
page 16). See fig. 6.96. Our drawn copy of the lettering can be seen in fig. 6.97, alongside the translation of certain words. We can see the date recorded as

## ANNO.D.N.I.MCC.X.C.I.

Scaligerite historians suggest to interpret this date as 1291 , where $\mathrm{M}=$ one thousand, $\mathrm{CC}=$ two hundred, $\mathrm{XCI}=91$, while the combination D.N.I. is today considered to be the abbreviation of DOMINI. At the same time, the epitaph can be read as follows:

> Year (Anno) of the House (Domini) Great (M, i.e.
> Magnus) Two Hundred (CC) Ninety-One (X.C.I.).

That is, "Year two hundred and ninety-one from the ascension of the Great House". The question is as follows: what date does this inscription correspond to, according to the contemporary calendar? The answer depends on the identity of the Great House in question; should the epitaph refer to the Habsburgs (NovGorod?) regnant in the late XIII - early XVI century, the date shall fall over the $X V$ or even the XVI century. If some other mediaeval Reigning House was implied, the date shall be somewhat different.

Let us take another look at the tombstone of Rudolf Habsburg, q.v. in fig. 6.96 and fig. 6.97. Take notice of the way the name of Habsburg is written the carved stone reads either Habasburg or Nabasburg. The first letter looks a lot like $N$. We have earlier come up with the idea that the name of Habsburg was derived from the name Novy Gorod (New City), which is confirmed by the inscription on Rudolf's gravestone, since Burg is "city", and Nabas obviously translates as "new". The old gravestone is probably con-
veying to us this origin of the name of the Habsburgs. Unfortunately, the letter $N$ or $H$ is badly damaged all the other letters have survived except for the one that interests us the most. We shall recall that the Latin $H$ and the Russian $H(N)$ are identical.

In his Universal History, Oscar Jaeger reproduces a drawn copy of this famous inscription ([304], Volume 2, page 396). The dubious letter resembles the hand-written Latin $N$, and is by all means similar to several other letters $N$ from the same inscription whose origins are distinctly Roman. We see them in the word Anno, for instance, qv in figs. 6.96 and 6.97. The contemporary author of the drawn copy from Jaeger's book did actually lengthen the "tail" of the letter $N$ somewhat - most probably to be able to declare that it identifies as the Roam letter $H$, if desired.

By the way, Oscar Jaeger, a historian, reports that some fragments of Rudolf Habsburg's tombstone have been "renovated, possibly recently, when the entire memorial was restored by the order of Emperor Franz-Joseph" ([304], Volume 2, page 396). Thus, we find ourselves confronted by the phenomenon that we're already accustomed to. Something has been done to the memorial. The exact nature of these changes shall remain nebulous. However, we will demonstrate what such restorations occasionally led to on the example of the famous Cologne sarcophagus of the Magi in Chron6. We shall see that many of the original images were strangely "lost", and others tendentiously altered. What if a similar fate befell the gravestone of Rudolf?

### 13.5.4. As recently as in the XVIII century, there was no unified transcription system for mediaeval dates

Let us return to the date on the gravestone of Rudolf Habsburg (Nov-Gorod?). Note the shape of letters in the inscription. The Latin letter $M$ resemble the Greek letter $\Omega$. There are some small circles over the $\Omega$ and the letter $C$ right next to it. There is no circle over the next $C$, or the letter $X$. The circle does re-appear over the next letter $C$. These marks are absolutely certain to contain some information, which might fundamentally change the meaning of the abbreviation.

This example illustrates the chaos that reigned in mediaeval timekeeping. There was no common, unified date transcription system. Until the XVIII century, the same date could be transcribed in a variety of ways.


Fig. 6.98. An inscription on a column standing in the middle of the German city of Bonn. The date (1777) is transcribed in a manner that we find rather peculiar nowadays. One sees that the unification of dates had not been achieved completely by the XVIII century. The photograph was taken by the author of the book in 1998.


Fig. 6.99. Fragment with a date on an old column in Bonn.

Different styles of abbreviation, notations, circles, lines and the like were used widely. It was only after the passage of much time that a more or less unified system was worked out.

Let us cite a very representative example. In the central marketplace of the German city of Bonn, next to the city hall, one sees an old stone column. The inscription on the plaque attached thereto (fig. 6.98), contains a date: 1777, - qv in fig. 6.99. However, the date is recorded in a curious manner:

## (I)I) (CLXXVII.

It is easy to work out that the date in question is actually MDCCLXXVII, or 1777. However, the letter $M$ is written as ( $D$, and the letter $D$ as $I$. In other words, $M$ and $D$ were transcribed with the aid of cres-
cents facing left and right, which makes it clear that even by the end of the XVIII century no unification of recording "Roman dates" was attained yet. True, some of the more or less common rules were indeed introduced in the XVIII century, but the traces of previous "chronicle chaos" are still evident.

In this particular case there is no confusion about the reading of the date. But the picture changes drastically when we go backwards by a hundred, two hundred, or even three hundred years. As we could see, the general outlook complexifies in such cases, and various interpretations of the same old dating may arise.

### 13.5.5. Some datings contained in printed books and manuscripts of the XV-XVII century will apparently have to be moved forwards in time by at least fifty more years

We will have to revise some of the alleged datings of certain printed books published in Europe in the XV-XVII century, as well as manuscripts, paintings and drawings related to that time. Two systems were used for date transcription - Arabic and Roman figures. Thus, if a book, a manuscript, or a painting should bear the date of 1552 written in Arabic figures, it may not necessarily mean 1552 in the modern sense, $2000-448$. We have already found out that the figure of 1 used to be written as the Latin capital $I$, and sometimes even separated from the rest of the characters by a dot, as in I.552. According to our reconstruction, the letter I was initially the abbreviation of the name Iesus (Jesus). Therefore, the date of I. 552 would mean "the year 552 of Jesus", or "the year 552 from the Nativity of Jesus Christ". But, as it follows from dynastic parallelisms mentioned above, the Nativity was dated around 1053 A.D. in Scaligerian chronology, qv in fig. 6.23 and fig. 6.24, according to the erroneous mediaeval tradition. The Nativity was therefore dated to roughly the same period as the famous supernova explosion of the alleged year 1054 A.D. This explosion must have become reflected in the Gospels as the Star of Bethlehem. The chronologists made a centenarian mistake here - the supernova exploded in the middle of the XII century, and the Nativity can be dated to 1152 , qv in our book entitled "King of the Slavs". Now counting 552 years upwards from the phantom year of 1053 , we arrive at 1605 , and certainly not 1552 . Therefore, although the
book refers to " 1552 ", it could be printed in 1605 , or 53 years later. If the chroniclers had counted the datings from the correct date of the Nativity in 1152, the shift shall equal some 150 years. Thus, reconstructing the correct chronology of printed books, we can see that in some cases their dates must be shifted forwards by approximately another half a century, or 150 years. As we begin to understand now, by introducing their own interpretation of such date transcription as I.552, Scaligerite historians of the XVIIXVIII century have automatically aged the printed books of the XVI-XVIII century by 50 or 150 years.

Another example: the first page of the Geographia by Prolemy printed by Sebastian Münster in the alleged year 1540 ([1353]), features the year of publication transcribed as M.D.XL. Today, $M$ is accepted to stand for a millennium, $D$ for five hundred years, and so forth. Substitution of these values does actually yield 1540 , but the first letters separated by dots could have been the abbreviations of words related to the era of Jesus Christ. The letter $M$, for instance, could have stood for Megas $=$ the greatest. Two letters, alpha and omega, were very often written on the icons of Jesus Christ. Omega or Megas meant the Great, or the Greatest, possibly referring to God - Jesus Christ. If so, then the date can be interpreted as the year 540 since Christ. Counting 540 years up from the phantom year of 1053 A.D. again, we come up with the date of 1593 , or the very end of the XVI century, and not its first half. If we add 540 years to the correct dating of the Nativity, or 1152 , we shall come up with 1692 A.D., no less. This might radically alter our perception of Ptolemy's publication and the allegedly "ancient" maps contained therein. It becomes clear why those maps display obvious traces of Scaligerian history and geography. Detailed information about the Geographia by Ptolemy can be found in Chron6.

Another possibility is that, in the recording of the date M.D.XL, only the last letters $X L$, or the numeral 40 , stand for the actual date. The first two letters M.D. are just the initial letters of some words, such as the Great Sovereign $=$ Magnus Dominus, and could imply a count of years from the beginning of some Emperor's reign, without mentioning his name. By the way, Scaligerian history believes Dominus = Sovereign to be a common epithet for Emperors after Augustus and Tiberius ([237], page 346). Besides, $D$ is the ini-
tial letter of the word Divine. Then the date M.D.XL can translate as "the fortieth year of the Great Sovereign such-and-such", and there's still a need to work out what emperor in particular the publisher used for reference. This context further increases the ambiguity arising from the attempts to interpret such dates. Every principality could have a Great Sovereign of its own to be used for chronological reference.

The dates of mediaeval scientific publications must be revised as well - the works of N. Copernicus, for instance, who allegedly lived in 1473-1543 ([797], page 626). His works may well turn out to have been written 50 years later than we believe today. This idea is backed by the following facts. The famous contemporary astronomer and historian Robert Newton points out, the actual "heliocentric idea gained a wide recognition only one century after the Copernicus' works had appeared" ([614], page 328). In the seventeenth century, that is, "Kepler was the first one to have truly embraced the heliocentric theory" ([614], page 328). It is therefore not entirely impossible that some works from Kepler's epoch were "shifted" some 100 years "backwards" and assigned to Copernicus. Or, alternatively, N . Copernicus could have lived in the XVI-XVII century, about half a century or a whole century closer to our time, and not in the XV-XVI. See details in Chron3.

We should return to the issue of dating the lifetimes of the famous characters of the XIV-XVI century - scientists, artists and politicians. For instance, actual lifetimes of such outstanding artists as Leonardo da Vinci, the alleged years 1452-1519 ([797], page 701), or Michelangelo, the alleged years 1475-1564 ([797], page 799), are not entirely clear - possibly, fifty years closer to our time, or even more recent than that.

### 13.6. Dating the foundation of Rome of Italy

We shall reiterate that our main result at this stage is the discovery of a stratified structure of the "Scaligerian history textbook". One of our primary objectives is the issie of dating the foundation of Rome in Italy veraciously. Scaligerian history tries to convince us that it occurred in the VIII century b.c. However, the dynastic parallels that we have discovered tell us something entirely different. According to Titus Livy, the foundation of Rome is linked to the names of Romulus
and Remus ([482], Volume 1). Moreover, Romulus is considered to have been the first King of the so-called "regal Rome", or the First Roman Empire in our terms. However, all three Roman Empires - the First, the Second and the Third, - turned out to be duplicates, or phantom reflections of the mediaeval Holy Roman Empire of the X-XIII century and, to a considerable degree, the Empire of Habsburgs of the XIV-XVI century, qv in fig. 6.19, fig. 6.20, fig. 6.21, fig. 6.22, fig. 6.23, fig. 6.24, fig. 6.51 and fig. 6.52 .

Therefore, by shifting the First Roman Empire forwards in time, and "returning it to its rightful place", or superimposing it over the Habsburg Empire, we discover the foundation of the Italian Rome to have occurred in the late XIII - early XIV century A.D. The correctness of this dating will be further confirmed by a vast number of independent sources.

### 13.7. Confusion between the foundation dates of Rome in Italy and New Rome on the Bosporus

One of the consequences of the mentioned dating confusion was, most probably, the mix-up of two historical events - the foundation of Rome on the Bosporus, or Constantinople, and the foundation of the city in Italy.

Several documents roughly identical in content tell the same story of Rome on the Bosporus, Constantinople, or Czar-Grad (King-City); they were studied by the first chronologists of the XVI-XVII century A.D. - several versions of Titus Livy's History, for instance. Written by different people, from different viewpoints, in different languages, and a variety of names and aliases used for referring to the same character. Among those were kings whose chronicles would subsequently become identified as dating from two different epochs. A natural question of linking these documents to each other arose in the XVI-XVII century. One of the main problems that confronted the chronologists was that of what principles such an identification could be based upon. One of the suggested methods was apparently as follows. In many chronicles, the count of years started from "the foundation of the City" - in the History by Titus Livy, for instance. Therefore, to link a document to mediaeval chronology it was enough to calculate the date of "the foundation of the City". Scaligerite historians came to the
conclusion that the City in question should necessarily be Italian Rome. This is apparently incorrect, as revealed by the shifts on the global chronological map.

The foundation of Rome $=$ Constantinople, later baptised New Rome, thus became split in two: chronologically and geographically. Scaliger tells us that another "foundation of Rome" took place in the alleged year 753 в.с. - that is, a thousand years before the foundation of New Rome on the Bosporus in the alleged year 330 A.D., according to Scaliger himself. This is a demonstration of the millenarian chronological shift that started to cast mediaeval events back into remote past.

However, Roman history knows of not just two, but three "foundations of Rome". The first "foundation", dated by Scaliger to 753 в.c. and called the foundation of Rome in Italy. The second "foundation" of Rome on the Bosporus, or New Rome, "attributed" by Scaliger to 330 A.D., which was yet another error. By the way, Rome on the Bosporus was named New because the capital was moved here from the ancient Alexandria, Egypt, and not from the Italian Rome, since the latter hadn't yet existed at that time.

Many mediaeval documents confuse the two Romes: in Italy and on the Bosporus. It is widely assumed that, around 330 A.D., Constantine the Great moved the capital from Rome in Italy to the Bosporus, into a settlement called Byzantium, that was officially named "the New Rome" in the alleged year 330 A.D. ([240], page 26). Later, New Rome became know as Constantinople ([240], page 26). Today, both Romes are believed to have been capitals of great empires. The citizens of New Rome were long ago noted to have called themselves "Romans". Other nations allegedly called them Rhomaioi. Therefore, the Rhomaioi Empire can be identified as the historical Roman Empire - in the XVI century the name migrated to Italy (on chronicle pages).

Along with the Scaligerian myth of moving the Empire's capital from the alleged Italian Rome to the Bosporus, there is a contradictory assertion. The very same Scaligerian history refers to an inverse relocation of the Empire's capital - from the Bosporus to Italy. This legend is apparently closer to the truth. Again, it was emperor Constantine who is presumed to have done it in 663 A.D.; however, it wasn't Constantine I (the Great), but rather Constantine III, who allegedly
didn't accomplish his plan because he was killed in Italy ([544]). Rome on the Bosphorus is usually thought to have been the Greek capital. However, a substantial part of Byzantine coinage, as well as Italian coinage, boasts inscriptions in Latin and not in Greek ([196]).

A famous legend about the foundation of Rome tells us the story about the simultaneous foundation of the two cities: one founded by Romulus, and the other by Remus. It was related in the very beginning of the History of Titus Livy. The two founders bear similar names: Romulus and Remus. Then Romulus is supposed to have killed Remus, and only one Rome remained - the capital (Titus Livy, Book 1, Chapter 1). The legend probably reflects the confusion between the two Romes. Furthermore, some ancient chronicles don't refer to the founders of both capitals as to Romulus and Remus, but rather "Romus and Roma", which makes the names of the founders virtually the same, - see [938], pages 18.1.B. 170-175.

It is commonly believed that Rome in Italy has always been meant by the very "city" whose foundation marks the beginning of the "ab urbe condita" chronological scale as used in Roman chronicles. However, several mediaeval authors of the XII-XIV century A.D. adhered to an entirely different opinion. The famous crusader Villehardouin, for instance, wrote the following about Rome on the Bosporus: "the city surpassed all the others, as if it were their lord... Byzantines were eager enough to call it simply - 'The City' (! - A. F.)... that is, the City by prevalence, the only City" ([248], page 28).

Thus, the count of years "from the foundation of the City" as used in many old documents, is most likely to refers to Rome on the Bosporus, or Constantinople, which, according to our reconstruction, was founded earlier than the Italian Rome.

Constantine I is considered to have "transferred many establishments from Rome to Constantinople... and ordered to build... palaces ad exemplum of their [senatorial-A. F.] Roman dwellings... Byzantine Empire was still known as the Roman Empire" ([248], page 28). However, the counter-influence of the New Rome on the Italian Rome is a known fact - it was truly great. It is written that, "Rome of the VII and VIII century was a semi-Byzantine town (sic! - A. F.)... Greek faith could be observed practised everywhere; the Greek language was used for quite a long time in
official acts as well as for quotidian purposes... Norman kings wore the magnificent vestments of Byzantine emperors with great pride" ([248], pages 31-32).

Scaligerian history displays irritation whenever it is forced to mention the so-called "fantasy notion that the Byzantines believed in for many centuries: the Byzantines assumed they were actually Romans... Byzantine emperors continued to behave as the only lawful emperors... Greeks turn out to be "Roman" according to all Byzantine historians... To distinguish [they did in fact fear confusion! - A. F.] between the Western mediaeval Empire and that of Byzantium, the latter was deliberately (?! - A. F.) called Rhomaioi or Rhomanian Empire... The name Rhomania [Romania A. F.]... was transposed from Byzantium to Ravenna for referring to that... part of Italy" ([195], page 51).

We have a reason to expound the confusion between the two Romes in such details. The following reconstruction is made apparent by the global chronological map and its decomposition into the sum of four chronicles presented above. Most probably, Rome on Bosporus was founded first as Constantinople, later to be known as Istanbul. It happened around the $X$ XI century A.D., and not in 330 A.D. It was only after that, approximately 330 or 360 years later - in the XIV century A.D., that Italian Rome was founded. If a mediaeval chronicler of that age confused the foundation of Rome on the Bosporus in the X-XI century a.D. with that of Rome in Italy in the XIV century A.D., a chronological shift of approximately 330 or 360 years seems plausible. As a result, the chronicler would collate two chronicles together with an apparent shift and come up with an erroneous and artificially elongated version of history full of duplicates as a consequence. And it is only today that we can detect them within the "Scaligerian textbook" with the help of statistical methods.

The exact nature of this "extended history textbook" is obviously of interest to us. Our discovery of the decomposition of the global chronological map into the sum of four short chronicles allows to reconstruct it, albeit only in broad outlines so far. An approximate scheme of the new chronology - and, consequently, a new version of history, can be built once we identify each and every historical duplicate (they are indicated by the same letter on the global chronological map), and shift them forward in time.

The following volumes of this edition will render our hypothetical reconstruction of the world history.

Upon "returning" all ancient chronicles that "timetravelled backwards", from the mediaeval period of the X-XVII century A.D. into the "antiquity", we find out that the history of Europe, the Middle East, and Egypt is covered in just as much detail as the history of the "younger cultures": Scandinavia, Russia, Japan, etc. The "levelling of cultures" may possibly reflect a natural circumstance - a more or less simultaneous naissance of civilization in different regions of the world and their parallel evolution.

### 13.8. Scaliger and the Council of Trent. Scaligerian chronology of the antiquity and its introduction in the XVI-XVII century

We already mentioned that phantom duplicates were only discovered on the global chronological map before "the Scaligerian era", but not after it. Thus, we are once again confronted with the fact that the activity period of Scaliger and Petavius is somehow related to our discovery of the abovementioned effects manifest in the ancient chronology and history. We shall recall that it was the fraction of Scaliger-Petavius that had rigidified and immobilized "the historical tradition" which the "the modern textbook of ancient history" is based upon. The Scaliger-Petavius version proves to have been a fruit of bloody confrontation over the issues of chronology (!) around the end of the XVI-XVII century. Moreover, it turns out that the Scaligerian version was anything but unique. Other points of view had existed, and opposed it vehemently, but their proponents lost the battle. Here is some information concerning the events of that tumultous time - the epoch of the 30year war in Europe, chaos and anarchy.
"It suffices to recall the famous chronologist Joseph Scaliger who stood up against the Gregorian Reform, or the great Copernicus who refused to participate in its preparation that had been in full swing at the Lateran Council of 1514 " ([295], page 99). Nowadays, the shift of the equinoxial date is considered to have been the main issue in the debates about the reform, but it was just one of many other serious issues discussed in relation to the calendar reform. Apparently, the "new historical" concept of Scaliger was born in a bitter
struggle against those who had still remembered the true history and objected against the introduction of "Scaligerian chronology". That struggle is most likely to have been the reason for the assembly of the famous "procrastinated" Council of Trent, which had carried on with its activity 18 years (!), from 1545 to 1563 , with several intermissions. In particular, the establishment of a suitable canon for the Biblical books was allegedly discussed at this council. However, those debates might have taken place later, in the XVII century, and subsequently backdated so as to precede the Council of Trent in order to increase the prestige of the discoveries allegedly made in the XVII century. More details can be found in Chron6.

One of the epicentres of the struggle that raged in the Scaligerian epoch was the so-called Scaligerian Julian period. The Great Indiction is the 532-year period which is now thought to have been called Indiction in Byzantium and the Great Circle in the West. "It is hard to determine with any fair degree of precision as to when and where that temporal cycle was introduced into the discourse originally" ([295], page 99).

It is supposed, although no original documents exist to prove this, that the Great Indiction was known to the Paschalian advocates of the Nicaean Council in the alleged IV century a.D. ([295], page 99). There is also a modified version of that very Great Indiction, namely, the period of 7980 years ([295], page 105). This cycle is also considered "ancient"; however, as it turns out, "this ancient cycle appears to have been included in the chronological science only since the end of the XVI century under the name of "the Julian period". This notion entered academic circulation due to the labours of the outstanding encyclopaedist and chronologist... Joseph Scaliger (1540-1609) in his tractate entitled The New Treatise on Improving the Count of Time... The work was published in 1583, almost simultaneously [! - A. F.] with the Gregorian Reform, which the scholar [Scaliger - A. F.] opposed vehemently for the rest of his life. [This is in re the establishment of a global chronology and a calendar of the ancient world -A. F.]. Inspired by the works of the Byzantine chronologists, heirs of the Alexandrian school, Scaliger insisted that only the Julian calendar, or chronological system, could provide a continuous count of years in universal chronology... Kepler was...
one of the first to appreciate the advantages of the Scaligerian Julian period" ([295], page 106).

In this respect it would be extremely important to find out about the part played by Kepler in the creation and "scientific justification" of Scaligerian chronology. "Having appreciated its advantages", fallen under the influence of J. Scaliger, and agreed with the claims about "the great antiquity" of many old books and scientific documents, the astronomer Kepler could - sincerely or not - participate in a purposeful "improvement" of mediaeval astronomical materials, such as Ptolemy's Almagest, so as to "bring it to conformity" with Scaligerian dating: for instance, he may have added a suitable constant magnitude to the longitudes of the celestial catalogue in order to "age" the catalogue and make it correspond to the epoch of the II century A.D. astronomically, and so forth. As a professional astronomer, he must have understood what and how should be done to accomplish this very well. See details in Chron3.

We have already demonstrated the rather low level of the epoch's scientific criticisms in Chronl, Chapter 1. Let us recall the kind of argumentation that Scaliger and his supporters used even in minor occasions - for instance, when the XVI century mathematicians pointed out a fundamental error in his "argumentation" about "having solved" the issue of "the circle's quadrature".

A heated dispute was going on around the Scaligerian chronology and its entire conception. Today we are told the following: "In this respect, the fact that Pope Gregory XIII recognized the very period [Scaligerian - A. F.], that neither astronomy [? - A. F.] nor chronology can do without, as unsuitable for the calendar, remains a paradox to date" ([295], page 107). It would be most edifying to delve into the archive documents of the Council of Trent, or whatever is left of them, and revise all surviving documents of that troublesome epoch related to the struggle over the Scaligerian chronology.

### 13.9. Two phantom "ancient" reflections of Dionysius Petavius, a mediaeval chronologist of the XVII century

Scaligerian history knows of three famous chronologists, each one named Dionysius, separated from each other by several centuries.
a. The first chronologist named Dionysius allegedly died in 265 A.d. ([76]).

- b. The second chronologist, known as Dionysius Exiguus, is presumes to have lived in the VI century A.D. ([72] and [76]). Scaligerian history contains different versions of the date of his death: around 540 A.D. or around 556 A.D.
-     - c. The third and last chronologist named Dionysius was none other but the famous Dionysius Petavius (1583-1652).

The two "mediaeval chronologists sharing the name Dionysius" appear to be phantom reflections of one actual mediaeval chronologist, Dionysius Petavius, spawned by the chronological shifts of 1053 and 1386 years. The second shift is the sum of the two main shifts whose values equal 333 and 1053 years. Here is a brief table.

1a. According to Eusebius Pamphilus, a famous chronologist called Dionysius, who devoted himself to Easter-related calculations, died in the alleged year 265 A.D.

- $1 b$. The famous chronologist Dionysius the Little (Exiguus) died in the alleged VI century A.D., in 540 or 556. The so-called "pearl of Easter Cycles by Dionysius" falls over the alleged year 563 A.D.
-     - 1c. The famous chronologist Dionysius Petavius (1583-1652), who dedicated many years of his life to the calculations of the Easter Cycle and one of the creators of the consensual version of chronology.
$2 a$. As a result of the composite shift of 1386 years (where $1386=1053+333$ ), Dionysius Petavius from the XVII century became superimposed over Dionysius from the alleged III century A.D. Moreover, the death of Dionysius Petavius accurately "transforms" into the death of Dionysius from the III century, because $1652-1386=$ 266 A.D.
- 2b. After a shift of 1053 years, Dionysius Petavius becomes superimposed over Dionysius Exiguus from the alleged VI century A.D. Indeed, $1652-1053=599$ A.D.

One can't but mention that the name Petarius can actually be identified as the French word petit, translating as "little". Therefore, Dionysius Petavius from the XVII century is merely Dionysius the Little. In Latin, Dionysius the Little from the alleged VI century was called Exiguus $($ exigu $)=$ little. Thus, both chronologists from the XVII and the VI century - have coinciding names.

-     - $2 c$. Dionysius Petavius is considered to have been a disciple of Scaliger. Scaliger and his pupils lived in France. Therefore, it is quite natural that the name "Little" sounded in France as petit and eventually turned into "Petavius", while in the Latin texts the same name "Little" sounded like "Exiguus". Thus, the mediaeval Dionysius Petavius turned into the "ancient" Dionysius the Little from the alleged VI century A.D.
3a.?
- $3 b$. Dionysius the Little from the alleged VI century A.D. is considered the first mediaeval author to have correctly dated the Nativity of Jesus Christ. Dionysius declared that Christ was born approximately 550 years before his time.
-     - 3c. According to our reconstruction, Jesus Christ was born in the XII century A.D. According to the erroneous mediaeval version, Christ is said to have been born some 100 years earlier, in the XI century. This places it some 550-600 years before the birth of Dionysius Petavius, who died in 1652. Thus, Dionysius Petavius, or Dionysius the Little, was absolutely right to have claimed in the XVII century that Jesus Christ was born approximately 550 years before him.

Thus, certain documents erroneously assigned to the VI century A.D. and actually describing the life and the work of Dionysius Petavius from the XVII century have retained the correct information that in the XVII century certain authors still remembered it well that the Nativity of Jesus Christ actually took place in the XI or the XII century A.D.

## 14. <br> A STRATIFIED STRUCTURE OF TEXTBOOK OF ANCIENT HISTORY ACCORDING TO SCALIGER

We shall presently describe the stratified structure of the global chronological map, or the "Scaligerian history treatise" as discovered in the course of our research, in greater detail. We shall demonstrate the superimposition phenomenon manifest in each of four virtually identical "chronicles" of $S_{1}, S_{2}, S_{3}$ and $S_{4}$ presented as a table. In other words, we shall point out the very events that constitute the epoch blocks shown in fig. 6.55. For the convenience of using this table, it makes sense to continuously compare it with fig. 6.55.
$E=$ Scaligerian "history textbook". Dates quoted according to Scaliger.

- $B=$ The Bible. We have already lifted the Scaligerian dates of events listed presently by 1800 years, due to our discovery of the fact that Biblical history became superimposed over the history of Europe and Asia in the Middle Ages. However, we recall that Biblical history has to be shifted even closer to our epoch. More details on this in the chapters to follow.
-     - $S_{4}=$ "Chronicle" resulting from a shift of its mediaeval original some 1800 (more precisely - 1778) years backwards.
-■- $S_{3}=$ Chronicle" resulting from a shift of its mediaeval original some 1000 (more precisely - 1053) years backwards.

1-E. Duplicate $K$ : the alleged years $1460-1236$ в.с. The "ancient" Trojan Kingdom of seven kings. Greeks and Trojans

- 1-B. -
-     - 1-S $S_{4}$. Duplicate $K$ : the alleged years 306-535 A.D. The Third "ancient" Roman Empire of the alleged IV-VI century A.D. in the East and West.
-■■1- $S_{3} .-$
2-E. Duplicate T: the alleged years 1236-1226 A.D. The famous Trojan War fought between the Greeks and the Trojans. The fall of Troy, the exile of the Trojans.
- 2-B. -
- $-2-S_{4}$. Duplicate T: the alleged years 535-552 A.D.

The famous Gothic War (presumably fought in Italy). Exile of the Goths from Italy, the fall of Naples and Rome.
■■■2-S $S_{3}$ -
3-E. Duplicate $N$ : the alleged years $1226-850$ в.с. Regal dynasties of the "ancient" Greece.

- 3-B. -
-     - 3-S. $S_{4}$ Duplicate $N$ : the alleged years 552-901 A.D. Mediaeval Papal Rome and mediaeval Greece.
-     -         -             - $3-S_{3}$.

4-E. Duplicate T: the alleged years $850-830$ в.с. The second version of the dating of the Trojan War according to Hellanicus, Damastus and Aristotle ([579], page 23). The apple of discord given to Venus, the goddess of love. The Trojan War as a consequence of "the apple of discord".

- 4-B. Duplicate T: the alleged years $850-830$ A.D. Genesis 1-3. Adam and Eve, the apple of discord, punishment and banishment from Paradise.
-     - 4- $S_{4}$. Duplicate $T$ : the alleged years 901-924 A.D. The war in Italy. Alberic I and Theodora I. Legend about "the lady of discord".
-■■4- $S_{3}$.-
5-E. Duplicate T: the alleged years 760-753 в.с. The foundation of Rome in Italy. Romulus and Remus, the rape of the Sabines as a version of "the legend of a rape".
- 5-B. Duplicate T: the alleged years 760-753 в.с. Genesis 4:1-16. Cain and Abel, the murder of Abel.
-     - 5- $S_{4}$. Duplicate $T$ : the alleged years 931-954 A.D. The war in Italy. Alberic II and Theodora II.
■■■5-S . $_{\text {- }}$
$6-E$. Duplicate $K / R$ : the alleged years $753-522$ в.с. Titus Livy's Regal Rome of the seven kings, or the so-called First Roman Empire. The great "ancient" Greek colonization of the alleged VIII-VI century b.c.
- 6-B. Duplicate K: the alleged years 753-522 в.с. Genesis 4:5-31. Enoch, Irad, Mehujael, Methuselah, Lamech, Seth, Enosh, Kenan and Mahalalel.
- $-6-S_{4}$. Original and Duplicate R: 962-1250 A.D. The Holy Roman Empire of the German Nation in the X-XIII century. Crusades. ■■■6-S ${ }_{3}$. Duplicate $K$ : the alleged years 300-535 A.D. The Third Roman Empire of the alleged IV-VI century a.d. The foundation of New Rome, allegedly in 325 A.D. The Oriental campaigns of Rome.

7-E. Duplicate T: the alleged years 522-509 A.D. The war against the Tarquins in Rome. The exile of the kings from Rome. The naissance of the Republican "ancient" Rome. The Roman legend about the foundation of a city in the vicinity of Rome by the Biblical Noah ([196], Volume 3, page 437).

- 7-B. Duplicate T: the alleged years 522-509 в.с. Genesis 5-8. The legend of patriarch Noah, the Ark, the Flood, the demise of mankind and the new Covenant. There is a partial parallelism between the legends of Noah and Moses. The Ark of the Covenant in the epoch of Moses and the Ark in the epoch of Noah. The laws of Moses and the laws of Noah.
-     - 7- $\mathrm{S}_{4}$. Original and Duplicate T: 1250-1268 a.D. The famous war in Italy; the fall of the mediaeval Italian city Troy. Manfred, Conrad.
■■ ■ 7-S $S_{3}$. Duplicate $T$ : the alleged years 535-552 A.D. The famous Gothic War in Italy. The fall of Naples and Rome. Justinian, Belisarius, Narses, the Goths and the Franks, or TRN, without vowels.

8 -E. Duplicate $N / S$ : the alleged years $509-82$ в.c. Republican "ancient" Rome. Graeco-Persian wars. Cyrus, Darius and Xerxes. Peloponnesian wars in Greece. The Macedonians and Philip II. The fall of Byzantium. The empire of Alexander the Great. A famous period in the history of "classical" Greece. The wars with the Samnites in Rome. The Punic Wars. Hannibal. The end of the "classical" Greece. The beginning of Hellenism.

- 8-B. Duplicate $N$ : the alleged years 509-82 в.с. Genesis 9,10:1-32. The descendants of Noah and the scattering of people over the Earth. Sons of Noah - Shem, Ham and Japheth. The sons of Japheth.
-     - 8-S . Partial Original S: $1300-1550$ A.D. The $^{\text {. }}$ Empire of the Habsburgs (Habsburg = Nov-Gorod?). Mediaeval Greece. The battles of 1316 A.D. as the original of the "ancient" battle of Marathon. Duke Walter II. The wars between the Franks and the Turks. Mohammed and the Mohammedans. The fall of Byzantium in 1453 A.D. The Ottoman Sultanate. The end of independent mediaeval Greece. The voyage of Columbus, the discovery and colonization of America, or the New World.
■■-8- $S_{3}$. Duplicate $N$ : allegedly 552-901 A.d. The Mediaeval Papal Rome. The war between the Romans and the Langobards in the alleged years of 705, 711 and further up to 765 and 769 A.D. The war in the South of Italy. Wars with the Saracens. Wars with the Franks in Italy.

9-E. Duplicate T: the alleged years of 82 в.c. -23 A.D. The early days of the "ancient" imperial Rome. Sulla, Pompey, Julius Caesar and Octavian Augustus. Civil wars in Rome of the alleged I century в.с.

- 9-B. Duplicate T: the alleged years 82 в.c. -23 a.d. Genesis 11:1-9. The Tower of Babel, dispersion of people, chaos.
- $-9-S_{4}$. The end of "chronicle" $S_{4}$.
-■-9-S ${ }_{3}$. Duplicate $T$ : the alleged years 931-954 a.d. Wars in Italy. Alberic II and Theodora II. The "Restoration" of many "ancient" customs in mediaeval Rome. The dawn of the Holy Roman Empire of the German Nation.

Then the table expands, "chronicles" $S_{2}, S_{1}$ and $S_{o}$ appear to replace "chronicle $S_{4}$ " which has ended. Finally, the table consists of six series of superimposed duplicates. In particular,
$E=$ Scaligerian "history textbook". Dates according to J. Scaliger.

- $B=$ The Bible. We have already shifted the Scaligerian dates of events listed herein some 1800 years forward after having made the discovery that Biblical history is superimposed over the Eurasian mediae-
val history. We recall that the Biblical history has to be shifted even closer to our time. More details in the chapters to follow.
- ■ $S_{3}=$ Chronicle resulting from a shift of its mediaeval original some 1000 (more precisely - 1053) years backwards.
-■. $S_{2}$ - Chronicle resulting from a shift of its mediaeval original some 333 or 360 years backwards.
-.■.- $S_{1}=$ Chronicle resulting from several distortions inherent in its mediaeval original, see below. We shall call chronicle $S_{1}$ the distorted original.
-■-■- $S_{o}=$ The original chronicle, or the prototype of all the previous "duplicate chronicles".
$10-$ E. Duplicate $R / K$ : the alleged years of 23 в.c. -235 a.D. The Second Roman Empire of the I-III century A.D. Its earliest days coinciding with such major events as the Nativity of Jesus Christ, important religious reforms and "the beginning of a new era". Explosion of a nova reflected as the Star of Bethlehem in the Gospels.
- 10-B. Duplicate K: the alleged years 23 B.c. -217 A.D. Genesis 11:10-32. Arphaxad, Shelah, Eber, Peleg, Reu, Serug, Nahor, Terah, Haran and Abraham. The Biblical Aaron and a Christian reformer by the name of Arius may be reflections of a single real mediaeval figure.
-     - $10-S_{3}$. Duplicate and Original R: the alleged years 965-1250 A.d. The Holy Roman Empire of the X-XIII century A.D. The foundation of this Empire and other important events of the epoch, such as the prominent religious reform of "Pope Hildebrand", or "Pope Gregory VII". Schism in the Christian Church, famous supernova explosion of the alleged year 1054 A.D. (the middle of the XII century in reality), apparently described in the Gospel as "the Star of Bethlehem" that heralded the Nativity of Jesus Christ.
- ■ - 10- $S_{2}$. Duplicate $K$ : the alleged years 306-535 A.D. The Third Roman Empire of the IV-VI century A.D. A famous Christian Saint Basil the Great, or simply the Great King (king $=$ basileus) in the alleged IV century A.D. A major religious reform; Schism of Christian Churches;
"heresy of Arius" (Aaron?), or the famous Arianism.
- =... $10-S_{1}$. -

■■■■■10- $\mathrm{S}_{0}$.
11-E. Duplicate T: the alleged years 235-251 A.D. Anarchy at the end of the Second Roman Empire; the Gothic War and Julia Maesa. Then the second copy of the same Duplicate $T$ : the alleged years 270-300 a.d. Civil War of the alleged III century a.d. in the Roman Empire.

- 11-B. Duplicate $T$ : the alleged years 270-300 A.D. Genesis 12. Abram, Sarah and the struggle against Pharaoh, or TRN without vowels.
-     - 11-S ${ }_{3}$. Duplicate and Original T: 1250-1268 A.D. The famous war in Italy. The fall of Naples and the mediaeval Italian Troy.
■■-11- $S_{2}$. Duplicate $T$ : the alleged years 535-552 A.D. The famous Gothic War allegedly fought in Italy. The fall of Naples and Rome. The defeat of the Goths.

-■■■■11- $\mathrm{S}_{0}$. -
12-E. Duplicate $P / K / R / S$ : the alleged years 300-535 A.D. The Third Roman Empire of the alleged IV-VI century a.d. The division of the Empire into two kingdoms in the East and in the West.
- 12-B. Duplicate K: the alleged years 306-535 A.D. Genesis 13-38. Abram and Lot. The two divided kingdoms. Isaac, Esau, Jacob, Joseph.
-     - 12- $S_{3}$. Partial original: 1273-1619 A.D. The Empire of the Habsburgs (Nov-Gorod?), "Roman Kingdom". Eastern Romaloi Empire, or Byzantium ending in 1453 A.D. with the fall of Constantinople $=$ New City.
-■-12- $S_{2}$. Duplicate $P$ : the alleged years 681-887 A.D. The Carolingians and the Empire of Charlemagne (the Great King). The Eastern Roman Empire.
-■-■12-S . Duplicate $R / K$ : The Third Roman Empire of the alleged IV-VI century A.D. Disintegration of the Empire into two kingdoms - the Eastern and the Western.
-     -         -             -                 -                     - $12-\mathrm{S}_{0}$. -

13-E. Duplicate $T$ : the alleged years 535-552 A.D. The famous Gothic War allegedly fought in Italy. The end of the Third Roman Empire.

- 13-B. Duplicate T: the alleged years 535-552 A.D. Genesis 39-50. Exodus and the story of Moses, followed by events related in the books of Leviticus, Numbers, Deuteronomy, Joshua.
-     - 13- $S_{3}$. The end of chronicle $S_{3 .}$ -
- ■ - 13- $S_{2}$. Duplicate T: the alleged years 901-924
a.d. The Civil War in Italy. Alberic I and Theodora I.
■■■■13-S . Duplicate $R / K$ : the alleged years 535-
552 a.d. The famous Gothic War in Italy. The exodus of the Goths from Italy.
-     -         -             -                 -                     - $13-S_{0}$. -

14-E. Duplicate P/N/R: the alleged years 566-901 A.D. Mediaeval Papal Rome. The Carolingians and the Empire of Charlemagne (the Great King).

- 14-B. Duplicate P/N/R: the alleged years 556-901 A.D. Judges 1-18. The story of the Biblical rulers - judges.
 years 962-1250 a.d. The Holy Roman Empire of the German Nation.
-     -         -             - $14-S_{1}$. Duplicate $P / N$ : the alleged years 552 901 A.D. Carolingians and the Empire of Charlemagne.
-■■■■14- $S_{0}$. Negligible remains of data reflecting actual events of the VI-IX century A.D.

15-E. Duplicate T: the alleged years 901-914-924 A.D. The Civil War in Italy. Alberic I and Theodora I. Then, another Duplicate T: the alleged years 931-954 A.D. The war in Italy. Alberic II and Theodora II.

- 15-B. Duplicate T: the alleged years 901-924 A.D. Judges 19-21. Struggle against the Benjamites. Then, another Duplicate $T$ : the alleged years 931-954 a.d. Ruth, 1-2 Samuel, 1 Kings 1-11, 1 Chronicles, 2 Chronicles 1-9. Famous Biblical Kings: Saul, Samuel, David and Solomon.
-■.15-S . Duplicate and Original T: 1250-1266 $^{-1}$ A.D. The famous war in Italy. The fall
of the Hohenstaufens. The fall of mediaeval Troy in Italy. The fall of Naples. Manfred, Charles of Anjou and Conrad (Khan-of-the-Horde?).
-■-.-15-S. Duplicate $T$ : the alleged years 901924 a.d. The war in Italy. Alberic I and Theodora I.
-     -         -             -                 -                     - $15-S_{0}$. Original: Negligible remains of data concerning actual events of the X century a.d.

16-E. Duplicate and Original R/S: 960-1250 A.D. The Holy Roman Empire of the German Nation. Emperors are crowned twice: in Rome and in Germany. The "two empires".

- 16-B. Duplicate and Original R: 962-1250 A.D. 1 Kings 12-22, 2 Kings 1-23, 2 Chronicles 10-34. Kingdoms of Israel and Judah. Both kingdoms exist in parallel, simultaneously. The "two kingdoms".
- ■ - 16-S 2 $_{2}$. Duplicate and Original R: 1273-1619 A.D. The Empire of the Habsburgs (Nov-Gorod?). The "Renaissance" in Europe, the golden age of "ancient" motifs. The Great $=$ "Mongolian" Empire. The end of chronicle $S_{2}$.
-     -         -             -                 - $16-S_{1}$. Duplicate and Original R: 962-1250 a.d. The Holy Roman Empire of the German Nation. "Double Empire", or one with double coronation.
$16-S_{0}$. Duplicate and Original R: 962-1250 A.D. The first time any data of actual events of this epoch appear. A vague beginning of a partially correct chronology. Not much data.

17-E. Duplicate and Original T: 1250-1269 A.D. The famous war in Italy. The fall of the Hohenstaufens. The fall of the Italian Troy and the fall of Naples. Manfred, Charles of Anjou and Conrad (Khan-of-the-Horde?).

- 17-B. Duplicate and Original T: 1250-1268 A.D. 2 Kings 24-25 and 2 Chronicles 35-36. War against the Pharaoh and Nebuchadnezzar. The fall of the Kingdom of Judah.


Fig. 6.100. The concurrence of the new exact astronomical dates with the New Chronology. The shifts of the "ancient" astronomical event datings concur well with the dynastic parallels.
-■.■17-S . $_{1}$. Duplicate and Original T:
1250-1268 A.D. The war in Italy. The fall of the Hohenstaufens. The fall of Italian Troy and the fall of Naples. Manfred, Charles of Anjou, and Conrad (Khan-of-the-Horde?).
-п.п.-17- $S_{0}$. Duplicate and Original T: 1250-1268 A.D. The war in Italy. The fall of the Hohenstaufens. The fall of Italian Troy and the fall of Naples. Manfred, Charles of Anjou and Conrad (Khan-of-theHorde?).

18-E. Duplicate and Original S:
1273-1619 A.D. The Great $=$ "Mongolian" Empire. The Habsburg (Nov-Gorod?) dynasty. The Avignon captivity of the Popes in France 1305-1378 a.D., which lasted 70 years. After that, the relocation of the Holy See to Italian Rome.

- 18-B. Duplicate and Original S:

1273-1600 A.d. The Books of Ezra,
Nehemiah, Esther and Judith. The

Babylonian captivity of the Jews under the yoke of "Persia", which lasted 70 years. Next we have the "return" to new Jerusalem and its "restoration".
-■- - $-18-S_{1}$. Duplicate and Original S:
1273-1619 A.D. The Great = "Mongolian" Empire. The Habsburg (NovGorod?) dynasty. The end of this period, or the XVI-XVII century, is marked by the activity of the chronologists J. Scaliger and D. Petavius. We recall here that Petavius was the most likely prototype of "Dionysius the Little" from the alleged VI century a.d.

-     -         -             -                 -                     - 18- $\mathrm{S}_{0}$. Original S: 1273-1619 A.D.

The Great $=$ "Mongolian" Empire. Russia-Horde and the Ottoman = Ataman Empire. The conquest of Constantinople $=$ the first Jerusalem in 1453 A.d. The captivity of the Jews in "Babylon" possibly identified as the White or Volga Horde. See details in Chron6.

## 15.

## THE COORDINATION OF A NEW ASTRONOMICAL DATING WITH A DYNASTIC PARALLEL

The shift of astronomical datings from the "antiquity" into the Middle Ages, as described above, appears to conform well to the basic chronological shifts of approximately 330-360, 1050, and 1800 years. We shall note here that those shifts were discovered on the basis of completely different considerations of an independent nature - namely, the analysis of the duplicates that we have discovered in the "Scaligerian history textbook", and above all, the dynastic parallels, or parallelisms. Those three shifts shall be referred to as "dynastic shifts".

We shall present a few vivid examples of concurrence between astronomical and dynastic shifts (see fig. 6.100 ). Now we shall decode the legend we use on this diagram.

1) The Star of Bethlehem. According to the Gospels, when Jesus Christ was born, a blazing star flared up in the sky; we know it as the Star of Bethlehem. Scaligerian version dates this flash to "year zero" of the new era. As we demonstrate in our book entitled "King of the Slavs", this explosion really dates from the middle of the XII century; however, Scaligerian chronologists have then misdated it by a hundred years baxkwards, coming up with 1053 A.D., and then misdated it once again - from the XI century A.D. to the I. The famous explosion of the supernova has been dated to 1054 A.D. ever since (see our book entitled "King of the Slavs" for more details). Thus, the difference between the phantom year 1054 and "year zero" equals 1053 years, which is precisely the value of one of the three main chronological shifts represented on the global chronological map. This shift is in good concurrence with the independent identification of the Second Roman Empire as the Holy Roman Empire of the X-XIII century (fig. 6.23 and fig. 6.24 ). Said shifts bear bo relation whatsoever to the temporal distribution cycles of actual astronomical phenomena, such as eclipses and explosions. We have demonstrated earlier that Scaligerian identifications of eclipses described in ancient documents are extremely far-fetched in most cases - they have nothing in common with the dates of actual eclipses and therefore cannot be regarded as astronomical proof.
2) Total eclipse that accompanied the Crucifixion of Jesus Christ. We have already recalled that, according to the early Christian tradition, an eclipse of some sort occurred at the time of the Crucifixion, either solar or lunar. Scaligerian chronology suggests the dating of 33 A.D. for the eclipse in question. However, as we pointed out above, this eclipse does not correspond with the description of the original sources ([544], Volume 1). Accurate dating leaves us with three possibilities: the lunar eclipse of 1075 A.D., or the solar eclipse of 1086, or the solar eclipse of 1 May 1185 ([906] and [601]). (See Chron2, Chapter 2.) We come up with 1185 A.D. as the final dating of the Crucifixion, $q v$ in our book entitled "King of the Slavs". These dates are in good correlation with the second basic chronological shift. This shift conforms well to the independent identification of the Second Roman Empire as the Holy Roman Empire of the X-XIII century (fig. 6.23 and fig. 6.24).
3) The Apocalypse. According to Scaligerian chronology, this Biblical book was written in the I-II century A.D. ([76] and [765]). Our new astronomical dating of the Apocalypse based on the horoscope contained therein (see above), is 1486 A.D. The chronological shift manifest here approximately equals $1300-$ 1350 years, which corresponds to the sum of the first and the second basic chronological shifts, 330-360 and 1000-1050 years, respectively.
4) Jesus Christ. Scaligerian version dates the lifetime of Jesus Christ to the I century A.D. According to our results, his lifetime falls over the XI century A.D. (qv in the global chronological map above). The chronological shift that we encounter here equals 1053 years (see details below). This shift is in good correspondence with the independent dynastic parallelism that identifies the Second Roman Empire as the Holy Roman Empire of the X-XIII century (fig. 6.23 and fig. 6.24). Apparently, Jesus Christ became reflected in the secular and ecclesiastical "Roman" history of the XI century as "Pope Hildebrand", a.k.a. Gregory VII. (See details below, in Chron2, Chapter 2.)
5) Stellar explosions. It is very important that the three main chronological shifts whose values approximate 330,1050 , and 1800 years conform well to the astronomical data of an irregular character - we are referring to phenomena that differ from eclipses that that correspond to certain recurrence cycles and can
thus be calculated. Nova explosions are an important example of irregular phenomena. Three chronological shifts become apparent in the distribution of the Scaligerian datings of nova and supernova explosions. The dates of "ancient explosions" appear derived from shifting the dates of actual mediaeval explosions some 333,1053 , or 1778 years backwards in time. In particular, the dates of all explosions from the period of 900 b.c. - 390 A.D. reflect the dates of explosions that took place in the X-XIII century and got shifted 1053 years backwards. We expound this in more detail in Chron2, Chapter 2. In fig. 6.100 one can observe a single example of this phenomenon. The explosion of the alleged year 186 A.D. derived from the actual explosion of 1230 A.D. shifted 1044 years backwards. This value is very similar to that of the second chronological shift, or 1050 years.
6) Thucydides. Scaligerian history misdates the three eclipses described by the "ancient" Thucydides to the V century, namely, the years 431, 424 and 413 A.D. Precise astronomical dating relocates all three to the XI or XII century a.d. (see Chroni, Chapter 1). Their datings are therefore shifted shifted by 1470 or 1560 years. This value probably reflects the difference between the second and the third basic shift, as 1800 $-330=1470$ years.
7) Titus Livy: Scaligerite chronologists misdated the eclipse described in Titus Livy's History (LIV, 36,1 ) to the middle of the II century A.D., or the alleged year 168 A.d. Precise astronomical dating identified it as the eclipse of either 955 A.D., or 1020 A.D. The value of the shift equals to either 1120 or 1188 years, which is close to the value of the second chronological shift - 1050 years.
8) Ptolemy's Almagest. Ptolemy's Almagest is considered to have been compiled in the epoch of the "ancient" Roman Emperor Antoninus Pius (the alleged years 138-161 A.D.), in the second year of his reign. However, we have dated the Almagest star catalog to a completely different epoch, namely, the VIIXIV century A.D. (see Chron3). Longitudinal precession implies that the Latin edition of the Almagest dates from the XV-XVI century A.D. Thus, the shift value approximates a millennium in the first case and 1400 years in the second - therefore, we have either encountered the second chronological shift with a value of 1050 years, or the sum of the first two shifts,
$350+1050=1400$. It is interesting that the epoch of the first editions of the Almagest - allegedly around 1530 A.D., differs from 140 A.D. (or the second year of Antoninus Pius' reign) by approximately 1390-1400 years as well. It should be noted that once we compensate the shifts and restore the correct dates, the "ancient" Antoninus Pius shall become superimposed over the epoch of the first Almagest editions, or the alleged years $1528,1537,1538,1542,1551$, and so on - this concurs perfectly well with independent dynastic parallelisms. A little while earlier, in 1493-1519, Maximilian I Pius Augustus, the famous Emperor, reigned in the Empire of the Habsburgs (Nov-Gorod?) - see fig. 6.60 and fig. 6.61.
9) Zodiacs of Dendera. Scaligerian datings of the Round and Long Zodiacs from the Dendera Temple in Egypt fall over the alleged year 30 b.c. (or 54-68 A.d.), and the alleged years 14-37 A.D. The exact astronomical solution is completely different, and falls over 1185 A.D. for the Round Zodiac and 1168 A.D. for the Long Zodiac (see Chroni, chapter 2:5.4). Therefore, we might be observing the consequences of a chronological shift with a velue of circa 1150-1200 years.
10) Horoscopes of Athribis. Scaligerite historians dated the two horoscopes of Athribis discovered by Flinders Petrie, a famous Egyptologist, back to circa 52 and 59 A.D. However, the exact astronomical solution yields 1230 and 1268 A.D., respectively (see Chron1, Chapter 2:5.4). The shift amounts to some 1200 years here.

## 16.

## A STRANGE LAPSE IN SCALIGERIAN CHRONOLOGY NEAR "THE BEGINNING OF THE NEW ERA"

We refer to a curious effect we discovered after a thorough analysis of the Chronological Tables by J. Blair ([76]), compiled in the late XVIII - early XIX century. These tables are of the utmost value to us since they were compiled around the time when Scaligerian history was a relatively young model. The Tables of Blair adhere to a chronological version that is still close to the Scaligerian, introduced in the late XVI - early XVII century. Therefore, these tables vividly demonstrate the principles that Scaligerian history was based on primarily. From this point of


Fig. 6.101. The version of the global chronology of "ancient" kingdoms as given by J. Blair's Chronological Tables ([76]). One can clearly see a strange "gap" or "cavity" in Scaligerian chronology that stretches over the first three centuries of the so-called "new era". First part of the graph.
view, more recent chronological tables are "worse" than Blair's and the ones compiled by his contemporaries in the XVII-XVIII century, since the more recent versions are "too smooth". Historians of the XIXXX century spent a great deal of time and effort trying to "polish them", filling enormous gaps and cracks with multitudes of minor details in order to keep the rough layout of Scaligerian chronology intact. As a result, many clues that betray the artificially extended character of consensual chronology, still observable in Blair's tables, were glossed over and covered up by many insignificant details in the tables of a more recent origin. As a result, the "break points" of Scaligerian chronology were buried under a thick layer of "historical concrete" in the XIX-XX century.

Therefore, let us draw a practical conclusion: if we wish to recreate the original mechanism of Scaligerian chronology as it was in the XVI-XVII century, we should analyse the early tables of the XVII-XVIII cen-
tury, such as the tables of Blair ([76]) - the nature of these materials is much more primordial.

Let us commence the analysis of Blair's tables ([76]). The full title of his oeuvre as published in Moscow in 1808 is as follows: The Chronological Tables Embracing All Parts of World History Year by Year from Creation to the XIX Century, Published in English by John Blair, Member of the Royal Society, London. These tabkes cover the history of mankind starting with the alleged year 4004 в.c. and ending with the XIX century. The Tables of Blair divide all the reigns they contain into two types - the ones covered in annual chronicles pertain to the first type, whereas the second is constituted of the reigns whose chronicles didn't survive until our epoch; those are only known to us from secondary references contained in chronicles dedicated to other reigns.

We shall pay our foremost attention to the "featured kingdoms" as well as different ways of keeping


Fig. 6.102. The version of the global chronology of "ancient" kingdoms as given by J. Blair's Chronological Tables ([76]). The strange chronological gap is plainly observable. Second part of the graph.
count of years as used in the antiquity - different eras and so on. In fact, it is this very "system of eras" that was "tidied up" by Scaliger and his disciples; nowadays it constitutes the framework of the consensual chronology.

A complete list of the primary "featured kingdoms" whose dynastic currents are described in one source or another, partially at least, can be seen in figs. 6.101 and 6.102 . Our list retaines the terminology of Blair's tables ([76]). As for the alleged VI-VIII century, we have only listed the principal kingdoms mentioned in [76]. Minor kingdoms that Blair dated to the epochs superseding the VI-VIII century A.D., were not indicated so as to avoid bulking the picture. However, the list of "Blair's kingdoms" that allegedly predate the V century A.D. is presented in full.

Let us now revert to the basic "ancient" systems of chronology as presented by Blair and described in the chronological commentaries of his epoch. In Sca-
ligerian chronology, these eras often end up "forgotten", sometimes for several centuries, and then eventually "revived" in their alleged former state. The primary ones are as follows:

1) The "ancient" Olympiad chronology, allegedly introduced in 776 в.с. ([76], table 1).

The Olympic Games, which gave birth to this chronological system, were introduced by the Dactyls in the alleged year 1453 в.с.

Then the Games were forgotten.
Then restored by Hercules in 1222 b.c.
Then forgotten once again.
Restored by Iphitus and Lycurgus in the alleged year 884 в.c.

However, it suddenly becomes clear that the actual chronology based on the Games was only introduced in the alleged year 776 в.с. By the way, certain other Games (Isthmian, Nemean, Pythian, etc.) were likewise forgotten and restored several times in Scaliger-
ian chronology. According to Blair's tables, Olympiad chronology was abandoned around 1 A.D. (!), therefore, it remained in use for about 776 years, from the alleged year 776 b.c. to 0 A.D., and faced oblivion shortly thereafter. In general, the discrepancies between the opinions of different chronologists about the year when the Olympiad chronology was introduced amount to nearly 500 years.

Let us cite a few examples to illustrate this chronological chaos. According to Blair ([76]), the Olympiad chronology and the count of years "ab urbe condita" were introduced around the same time. The latter is usually associated with Rome in Italy, which is said to have been known as "The City" since time immemorial - however, this version is probably erroneous, qv in Chron5. Blair is therefore of the opinion that the Olympiad chronology was introduced in the middle of the alleged VIII century B.c. However, S. Lourier, a contemporary historian, claims that "in the epoch of Xenophon (or the alleged V-IV century b.c. -A. F.) the Olympiad chronology hadn't existed yet; Timaeus, a Sicilian historian, introduced it around 264 в.c." ([447], page 224). According to Lourier, the "ancient" Timaeus was the first one to have introduced the Olympiad chronology 512 years after the first Olympiad, dated to the alleged year 776 в.c. The resulting discrepancy between the opinions of different historians amounts to five hundred years, give or take a little.

Thus, whenever an old document indicates years in Olympiad chronology, one needs to know the exact absolute date used by the chronologist for reference. This choice can make the dates fluctuate within the interval of five hundred years, no less.

By the way, N. A. Morozov came up with the idea voiced in [544] that the chronology based on Olympiads, or four-year periods, simply coincides with the very familiar Julian way of counting years in which four-year periods are marked by the system of bissextiles, that is, the Julian calendar considers every fourth year to be a leap year. This hypothesis indicates that the Olympiad chronology had not existed before Julius Caesar, who has introduced the Julian calendar. Hence even in Scaligerian chronology, the Olympiad/ Julian count of years couldn't have appeared earlier than the I century A.D., and by no means in the monstrously ancient epoch of Hercules, the "ancient" hero. In accordance with our reconstruction, according to
which Julius Caesar does not appear before the XII century A.D., the Olympiad chronology could not have been introduced before the XII century A.D. and, most probably, coincides with the Christian count of years from the Nativity of Jesus Christ, which, in our reconstruction, began at around 1100 A.D. or 1152 A.D., or the year of the Nativity in the XII century.

Thus, the reasons of disagreement between different historians regarding the starting point of count of years by Olympiads become clear. The count by Olympiads must have originated with the Nativity of Jesus Christ in the XII century and continued for several hundred years, without any of the numerous "oblivions and revivals" cycles. It was a consequence of "making copies of the chronicles" in Scaligerian history that the same actual event - the beginning of Olympiads - duplicated itself on chronicle pages and slid into "deep antiquity". As a result, later historians, looking at the duplicate reiterations in Scaligerian textbook, forgetting the reasons for its appearance, and assuming the air of extreme significance, started debating the "oblivions" and "renewals" of Olympiads, look for reasons, and propose involved theories. Hercules or the Dactyls. Or, alternatively, Iphitus and Lycurgus. In general, they have discovered an enormous new sphere of activity.
2) The "ancient" count of years from the foundation of the City ( $a b$ Urbe condita). This chronology is presumed originated around 753 b.c. ([76], table 5). But then we are told that this date was established by Varro, a Roman, in the I century, which allegedly postdates the foundation of Rome in Italy, according to Scaligerian chronology. The count of years "from the foundation of the City" ends in the alleged III century A.D., namely, in the decade of 250-260 A.D. ([76]), the time of civil wars in Rome, or the middle of the alleged III century A.D. Blair reports, "Most of the chronicles start [at that time-A. F.] counting years from the foundation of Rome" ([76], table 15). We recall that the Scaligerian identification of the "City" as the Italian Rome founded in the alleged year 753 b.c. is only a hypothesis. In Chron5 we prove the idea that it was the New Rome on the Bosporus, or Constantinople, that was referred to as the City. Constantinople is widely thought to have been founded around 300 A.D. and consecrated in 330 A.d. Thus, even in Scaligerian chronology, substitution of Rome on the Bosporus for Italian Rome
leads to a millenarian shift of dates counted "from the foundation of the City" in some chronicles. The famous History by Titus Livy is an example thereof.

It is noteworthy that the count of years "from the foundation of the City" in Scaligerian chronology comes to an end just at the junction of two duplicate empires - the Second Roman Empire and the Third Roman Empire. See [76]; also figs. 6.101 and 6.102.
3) The count of years from the Nativity of Jesus Christ. According to Scaligerian chronology, this count was allegedly introduced in 747 A.D., or seven hundred years after the death of Jesus Christ in the alleged I century, according to Scaliger ([76]), and two hundred years after the calculations of Dyonisius the Little, who lived in the alleged VI century A.D. and was the first to calculate the date of the Crucifixion. Then we encounter the familiar "oblivion and revival" cycles of eras. We are told that, after the first mention of the B.c./A.D. chronology "in an official document of 742 A.D., this was forgotten, to be revived in the X century A.D.; however, it was only since 1431 (the XV century, no less! - A. F.) that it became recorded in Papal epistles, with a parallel count of years 'from genesis' " ([744], page 52). It is fairly notable that secular chronicles were even slower to adopt the B.c./A.D. chronology. Historians report it to have been fixed in Germany as well as in France in the XVI century, in Russia - only in 1700, in England, even later - in 1752 ([744], page 52). Thus, even after the introduction of Scaligerian system, a more or less regular use of the B.c./A.D. chronology started as late as the XV century.

Previous, rather infrequent "mentions" of that era in the documents allegedly predating the XI-XII century A.D. are most likely to be the results of Scaligerian chronicle duplication. As a result, actual mediaeval references to the era in the documents of the XIXVII century "appeared as phantoms" in the alleged VI and VIII century. Those phantoms have led some of the more recent historians to the construction of theories - for example, about Dionysius the Little of the alleged VI century A.D. As mentioned above, "Dionysius the Little from the VI century" is actually a mere phantom reflection of the mediaeval Dionysius Petavius (i.e. actually Little = petit) from the XVI-XVII century a.d. Hence, Dionysius Petavius $=$ Dionysius the Little appears the first to have correctly calculated the date of
the Crucifixion as predating his own epoch by some six hundred years.

As we understand now, he was absolutely right, since by counting five hundred and fifty years back from the middle of the XVII century (Petavius died in 1650), we shall come up with the XII century A.D., which is when Andronicus, or Christ, had lived and been crucified, according to our reconstruction (the second half of the XII century, to be more precise).

So, returning to fig. 6.101 and fig. 6.102, we can see that in Scaligerian history two basic "ancient" chronological systems (the Olympiad and the "ab Urbe condita" chronology) - went out of use at least 500 years before the first and the only official reference to the B.C./A.D. chronology, made in a document dating from the alleged year 742, which is anything but a reliable dating.
4) The "ancient" count of years from the Genesis. This era is thought to be closely connected with the Bible, and therefore entirely dependent on the dates of the Biblical events. Since these dates are transferred forwards into the Middle Ages, as a result of the new empirico-statistical dating methods, therefore, this count of years is most probably of a mediaeval or even late mediaeval origin and began, according to our reconstruction, not earlier than the X-XI centurya.d. For the dating of Biblical events, see Chron6.
5) The count of years in the era of Hejira. This Arabic chronology is believed to have started in 622 A.D. ([76], table 19), and closely linked to the dating of the Koran and described therein. Therefore, it is most likely of a later origin too, begun in the X-XI century or even later.

The following important fact is obvious on the fig. 6.101 and fig. 6.102. In the Scaligerian chronology, all kingdoms except two are split into two classes - those which existed entirely before the beginning of the new era, and those which existed entirely after the beginning of the new era. Only two kingdoms - the Roman Empire and Parthian Kingdom - cross the range from 0 to 260 A.D. The beginning of the new era turns out to have had strangely destructive properties - out of many "ancient" kingdoms, only two have safely crossed that "perilous interval" from 0 to 260 A.D.

However, there is no continuous information on Parthian dynasties ([76]). Hence, that kingdom can-
not possibly serve as a chronological link and the "collation" of various eras.

As for the other kingdom - the Roman Empire we can say the following. It is the Second Roman Empire that fits into the range between 0 and 260 A.D. perfectly. Its end, namely 260-270 A.D., perfectly coincides with the end of that "perilous interval" 0-260 A.D. that we have just discovered. Moreover, it is very obvious from the fig. 6.101 and fig. 6.102 that the decade of 260-270 A.D., or the very collation point of the Second and the Third Roman Empires, is not covered by any Olympic count of years, neither the one from the foundation of the City, nor the count of years from the Nativity of Jesus Christ, which, as historians say, "has not existed" yet. According to the Scaligerian chronology, the count of years from the foundation of the City comes to an end, the count by Olympiads ended allegedly 250 years before that. The Christian method of counting years has not begun yet, not even been invented - there're a few several hundred years left to go.

Then, in accordance with the results of statistic methods, the Second Roman Empire is the duplicate of the Third Roman Empire. In this relation, both of them are, in their turn, nothing but phantom reflections of the Holy Roman Empire of the X-XIII century and the Empire of the Habsburgs (Nov-Gorod?) of the XIV-XVI century; fig. 6.11, fig. 6.12, fig. 6.12a, fig. 6.19, fig. 6.20, fig. 6.21, fig. 6.22, fig. 6.23, fig. 6.24. Hence, Roman history of the alleged I-III century A.D. is not original, but rather a "phantom". It must be lifted and identified as the Third Roman Empire, or the later kingdoms of the X-XIII century, and of the XIV-XVI century.

Furthermore, the Roman episcopacy partly falls into that "perilous interval" of 0-260 A.D. But the Papal history of 68-141 A.D. is considered to be an absolute legend of Scaligerian chronology ([492], page 312). Blair writes, "Until the expiration of this century [the beginning of the II century A.D. - A. F.]... this column [list of Roman Popes - A. F.] is com-
pletely obscure" ([76], table 13). The next Papal period of 68-141 A.D. is not independent, but only a phantom reflection of the Papal period of the alleged years 314-536 A.D., fig. 6.16; moreover, both of them are reflections of a much later Papal history. Thus, the first period of the Roman episcopacy, when moved forwards, is identified with its second period. Consequently, we discover that the epoch of 300 years from 30 b.c. to 270 A.d. in the Scaligerian chronology is an area of complete chronological silence of the documents. In that period, according to Scaligerian chronology, there is not a single kingdom with its own independent dynastic current.

The epoch from 30 b.c. to 270 A.d. in Scaligerian chronology ends with a gap. We recall that the two main "ancient counts of years" of that period - the era from the foundation of the City and the Diocletian era allegedly counted from 284 A.D. - fail to correspond ([76]). They are separated by a chronological lapse, a gap of at least 20 years. We must reiterate that the B.c./A.D. chronology had still been quite out of the question.

Conclusion. The collation point of several duplicate chronicles is obviously manifest in Scaligerian chronology - it is the epoch of the alleged years 0-260 A.D. In the XVI-XVII century, someone allocated several phantom duplicate chronicles on the axis of time and pasted them together as a single "textbook", and rather roughly at that. They didn't even bother to cover up the break point with any chronological system, having probably decided it would work out all the same. As the result, the false "beginning of the new era" in the alleged year zero divided the Scaligerian history "in two", fig. 6.101 and fig. 6.102. There is an abundance of "ancient" kingdoms before the beginning of the new era, and many mediaeval kingdoms after the beginning of the new era, while around the beginning of that very new era there appeared a strange lapse that we discover today with our new methods, analysing the whole structure of Scaligerian chronology.

## CHAPTER 7

# "Dark Ages" in mediaeval history 

## 1.

## THE MYSTERIOUS RENAISSANCE OF THE "CLASSICAL AGE" IN MEDIAEVAL ROME

### 1.1. The lugubrious "Dark Ages" in Europe that presumably succeeded the splendour of the "Classical Age"

As we can see from the global chronological map arranged in the sum of the three shifts, nearly all documents considered "ancient" and referring to events that allegedly predate 900 A.D. in Scaligerian chronology are most likely to be phantom duplicates of the originals referring to the events of the X-XVII century A.D. One may question the availability of "space" for the "Classical age" in mediaeval history - in other words, there may be doubts about whether our attempt to relocate the "ancient" events to the Middle Ages might fail due to the latter being "filled up" with known historical events. This doesn't seem to be the case, according to the results of our in-depth analysis.

Firstly, the epochs that were considered different are identified as one and the same. Consider, for example, the superimpositions of royal dynasties whose similarity wasn't noticed previously. Secondly, many mediaeval periods in Scaligerian history are believed to be "concealed by tenebrosity." Now we are beginning to understand why. The respective mediaeval documents describing these epochs were deliberately "set backwards in time" by Scaligerite chronologists.

The withdrawal of these documents immersed a great number of mediaeval periods into artificial darkness.

The historians of the XVIII-XIX century gave rise to the peculiar conception that identified mediaeval period as the "Dark Ages." The "great achievements of the Classical Age" are said to have faced utter decline and vanished. Scientific thought presumably "rolls all the way back into the Stone Age." The great literary works of the "antiquity" are all supposed to have been kept stashed away as dead weight until the very Renaissance, when they miraculously re-surfaced ([333], page 161). Moreover, these "ancient" texts were allegedly kept by ignorant monks whose prime responsibility was, as we are now told, the destruction of "heathen literature."

The absolute majority of the top ranking clergy is presumably illiterate ([333], page 166). The great achievements of the "ancient" astronomy-the eclipse theory, the calculation of planetary ephemeredes, etc. - are reported to be completely forgotten. The famous Cosmas Indicopleustes, who is supposed to have lived in the VI century a.D. and researched the movement of the Sun and the stars, honestly believes that the Universe is a box whose centre contains a flat Earth, washed by the Ocean and supporting the bulk of mount Ararat. Apart from this, the lid of the box is studded with stellar nails. There are four angels in the corners of the box that produce wind. This is the level of scientific cosmography of the Middle Ages (see Chron3, Chapter 11:6.3).

Money coinage is allegedly forgotten, the art of architecture rendered unnecessary, and an "overall cultural degradation" spreads far and wide ([333], page 167). And so on, and so forth.

Of course, Scaligerian history of the Middle Ages mentions certain achievements of the period, but always with disclaimers along the lines of: "Even these sudden flashes of intellectual work were random and singular in their occurrence" ([333], page 169). We are being convinced that the "ancient" Latin in its brilliance "degrades" in an odd manner and transforms into a clumsy and squalid lingo, which only manages to regain splendour during the Renaissance - and that over a short period of time, to gain worldwide fame once again as the language of science ([333]).

Without a doubt, there are reasons for painting a picture this lurid if we are to rely upon Scaligerian chronology. But we want to give another explanation to this hypothetical "deluge of barbarity" that is presumed to have overwhelmed Europe, Asia, and Africa in the early Middle Ages. We are of the opinion that what we see isn't a degradation of "the great legacy of the past" but, rather, the naissance of civilization and a gradual creation of the cultural and historical values, which were cast far back into the past due to the chronological errors that lit a spectral light in the "Classical Age" and left many mediaeval periods bare.

The contemporary version of mediaeval Roman history contains a multitude controversies and blatantly obvious parallels with the "Classical age" which, under close surveillance, may well be explained by the distorted concept of the historical role played by the Middle Ages. Let us throw a cursory glance at the history of Rome. Why Rome in particular? The reason is that Scaligerian history considers Roman chronology to be of paramount importance (see Chron1, Chapter 1).

We shall begin with an intriguing detail. The famous Chronicles of Orosius inform us of the fact that "Aeneas departed from Troy and went to Rome" (!). Moreover, the "ancient" Orosius adds that he was told this in school. Let us explain. Such an itinerary of Aeneas, who took part in the Trojan war, makes Scaligerian history 400-500 years shorter (also see Chroni, Chapter 1).

The fragmentary history of the "ancient" Greece made a certain impact on the formation of the Roman chronology in the days of yore. The historian N. Radzig
points out that "the heroic deeds of Aeneas in Italy and the fate of his offspring comprised the Roman pre-history of Rome... Initially this pre-history wasn't very long: it had called Romulus the grandson of Aeneas [this is the root of the 500 -year discrepancy with Scaligerian history, as mentioned in Chronl, Chapter 1-A. F.]; however, later on, when the Roman annalists acquainted themselves with the Greek chronology, they invented a whole sequence of Albanian rulers... Proud patrician clans got into the habit of tracing their ancestry all the way back to the companions of Aeneas, and the clan of Julius, directly to the son of Aeneas, whose name was arbitrarily altered for some reason". ([719], page 8)
N. Radzig is honestly perplexed by such "ignorant endeavours of Roman chronographers." However, below we shall demonstrate the amazing parallels between events as well as statistics that identify the ancient Trojan War of the alleged XIII century b.c. as the Gothic war of the alleged VI century A.D. that raged in Italy and the New Rome, as well as the Italian war of the alleged XIII century a.d. The Roman annalists were therefore correct in their claims that the Trojan War marks the actual beginning of mediaeval Roman history in the XIII century A.D.

We shall give a brief overview of the mediaeval history of Rome that is based, in particular, on the fundamental six-volume work of the German historian F. Gregorovius ([196]). The significance of this work is explained by the fact that it actually consists of a large number of mediaeval documents that were meticulously compiled by Gregorovius, along with his scrupulous and accurate comments on the matter.

Gregorovius writes that "ever since the decline of the Gothic state [which supposedly occurred in the VI century A.D. - A. F.], the ancient Gothic rule came to absolute ruination. Laws, monuments, and even historical recollections all fell into oblivion" ([196], Volume 2, pages 3-4).

The mandatory chronological sublation of secular chronicles from mediaeval Roman history - the History of Titus Livy, for example, which was declared "ancient history" - made Rome a thoroughly ecclesiastical city from the point of view of Scaligerian and modern history. F. Gregorovius writes that "Rome had miraculously transformed into a monastery." This mysterious transformation of "secular ancient Rome" (let
us remind the reader of the iron legions and the inflexible heroes of the days of yore) into the "mediaeval ecclesiastical Rome" was proclaimed "one of the greatest and most amazing metamorphoses in the history of humanity." ([196], Volume 2, pages 3-6).

It is significant that almost all of the political and civil institutions that comprise "the quintessence of ancient Rome" according to Scaligerian history were intact at "dawn of mediaeval Rome." Mediaeval references to the city of Rome are extremely scarce in Scaligerian chronology. Gregorovius tells us that "the events of the years to follow remain unknown to us, since the chronicles of that age are as monosyllabic and blear as the epoch itself, and they only report disasters and afflictions" ([196], Volume 2, page 21) - all of this coming from the author of a fundamental historical tractate ([196]).

The following is told of the middle of the alleged IX century A.D.: "historians specialising in Roman history have to contend themselves with the annals of the Frankish chronographers in what concerns this period, uninformative as the are, as well as Papal biographies that only contain indications of what buildings were erected and what donations made. There is no hope for a historian to present a picture of the city's civil life during that period". ([196], Volume 3, page 58)

Further, we learn that: "a great many ecclesiastical acts and regestae were kept in the Papal archive... The loss of these treasures [or their arbitrary transfer into the "antiquity"-A. F.], which perished without a trace in the XII or the XIII century, leaving $a$ tremendous gap in our knowledge of the epoch)." ([196], Volume 3, page 121)

All of this appears to mean that the overwhelming portion of surviving documents pertinent to the history of mediaeval Rome in Italy dates from the XI century or even later epochs.
F. Gregorovius writes that "if all of these regestae were in our possession... there is no doubt that the history of Rome between the VIII and the X century [three hundred years, no less -A. F.] would instantly become illuminated by a different, and a much brighter light" ([196], Volume 3, page 131, comment 30).

He writes further:
"Not a single scribe can be found who would care to immortalize the dramatic history of the city in writing. Germany, France, and even Southern Italy... have
provided us with a great many chronicles; however, the Roman monks must have been so indifferent to the fate of their city that the events of that epoch remain utterly nebulous". ([196], Volume 3, pages 125-126)

It is assumed that "at the same time, the papacy carried on compiling its ancient chronicles with vehemence" ([196], Volume 3, pages 125-126). However, this is only a hypothesis of Scaligerian history.

This Papal chronicle - or, rather, its late version we're being offered today - is by no means continuous. It demonstrates gigantic gaps. "The biography of Nicholas I (who is supposed to have lived in the IX century A.D. - A. F) marks the point where the Papal books cease to be kept, and we shall have many a chance to regret the lack of this source in our presentation of the history of the city" ([196], Volume 3, page 127).

### 1.2. Parallels between the "antiquity" and the Middle Ages that are known to historians, but misinterpreted by them

The surviving fragments of mediaeval Roman chronicles tell us things that clearly testify to the "Classical" nature of certain events in their modern interpretation. In such cases historians join their voices in unison and start descanting about the revival of ancient recollections, Classical reminiscences, imitations of antiquity, etc. F. Gregorovius, for one, writes that "certain X century Romans that we encounter have very strangely-sounding names. They draw our attention and revive ancient realities in our imagination" ([196], Volume 3, page 316). If we're to say the same thing differently, in a simpler manner, it turns out that many mediaeval Romans bore names that are considered "ancient" nowadays. This makes the "Classical Age" just another reflection of the Middle Ages.

Scaligerian history often discussed the existence of the Senate and the Consulate in mediaeval Rome. On the one hand, these famous political institutions are considered to have existed in the "ancient" Rome exclusively, which was presumably destroyed in the alleged V-VI century A.D. with the decline of the Third Western Roman Empire; on the other hand, some of the mediaeval chronicles that have reached our time occasionally make references to the existence of a senate, senators, consuls, tribunes, and praetors in medi-
aeval Rome. Those titles, grades, and offices are clearly "ancient." There's even a "schism" of sorts in the ranks of the Scaligerites, since one party considers these "ancient" institutions to have existed in the Middle Ages as well. Others - the majority that F. Gregorovius himself adhered to, were certain that the mediaeval Romans were using these "ancient" terms by sheer force of habit, without ascribing any "original meaning" to them, and only keeping them as a "pleasant memento" of the greatness of the "ancient Rome."
F. Gregorovius ruminates upon the same, telling us that "they [the mediaeval Romans -A. F.] call upon the ancient graves for help, the ones that already became legends, and invoke the shadows of the consuls, tribunes, and senators that keep on haunting this eternal city throughout the Middle Ages as if they were real [sic! - A. F.]" ([196], Volume 3, page 349.

Also: "Consul's rank is frequently mentioned in the X century documents" ([196], Volume 3, page 409, comment 20). In the alleged X century "the Emperor [Otto - A. F.] tried to revive the long-forgotten Roman customs" ([196], Volume 3, page 388). In particular, Otto III "bore titles devised in imitation of the titles borne by the ancient Roman triumphators" ([196], Volume 3, pages 395-396). Gregorovius has got the following to say about the description of mediaeval Rome contained in a well-known mediaeval tractate titled Graphia: "the future and the past in the Graphia are all mixed up" ([196], Volume 3, page 458, comment 7).

Below we find that "this is precisely what we actually see in Otto III, who was passionately introducing the surviving remnants of the Roman Empire, such as the ranks, the garments, and the ideas of the imperial age into his mediaeval state where all of it must have looked [from the point of view of modern historians - A. F.] as patches... The will to sanitize the barbaric epoch with such reminiscing was a widespread phenomenon $[$ sic! - A. F.]... The keeping of the priceless Papal book, interrupted at the biography of Stephan V, was resumed in Rome in the X century [our take is that it was most probably inchoated and not resumed, and that this event occurred a lot later than the X century - A. F.] - as short tables referred to as "catalogues"... The catalogues only contain the names of the popes, information about their origins, times of reign, and the odd occasional brief summary of individual events. Nothing
provides better evidence of the barbarity of the X century Rome than the famous Liber Pontificalis continued in its primary and extremely imperfect form". ([196], Volume 3, pages 458, 427, 431)

Mediaeval chronicles contain a large number of facts that contradict Scaligerian chronology and prove the existence of the three shifts in the Scaligerian chronological map that we have discovered. Furthermore, Ferdinand Gregorovius, possessing extensive and detailed knowledge of both the "ancient" and mediaeval history of Europe (he is considered one of the greatest specialists in Scaligerian history of Europe, after all), kept on running into parallels between the "ancient" and mediaeval events, some of which were blatantly obvious, that seemed extremely bizarre to him. Gregorovius points them out every now and then, and, possibly feeling vague qualms about them, attempts to provide an explanation. However, such "explanations" most often assume the shape of nebulous expatiations about the profundity of the "law of historical recurrences." The readers should not be surprised, and, above all, are implored not to pay any attention.

It is, however, most significant that nearly all such parallels discovered by F. Gregorovius fit perfectly into our scheme of the three chronological shifts of 330, 1050, and 1800 years, respectively. In other words, the historian Gregorovius, raised on the Scaligerian tradition, "discovers" the parallels between the "Classical Age" and the Middle Ages exactly where they are supposed to be according to the general picture of chronological duplicates as described in Chroni, Chapter 6 . We shall be citing some of these "Gregorovian parallels" later on.

So, we learn that "Noah [the Biblical patriarch! A. F.] founded a city near Rome, and named it after himself; Noah's sons Janus, Japhet, and Camesus built a city called Janiculus on the Palatina... Janus had lived near Palatina, and later built the town of Saturnia near Capitolia together with Nimrod [sic! - A. F.]" ([196], Volume 3, page 437). "In the Middle Ages there was even a monument at Nerva's forum [in Rome-A. F.] called Noah's Ark" ([196], Volume 3, page 461, comment 26).

All of these presumed "absurdities" (such presumptions are only made within the Scaligerian historical reality tunnel) completely fit the superimpo-
sition that we have discovered, wherein the kingdoms of Israel and Judaea become identified as the Holy Roman Empire of the X-XIII century as well as the Habsburg (could that name have been derived from "New Town," or "Nov-Gorod" in Russian?) Empire of the XIV-XVI century. See more on the lifetime of the Biblical Noah and his most probable identity in Chron6.

Another example of such a "sottise" (according to Scaliger and company) is that "it is well-known that the Franks have considered themselves descendants of the Trojans" ([196], Volume 3, page 361, comment 28).

In general, Gregorovius points out that "only this Classical spirit that prevailed in the city throughout the Middle Ages can explain a large number of historical events" ([196], Volume 3, page 443). It appears that the first lists of Roman monuments - compiled in the XII century A.D. the earliest, as we're being told nowadays - are "an amazing mixture of correct and incorrect monument names" ([196], Volume 3, page 447). A typical example of how the "antiquity" could be de facto identified as the Middle Ages is as follows:
"It [the St. Serge Church - A. F.] was consecrated to St. Bacchus as well as St. Serge; the name of that saint sounds strange for this ancient pagan area; however, in Rome in was hardly exceptional, for among the Roman saints [the mediaeval Christian saints, that is -A. F.] we once again find the names of other ancient gods and heroes, such as St. Achilles, St. Quirinus, St. Dionysius, St. Hyppolitus and St. Hermesus". ([196], Volume 3, page 447)

All of these mediaeval Christian saints - Achilles, Quirinus, Hermesus and others - were later arbitrarily exiled into times immemorial, where they transformed into the allegedly pagan "ancient" gods and demigods: Achilles, Quirinus, Hermesus, etc.

### 1.3. Mediaeval Roman legislators convene in the presumably destroyed "ancient" Capitol

F. Gregorovius tells us that the history of the famous architectural monuments of Italian Rome cannot be traced any further back in time than the XIXIII century A.D. with any degree of certainty at all.

Let us quote an example:
"For a long period of time (after the "Classical" age is supposed to have finished), we don't seem to encounter the name of the Capitol; it simply disappears from the annals of history [apparently, due to the fact that Capitol wouldn't be built until much later A. F.]; despite the fact that the Graphia tells us that the walls of the Capitol were adorned with glass and gold [which is post-X century information - A. F.], there is no description of the temple... the imperial forums, once full of grace, have drowned in taciturnity... [which means they haven't been built yet, either - A. F.], apart from the forum of Trajan; the forum of Augustus was encumbered with ruins to such an extent, and had so many trees growing there, that people used to call it an enchanted garden". ([196], Volume 3, pages 447-448).

Apparently, the forum of Augustus was also built much later, and the place had been grown over with virgin vegetation.

Complete chaos reigns in the mediaeval names of the monuments of Italian Rome - a perfect hodgepodge of "ancient" and mediaeval names. For instance, "the Vestal temple had once been considered to have been a temple of Hercules Victor, and is considered to have been a temple of Cybele by modern archaeologists; however, this goddess shall, naturally [? - A. F.] have to make place for some other deity, which, in its turn, shall be dethroned after some other archaeological revolution". ([196], Volume 3, pages 469-470)

All of these confused re-identifications and the general welter resemble a helpless game rather than scientific statements with a basis. This shows us how flimsy the foundations of the "archaeological identifications" that we're offered nowadays really are.
F. Gregorovius proceeds to tell us that "for over 500 years this area remained perfectly obtenebrated [Capitol and its environs - A. F.]... Only the oral tradition allowed it to attain historical significance once again [sic! - A. F.] and become the centre of the city's political activity, when the spirit of civil independence awoke. In the XI century the Capitol had already been the centre of all purely civil matters". ([196], Volume 4, page 391)

We cannot help asking about whether any of this really could have happened among the ruins. After all, Scaligerian history assures us that Capitol was de-
stroyed way back in the past, and had been standing unaltered all these years "in a semi-obliterated state" ([196], Volume 4).

And further on we also read that "the halidom of the Roman Empire resurrected in the memories of the Romans, animated conventions of the nobility and the populace alike occurred among the ruins of the Capitol [sic!-A. F.]... Later on, in the epoch of Benzo, Gregory VII and Gelasius II, the Romans were summoned to the very same Capitol during high-wrought prefect elections, when the consent of the populace was required for the election of Calixtus II, or when the Romans had to be called to arms. It is possible, that the city prefect also had lodgements in the Capitol [slept under the stars? - A. F.], since the prefect appointed by Henry IV had lived here. Furthermore, the litigations also occurred in a palace located in the Capitol [among the ruins as well, or what? - A. F.]". ([196], Volume 4, page 391).

It goes on like this. The bundle of oddities and absurdities gets ever larger. However, the sole reason for their existence is the certainty of the modern historian that all things "Classical" turned to dust aeons ago.

Is it possible to assume - even hypothetically that all of these meetings, conventions, counsels, elections, debates, the discussions of documents and their storage, official state pronouncements, the signings of official papers and so on, occurred among old ruins grown over with weeds and reeds, and not in a special building that had been constructed for this very purpose, and precisely in this epoch - the Middle Ages? The destruction occurred a long time later there were enough "waves of destruction" in the Italian Rome of the XIV-XVI century.

Scaligerian tradition obfuscates the history presented to F. Gregorovius to such an extent that Gregorovius - one of the most serious "documented" experts in the history of Rome and the Middle Ages in general - carries on with his narration apparently unaware of how ludicrous the picture that he offers really is, and to what extent it contradicts common sense.

He writes that "sitting on the prostrated columns of Jupiter or under the vaults of the state archive, amidst shattered statues and memorial plaques, the Capitolian monk, the predacious consul, and the ignorant senator could sense amazement and meditate
on the vicissitudes of life" ([196], Volume 4, pages 391-392).

Altogether failing to notice the comical impossibility of such legislative assemblies, Gregorovius carries on telling us that "the mitred senators in their brocade mantles came to the Capitol ruins with only the vaguest idea of the fact that in the days of yore the statesmen ratified laws here, and the orators gave speeches... No flout is more appalling and horrendous than the one suffered by Rome!... among the marble blocks [and the senators gathering for sessions in their midst, as we may well add - A. F.] there grazed herds of goats, and so a part of the Capitol received the name of Goat Hill... like the Roman forum that became dubbed The Cattle-Run [a senatorial one, perhaps? - A. F.]." ([196], Volume 4, pages 393-39).

Gregorovius cites a mediaeval description of the Capitol in order to prove the sad Scaligerian picture of the decline of Rome, which had remained the only original source up until the XII century A.D. or even later ([196], Volume 4, page 394). The most amazing fact is that this old text that occupies an entire page of a large-format modern book doesn't utter a word about destructions of any kind, describing the mediaeval Capitol as a functioning political centre of mediaeval Rome instead. The narration mentions luxurious buildings, temples etc. There isn't a single reference to the caprine herds dejectedly roaming this gilded splendour.

Gregorovius, having scrupulously quoted the entirety of this mediaeval text - one cannot deny him being conscionable as a scientist - couldn't help making another attempt at proselytizing, in his telling the reader that "in the description of the Capitol given by the Mirabilia we see it as if it were lit with the last light of a dying dawn; we have no other information about this epoch" ([196], Volume 4, page 394). And also: "even for these legendary books, everything remains an enigma and a matter of days long gone" ([196], Volume 4 , page 428 , comment 16 ).

It is most expedient to turn to original sources more often and to read them open-mindedly, without prejudice and a priori judgements. We find out lots of interesting things, the ones that Scaligerite historians prefer to hush up.

In reference to mediaeval Rome of the alleged XXI century, Gregorovius points out (for the umpteenth
time) that "Rome appears to have returned to times long gone: it had a Senate again, and was at war with the Latin and the Tuscan cities, which had united against Rome once again" ([196], Volume 4, page 412).

In the alleged XII century a "Classical revival" is observed yet again. Gregorovius tells us that "Arnold [of Brescia-A.F.] was excessively vehement about adhering to the ancient traditions" ([196], Volume 4, page 415). Apparently, he had "revived" the estate of cavaliers considered "ancient" nowadays ([196], Volume 4, page 415). Later on, in the alleged XII century, Pope Alexander III "revives the pagan triumph of the ancient emperors" ([196], Volume 4, page 503).
F. Gregorovius informs us of the fact that "the legendary name of Hannibal reappeared as a mediaeval family name borne by senators, warlords and cardinals for several centuries" ([196], Volume 5, page 122). Hannibal is nevertheless considered an "extremely ancient" character nowadays.

Another "revival of antiquity" is presumed to have occured in the alleged XIII century:
"The Roman populace has developed a new spirit over this time; it marched forth to conquer Tuscany and Latium as it had done in ancient times, in the age of Camillus and Coriolanus [believed to be "distant antiquity" nowadays - A. F.] Roman banners bearing the ancient S.P.Q.R. initials appeared on battlefields yet again". ([196], Volume 5, pages 126-127).

A detailed list of the allegedly "revived" and "resurrected" traditions, names, and rites deemed "ancient" can be continued on dozens of pages, since practically all of the primary institutions of the "ancient" Rome appear to have been "revived" in the Middle Ages. We limit ourselves to a number of individual examples here. The interpretation of this amazing phenomenon as a "revival," and not naissance, roots itself exclusively in the errors of Scaligerian chronology.

Nowadays the only original sources on the archaeology and the monuments of mediaeval Italian Rome add up to just two books compiled in the XIIXIII century at the earliest ([196], Volume 4, pages 544-545). We suddenly learn that according to Scaligerian chronology, the names of Roman monuments given in these mediaeval books are often considered erroneous and chaotic. We are now beginning to understand that what this really means is that they contradict Scaligerian history. Could it be that the
old books are in fact correct, unlike the Scaligerian version?

For instance, these texts refer to Constantine's Basilica as "the Temple of Romulus" (sic!). This sounds preposterous for a modern historian; however, this mediaeval indication concurs perfectly with the identification of Emperor Constantine as King Romulus that we have discovered as a result of a dynastic parallel (see fig. 6.52 in Chron1, Chapter 6). Apart from such "bizarre" identifications, mediaeval chronicles contradict the consensual chronology of Scaliger and Petavius every now and then.

### 1.4. The real date when the famous "ancient" statue of Marcus Aurelius was manufactured

Ricobaldus, for one, claims that the famous "ancient" equestrian statue of Marcus Aurelius was cast and erected by the order of Pope Clemens III. However, in this case the event occurred in the XI century, and not in the "Classical Age" ([196], Volume 4, page 568, comment 74). Let us remind the reader that historians date this statue to the alleged years 166-180 A.D. ([930], page 91). By the way, according to the parallelism that we have discovered (see fig. 6.45 in Chron1, Chapter 6), the "ancient" Marcus Aurelius of the alleged years 161-180 is but a "phantom duplicate" of the mediaeval Otto IV of the alleged years 1198-1218 A.D.

The claim that Ricobaldus makes about the statue of Marcus Aurelius (that it was only erected as late as the papacy of Clemens III) makes Gregorovius utter the following rather embarrassed remark: "this is an erroneous statement that Ricobaldus makes..." ([196], Volume 4, page 568 , comment 74 ). What is the argumentation that Gregorovius offers? It is rather droll indeed: "how could such a bronze work be crafted considering the barbaric level of fine arts characteristic for Rome of that epoch?" ([196], Volume 4, page 573). In other words, mediaeval Romans "could not manufacture anything of value." The "ancient" Romans that preceded them by several centuries have, on the other hand, been fine craftsmen, and could confidently cast such masterpieces in bronze (see fig. 7.1).

The chronological oddities engulfing this famous statue are so blatantly obvious that they even make
their way into the mainstream press on occasion. This is what our contemporaries write:
"The history of the equestrian statue is truly unusual. It contains many riddles, and has grown over with legends. For instance, its author and previous location in ancient Rome remain unknown... It was discovered by accident in the Middle Ages in one of the Roman squares... The statue was mistaken for a representation of Constantine [?! - A. F.]" (See the issue of the Izvestiya newspaper dated 16 February 1980).

According to Gregorovius, this explanation was proposed by the historian Theo, who "points out that the equestrian statue of Marcus Aurelius became confused with the statue of Constantine, and thus managed to survive the Middle Ages. Such errancy is possible in Barbarian times" - as Gregorovius proceeds to expostulate - "but how can it be possible that the figure of Constantine could not be told apart from that of Marcus Aurelius in the times when the Noticia were written?" ([196], Volume 1, page 49, comment 32)

Scaligerian history has even got an "explanation" of sorts for the fact that "ancient masterpieces" have survived the twilight of the Middle Ages despite the militant church presumably busy destroying the pagan legacy. We are told that in the daytime the ignorant mediaeval monks destroyed pagan statues and "ancient" books, in order to secretly reconstruct them at night, copying the "legacy of the ancients" meticulously in order to carry it through the mediaeval tenebrosity to the luminous peaks of the Renaissance.

In the alleged XIII century we see a period of efflorescence in the arts which presumably represents ruthless pillaging of the "ancient" constructions and their transformation into mediaeval ones. For instance, we are now told that mediaeval Romans used "ancient sarcophagi" for their own entombments. Apparently, they had none of their own, since they did not know how to build them; the knowledge had been lost, and there were money shortages. According to the Gregorovian interpretation, new and original mausoleums - ones, that is, that didn't resemble the "ancient" buildings (the way Gregorovius imagined them) - only started to emerge towards the end of the XIII century, and these were dubbed "mediaeval" with great relief. However, Gregorovius proceeds to voice his surprise at the fact that "not a single monument of


Fig. 7.1. An "ancient" statue of the emperor Marcus Aurelius. According to F. Gregorovius ([196]), Ricobald used to claim that the famous "ancient" equestrian statue of Marcus Aurelius was cast and mounted by an order of Pope Clemens III. However, this period falls on the end of the XI century, and not the "antiquity". Picture taken from [958], page 9.
any Roman celebrity from the first part of the XIII century remained in Rome" ([196], Volume 5, page 510). This should not surprise us. According to our reconstruction, the foundation of the Italian Rome as a capital city took place in the XIV century A.D. the earliest (see Chrons).

Incidentally, the mediaeval cardinal Guglielmo Fieschi, who allegedly died in 1256, "lays in an ancient [sic! - A. F.] marble sarcophagus, whose carvings in relief picture a Roman wedding - a peculiar symbol for a cardinal!" ([196], Volume 5, page 510). The amazement of Gregorovius is perfectly justified. Could the mediaeval cardinals really have been so poor as to be forced to use "ancient" sarcophagi, off-
handedly shaking out the remains of their ancestors? It is considered sacrilege, after all. Common sense tells us that the matter here lies in the contradiction between the planted Scaligerian chronological concepts and true specimens of mediaeval art that were later declared "ancient" (as in "very old indeed").

The senatorial mausoleum in Arceli is a most curious artefact. This "monument appears to associate the antiquity with mediaeval forms; a marble urn with Bacchic relief carvings... serves as a foundation for a sarcophagus embellished with inlays and a Gothic superstructure" ([196], Volume 5, page 511). The amazement of Gregorovius is truly ceaseless.

Let us formulate a question: where did the powerful clans of the Guelph and Gibelline aristocracy reside in mediaeval Rome? It is hard to fathom. Apparently, we are told that they lived among the ruins of the ancient steam baths. This is precisely what the historians of today are forced to assume in their attempts to unravel the oddities of Scaligerian chronology.

This is what F . Gregorovius tells us:
"Powerful clans owned the slopes of Quirinal, and they built their fortifications near the forum of Imperial times... among them... the Capocci, who found lodgings in the thermae [in the steam baths A. F.] of Trajan, as well as the Conti, whereas the nearby thermae of Constantine [steam baths again! - A. F.] housed the fourth castle of Colonnus... The enormous ruins of the forums built by Augustus, Nerva and Caesar have easily transformed [? - A. F.] into a fortress, which was erected by the Conti as a citadel reigning over the entire city". ([196], Volume 5 , pages 526-527)

Gregorovius, albeit obliged to follow Scaligerian chronology, cannot squirm out of having to admit that there is no genuine evidence of the existence of this gigantic and allegedly "ancient" fortress before the mediaeval Conti - it simply had not existed! He writes that "there is no proof that it had stood for centuries and only been enlarged by the Conti" ([196], Volume 5, page 527). Doesn't this directly imply that Conti had most probably built this castle as his fortress in the Middle Ages, and its "extreme antiquity" was declared a lot later? This was done by the historians and archaeologists of the XVII-XVIII century when Scaligerian chronology began to shift authentic mediaeval constructions into the distant past.

### 1.5. Could the "ancient" Emperor Vitellius have posed for the mediaeval artist Tintoretto?

Let us formulate the following concept that may strike one as somewhat unexpected at first. It is possible that the XVI century painter Tintoretto (15181594) drew the "ancient" Roman emperor Vitellius from nature.

The catalogue titled The Five Centuries of European Drawing contains a drawing by the well-known mediaeval painter Jacopo Tintoretto ([714], page 52). He lived in 1518-1594 ([1472], pages 23-24). The drawing is dated to approximately 1540 A.D. The name that it is catalogued under draws one's attention instantly: "Etude of the head of the so-called Vitellius" ([714], page 52). See fig. 7.2. Let us remind the reader that Vitellius is considered to have been an "ancient" emperor of Rome regnant in the alleged year 69 of the new era ([72], page 236). Thus, according to Scaligerian chronology, Tintoretto and Vitellius are separated by an interval roughly equalling 1470-1500 years. The modern commentary to this rather famous drawing is very noteworthy:
"Tintoretto had either a mask or a marble replica of an ancient bust in his studio, that was considered a portrait of the Roman emperor Vitellius in the XVI century. The original was given to the Venetian Republic by the cardinal Domenico Grimani as a present in 1523, and is currently part of the exposition of the Archaeological Museum of Venice (inventory number 20). Modern archaeology that dates this artefact to the epoch of Hadrian (roughly 178 A.D.), excludes the possibility of identifying the portrait as that of Vitellius, who had reigned in the years 67-68. However, Tintoretto has kept this sculpture under this very name, and the testament of the artist's son Domenicus proves this explicitly mentioning the "head of Vitellius."... More than twenty etudes of this head are known that were done by Tintoretto himself and his apprentices". ([714], page 187).

The XVI century opinion was that the bust really portrayed the Roman emperor Vitellius. As we have seen, the real history of the bust only began in 1523, when it entered the possession of the Venetian republic. It may have been drawn in the XVI century either from the death-mask of the emperor, or from nature - namely, the body of the recently deceased Vitellius.

Tintoretto's drawing clearly depicts someone who has just died, or is asleep. It is only natural that Scaligerian history deems it perfectly impossible to place the "ancient" Vitellius in the XVI century. It would therefore be interesting to try dating this bust to the XVI century within the paradigm of the New Chronology for comparison, especially considering the dynastic parallels that we have discovered. The historians consider Vitellius to have been an emperor of the Second Roman Empire ([72], page 236). As we already know, it is a phantom duplicate of the Holy Roman Empire of the X-XIII century (fig. 6.23 and 6.24 in Chroni, Chapter 6), which, in turn, is a carbon copy of the Habsburg (New Town, or Nov-Gorod?) empire of the XIII-XVII century A.D. for the most part (see figs. 6.21 and 6.22 in Chroni, Chapter 6).

The "ancient" Vitellius is considered to have been a short-term governor, and the immediate predecessor of the "ancient" Vespasian. He is supposed to have reigned in 69 A.D. ([72], page 236). Therefore, he travels forward in time as a result of said dynastic superimpositions, and turns out to have been a mediaeval ruler of the first half of the XVI century; as can be seen from fig. 6.22 in Chron1, Chapter 6, the end of his reign and his death fall roughly on the year 1519. It is significant that, as mediaeval historians tell us, the bust that must have portrayed the recently deceased Vitellius only appeared on the historical scene around 1523, when it was given to the Venetian republic as a present ([714], page 187). Thus, the two dates correlate perfectly well: the "ancient" Vitellius dies around 1519, and a bust is made which the cardinal gives to the Venetians in 1523, four years later.

Everything falls into place. Apparently, the bust of Vitellius portrays a real mediaeval ruler of the first half of the XVI century. Tintoretto the painter and his apprentices paint Vitellius as a recently deceased famous contemporary of theirs. The latter saponaceous addition -"so-called" - added by the historians of the Scaligerian tradition, needs to be crossed out of the name of Tintoretto's drawing, leaving it with the shorter and more correct "Etude of the head of Vitellius."

If we're to consider the possibility of minor veers and fluctuations in mediaeval chronology, it might turn out that Vitellius died a few years later than 1519, so Tintoretto could have drawn him from nature, while one of his colleagues was making an intravital "an-


Fig. 7.2. The etude of the head of the Roman emperor Vitellius done by the famous mediaeval painter of the XVI century Iacopo Tintoretto. According to Scaligerian chronology, emperor Vitellius and painter Tintoretto are separated by a period of roughly 1470-1500 years. Taken from [714], page 52 .
cient" bust of Vitellius. The apprentices of Tintoretto naturally trained for their task by first drawing a bust being inspired by the drawing done by their mentor - who, as we feel obliged to reiterate, may have been present to witness the famous emperor's death.

Another peculiar detail has to be mentioned. The lower part of Tintoretto's drawing bears the legend " 1263 " (see fig. 7.2) - dating from 1263. But Tintoretto lived in the XVI century. Modern historians mention this circumstance as well, albeit without commenting on it: "At the bottom in the centre one sees the number 1263 drawn with a pencil" ([714], page 187). We are confronted with an important fact here. The artist Tintoretto, having done the drawing around 1540 , dated it to 1263 . However, usually all painters date their works to the time of their creation. Tintoretto thus transcribes the year 1540 as 1263 . This shows us,
which is exactly what we claim, that there were various mediaeval chronological traditions that differ from the one that we're accustomed to. For instance, the number 1263 could have been used to refer to the year 1540 . If we interpret it according to the modern tradition, we shall get a much earlier date, which would make the drawing about 277 years older. This is probably what Scaligerian historians usually did in such situations; however, this time they had to "let the drawing stay" in 1540 , since Tintoretto is linked to the XVI century by various independent evidence.

### 1.6. The amount of time required for the manufacture of one sheet of parchment

We shall conclude with another useful observation. Many of the classical "ancient" texts are written on parchment or papyrus - however, they're written in a perfect acrolect. On the other hand, many really old mediaeval texts are written in a clumsy and brief manner, which is quite natural. Primitive language requires time in order to become literary language. Furthermore, really ancient texts contain words written in nothing but consonants comprising semantic skeletons of words, with vowels either altogether missing, or replaced by small diacritic signs. This is the reason for the existence of the vocalization problem in many ancient texts, namely, the Biblical ones - it translates as the necessity to find just the right vowels in order to restore the original. Apparently, due to the scarcity and high cost of writing materials in antiquity, the scribes were frugal with them, and condensed the text, leaving nothing but consonants. One naturally comes to think that a polished literary style implies a long evolution of culture, and also the availability of writing materials, since style takes practice to evolve. Paper, for instance, is rather cheap (although this has not always been the case). However, there was no paper in "antiquity." As we are being told nowadays, the "ancient" classics used parchment exclusively. Just how available had parchment been?

The manufacture of one sheet of parchment requires the following (see [544], for instance):

1) skinning a young calf no older than 6 weeks, or a young lamb;
2) macerating the skin in running water up to 6 days;
3) scrubbing the membrane off with a special scrubber;
4) loosening the wool via souring the skin in a damp pit and subjecting it to ash and lime for 12-20 days;
5) scraping off the loosened wool;
6) fermenting the clear skin in oat or wheat bran in order to remove excessive lime;
7) tanning the skin with special extracts to make it soft after drying;
8) eliminating the roughness by pumicing the chalked skin.

This is the procedure required for the manufacture of every leaf of parchment. This made both parchment and papyrus luxuries, which had been the case until the very discovery of rag-paper before the Renaissance.

Let us open the work of the "ancient" Titus Livy. He begins his narration ornately and grandiloquently:
"Shall my writing of the history of the Roman people from the foundation of the capital be worth the effort? I do not know it well, and even if I did, I would have been too timid to utter it aloud. This endeavour, as I can see perfectly well, is far from original, and was attempted by many; also, the new writers that keep on appearing think they may either add something new factually, or excel the austere antiquity by the art of enunciation..." ([482])

We are being assured that such a free-flowing and elaborate style was used in the alleged I century b.c. for the writing of 142 (or 144 , according to different sources) books of Titus Livy. Developing a style as confident as his must have required writing lots of drafts. How much parchment (and how many calves and lambs) would it require? We believe the explanation to be simple - the creation of all these "ancient" books took place in the Middle Ages, when paper was already widely known.

### 1.7. The "ancient" Roman Emperor Augustus was Christian, since he had worn a mediaeval crown with a Christian cross

In fig. 7.3 we can see the well-known mediaeval Hereford map, dating from the end of the alleged XIII century ([1177], pages 309-312). Its physical size is rather large - 1.65 metres by 1.35 metres. It is as-


Fig. 7.3. The famous mediaeval Hereford map allegedly created near the end of the XIII century. Its diameter is about 1.3 metres. In the bottom left-hand corner one sees the "ancient" Roman emperor Augustus sitting on a throne. On his head there is a crown with a Christian cross. See a close-in on the next illustration. Taken from [1177], page 311.


Fig. 7.4. The bottom left-hand corner of the Hereford map showing the "ancient" Roman emperor Augustus sitting on his throne. We can clearly see a crown with a Christian cross on the emperor's head.


Fig. 7.5. A fragment of the Hereford map. We can see a mediaeval crown with a Christian cross on the head of the "ancient" Octavian Augustus. Taken from [1177], page 206.


Fig. 7.6. A Christian crown with a cross on the head of the "ancient" Roman emperor Octavian Augustus. Taken from [1177], page 206.


Fig. 7.7. An "ancient" statue of the emperor Octavian Augustus from the Vatican museum, most probably dating from the XVII century the earliest. Serves as a "visual learning aid" to the Scaligerian history textbook. Taken from [304], Volume 1, page 489.
sumed that this map is based on the History by Paul Orosius, who is supposed to have lived in the IV century A.D. ([1177], page 311). As we understand, this map must have really been created in the XVI century at the latest.

In the bottom left corner of this map we can see the famous "ancient" Roman emperor Augustus. He is handing out his edict demanding the creation of a description of the World to three geographers (see [1177], page 206, and fig. 7.4). Modern historians make the following comment: "on the left of the map we read that the measurements of the world have been commenced by Julius Caesar. In the bottom left corner we see a picture of the emperor Augustus holding his edict in his hands" ([1177], page 309).

The fact that what we see on the head of the "ancient" Roman emperor Augustus is a mediaeval crown with a Christian cross (it looks very much like a Papal tiara as well, see figs 7.5 and 7.6) is perfectly astonishing within the reality tunnel of the Scaligerian history. Generally, the entire appearance of the famous Roman emperor doesn't resemble his likeness in the "ancient history teaching aids" for the Scaligerian history whose mass production era in Western Europe peaked in the XVI-XVIII century, the least bit. In fig. 7.7 we can see an example of such a "propaganda" statue of Augustus which is kept in the Museum of the Vatican nowadays ([304], Volume 1, page 489). Octavian Augustus is represented in an austere and heroic manner here, doubtlessly an example to inspire the youths. This "ancient" statue must have been manufactured in the XVII century at the latest. On the Hereford map the very same Roman emperor Augustus is represented in a completely different manner, in a crown with a Christian cross, a beard, and wearing typically mediaeval clothing. As we now understand, there is nothing strange about it. The map is correct, and this ruler couldn't have lived earlier than the XIII century A.D.

## 2. <br> THE "ANCIENT" HISTORIAN TACITUS AND THE WELL-KNOWN RENAISSANCE WRITER POGGIO BRACCIOLINI

Today it is considered that the famous "ancient" Roman historian Tacitus lived in the I century a.D. ([833], Volume 2, pages 203, 211). His most famous work is the History. In Scaligerian chronology, the books of Tacitus disappeared from sight for a long time, fell into oblivion, and only resurfaced in the XIV-XV century A.D. This is what Scaligerian history tells us:
"Mediaeval authors of the XI-XIII century usually demonstrate no immediate knowledge of Tacitus, he is only known by proxy of Orosius... In the XIV century Tacitus becomes known better. The Montecassino manuscript had been used by Paulinus of Venetia (in 1331-1334) ... and later on Bocaccio... Then it... came to the well-known Florentine humanist Niccolo Niccoli, and is also kept in Florence currently, in the Medicean Library... Our tradition of the last books of the Annals and History ascends to this manuscript
 commentator has the following to say about it: "This fantastic miniature depicts Poggio, one of the most famous adventurers of the entire XV century who had researched the Classical past. Poggio Bracciolini is walking down a street surveying the ruins of Rome" ([1374], page 92.

Fig. 7.9. A close-in of Bracciolini's portrait allegedly dating from the XV century. Taken from [1374], page 92.
for the most part. Only the Italian manuscript of 1475 currently kept in Leiden must have had some other source. In the 1420's, the Italian humanists started to look for Tacitus' manuscripts in Germany. The history of this search remains unclear in many ways due to the fact that the owners of the freshly-found texts often withheld their acquisitions, especially if they were made illegally. In 1425 the eminent humanist and Papal secretary Poggio Bracciolini received an inventory of a number of manuscripts that contained several minor works of Tacitus from a monk from the Hersfeld Abbey... Whether the manuscript had really been from Hersfeld or from Fulda, or whether Poggio had really received it, likewise the possible date of this event - all of this remains a mystery. In 1455 the manuscript or its copy was already in Rome, and provided the basis for the manuscripts that have reached our day". ([833], Volume 2, page 241).

We have thus been told the following:

1) According to Scaligerian chronology, Tacitus lived in the alleged I century A.D., presumably around the years 58-117 A.D. ([797], page 1304).
2) However, his History had not been known in the Middle Ages.
3) The biography of the History by Tacitus that we have at our disposal can only be traced as far back from our time as the XIV-XV century A.D.
4) Nothing is known about the fate of the History before the XIV century. Hence the hypothesis that the books of Tacitus may have been mediaeval in their origin and referred to real mediaeval events of the XXIV century A.d. However, they may have been edited in the XVI-XVII century.

This summary would have been sufficient. However, let us point out an interesting fact. The academic account of the fate of Tacitus' books that we have quoted from [833] is written neutrally and demurely, and contains nothing that could surprise us. Except for the odd gap of a millennium and a half between the moment the book was written and its surfacing in the XV century a.d.

This arid text really conceals some rather peculiar circumstances blearing the entire history of the discovery of the books written by the "ancient" Tacitus. Modern historians aren't too keen on recollecting these facts, since they lead to a number of confused questions and serious doubts about the correctness
of the datings of the events described in the books of Tacitus.

Let us give an account of what really happened in the XV century. We shall study the history of how the famous History by Cornelius Tacitus was discovered, according to the following works: [1195], [1379], and [21]. Towards the end of the XIX century the French expert Hochart and the English expert Ross independently proclaimed the History of Cornelius Tacitus to have actually been written in the XV century by the eminent Renaissance humanist Poggio Bracciolini. In other words, they accused Bracciolini of premeditated forgery.

The publication of the works by Hochart and Ross initially caused a great scandal in the historian community. However, their opponents were forced to give over with the discussion, since they had nothing of substance to counter the evidence of Hochart and Ross with; they resorted to the stance of complete obmutescence instead.This is a method common for such adversaries. The modern commentary to [833] is a perfect example, since it doesn't mention the research of Hochart and Ross with a single word.

The analysis performed by Hochart and Ross was very important. Let us state right away that nowadays when we possess information that had been unknown to Hochart and Ross, we should say that we cannot agree with their conclusion about the History of Tacitus being a forgery. The facts that we have discovered and the new concept of the abbreviated chronology suggest that it was based on a lost original - which was, however, describing real mediaeval events and not some distant antediluvian epoch. However, this text reached us in a more recent edition, possibly done in the XVI-XVII century.

Hochart and Ross discovered distinct relics proving the History of Tacitus to be mediaeval in its origins. Hochart and Ross had only been wrong concerning one thing - namely, the interpretation of their own results. Remaining perfectly unaware of the inveracity of the Scaliger-Petavius chronology, they considered the facts they discovered to prove History a sham; however, from our point of view the very same facts may indicate that the History of Tacitus was a genuine historical text describing real events of the XIVXV century A.D. However, it could have undergone a
transformation in the hands of the partisan "caring editors" of the XVI-XVII century.

Let us consider the Renaissance atmosphere that the "ancient" manuscripts were "surfacing" in.

Poggio Bracciolini is considered one of the most spectacular writers of the XV century Renaissance. An old portrait of his can be seen in figs. 7.8 and 7.9. He is the author of top-bracket historical and moralistic tractates. "In what concerns theological issues... he can speak in a language that would have been considered belonging to one of the Holy Fathers by anyone if it hadn't been for Bracciolini's signature" ([21], pages $358-363$ ). He is the author of the historical study guide of Roman monuments and the famous History of Florence, which is a work that resembles the chronicle of Tacitus.
"This brilliant imitator had fully been a universal mastermind of his century. The critics equated him with the greatest Renaissance authors... Many found it possible to define the first half of the Italian XV century as the "Age of Poggio"... Florence built an intravital statue in his honour that belonged to the chisel of Donatello...

A rather splendid way of living had cost Poggio Bracciolini dearly... and put him in constant need of money. The search, preparation, and copy-editing of ancient authors were an additional source of income for him. In the XV century... this was a very lucrative activity. With the aid of the Florentine scientist and publisher Niccolo Niccoli (1363-1437)... Poggio Bracciolini founded a studio of sorts that occupied itself with the edition of the ancient texts, having engaged a large number of partners and counteragents, very educated ones, but most of them had been marked by obloquy...

The first findings were made by Poggio Bracciolini and Bartholomeo di Montepulciano in the epoch of the Constantian council... in a forlorn and humid tower of the St. Gallen monastery... "in a forlorn and humid tower where a prisoner would not survive three days" they managed to find a pile of ancient manuscripts - the works of Quintillian, Valerius Flaccus, Asconius Pedianus, Nonius Marcellus, Probus, and others. The discovery created more than a sensation - it initiated an entire literary epoch". ([21], pages 358-366).

A while later Bracciolini "discovered" fragments
"from Petronius" and the Bucolic by Calpurnius. The circumstances of these findings remain nebulous.

Apart from the originals, Bracciolini also traded in copies, which he sold for great sums of money. For instance, having sold a copy of Titus Livy's manuscript to Alphonse of Aragon, Poggio made enough money to buy a villa in Florence.
"He charged Duke D'Este a hundred ducats (1200 francs) for the letters of St. Jerome, and that with great irritation... Poggio's clients were the Medici, the Sforza, the D'Este, the aristocratic families of England, the Duchy of Burgundy, cardinals Orsini and Colonna, rich people like Bartolomeo di Bardi, universities, which... either started to set up libraries, or were busy extending their old book storages". ([21], pages 363-366).

Let us now regard the history of the discovery of Tacitus' books.

The main copies of Tacitus' works - the so-called First and Second Medicean Copies - are kept in Florence, in a book storage which had Poggio amongst its founders. According to Scaligerian chronology, these copies are the prototypes of all the other ancient copies of Tacitus.

The first printed edition of Tacitus is supposed to have come out in the alleged year 1470, based on the Second Medicean copy or a copy thereof that is supposed to have been kept in the St. Marcus library in Venice. "However, it has disappeared from there, or maybe wasn't kept in the library in the first place" ([21], pages 366-368).
"The two Medicean copies... contain the complete historical works of Tacitus that have reached our days" ([21], pages 366-368).

Scaligerian chronology is of the opinion that Tacitus was born between 55 and 57 a.d. "The year Tacitus died remains unknown" ([833], Volume 2, pages 203, 211). Thus, it is presumed that Tacitus lived in the I century A.D.

After that, his name disappears for many centuries, until the Renaissance epoch ([833]). Hochart and Ross have collected all the references to Tacitus made before Poggio's discovery in the XV century. It turns out there are very few such references, and they are all general and vague enough that they could refer to people who have nothing in common with the author of History. Thus, even in Scaligerian chronology there is no real
information about Tacitus - the author of History that would predate the XV century.

How did the "discovery of Tacitus" really occur? "In November 1425 Poggio notified Niccoli in Florence from Rome that "some monk" was offering him a batch of old manuscripts... including 'several works of Tacitus unknown to us'" ([21], page 382). Niccoli agrees upon the deal immediately. However, the actual purchase takes several months for some reason.
"Poggio procrastinates, giving different excuses... He gives a rather meandrous answer to Niccoli's inquiry that only makes clear the fact that he had not been in the possession of the Tacitus' book yet... In what concerns the monk, Poggio blatantly lies and appears confused: the monk is allegedly a friend of his, but for some reason failed to have visited Poggio while in Rome... the books were in Hersfeld, but had to be collected in Nuremberg, etc."([21], page 382).

Niccoli demanded the book catalogue "discovered" by Poggio, being rather irritated. It turned out that "there were no works of Tacitus in the catalogue"!
"Such strange rigmarole of miscomprehensions that look clearly artificial marks the years 1427 and 1428 " ([21]). Finally, Poggio notifies Niccoli in 1428 that the mysterious monk had arrived in Rome again - but without any book!
"The almost quinquennial procrastination led to the situation where Poggio's discovery had been made public prior to having actually been made, and many strange rumours surrounded it. The latter made Niccoli worry greatly, to which Poggio replied: "I know all the songs that are sung in this respect... so this is what I'll do: once Cornelius Tacitus arrives, I shall hide him well from strangers." One would think - as Hochart justly remarks - that the most natural protection of the manuscript from vicious rumours would be making it public for the scientists, explaining all the ways, means, and secrets of its appearance. Poggio, on the contrary, promises to palter yet again..." ([21], pages 374-382).

Hochart and Ross have found that "in a much later edition of his letters to Niccoli, Poggio, having lost track of the dates of his Tacitus-related correspondence of the years 1425-1429, had for some reason forged the dates of 28 December 1427 and 5 June 1428 in two of the letters that were made public" ([21], pages 374-382).

In these letters Poggio asks Niccoli to send him (?!) another copy of Tacitus that had allegedly already been in Niccoli's possession. Comparing the dates of the correspondence and the texts of the letters, Hochart claims the mysterious "second copy" to have been nothing else but the First Medicean copy that had allegedly been discovered many years after!

Hochart is of the opinion that "the letter dates are counterfeited, they have been composed post factum after Niccoli had made Tacitus public in order to validate the reputation of the first... copy [the so-called Second Medicean one - A. F.] that had entered the collections of several palatine libraries, and prepare the way for the second copy" ([21], pages 374-382). Today's historians are of the opinion that these two copies were discovered in a reverse order.

Amphitheatrov, whom we often quote here, wrote the following:
"Studying the history of the origins of the First Medicean Copy [the second to have been discovered - A. F.]... one cannot fail to notice the recurrence of the legend that had engulfed the copy of Niccolo Niccoli 80 years ago... a northern monastery figures here again, as well as some mysterious, unnamed monks. Some German coenobite brings the first five chapters of the Annals to Pope Leo X. The Pope is delighted, and presumably designates the monk as the editor of the work. The coenobite refuses, pleading semi-literacy. One clearly sees the resurrection of the legend about the provisioner of the Second Medicean Copy [the first to have been discovered - A. F.] and the Hersfeld monk... the legend calls Arcimboldi the intermediator in this deal... however, Arcimboldi doesn't mention this with a single word, despite the fact that he is supposed to have received 500 sequins from Leo X in order to pay for it - that amounts to 6000 francs, an entire fortune considering the cost of money [this makes chronology irrelevant! - A. F.]. All of these mysterious monks with no name, origin, and place of residence are the perpetrators of the falsification system started by Poggio Bracciolini in the eyes of Hochart. No one ever sees them or knows anything about them, yet today one of them brings a lost decade of Titus Livy from Sweden or Denmark, tomorrow another one comes from Corbea or Fulda with a work of Tacitus, etc. - they always come from the North that is far away and hard to reach, and they


Fig. 7.11. A close-in of a fragment portraying a mediaeval writer, most probably, Titus Livy himself. Taken from [1485], ill. 349.
always bring the very goods that are sought after and that the book market of the century is starved for" ([21], pages 374-382).

The study of Poggio's correspondence leads to stronger suspicions. The authors of the letters either fail to mention the findings, or give mutually exclusive versions.
"Bayle tells us [already in the XVIII century - A. F.] that Pope Leo X wanted to find the missing chapters of Tacitus so much that he promised an indulgence of sins for them as well as money and power. Is it surprising that they were found with haste? [Chronology is of little relevance here-A.F.]. Therefore, both parts of the Tacitus' codex are of equally mysterious origins. Hochart assumes that the relation of legends and mystery that surrounds them indicate a common origin and family, namely, that they have been forged in the Roman studio of the Florentine Poggio Bracciolini". ([21], pages 374-382).

Hochart and Ross provide information that speaks unequivocally about Poggio's penchant for transformation. For Poggio Latin is a mother tongue. "He doesn't write in any language but Latin, and how he does it! His imitational flexibility makes him the Prosper Mérimée of the XV century... when the reader wants it, Poggio becomes Seneca, Petronius and Titus Livy; he can write like anyone, a true chameleon of word and spirit" ([21], page 385).

The analysis of the books by Tacitus shows serious discrepancies between their content (in what concerns the history and the geography of "ancient" Rome) and the consensual Scaligerian version of "ancient" Roman history.
"A great list of contradictions is cited by Gaston Boissier... Having listed a great number of mistakes [have they really been mistakes? - A. F.] that couldn't have been made by a I century Roman [according to Scaligerite historians - A. F.], Hochart points out the ones that give the author away as someone adhering to the XV century traditions and Weltanschaunng". ([21], pages 387-390).

This is an important moment. For Hochart, Ross, Gaston Boissier and other critics of Tacitus all of this signifies the History to be a forgery. Being raised on Scaligerian history and certain of the fact that "the real Tacitus" must have lived in the I century A.D., they cannot interpret the XV-century relics found in the
text of the History by Tacitus in any different way. For us, there is no contradiction here. It suffices to suppose the following: the "History" of Tacitus refers to real events of the XIII-XV century A.D. Tacitus, being a XV century author, naturally "adheres to the XV century traditions and Weltanschauung"; thus, the "misses" found by the historians become evidence of the fact that Tacitus' History is genuine, albeit with the condition that we transfer the time period that it covers into the Middle Ages.

At the same time, Hochart and Ross have found some extremely peculiar circumstances of the unearthing of Tacitus' History. They consider these to be indications of forgery; our take is that they indicate a tendentious editing of the real text of the History by Poggio Bracciolini. However, it is possible that Tacitus was a nom de plume used by Poggio Bracciolini. He could really have described the "ancient" Roman events that occurred in the XIII-XV century A.D. having read about them in some genuine documents that he managed to lay his hands on. See for yourselves:
"His [Poggio's - A. F.] sojourn in London was marked by greatly frustrated hopes for Beaufort's generosity... In 1422... Piero Lamberteschi offers him a project of some historical work that is supposed to have been based on Greek sources and done in the utmost secrecy over the period of three years, for which Poggio would receive a fee of 500 golden ducats. "Let him pay me six hundred, and I'm game" - writes Poggio, leaving Niccoli to take care of the matter. "The task that he offers pleases me greatly, and I hope to produce something worthy of reading." A month later he writes: "if I see... that Piero backs up his promises with deeds, it shall not just be the Sarmatians that I shall study, but the Scythians as well... Keep the projects that I'm telling you about secret. If I shall indeed go to Hungary, it should remain unknown to everyone except for a few friends".

In June: "Rest assured that if I'm given enough time... I shall write something that shall please you... When I compare myself with the ancients, I believe in myself. If I really get to it, I shan't lose my face before anyone..." His subsequent location remains a mystery. According to Corniani, he had really lived in Hungary for some reason. Tonneli tells us that he went straight to Florence. Whether his mysterious deal with Lamberteschi reached any results at all re-
mains an enigma as well. Lamberteschi's name disappears from Poggio's correspondence, which Hochart explains by the fact that Poggio himself was the editor of his collected letters.

Even if the deal had fallen through and come to nothing, what possible residue could have been left by this episode? The following: "Lamberteschi was offering Poggio the creation of some secret historical work. The secrecy was planned to be great enough to make Poggio work in Hungary while everyone would think him to have still been in England. For this work he would have to study the Greek authors... and compete with the ancient historians, which he both feared and yearned for. And, finally, all the demands for secrecy that he had been ready to comply with demonstrate that the deal, albeit literary and scientific, had been a murky one". ([21], pages 393 ff ).

Lamberteschi had a moral right to confront Poggio with such a suggestion, since the latter had already been caught red-handed at the manufacture of a forgery. Several years before, Poggio had published the Commentaries of $Q$. Asconius Pedianus via Niccoli.
"The original for these Commentaries wasn't seen by anyone, and all the copies have been made by Niccoli from another copy that Poggio had sent him from Constance. It was a great success, despite the fact that... the world of science soon sensed that something was wrong... The success of the sham Asconius Pedianus had ensued in an entire series of forgeries bearing the name of the same fictitious author, but they were all too rough, and immediately got exposed as fakes. Poggio... simply turned out more artful than the others...

Prior to his involvement in the Tacitus business, he tries to sell some amazing copy of Titus Livy to Cosmas Medici and Leonello D'Este - again in an atmosphere of mystery, with a faraway monastery on some North Sea island, Swedish monks and the like somewhere in the background. It is improbable that we're speaking of an actual oeuvre being forged, but a forgery of a copy may well have taken place. It is known that Poggio had been a master of Lombardian handwriting, which the manuscript that he tried to entice the princes with had been written in... however, something went wrong there, and the precious copy disappeared without a trace... It is significant that over this period the usually prolific Poggio fails to write anything of his own...

However, he spends lots of time educating himself systematically and unidirectionally, apparently training himself for some serious task of great responsibility concerning the Imperial period in Roman history. Niccoli barely manages to send him the works required: Ammianus Marcellinus, Plutarch, Ptolemy's Geography, etc". ([21], pages 394 and ff).

Hochart is of the opinion that Poggio had been alone when he began the forgery, but was probably soon forced to engage Niccoli as well. They must have planted the so-called Second Medicean Copy first, holding the First one back hoping to "skin the same steer twice." However, the market had soon been addled by a great number of exposed forgeries. Poggio refrained from risking it the second time. The First Copy must have entered circulation by proxy of his son Giovanni Francesco after he had made away with the fortune of his father.

Apart from the works mentioned, the PoggioNiccoli syndicate has put the following "Classical" texts into circulation:

The complete Quintillian, some tractates by $\mathrm{Ci}-$ cero, seven of his speeches, Lucretius, Petronius, Plautus, Tertullian, some texts of Marcellinus, Calpurnius Seculus, etc.

The market became agitated after the finding of Tacitus. In 1455 "Enoch D'Ascoli found Tacitus' Dialogue of Orators, Agricola's Biography, and Germany (a monastery in the north yet again), whose language and character differ from the History and the Annals significantly... The Facetiae ascribed to Tacitus appeared on the market, and the sham took a long time to expose" ([21], pages 350-351).

Let us reiterate - Hochart and Ross insisted that the History of Tacitus was a sham exclusively because of their unswerving trust in Scaligerian chronology. Rejecting it and transferring "ancient" Roman events into the XIII-XV century A.D. cardinally changes our attitude even to such events as Poggio's mysterious involvement in the discovery of Tacitus' books.

Finally, let us cite an ancient miniature from the Historiarum ab Urbe condita by Titus Livy that was published in Italy in the alleged XV century ([1485], page 264). The miniature is on the very first page of the book (see fig. 7.10). The inscription below says "Titi Livii..." What we see on the miniature is a typically mediaeval interior of the house of a writer who


Fig. 7.12. A Christian cross on the page of a book by the "ancient" Titus Livy. Taken from [1485], ill. 350.
is working on a book (see fig. 7.11). The artist must have tried to draw the author of the oeuvre, namely, Titus Livy. However, learned historians prefer to assure us that it isn't the "ancient" Titus Livy, but, rather, an anonymous humanist writing some book. Modern historians archly comment that "On top of the first page of the text we see a writer who finishes his work... The picture shows a humanist scientist in his study" ([1485], page 264). However, most probably, the picture represents the author of the book, or the mediaeval writer Titus Livy. He may have been a contemporary of Poggio, or Poggio Bracciolini himself, who had been a humanist scientist after all.

What one has to note in this respect is that on the pages of the books by the "ancient" Titus Livy and other "Classical authors" one keeps coming across mediaeval symbolism, Christian crosses and coats of arms, for instance (see fig. 7.12). The modern commentators naturally noticed this phenomenon a long time ago. For instance, the current edition of the book by Titus Livy is commented upon in the following matter:"The beginning of Book $21 \ldots$ one sees a coat of arms with a cross and some angels" ([1485], page 265). However, today the commentators prefer to assure us that all these visible late mediaeval relics have been introduced into the "ancient" books by the artists just in order to please the mediaeval book-owners. The real explanation is most probably a different and more natural one - namely, that the mediaeval Christian artists used the
mediaeval Christian symbols in order to illustrate a mediaeval book of a late mediaeval author who was describing contemporary mediaeval events.

## 3. <br> THE MEDIAEVAL WESTERN EUROPEAN CHRISTIAN CULT AND THE "ANCIENT" PAGAN BACCHIC CELEBRATIONS

According to our reconstruction, the "ancient" Dionysian (Bacchic) pagan cult prevailed in Western Europe in the Middle Ages, that is, in the XIII-XVI century, and not in "distant antiquity." This may have been one of the forms of mediaeval Western European Christianity. Can we find support for this theory in the original sources that have reached our time? We can, and rather substantial support at that.
N.A. Morozov in his analysis of ecclesiastical history has paid attention to the known, albeit oftentimes withheld, fact of the openly Bacchic practise of Christian officiations in mediaeval Italy and France, where liturgies often transformed into orgies, convents would frequently serve as houses of ill repute, etc.

What does Scaligerian history tell us about mediaeval Western European monasticism? Let us turn to the book by Alexander Paradisis titled The Life and Activity of Balthazar Cossa (Pope John XXIII) ([645]).
"Nothing remained of the reclusion and the piety of the first centuries of Christianity, the decadence of the church and its morals attained grandiose proportions... The nuns' clothing didn't help austerity, either, since it served to emphasize their natural beauty and gracefulness... Nearly all Italian monasteries [according to Rodocanachi] allowed male visitors... As for Venetian monasteries - Casanova is not the only source of information in what regards those; St. Didier writes that "nothing attracted as much interest in Venice as the monasteries." Noblemen have been frequent visitors there, too. Since all of the nuns were beautiful and clean-limbed, none of them went without a lover. The care of the dominae about the morals manifested as aiding the nuns in finding more elaborate ways of meeting their lovers and providing necessary alibis. During the Venetian carnival (which would last almost half a year over there), convents would turn into dance halls filled with masked men... The dresses have been narrow,


Fig. 7.13. "The Abode of the Jolly Friars" - a Dutch "caricature" of the alleged XVII century depicting monks indulging in drunken revelry. The "caricature" bears the legend "Such is the Way to the Stars". Taken from [492], Volume 1, page 223.
fitting tight around the waist, with large scoop necklines which demonstrated the white and voluptuous bodies of the nuns." (see Rodocanachi (E.), La femme Italienne, avant, pendant et après la Renaissance, Paris, 1922.)

Charles Louis Pölnitz writes that Venetian nuns curled their hair, wore short dresses that failed to cover their shapely legs, and that their bosoms were only covered when they sang in church choir. The garments worn by the Roman nuns also weren't exactly characterized by demureness; as for the Florentine nuns, the prior of a friary who had visited Florence writes that they resembled mythical nymphs rather than "brides of Christ" (see Pizzichi, Viaggio per l'alta Italia, Firenze, 1820). There were theatres at many monasteries where it was allowed to give performances, however, only the nuns could take part in those. The nuns of Genoa weren't exactly known for continence, either. One of the Papal edicts aggrievedly stated that "the sisters from the convents of St. Philip and St. Jacob roam the streets of Genoa, committing whatever ribaldries their hotspurred imaginations dictate" ([645], pages 160-162).

Finally, the church began to persecute this Bacchic form of the Christian cult in the West.
"The dissoluteness of the nuns in the Bolognese convent of John the Baptist had been so great that the authorities were forced to disperse the nuns and close down the convent. The nuns from the convent of St. Leonard were given into custody of the St. Laurence convent which had gained prominence due to its austere and harsh regulations, known as "the tormentor of the nuns"... The amount of nuns persecuted by the justice was growing with the day. Every Bolognese convent had a nickname: "the convent of the dolls'" "the convent of the gossipers," "the convent of the repenting Magdalenes," "the convent of the wenches," "the monastery of the Messalinas," etc. (see Frati (Lodov.), La vita private di Bologna nel Medio Evo, Florence, 1898)...

The eminent humanist Giovanni Pontano tells us that in Valencia the Spaniards had free access to the convents, and that it was hard to differentiate between these holy tabernacles and houses of ill repute. Settenbrie, who studied the last collection of Masuccio's works, writes that the book The Conjugality of


Fig. 7.14. A "caricature" of Pope Leo X and his debauched life. Copper engraving dating from the XVI century. Taken from [492], p. 181.

Monks and Nuns has been withdrawn from circulation, and entered the list of the books forbidden by the Catholic Church, while its author was anathematized" ([645], pages 162-164).

Let us stop for a moment and think. A natural question arises, namely, that of the essence of the Christian cult in Western Europe prior to the introduction of the rigid sanctions of the XVI-XVII century. Did it resemble modern Christianity? Nowadays we are often told that the mediaeval clergy frequently spent time in bacchanals. We have all heard of the alleged lechery of many mediaeval monks who are supposed to have corrupted the original ideals, which were intrinsically pure. See figs. 7.13 and 7.14, for instance.

An unprejudiced study of mediaeval documents shows this mediaeval Christian cult to have been practically identical with the one we consider the ancient Bacchic, Dionysian cult. N. A. Morozov cites plenty of data showing that, for instance, official prostitution was an integral part of the mediaeval Western European Christian liturgy. Another example is the love-cult prevalent in a number of mediaeval temples located on
the territory of modern India. Accordingly, there exists the possibility of a stance contradicting the official modern standpoint, one which would interpret the distinct relics of the Bacchic in Christian rituals of the Middle Ages as the corruption of archetypal Christianity. These "ancient relics" persisting in the Middle Ages strike us as odd nowadays since they contradict Scaligerian chronology. A change of the latter and the dislodgement of the "antiquity" into the Middle Ages instantly eliminates the seeming contradiction.

Scaligerian history contains many relics of the mediaeval Bacchic-Christian liturgies. According to the experts in the history of religions, the Western European Christians of the Middle Ages had (see, for instance, the review given in [544]) religious rituals including nocturnal congregations called "agapes," or "nights of love." Despite the efforts of the late mediaeval and modern commentators to convince us that these Christian "love suppers" involved nothing but "comradely libations" and "platonic cordialities," the initial meaning of the word "agape" reveals something completely different. As N.A. Morozov duly re-
marks, the correct Greek word for fraternal love is "philia," whereas "agape" is solely used for erotic love.

Therefore the "agapes" have most probably merely been the way Christians referred to the mediaeval Western European bacchanals of the Dionysian cult with all of their orgiastic attributes - the attributes considered "extremely ancient" nowadays. What Scaligerian chronology presents as an exception must have been the rule for the Western European Christian church of the Middle Ages. For instance, the numerous references to "Papal and Episcopalian lewdness" simply indicate just how widespread the Christian bacchanal cult was in the Middle Ages. This may have been a result of a distortion of the strict Christian rites of the XII century. Let us recollect that the pagan bacchanals were described by the "ancient" Titus Livy in his famous History of the City. And the dynastical parallels that we have discovered link the "ancient Rome" of Titus Livy to the epoch of the XI-XIII century, and also partially to the Habsburg (New Town, or Nov-Gorod?) epoch of the XIV-XVI century (see figs. 6.19, 6.20, 6.21, 6.22, 6.23, 6.24, 6.52 and 6.52 in Chron1, Chapter 6).

Apparently, the necessity of curbing the Bacchic cult eventually presented itself. N. A. Morozov puts forth a hypothesis that this Christian-Bacchic practice of religious Dionysian orgies in the Western church may possibly have caused a wide propagation of venereal diseases in Western European countries ([544], Volume 5). We shan't discuss the likelihood of this hypothesis, since it's well beyond the scope of our work. It is however possible that the Western European church of the XV-XVI century eventually had to return to the original, ascetic and somewhat austere style of the XII century Christianity in order to mitigate the effect of negative social aftermath of the Bacchic rites. This may have been one of the primary reasons for religious reform, as well as for the rigid celibacy edicts. This reform was later arbitrarily placed in the XI century A.D. and ascribed to "Pope Gregory VII," or "Pope Hildebrand" ("Ablaze as Gold"), who, according to our reconstruction, is a reflection of the XII century Jesus Christ. One takes it that many events of what we know nowadays as "Hildebrand's biography" actually pertain to the more recent periods of the XIV-XVI century.

Naturally, doing away with the "ancient" Bacchic
or Dionysian cult was far from an easy task due to its great appeal, accumulated social consequences (venereal diseases, etc.) notwithstanding. Nowadays "Pope Hildebrand" is the very person who is said to have given great attention to this problem during the religious reform of the alleged XI century, which is the time period associated with the rigid edicts about the expulsion of those holy fathers who continued their married lives. This decision caused an uproar, since almost all of the Roman clergy was married. As N. A. Morozov pointed out:
"The natural facet of human existence had suffered defeat in this tragic matrimony conflict, and rigid monastic asceticism triumphed due to the influence of the Gospel according to Matthew - the actual celibacy edict must have been caused by a wide propagation of venereal diseases among the clergy as well as the laics, since it is hard to explain and justify such an innovation." ([544], Volume 5)

The opposition was crushed, although it had taken years of struggle.

The necessity of crushing the orgiastic Christian cult entailed the establishment of the Inquisition for the initiation of hard-line reforms in both clerical and secular life of Western Europe. We should point out that the Eastern Orthodox Church and Russia in particular have never seen such open and wide dispersion of Bacchic practices. This is why there was no Inquisition in the Orthodox Church. The transition to the stricter modern form of the cult in the Western church may have been caused by the negative social after-effects of the Bacchic liturgies.

However, N. A. Morozov was persistent in regarding the Orthodox church as the heir of the Western Latin church,by and large. We consider this to be another grave mistake of his. The reason for this error is clear to us now: N. A. Morozov erroneously considered the Western church much older than the Orthodox church in general, and the Russian church in particular, since, according to the Scaligerian outlook, the formation of the Orthodox Church in Russia occurred as late as the X-XI century, whereas in Morozov's opinion the Western church was formed in the IV-V century A.D.

However, nowadays we are beginning to understand that both the Western and the Orthodox Church - the Russian church in particular, appeared simulta-


Fig. 7.15. The title picture from a book on witchcraft by Pretorius dating from 1668. A propagandist representation of a "sabbat of the witches". Taken from [492], Volume 1, page 95.


Fig. 7.16. "Bacchanal" by Dosso Dossi. Kept in the Castel Sant'Angelo National Museum in Rome. Taken from [138], page 80.
neously - in the XII-XIII century, qv in the new statistical chronology as related in Chron1, Chapter 6. Apparently, the Orthodox and the Latin church were of the same origin, and have subsequently been developing in cardinally different ways. The very name of the Orthodox (as in conservative, or ancient) Church indicates the possibility of the Orthodox practice being closer to the proto-cult of the XII century than the Latin-Catholic liturgy.

The mediaeval descriptions of the infamous "diabolic sabbats" in Western Europe must have been based on the same archetypal "agape" Bacchanals as mentioned above, but these have already been declared "a creation of the devil" (see fig. 7.15). Let us remind the reader that dissolute orgiastic excesses had been a notable feature of the agapes or sabbats (according to Scaligerian history). Quite naturally,
the new "reformed" Western European church conveniently delegated the responsibility for the agapes (or sabbats, or Bacchanals) to "the devil" in order to smother all recollections of the recent Bacchic Christian past in the congregation. The people's own history was thus ruthlessly severed and attributed to a "different religion", or even to "the devil". After that, it was further removed into an antediluvian age labelled "antiquity." In fig. 7.16 one can see one of the numerous and rather eloquent pictures of a mediaeval "ancient" Bacchanal - the famous oeuvre by Dosso Dossi bearing that very title. Further, in fig. 7.17, one sees a relief from an "ancient" Attic sarcophagus made in the Middle Ages with an effigy of a Bacchanal feast in the honour of Dionysius. The famed "Bacchanal" by Rubens, painted around 1615, can be seen in fig. 7.18.


Fig. 7.17. A Dionysian feast. A relief from an "ancient" Attic sarcophagus. Taken from [304], Volume 1, page 103.


Fig. 7.18. "Bacchanal" by Rubens. Dating from around 1615. Taken from [188], sheet 44.


Fig. 7.19. The illustrations on top represent fragments from the capital of the Strasbourg cathedral. A bear is carrying an aspersorium, a wolf follows him with a cross, followed in turn by a hare bearing a torch etc. Further we see: a) a miniature from a moralistic mediaeval Bible (No 166 from the Imperial Library); b) mediaeval "Christian-Bacchic" subjects still adorning some Western European cathedrals. Taken from [1064].

The history of the Bacchic Christian cult in Western Europe must have been a long one. We shall give a few quotes from the rather rare œuvre of Champfleury titled Historie de la Caricature au Moyen Age (The History of Caricature in the Middle Ages) ([1064]). Caricature usually serves to reflect reality by hyperbolizing some of its facets in order to draw attention to them.

Champfleury writes: "The mediaeval cathedrals and monasteries have housed strange kinds of entertainment [as seen from the stance of the consensual conception of the Middle Ages that was inflicted upon us - A. F.] during big church feasts in the Middle Ages and the Renaissance epoch. It isn't just the common clergy that takes part in the dancing and the singing, especially during Christmas and Easter, but even the top ranking ecclesial dignitaries. The monks from the friaries danced with the nuns from nearby convents, and the bishops joined the merrymaking." ([1064], page 53. Quoted in [544], Volume 5)

Champfleury proceeds to cite the most modest example, presenting it as a caricature [!], which is a picture of a supper enjoyed by monks together with "their ladyloves" from a XIV century Bible (which is a fact we feel worthy of emphasizing), see fig. 7.19 taken from [1064], The National Library, Paris, No. 166. But how could this "caricature," if this is indeed the case, wind up in the Bible, a holy book? The Holy Writ is hardly the place for jests and witticisms, especially considering the fact that the other miniatures from this edition of the Bible do not give the illustrator away as a farceur. The miniature depicts a typically Bacchic scenario: a monk and a nun are entwined in a passionate embrace in the foreground, and the same actions are performed by a larger group in the background. Other similar mediaeval artwork can be seen in fig. 7.19, the phallic symbolic of the Indian god Shiva-Rudra in fig. 7.20, and other examples in figs. 7.21 and 7.22 .

A Dutch "caricature" of the mediaeval Christian cult can be seen in the History of the Papacy by S. G. Lozinsky, for instance (fig. 7.23). A crowd of parishioners bursts into a church following a priest, while a crowd is being rampantly joyous on the square in front of the church.

The number of such "caricatures" in mediaeval manuscripts that have reached our age is great enough. Incidentally, Pope Pius II, for one, was the author of


Fig. 7.20. A stone effigy of Shiva Lingamurti. A phallic image of the Indian god Shiva-Rudra. Taken from [533], Vol. 1, page 222.


A bas-relief from the dome of the portal of the Notre Dame of Paris (XII c.)


The capital of the nave from the Saint-Hilaire de Melle church in Poitou


A wooden sculpture
from Malestroit (Brittany)


A bas-relief from the church in Poitiers


A sculpture from the Saint-Gille church in Malestroit (Brittany)

Fig. 7.21. Mediaeval "Christian-Bacchic" subjects that can still be observed in some Western European temples. For instance, the obscene (in modern understanding) pictures from the dome of the portal of the Notre Dame in Paris, France, and the ones from the capital of the Magdeburg Cathedral. A naked woman is riding a goat, and a monkey is playing the guitar. Otte, Manuel de l'Archéologie de l'art religieux au moyen age, 1884. Taken from [1064].



A bas-relief from the Saint-Fiacre church, Faouët (Brittany)


A church portal sculpture in Plöermel (drawing by M. Bouet)

Fig. 7.22. Mediaeval "Christian-Bacchic" subjects that can still be observed in some Western European temples. Another example a picture of a young woman tweaking her husband's nose, a sculpture on the portal of the Ploërmel church. Taken from [1064].
"numerous erotic poems and an extremely obscene [by current standards - A. F.] comedy titled Chrysis" ([492], Volume 1, page 156). It would also be apposite to remind the reader of the "Song of Songs," part of the Biblical canon with explicit erotic references and descriptions galore. Of course, the theologians of our age cagily interpret those as an "allegory" of sorts.

Champfleury in his attempt to make the monastic life of Western Europe in the XIII-XVI century fit modern morals and inculcated concepts of religious life and "monastic ideals" of the epoch, tries to convince us that all such phenomena in mediaeval art aren't to be regarded as illustrations of contemporary reality, but rather as an admonishment against such actions ([1064]). However, it is most odd, since the "admonishment" is pictured in a most enticing manner indeed. Is it possible to conceive of someone who
would try to restrain the public from debauchery with the aid of pornographic editions? This would most probably have the opposite effect. Furthermore, if these were "admonishments," one would expect to see depictions of unpleasant after-effects of such actions. However, none such are present!

Such illustrations in religious literature only make sense if they are a rendition of quotidian phenomena from the life of the mediaeval clergy - events considered normal by everyone, in other words. Had the painter wanted to express his reprehension of the subject matter, he would have shown this carousal in some unappealing light, with demons dragging sinners into inferno, the revolting aftermath of diseases, etc. Instead of this, several mediaeval Bibles contain illustrations of Bacchanal dances, and ones looking perfectly "ancient," at that. The capital headings are


Fig. 7.23. Mediaeval Dutch "caricature" of the Roman church. Taken from [492], Volume 1, page 17.
enwreathed in grapevines, with little angels climbing them - spitting images of allegedly "extremely ancient" cupids. And so on, and so forth. We are referring to our personal acquaintance with certain ancient Bibles that are kept in the Moscow Planetarium Library, for instance, or those from the Rare Book Museum of the National State Library in Moscow.

According to Champfleury, it was as early as the VII century A.D., 700 years after the naissance of Christianity, that the Counsel of Chalon-sur-Saône forbade women to sing obscene songs in churches ([1064]). The date is given as VII century in the Scaligerian chronology; according to our results, all of this occurs in the XV-XVI century, which coincides with the time of the formation of the Inquisition in the West. Gregory of Tours protests against the monastic masquerades in Poitiers that occurred during the historically ecclesial"feasts of the mad," "feasts of the innocent" and "feasts of the ass."

Champfleury writes that: "it was as late as [the alleged date of -A.F.] 1212, that the Paris Council prohibited the nuns to partake in the "frantic celebrations" in the following form: 'The frantic celebrations where the phallus is worshipped are to be condemned everywhere, and we forbid partaking to monks and nuns specifically'" ([1064], page 57, quoted in [544], Volume 5, page 658). The ban didn't seem to help much, since much later, in the alleged year 1245, the reformist bishop Odon reported, after having visited the monasteries of Rouen, that the nuns there take part in forbidden pleasures en masse ([1064], page 57. Quoted in [544], Volume 5, page 658).

The "feasts of the innocent" greatly resembled the Church "feasts of the mad," or festi follorum (possibly renamed from festi phallorum). Apparently, the label "innocent" referred to people unaware of the difference between the allowed and the forbidden. Both feasts may have been the same old Christian agapes and bacchanals named differently. According to Champfleury, they existed in Besançon as late as the years 1284-1559 (in Scaligerian chronology), until the reformed church outlawed them in that area as well. King Charles VII forbids these religious "feasts of the mad" again in 1430, in the Troyes Cathedral ([1064], page 58, quoted in [544], Volume 5). One sees how much labour it took the Western European church to weed out the deeply rooted Bacchic-Christian cult of the XIII-XV century.


Fig. 7.24. A stone sculpture from the museum of the Spanish cathedral in Santiago de Compostela allegedly dating from 1100 . We see an erotic depiction of a naked woman. Photograph taken in June 2000.


Fig. 7.25. A Bacchic sculpture of a female from the museum of the Santiago de Compostela Cathedral in Spain. Different aspect. Photograph taken in June 2000.

Champfleury writes the following:
"Many a time, studying the ancient cathedrals, and trying to unravel the secret reason for their ribald ornamentation, all of my own explanation seemed to me as comments to a book written in a language that is alien to me... What could one possibly make of the bizarre sculpture that one sees in the shade of a column in an underground hall of the mediaeval cathedral in Bourges?" ([1064], quoted in [544], Volume 5, page 661 , see fig. 7.19)

The sculpture in question is an effigy of human buttocks protruding from the column in a very erotic manner, done meticulously and with great expression. How could the monks and the parishioners of the times before the era when this sculpture became a tourist attraction from the days of yore, have abided it in the temple that they attended every day?

Another example is the stone sculpture allegedly dating from 1100 that is now a showpiece in the museum of the Santiago de Compostela Cathedral in

Spain (see figs 7.24 and 7.25). We see a naked woman in a very explicit position. The museum plaque tells us that the sculpture had been kept inside this very cathedral prior to being made an exhibit. Then, during its reconstruction, it was taken off its original mounting and placed in the museum.

Attempts to explain away all these mediaeval sculptures and images (of which there are quite a few left) as "caricatures" of the clergy carved in stone on the walls of holy temples, very simply don't hold water. Champfleury proceeds to ask us:
"Can one think of an imagination paradoxical enough to determine the correlation of such an improbable jape with the holy place that houses the carving? What authority did it take to let the sculptor carve such details with impunity?... On the walls of several ancient Christian temples we find, with great surprise, images of human genitalia compliantly displayed amidst the objects used for holy liturgy. The lapicides demonstrate great innocence in carving such pornographic sculptures, that resemble an echo of the Classical symbolism... These... phallic relics of the past that one finds in darkened halls [where the Bacchanals took place-A. F.] are especially numerous in Gironde. Léo Drouyn, an archaeologist from Bordeaux, showed me some highly peculiar specimens of brazen sculptures put on display in the ancient churches of his province that he conceals in the depths of his files and folders." ([1064], quoted in [544], Volume 5, page 661)
N. A. Morozov was quite correct in pointing out that excess shame deprives us of valuable scientific information. Scaligerite historians, in remaining taciturn about the Christian genital symbolism present in a number of mediaeval temples, have slowed the potential for comparison of artefacts of the "Classical Age" with their mediaeval counterparts. Serious, thoroughly illustrated books on the phallic cult would pour some bright light on the matter and expose the Weltanschauung of the Christian-Bacchic cult devotees of the Middle Ages.

Most probably, all of these drawings and sculptures are the furthest thing from anti-ecclesial mockery, and serve the same invitatory purpose as foamy beer steins painted on the doors of German pubs. Naturally, all of this only made sense in the epochs preceding the largescale repressions of the new evangelical church and
the Inquisition of the XV-XVI century against the old Western European Bacchic Christian cult.
"Classical" pornographic effigies (those from the excavations of the "ancient" Pompeii, for instance) are directly related to their Christian counterparts. Once again, the misconceived "shamefulness" keeps the scientific public from learning of those extremely interesting source materials. V. Klassovsky tells us that:
"The pictures that depict explicitly erotic and ithyphallic scenes that the ancients liked so much are kept under lock and key... In the house of the dissolute women... someone has scraped off the obscene frescoes with a knife at night... As of late, all of the Pompeian paintings and sculptures that contradict the modern concept of decency are kept in the secret department of the Bourbon museum where no visitors are allowed except for those possessing the special permission of the high officials that they have to demonstrate at the door. Obtaining such a permission by legal means is far from easy." ([389], pages 75-76)

However, in 1836 a catalogue was published that contained engravings of some of the exhibits from this secret department ([1278]); this catalogue is an antiquarian rarity nowadays. Let us also mention that, according to Humphrey Davy, "the Pompeian painters and the Italian painters of the Renaissance epoch used identical paints" (quoted in [389], page 70).

Houses have been found in Pompeii - one of which is considered a hotel nowadays - that have stone phalluses in front of the entrance. The connexion between the phallus and the Christian cult is not only present in the Western European temples of the Middle Ages. "In Hieropolis there were gigantic phalluses carved out of granite, of 180 feet and higher; they used to be placed at the temple gates" ([389], page 122).V. Klassovsky was of the naïve opinion that these gigantic stone phalluses served "for the edification of the parish" [?] ([389], page 122). Most probably, the carving was a sign, or a facia of sorts. We can draw parallels with a similar stone effigy of the Indian Shiva Lingamurti; what one sees here is the phallic symbol of Shiva-Rudra.

If the obscene mediaeval artwork is nothing but signs whose primary purpose is to inveigle the public to partake in the Christian entertainment as was practised in Western European temples up until the XVI century - and occasionally later yet - what could the images of witches, demons, etc. that they incor-
porate possibly signify? The more recent ones, with demons dragging sinners to hell, are, of course, meant to intimidate. But what would be the meaning of those where the devil is playing the guitar, and naked women riding goats and asses are carried away by the momentum of sensuality? What could be the import of the stone apes dancing lewd roundels? Such are the stone sculptures on the chapiters of the Magdeburg Cathedral. Or, for instance, the bas-relief from the portal dome of Notre Dame de Paris allegedly dating from the XII century, that contains obscene imagery of naked women copulating with asses, goats, and each other - a tangle of human bodies and demons entertaining male and female members of the parish alike with their sexual callisthenics.

We should also remind the reader of the extremely well-developed erotic cult in India. Some of the Indian temples are covered with intricate erotic sculptures from top to bottom. Also, what could the sculpture from the portal of the Ploërmel church possibly mean, the one plainly visible to the public and depicting a young wife tweaking the nose of her husband who is wearing a nightcap? See figs. 7.19, 7.21 and 7.22. A Dutch "caricature" of the mediaeval Roman church can also be seen in fig. 7.23.

Champfleury, who cites all of these pictures and sculptures, and a great deal of others to boot, does not provide a clear answer to all these questions. However, the meaning of the last sculpture, for instance, is crystal clear. "Such a picture is far from being an inappropriate caricature; one would rather think it a sign quite appropriate for the entrance to a legal disorderly house for married women [located in a temple - A. F.]" ([544], Volume 5, page 666).

In [544], Volume 5, one encounters argumentation in favour of the theory that the Western European Christian temples of the XII-XVI century combined certain distinctives consistent with the liturgy presented to us in late Christian literature, with those of brothels from which it would have been hard to distinguish them in the Middle Ages. Thus, the initially austere Christianity of the XII century has given birth to the orgiastic and Bacchic Christian cult. After the separation of the churches from the brothels (which didn't happen in some areas of India until the XIX century), the latter became semi-legal institutions resembling their modern counterparts. All of the above
mentioned imagery on the walls and over the entrances to the XII-XV century temples could only have seemed appropriate for as long as the temples served as places of erotically-flavoured entertainment honouring the vivacious "ancient" gods, and where the Eucharist chalice had also served an orgiastic purpose. Far from the abodes of pious meditation that we deem them to be nowadays.

One finds it appropriate to make the following remark in this respect: according to the Scaligerian chronology, nearly all the mediaeval Roman Christian churches have allegedly been built "on the sites of ancient Pagan temples." These "ancient predecessors" have for some reason shared the same purpose, and even the same name as the "more recent" Christian temples ([196]). The mediaeval church of St. Dionysius, for instance, was allegedly built on the site of the "ancient pagan temple of Dionysius," etc. From our point of view, the picture is perfectly clear. What we see here is the same old effect of Scaligerian chronology. Having declared its own recent Bacchic past "fallacious" for one or another objective reason, the Western Christian Church in its new reformed phase of the XV-XVI century has simply re-baptised all of its recent Christian-Bacchic gods into new Evangelical saints, occasionally even keeping their names intact, since the parishioners had been accustomed to them.

One might ask the obvious question about whether we might be right, and the Bacchanals are merely a form of the mediaeval Christian cult of the XII-XVI century, the strict edicts outlawing this cult introduced by the Inquisition in the XV-XVI century finding their reflection in the "ancient" bans of the Bacchanals. Is it really so? Are there any "ancient" documents that forbid the "ancient" bacchanals? There are indeed, and they occasionally match their mediaeval counterparts of the XV-XVI century word for word.

This is what historians tell us about the "Classical Age": "The Graeco-Roman decadence that started to infiltrate the lives of all the Roman estates... in 186 [the alleged year 186 A.D. - A. F.) manifested in one alarming symptom - secret Bacchus cults... these cults have spread across all of Rome and Italy" ([304], Volume 1, page 362). Considering the Roman chronological shift of roughly 1053 years, we get the Scaligerian date of 186 A.D. actually standing for a date approximating 1239 A.D., since $186+1053=1239$. It


Fig. 7.26. A bronze plaque outlawing bacchanals. Copied from the "ancient" original kept in the Royal Imperial Museum of Antiquities in Vienna. Taken from [304], Volume 1, page 363.
turns out that the wide propagation of the Bacchic cult really falls on the XIII century A.D., which concurs well with the information concerning the pervasion of the mediaeval orgiastic cult of the XII-XVI century. Should this indeed turn out a manifestation of the two chronological shifts of 1383 years (a sum of 1053 and 330), the "ancient" events as mentioned above roughly fall over the middle of the XVI century, which fits our reconstruction even better.

What could have really happened later in "antiquity"?"The authorities have commenced an energetic investigation, and it turned out that the members of this cult exceeded 7,000 people in their numbers. Many have been seized and done away with quick and severe executions. .. A large number of the women that took part in the criminal cult have been handed over to their relations for the execution, and if none of their kin could bring themselves to execute the death sentence, they would be claimed by the henchman.

A most valuable relic of the time is given to us by an important governmental edict of the Senate in its original edition. The Roman Senate forbade all manner of manifestation of the Bacchic cult on the territory of the United Roman State under pain of death... The Senate's edict forbidding Bacchanals explicitly had been carved on a copper plaque and sent to all of the districts in such a fashion in order to be put up in public places for everybody's information. One of such plates was unearthed in a rather secluded place, the ancient Bruttian country." ([304], Vol. 1, pp. 362-363)

We reproduce this "ancient" document in fig. 7.26. According to our reconstruction, this "ancient" decree is one of the imperial Inquisitional prohibitions of mediaeval Bacchanals issued in the XV-XVI century, which was found in 1640 , right about the time Scaligerian chronology was establishing itself. It was immediately declared "ancient" and attributed to the distant past.

## 4.

## PETRARCH (= PLUTARCH?) AND THE "RENAISSANCE OF ANTIQUITY"

### 4.1. How Petrarch created the legend of the glorious Italian Rome out of nothing

According to our reconstruction, the "Classical Age" is merely another name applied in Scaligerian chronology to the mediaeval epoch of the XI-XV century A.D. As we have already mentioned, the Italian Rome was apparently founded as a capital as late as the XIV century of the new era, and not in the VIII century b.c. as Scaligerian chronology tells us. It would thus be most interesting to regard the history of the mediaeval Rome from the point of view of this reconstruction. Nowadays we are told that the Italian Rome entered "the age of decline" ([196]) in the epoch of the XIII-XIV century. Our take is that there is really a very simple explanation. Before the XIV century a.D., Rome, if it had existed at all, had been a rather small town; this is why the mediaeval documents that have reached our age fail to see anything worthy of mentioning. The historians of a later age, raised on Scaligerian chronology, began to interpret this mutism as evidence of "the utter decline of the Roman capital and all of its former splendour."

According to our reconstruction, in the early XIV century the small Italian town of Rome was officially decreed (on paper!) to be the capital of "the Great Ancient Rome." To this end, the events which had really occurred in a completely different Rome - the Rome on Bosporus, the City of the Czars, Constantinople, a truly great city of the Middle Ages - were transferred to the Italian Rome (again, only formally, on paper). A large part of Constantinople's history was severed and attributed to the Italian Rome. Interestingly enough, we are in a position to give a more or less precise assessment of when this "surgical transplantation of history" really took place. Let us turn to the XIV century history.

In 1974 the world celebrated 600 years since the death of Francesco Petrarch (1304-1374), the first prominent writer of the Middle Ages who, according to Leonardo Bruni, "had been the first who... could understand and bring into light the ancient elegance of the style that had been forlorn and forgotten before"
([927]). The actual personality of Petrarch is nowadays perceived as mysterious, vague and largely unclear, and reality often becomes rather obfuscated. But we are talking about the events of the XIV century here! The true dating of the texts ascribed to Petrarch often remains thoroughly unclear.

Already an eminent poet, Petrarch entered the second period of his life - the period of wandering. In the alleged year of 1333 he travelled around France, Flanders and Germany. "During his European travels, Petrarch became directly acquainted with scientists, searching the libraries of various monasteries trying to find forgotten ancient manuscripts and studying the monuments to the past glory of Rome" ([644], page 59). Nowadays it is assumed that Petrarch became one of the first and most vehement advocates of the "ancient" authors who, as we are beginning to understand, were either his contemporaries, or preceded him by 100-200 years at the most.

In 1337 he visited the Italian Rome for the first time ([644], page 59). What did he see there? Petrarch writes (if these are indeed his real letters, and not the result of subsequent editing), "Rome seemed even greater to me than I could have imagined - especially the greatness of her ruins" ([644]). Rome in particular and XIV century Italy in general had met Petrarch with an utter chaos of legends, from which the poet had selected the ones he considered congruent to his a priori opinion of "the greatness of Italian Rome." Apparently, Petrarch was among those who initiated the legend of "the great ancient Italian Rome" without any solid basis. A significant amount of real mediaeval evidence of the correct history of Italy in the Middle Ages was rejected as "erroneous." It would be of the utmost interest to study these "mediaeval anachronisms" considered preposterous nowadays, if only briefly.

According to mediaeval legends, "Anthenor's sepulchre" was located in Padua ([644]). In Milan, the statue of Hercules was worshipped. The inhabitants of Pisa claimed their town to have been founded by Pelopsus. The Venetians claimed Venice to have been built of the stones of the destroyed Troy! Achilles was supposed to have ruled in Abruzza, Diomedes in Apulia, Agamemnon in Sicily, Euandres in Piemont, Hercules in Calabria. Apollo was rumoured to have been an astrologer, the devil, and the god of the Saracens! Plato was considered a doctor, Cicero a knight


Fig. 7.27 The Pyramid of Cestius in Rome. The pyramid's height is 27 metres. It is assumed that it was erected in the XII century nowadays; we are told that the Pretor Caio Cestiu Epulon is buried here. The pyramid is presumed to be "homage to the Egyptian fashion". Taken from [138], page 41. Petrarch, on the other hand, used to claim that the grave belonged to the "ancient" Remus.
and a troubadour, Virgil a mage who blocked the crater of the Vesuvius, etc.

All of this is supposed to have taken place in the XIV century or even later! This chaos of information obviously irritated Petrarch, who had come to Rome already having an a priori idea of the "antiquity" of the Italian Rome. It is noteworthy that Petrarch left us no proof of the "antiquity of Rome" that he postulates. On the contrary, his letters - if they are indeed his real letters, and not later edited copies - paint an altogether different picture. Roughly speaking, it is as follows: Petrarch is convinced that there should be many "great buildings of ancient times" in Rome. He really finds none of those. He is confused and writes this about it:
"Where are the thermae of Diocletian and Caracalla? Where is the Timbrium of Marius, the Septizonium and the thermae of Severus? Where is the forum of Augustus and the temple of Mars the Avenger? Where are the holy places of Jupiter the Thunder-Bear-
er on the Capitol and Apollo on the Palatine? Where is the portico of Apollo and the basilica of Caius and Lucius, where is the portico of Libya and the theatre of Marcellus? Where are the temple of Hercules and the Muses built by Marius Philip, and the temple of Diana built by Lucius Cornifacius? Where is the temple of Free Arts of Avinius Pollio, where is the theatre of Balbus, the Amphitheatre of Statilius Taurus? Where are the numerous constructions erected by Agrippa, of which only the Pantheon remains? Where are the splendorous palaces of the emperors? One finds everything in the books; when one tries to find them in the city, one discovers that they either disappeared [sic!] or that only the vaguest of their traces remain". ([644])

These countless inquiries of "where" this or the other object might be, especially the final phrase, are amazing. They indicate clearly that Petrarch came to Italian Rome with an a priori certainty that the great Rome as described in the old books is the Italian Rome. As we are now beginning to understand, these
books were most probably referring to the Rome on the Bosporus. However, in the early XIV century or even later, it was ordered to assume that the ancient manuscripts referred to Italian Rome. Petrarch had to find "field traces" of the "great Roman past" in Italy; he searched vigorously, found nothing, and was nervous about this fact.

However, the letters attributed to Petrarch contain traces of Roman history that differs considerably from the history we are taught nowadays. For instance, Petrarch insists that the pyramid that is now considered "the Pyramid of Cestius" is really the sepulchre of Remus, see fig. 7.27. Could Petrarch have been correct? Really, Scaligerian history doesn't know the location of the grave of the "ancient" Remus. Since this pyramid was built in the alleged XII century, q.v. in [138], page 41 , it would be logical to assume that the "ancient" Remus couldn't have lived before the XII century A.D. - which is a far cry from the didactic dating of the VIII century в.c.

The real parochial Italian Rome of the XIV century surprised the poet greatly, since it strangely failed to concur with his a priori impressions based on the interpretation of the ancient texts which he considered correct. This most probably means that he rejected other evidence contradicting this "novel" opinion. The gigantic Coliseum, for instance, proved to be the castle and the fortress of a mediaeval feudal clan, and the same fate befell such "ancient" constructions as the mausoleum of Hadrian, the theatre of Marcellus, the arch of Septimius Severus, etc. Plainly speaking, all of the "ancient" buildings turned out to be mediaeval. This presents no contradiction to us; however, for Petrarch, who had apparently already perceived Rome through the distorting prism of the erroneous chronology, this must have been extremely odd.

Apparently, we have thus managed to pick out the moment in the Middle Ages when the creation of the consensual erroneous version of the history of Italian Rome began. This couldn't have preceded the first half of the XIV century - although we should add that it is possible that all of these events occurred significantly later, namely, in the XVI-XVII century.

According to Jan Parandowski, "Petrarch's arrival marks a new era in the assessment of the state of the great city's decline. Petrarch had been the first person of the new era whose eyes filled with tears at the very
sight of the destroyed columns, and at the very memory of the forgotten names" ([644]). Having wiped off the tears, Petrarch became quite industrious in what concerned the creation of the "true history" of the Italian Rome. He searched for statues, collected Roman medals, and tried to recreate the topography of Rome. Most of Petrarch's energy was however directed at finding and commenting on the oeuvres of the "ancient" authors. The list of books that he allegedly owned survived until our days, the list that he compiled himself in the alleged year 1336 A.D., on the last page of the Latin codex that is now kept in the National Library of Paris. Whether or not Petrarch had been in the possession of the original works of the authors, remains unknown. The following names are mentioned in the list:

Horace, Ovid, Catullus, Propertius, Tibullus, Percius, Juvenal, Claudian, Ovid, the comedians Plautus and Terentius; the historians Titus Livy, Sallustius, Suetonius, Florus, Eutropius, Justin, Orosius, Valerius Maximus; the orators and philosophers Quintillian, Varro, Pliny, Apuleius, Aulus Gellius, Macrobius, Vitruvius, Marcian Capella, Pomponius Mela, Cassiodorus, Boetius. As well, the names of a large number of holy fathers are listed.

We ask the following questions:
Can we trust in Petrarch's ownership of these volumes?

How was the list dated?
Did Petrarch actually hold any of the oeuvres written by the abovementioned authors in his hands, or did he just collect the names?

Do we interpret Petrarch's statements correctly nowadays? After all, they reach us via a filter of the Scaligerite editors of the XVI-XVII century. We perceive them through the glass of a distorted chronology. Petrarch's letters need to be studied again, if they really are his and weren't written or edited on his behalf a great while later. One also has to emphasize that Petrarch didn't specifically occupy himself with the dating of the texts he found. He was looking for the "works of the ancients" - apparently without questioning whether they preceded him by a hundred years, two hundred, or a thousand. Let's not forget that a hundred years, let alone three hundred, is a long period of time.

With the growth of his income, Petrarch founded a special workshop with scribes and secretaries, which he often mentions in his letters. Everyone knew about his
infatuation with collecting old books. He mentions it in every letter he writes to his every friend. "If you really value me, do as I tell you: find educated and trustworthy people, and let them rake through the bookcases of every scientist there is, clerical as well as secular" ([644]). He pays for the findings bounteously. And they keep coming to him from all directions. He makes some important discoveries himself - thus, in the alleged year of 1333 he finds two previously unknown speeches of Cicero's in Liège, and in 1334, Cicero's letters to Atticus, Quintus and Brutus in Verona ([927] and [644]). Let us remind the reader that according to the mediaeval legends, Cicero was a knight and a troubadour, qv above.
"Petrarch had reasons for considering himself to be responsible for the revival of interest in the philosophical works and essays of the great Roman orator" ([927], pages 87-88). Petrarch wrote: "as soon as I see a monastery, I head that way in hope of finding some work by Cicero." The history of how he "discovered" the Cicero's lost tractate titled De Gloria is very odd indeed. Its existence became known from a letter to Atticus that is attributed to Cicero. Petrarch claimed that he had discovered this priceless manuscript, but gave it to his old friend Convenevola. Who is supposed to have lost it.

Nowadays Petrarch's endeavours are usually written about with great pathos:
"It had really been the first one of those glorious expeditions rich in discoveries that shall be undertaken by the humanists of the generations to follow, who have journeyed like Columbus... in their search for parchments gobbled by numerous rats" ([644]). Cicero's letters were allegedly discovered by Petrarch in the Chapter Library of Verona, where no-one had been aware of their existence. For some reason, the original was soon lost by Petrarch, and he demonstrated a copy instead.

## R. I. Chlodowsky wrote that:

"Petrarch proved a naturally born philologist. He had been the first to study the oeuvres of the ancient Roman poets, comparing different copies and using data provided by the neighbouring historical sciences... It was Petrarch the philologist who had destroyed the mediaeval legend of Virgil the mage and sorcerer, and accused the author of the Aeneid of a number of anachronisms; he had deprived Seneca of several works that were ascribed to him in the Middle

Ages, and proved the apocryphal character of Caesar's and Nero's letters, which had a great political meaning in the middle of the XIV century since it gave authority to the Empire's claims for Austria". ([927], pages 88-89).

This is where the really important motives become clear to us - the ones that Petrarch may have been truly guided by in his "archaeological endeavours." These motives were political, as we have just explained. We have ourselves been witness to countless examples from contemporary history when "science" was used as basis for one political claim or another. This makes chronology largely irrelevant. However, today when the characters of that epoch have long left the stage, we must return to the issue of just how "preposterous" the letters of Caesar and Nero were, and what was "wrong" in the mediaeval legends of Virgil.

The poet's attitude to the ancient documents was far from critical analysis. Petrarch's declarations of "antiquity" may have been made for meeting the conditions of some political order of the Reformation epoch in Western Europe (the XVI-XVII century). The order was given to create a dichotomy between "barbaric contemporaneity" and "beauteous antiquity". See Chron6 for details. At any rate, one clearly sees that either Petrarch or someone else acting on his behalf was creating the mythical world of the antiquity without bothering about the exact epoch when Cicero's speeches were written, and whether it had preceded that of Petrach by 200 years, or 1400 . It is possible that all of this activity really took place in the XVI-XVII century and not the XIV, during the Reformation in the Western Europe, and was archly shifted into the XIV century and ascribed to Petrarch so that it would gain the "authority of antiquity." The reality of the XVI-XVII century, which Petrarch cites as the antithesis of "ancient civilization," was later baptized "feudal barbarism."

### 4.2. Petrarch's private correspondence with people considered "ancient characters" nowadays

We proceed to encounter facts that seem to defy all reason. Apparently, Petrarch writes a letter to Titus Livy ([644] and [1340]). The commentators of today try to assure us that this private letter written by the


Fig. 7.28. A portrait of Petrarch (Plutarch?) from a book titled De Remediis utriusque Fortunae allegedly dating from 1388 (Milan, Italy). The commentary given by historians is as follows: "An initial to the first chapter of the first book with a portrait or Petrarch" ([1485], page 252). Taken from [1485], ill. 330.
mediaeval Petrarch to the "ancient" Titus Livy is but a manifestation of the poet's exalted imagination, since poets are supposed to be fantasy-prone in general. We are told that Petrarch communed with characters from the "distant past" as if they were his contemporaries. His letters to the heroes of the "distant past" are thus not to be taken literally. What is the truth here? Could such a letter simply mean that Petrarch and Titus Livy were contemporaries, and that the XIV century original was later altered by the Scaligerite editors of the XVI-XVII century in order to "sever" Livy from Petrarch and "send" the former into a distant epoch? Petrarch is supposed to have made remarks of great pathos, such as "O, why did destiny deny me life in your age... in my sweetest dreams I see myself living amongst these greatest of men, and not the thieves and rogues [sic! -A.F] that surround me nowadays" ([644]). And further on:"ancient studies have always been... a matter of great interest and importance to me, and I have pursued them with great zeal, for the time I live in had always seemed loathsome to me, and so... I have always


Fig. 7.29. Another portrait of Petrarch (Plutarch?) from De Remediis utriusque Fortunae allegedly dating from 1388 (Milan, Italy). The historians tell us that we see "the beginning of the second book with a miniature depicting Petrarch over a bookrack in his studio" ([1485], page 252. Taken from [1485], ill. 331.
wanted to have been born in any other age and forget about this one, and have always tried to let my soul live in different epochs" ([644]).

This letter to Titus Livy is far from being the only such example. Modern Petrarch scholars point out a peculiar facet of his epistolary legacy that they fail to comprehend. Petrarch wrote quite a few letters to his contemporaries, and it turns out that in his Latin correspondence he tried, as we are now being convinced, to deliberately obfuscate mediaeval reality, referring to "antiquity" instead. We proceed to learn that Petrarch used ancient names and nicknames - Socrates, Lelius, Olympius, Simonide, etc. His letters have an air of antiquity about them in the modern interpretation of Scaligerian chronology. That is to say, he wrote as if he had "lived in the Classical Age." We are told nowadays that he deliberately Latinised his letters to make them seem explicitly ancient. He allegedly even obscured current events from sight, "dressing them in ancient garments".

We have the following comment to make. Apparently, the pages of Petrarch's letters, even after being
"caringly" edited in the XVI-XVII century, demonstrate to us the true epoch of the XIV century - which, as we see, was the "Classical Age" that Scaligerite chronologers hastened to send into distant past. This makes their heirs of today resort to theories about Petrarch being deliberate in his attempts to make mediaeval contemporaneity "resemble antiquity." That is to say, he isn't supposed to be taken literally.

We shall summarize, reiterating that there had most probably been no false fronts here. Petrarch wrote letters to his contemporaries whose names were "ancient" because he and his colleagues were living in the "Classical Age," which may really have fallen on the first half of the XIV century or even later, and all the "ancient characters" bearing such names as Titus Livy, Socrates, Lelius, Olympius, etc. were Petrarch's actual contemporaries. This point of view eliminates many "oddities" from his biography.

Furthermore, Petrarch wrote a series of biographies titled The Lives of Famous Men. This appears to be a kind of "repetition" of the work of the "ancient" Plutarch titled Comparative Biographies. One wonders whether Plutarch might have merely been a different name of Petrarch's? It is well known - see more on this in Chrons - that the sounds " $R$ " and " $L$ " were often subject to flexion in old texts, which may have made the name of Plutarch sound like Prutarch, which sounds similar to the name Petrarch. Thus, Petrarch may well have gathered a doppelganger on the pages of the mediaeval chronicles, who was exiled into the distant past under the name of Plutarch.

Nearly all of Petrarch's heroes are to be found among the eminent statesmen of the "ancient" Republican Rome, namely, the "ancient" Junius Brutus, Horace Cocles, Camillus, Manlius Torquatus, Fabricius, Fabius Maximus, Cato the Elder, Scipio Africanus. Nowadays it is assumed that Petrarch's sources were the works of Titus Livy, Suetonius, Justin, Florus, and Caesar. Is this really so? Could Petrarch - or Plutarch - have merely written a series of biographies of his contemporaries? In other words, all of the "ancient" characters listed above must have lived in the epoch of the XII-XVI century. And it was only much later that the Scaligerite editors of the XVIXVII century raked through these mediaeval biographies, inserting remarks that transferred them into the distant past, which may have created an "ancient" re-
flection of the mediaeval Petrarch by the name of Plutarch.

Finally, we shall cite two portraits of Petrarch (or Plutarch?) from a mediaeval book allegedly dated at 1388 ([1485], pages 252-253), seen in figs. 7.28 and 7.29. It is therefore possible that more or less accurate graphical representations of the ancient "Plutarch" have reached our age.

## 5. <br> "ANCIENT" GREECE AND MEDIAEVAL GREECE OF THE XIII-XVI CENTURY

### 5.1. The history of the mediaeval Athens is supposed to be obscured by darkness up until the XVI century

In what concerns integrality, the history of mediaeval Greece has even got more problems than that of Italian Rome. Since Greek chronology is largely determined by the history of Athens, we shall give a brief account of Athenian chronology without considering other Greek cities here. Let us consider the fundamental work of F. Gregorovius titled The History of the City of Athens in the Middle Ages ([195]), where many mediaeval documents on the history of Greece are collected. A propos, the "ancient" history of Greece lacks a source that would resemble the History of the City of Titus Livy in fundamentality and the span of time that it encompasses. This is why the Scaligerian history of Greece has to be reconstructed from a number of chaotic fragments that were put into a sequence via tying them to the Roman chronology ([195] and [196]).

As is the case with the history of the absolute majority of "ancient" cities, the history of Athens is characterized by an "ancient" period of splendour and prosperity, and subsequent slide into the mediaeval darkness that the city begins to come out of as late as the XV-XVI century - even later than the Italian Rome.

We shall begin with the most remarkable utterance of F. Gregorovius:
"In what concerns the actual city of Athens, its fate in this epoch [the Middle Ages - A. F.] is covered by such impenetrable darkness that it even led to the naissance of the horrendous opinion which does sound


Fig. 7.30. Parthenon in the Athenian Acropolis. Its XIX century condition. Taken from [304], Volume 1, page 150.
rather plausible, namely, that the city of Athens had grown over with trees and weeds between the VI and the X century, and ended up burnt to the ground by the barbarians. There is some firm evidence of the existence of Athens in the darkest era, but hardly anything can serve as more surprising proof of the city's complete disappearance from the historical horizon than the very fact that one has to prove the actual existence of what used to be one of the greatest cities in a country that is historical for the most part". ([195], page 41.)

This is coming from none other than F. Gregorovius, who tried to collect everything that was left from the mediaeval history of Athens in his work ([195]).

This amazing information about the fate of Athens in the Middle Ages had first been formulated with clarity by Falmerayer in the XIX century. In order to explain such an enigmatic "catastrophe" as the disappearance of the entire "splendorous ancient Greece," he suggested that the Avaro-Slavs had "slaughtered the entire populace of the ancient Greece" ([195], page 41). However, there are no documents whatsoever that would prove this "slaughter." ([195])
F. Gregorovius proceeds to tell us the following:
"From the VII century and on Greece becomes so unimportant for history that the names of the Italian towns... are mentioned a lot more often by the Byzantine scribes than those of Corinth, Thebe, Sparta, or Athens. All of that notwithstanding, there isn't a single word from any scribe that would mention the city of Athens conquered or destroyed by invaders". ([195], page 42).

It is assumed that there is no information whatsoever about Athens in the period of the V-X century A.D. in Scaligerian history. F. Gregorovius tells us that "the city [of Athens - A. F.] became desolate and poor, its naval supremacy and political life were as lacklustre as life in the entire Hellas" ([195], pages 2-3). Also, "the foundation for the glory of the modern [mediaeval A. F.] town is provided by honey-traders, and not sages... Sinesius doesn't write a single word about the famous monuments of the city in his letters from Athens" ([195], page 22). Most probably due to the fact that they haven't been built yet.

Also:"The twilight that engulfed Athens and Hellas grew ever dimmer... political life has become non-


Fig. 7.31. Parthenon in the Athenian Acropolis. Its modern century condition. Taken from [930], page 60.
existent, trade and industry hardly galvanized any Greek cities at all, except for the spry marketplace of Thessalonica" ([195], pages 26-27).

The famous "ancient" Parthenon amazingly turns out to be a mediaeval Christian church. See figs. 7.30 and 7.31. The historians try to "explain" this fact in the following way: "Blessed Virgin Mary already began
her victorious war for Athens with the ancient Pallas... The Athenians built a splendid church [in the alleged $X$ century $-A$.F.] having mounted this figure [of the Christian Holy Mother, Virgin Mary - A. F.] upon it and called it Athenaia" ([195], page 24). In other words, we are being told that Virgin Mary was baptized Athena!


Fig. 7.32. A reconstruction of the inner sanctum of the Parthenon with a statue of Athena by the "ancient" Phidias. The reconstruction was done by H. Ralender. Taken from [304], Volume 1, page 153.


Fig. 7.33. The "ancient" Athena from the Parthenon. According to the historians, this marble figurine that was discovered in Athens in 1880 "represents a copy from the colossal effigy of the goddess that used to stand in the Parthenon". Taken from [304], Volume 1, page 152.

Furthermore, the historians proceed to tell us that "oral tradition calls the figure of the Holy Mother Athenaia [Athena-A.F.]; this name later began to be used for referring to the "Panhagia Atheniotisse" figure that had been revered highly in the mediaeval temple of Parthenon" ([195], page 25, also see fig. 7.32). Apart from finding that the "ancient" Athena was associated with the Christian Holy Mother of God, we find out that the "ancient" Parthenon was built in the Middle Ages as a Christian temple dedicated to the Christian Virgin Mary = Athena. As we are now beginning to understand, Athena was just another name given to Virgin Mary. The classical "ancient" figure of Athena Parthenos, or the Athena of Parthenon, can be seen in fig. 7.33.
F. Gregorovius carries on: "The noblest of human cities immersed into its darkest Byzantine age with utter hopelessness... the New Rome on the Bosporus became to look at the fallen Greece, a former leader, with growing scorn, as well as the small provincial town of Athens" ([195], pages 27-28).

Also:
"In what concerns the fate of the Athenian monuments - they have remained in obscurity for the most part... for centuries the Greeks have wallowed in the ruins of their ancient history... some of the most beautiful ancient constructions have tempted the Athenian Christians to transform them into churches. We know nothing of where the first transformation of an ancient Athenian temple into a Christian church occurred. The history of the Athenian churches is extremely unclear" ([195], pages 29-31).

The following is told about the "ancient" Parthenon: "The Christian religion had made the holiest place of the ancient goddess on the Acropolis [the temple of Parthenon - A. F.] serve its ends almost without causing any harm to it... the entire history of transformation of ancient beliefs and holy places into Christian ones knows no other example of such easy and complete transformation as Athena Pallas had to undergo in order to become the Christian Blessed Virgin Mary... the Athenian populace didn't even have to change the nicknames for its divine virgin protectrix, since the Blessed Virgin Mary retained the ancient name of Parthenos" ([195], page 31).

However, the hypnotic suggestion of Scaligerian chronology is strong enough to restrain Gregorovius
the historian from drawing any conclusions from the fact that the "ancient" Athena Pallas is identical to the Christian Mother of God, Virgin Mary. Let us draw this conclusion ourselves. We have really just been told that the history of "Classical" Greece and its "ancient" deities is but a reflection of the mediaeval Greek history of the XII-XVI century and its Christian deities.

As was the case in Italian Rome, many "ancient" temples in Athens were "turned into" Christian churches in the Middle Ages. In addition to this, the names of these mediaeval churches are "for some reason" exceptionally close to those of the "pagan shrines" that "occupied the sites of these churches" at some point in time. For example, "the Church of St. Dimitrios... became identified as the temple of Demeter [by modern archaeologists - A. F.]" ([195], page 34). This example is a most typical one ([195]).

We eventually find out that "the miraculous Erechteum temple was transformed into a Christian church during an age that remains unknown to us" ([195], pages 46-47). Apart from this, "the entire Acropolis became a holy place of the Blessed Virgin Mary" ([195], page 36). Documented history only seems to reflect the Parthenon starting as the temple of the Virgin Mary. All attempts at tracing its history further back run into considerable complications ([195]).

Mediaeval Athens only appears in the mediaeval arena after many centuries of presumed oblivion as a small Byzantine fortification "reconstructed" by Justinian in the alleged VI century A.D. on territory populated exclusively by the Avaro-Slavs ([195], pages 36-40). There is not a single trace of the "ancient Hellenic Greeks" here. Moreover, according to an old document allegedly dated from the X century A.D., the Avaro-Slavs had "made it [the Peloponnesus - A. F.] so alien to the Byzantine empire, that there is not a single Romaean bold enough to set foot there" ([195], pages 40-41).

We learn the following about the Athens of the alleged VI-VII century: "we have no factual proof of the existence of either schools or public libraries in Athens. The same obscurity covers the mechanisms of civil rule of the city of Athens in this epoch" ([195], page 48).

Why did "Classical thought" evaporate from Greece? Where did the "Classical Greeks" go? Why had the famous "ancient" military naval potential of

Athens disappeared? This potential was as a matter of fact "revived" in the XII-XIII century, the crusade epoch, as was the potential of the mediaeval Venice, or the "ancient" Phoenicia.

According to the documents, the Byzantine emperors who ruled in Greece in the Middle Ages were far from persecuting sciences. There are no facts to indicate the existence of the Inquisition in Byzantium ((195]). The "closure" of the famous Academy in Athens occurred "without a sound," as Gregorovius tells us with some embarrassment in [195], Chapter III. There were no global military coups or genocides in this epoch, either.

It is significant that the very term "Hellenes" appears very late in documented history: "It is only in the XV century that Laonic Chacocondil of Athens gives his fellow countrymen the name of "Hellenes" [after the alleged centuries of oblivion-A. F.]" ([195], page 51).

One feels like asking the reasonable question of whether the Hellenes who originally inhabited Greece were really virtually wiped out by the Slavs, as Scaligerian history tells us? Could it be instead that the Avaro-Slavs who lived there in the late Middle Ages became Hellenised? The theory of Slavs gradually taking over the "Classical Greeks" is based on nothing but guesses made by Scaligerian chronology. On the other hand, Shafarik, the Byzantine historian of the alleged X century, explicitly states that "nowadays almost all of Epirus and Hellas, as well as the Peloponnesus and Macedonia are populated by the Scythians and the Slavs" ([195], page 54, also comment 5).F. Gregorovius adds that "due to the existence of such evidence from the part of the Byzantines, the population of the ancient Greek lands by the Slavs should be considered a historical fact" ([195], pages 54-55).

Slavic names of cities, rivers, mountains, etc. cover the entire history of mediaeval Greece in abundance Volgasta, Goricy, Granicy, Krivicy, Glokhovy, Podagory, etc. ([195]). "The names of areas, rivers and mountains show that Elis, Arcadia and Laconia have been populated by the greatest amount of the Slavs" ([195], pages 57-58). It was only in the XVI-XVII century that the Graeco-Hellenic names started to appear, the ones declared extremely ancient in the XVII-XVIII century.

It was only afterwards, starting with the alleged VIII century A.D., that Constantinople began to grad-
ually take this faraway province in hand. "The country had to be conquered anew; Greece was treated as an enemy country" ([195], page 62). Empress Irene sent troops to Greece in the alleged year of 783 . "Stauracius returned... with plenty of loot, as if he were coming back from a conquered land... Neither Corinth, nor Thebe, nor Athens are even mentioned" (ibid). In the alleged VIII century Greece served as an exile for political criminals.

It is only in the alleged VIII century A.D. that Greece enters the real political arena as a country of revolts and mixed populace that was Slavic for the most part ([195], pages 62-63). However, "after the fall of the empress Theophano, Athens, as well as the rest of Hellas, leaves the historical scene in such a radical way that one can barely find a mention of the town's name anywhere... The Slavs, who have rooted themselves in Peloponnesus, provided the Byzantines with the main reason to mingle in Greek affairs" ([195], page 66).
"In the middle of the [alleged - A. F.] X century, Hellas as well as Peloponnesus may have struck emperor Constantine as... countries that fell into barbarism; the Frankish conquerors of the XIII century have found Slavic residents in Morea" ([195], page 71). We keep moving forward in time using the Scaligerian chronology of Greece, and still fail to encounter any substantive information about the country.
F. Gregorovius frankly writes the following about Greece in the alleged VIII-X century:
"Neither history, nor tradition break the silence that the fate of the glorious city is bathed in. This quietude is so impenetrable that the historian that looks for signs of life [sic! -A.F.] of the famous city during the centuries in question rejoices at the sight of the most exiguous pieces of information, such as the mention of St. Luke visiting Athens in the hagiography of the thaumaturge". ([195], pages 74 and 76).

It is only as late as the XV century that Greece and Athens emerge from the "darkness." Greece gains special importance in the crusade epoch, beginning with the alleged XII-XIII century. Possessing a good haven in Piraeus, and being in league with Venice, Athens becomes the key city of the region ([195]). A propos, there are quite a few reasons to identify the mediaeval Venice with the "ancient" Phoenicia, qv in [904] and [908]. Athens broke the equilibrium that reigned in Greece by gaining prominence; Peloponnesus op-
posed such a swing in influence, which led to prolonged wars on the territory of Greece which the crusaders and the Normans took part in [195]. It is significant that this is the period of the Middle Ages that we associate with the astronomical dating of the eclipse triad mentioned in the famous History by Thucydides - the work describing the "ancient" Peloponnesian wars. Nothing is known about the wars that broke out on the territory of Greece in the XII-XIII century according to Scaligerian chronology.

An unimaginable scantiness of information on mediaeval Greece is most probably explained by the fact that many of the principal mediaeval sources of the epoch, such as the works of Thucydides, Xenophon, etc. have been arbitrarily transferred into "antiquity" by the Scaligerian chronology. Mediaeval history of the XI-XV century Greece thus became covered in "blind spots," gaping abysses and "dark ages."

It is important that "the chronological dates in Greece are only given in the Christian era starting with 1600 [sic! - A. F.], and in decimal (Arabic) notation at that" ([195], pages 100-101). We have thus been told that the modern chronological system only began to function in Greece as recently as the seventeenth century of the new era.

Rather meagre chronological landmarks provide us with very little data, as it turns out. F. Gregorovius notes that:
"The effect that time and the weather had on these scarce inscriptions made their interpretation considerably harder... they fail to do so much as shed light on the history of the city of Athens in the Christian epoch... A historian researching the mediaeval past of the city of Rome is in a much better situation is this respect [we have mentioned the problems of Roman chronology already - A. F.]... The chronicle of the dead carved in stone is altogether absent in Athens". ([195], page 101).
"Unlike Rome, we encounter no marble effigies of dead bishops and monastery priors, senators, judges and citizens in Athens; a few tombstones, a sarcophagus or two without any statues at all, and a few inscriptions comprise all of the relics of times gone by to remain in Athens" ([195], page 101). As well as a few "ancient ruins" to boot.

There are several contradictory versions concerning Athens in the XII-XIV century in Scaligerian his-
tory, each of which assesses the role of the city differently. According to one of them, it was still covered in impenetrable darkness as well as the rest of Greece ([195]). Another version has it that this is the period when Athens gradually began to gain prominence as a large cultural centre. The English chronicler Matthew Paris informs us that in 1202 several Greek philosophers who had allegedly reappeared in Athens after many centuries of oblivion, arrived in the English court and engaged in theological dispute ([195], page 111). Later on English scientists, among others, studied in Athens (ibid).

### 5.2. Greece and the Crusades

Crusades have not just been great religious and military endeavours - they have also had stupendous secular importance. The "Latin crusade," for instance, was initiated not just by Innocent III, but also by the Europeans who possessed great secular power as well - including the French, the Belgians and the Germans ([195]).Among the initiators were such names as Count Baldwin of Flandres, Geoffrey of Villehardouin, Marshal of Champagne, Count Hugues de Saint Paul, Louis de Blois and many others. All of them have been the top ranking members of European aristocracy ([195], page 129). The crusades were transformed utterly - from a holy endeavour into one of the most secular events of the Middle Ages.

The crusades created a mosaic of feudal states in the territory of Greece. The role of the mediaeval Latin states in Greece is usually assessed as largely negative in the Scaligerian history ([195]). On the one hand, it is considered that the barbaric and ignorant conquerors buried the great "ancient" legacy of Greece. On the other hand, the same F. Gregorovius who had just accused the crusaders of barbarism, makes the sudden statement that "it is to the Latins that it [Greece - A. F.] owes the discovery of contemporary history - which, however, turned out almost just as farraginous as that of antiquity" ([195], page 138).

Since the Republic of St. Mark, for instance, proved unable to take possession of the entirety of the Greek lands, it offered them to its noblemen to divide between themselves as inheritable fiefs ([195], page 150). These events may have reflected in Russian history as the difficulties encountered by the imperial admin-
istration during the divide of the vast lands of Novgorod and the trophies brought back by the Russian army in the XV century under Ivan III The Terrible. See more about this in Chron6.
"The Venetian noblemen have longed for adventure, and set forth to sail the Greek seas fancying themselves as the Argonauts of the XIII century" ([195], page 150). These mediaeval journeys may have provided the basis for the subsequent "Classical Greek" Argonaut myth poetized by the "ancient" blind Homer. This is the conclusion that one arrives at after a study of the global map of chronological shifts, qv above.

It is important that the history of the Frankish state in the territory of mediaeval Greece is only known to the Scaligerian history of the XII-XV century with lots of gaps and blind spots due to the "insufficiency of historical documentation" ([195], page 158). The only thing that's known is that "Feudalism... was powerful, and could create a viable... and durable state" ([195], page 158). According to F. Gregorovius, "that was the time when tales and legends became reality" ([195], page 164). This must have been the mediaeval epoch when "ancient" Greece flourished. Many "ancient Greek events" are thus mediaeval occurrences that took place in the Balkans, in particular, in the territory of Bulgaria.
"The princely court of Geoffrey II of Villehardouin... possessed the reputation of a school for exquisite manners" ([195], pages 167 and 182). Genoese traders settled in Thebe and in Athens, and came to compete fruitfully with their Venetian colleagues ([195], page 184). Literature and arts flourished as well; however, according to Scaligerian history, nothing has reached our age ([195]). Our version is that all of this was thrown back into "antiquity."

Nowadays it is considered that the title of the Duke of Athens was first introduced during the mediaeval Frankish rule in Greece. On the other hand, according to Scaligerian history, this very title had existed in "antiquity" as well ([195], pages 188, comments 4 and 5).

It is likely that the next heyday of "ancient" Greece and the Balkans falls over the epoch of the XV-XVI century after the fall of the Byzantine Empire in 1453, as a result of its being conquered by the Ottomans $=$ Atamans. However, let us get back to the Frankish epoch.

The historian Ramon Muntaner, a contemporary
of Dante's, relates the following fact, apparently being perfectly unaware that it contradicts Scaligerian history blatantly. However, the latter came into existence after Muntaner's age, in the XVI-XVII century. "One of the Trojan outposts was located on Cape Atraki in Asia Minor, near Isle Tenedos, a place that the nobility of Romania... made frequent pilgrimages to... for the adoration of the divine effigy. One day Helen, the wife of the Duke of Athens went there guarded by a hundred knights. Paris, the son of the Trojan king, noted her, killed all the knights in the hundred, and abducted the beautiful duchess" ([195], page 188, comment 6). Thus, mediaeval chronographers have been of a significantly different opinion on what concerned "ancient" events and their chronology, than Scaliger and his adherents.

If we turn our attention to the chronological map on fig. 6.43 in Chron1, Chapter 6, we shall see that the mediaeval prototype of the Trojan war falls in the middle of the XIII century A.D. Which means that Muntaner was perfectly right in his relating the events of the Trojan war as occurrences of the epoch of knights and dukes.
"The condition of the Frankish states in the early XV century Greece can be described as favourable in general" ([195], page 188, comment 34). One shouldn't imagine this epoch as a period of constant wars and military campaigns. Peace reigned for most of the time, and trade flourished. "The Latins must have felt... safe in Greece; a splendid knightly life evolved, which can be proved... by the existence of a parliament... in May 1305, in Corinth... on the isthmus where in ancient times the Games of Poseidon took place in the holy pine grove... the knights now engaged in jousts, dedicating their deeds of bravery to beautiful women... the clamorous festivities lasted for twenty days" ([195], page 188, comment 34).

It is significant that the Frankish barons "adorned their constructions with Greek [sic! - A. F.] inscriptions" ([195], pages 204-205). Some of them may have been declared "extremely old" nowadays. Scaligerites themselves point out the numerous parallels between the "ancient" and the "mediaeval" events in Greece. F. Gregorovius, for instance, mentions the famous batthe at Cephissus dated to 15 March of the alleged year 1311 A.D. It is described in practically the same words in both the mediaeval sources of the XIV century and
the "ancient" biography of Emperor Sulla written by the "ancient" Plutarch (Petrarch?). Nowadays both Sulla and Plutarch are dated "days long gone." However, both the "ancient" and the mediaeval descriptions of the battle are practically identical: the geographical localization of the battle, the opposing sides, and the victor ([195]). F. Gregorovius cannot help noticing the parallel here: "The banks of Cephissus saw the recurrence of the fate of the troops of Mithridates which had once been chased into these very swamps by Sulla" ([195], page 198). Let us point out that this parallelism concurs fully with the global chronological map falling into the sum of the three shifts.

The Frankish states on the territory of XII-XIV century Greece may be (at least) a partial reflection of the Ottoman states of the XV-XVI century that appeared in Greece and the Balkans after the fall of Constantinople in 1453 and the birth of the Ottoman $=$ Ataman Empire. "Greek antiquity" may have similar Ottoman-Balkan roots going back to the epoch of the XV-XVI century.

It is significant that the history of the Frankish states in the territory of Greece hadn't been studied until the XIX century. According to W. Miller, "these archives only provide us with a skeleton of the romantic drama that Greece served as theatre for during 250 years [in the alleged XIII-XV century - A. F.], the one where the leading roles were played by a motley crowd of Burgundian nobility as well as German knights, the Catalonian filibusters... the Florentine plutocrats... and, finally, the princesses and noblewomen from the oldest families of France" ([1274], quoted in [544], Volume 4, page 750).

We are further told that in the XII century the "ancient" Parthenon functioned as a Latin temple of the Athenian Virgin Mary, "as if it had just been built" ([1274], page 16, quoted in [544], Volume 4, page 805). The famous XIII century statue of the Catholic Virgin Mary stands in the mediaeval Parthenon as if playing the role of the duplicate [!] of the famous "ancient" statue depicting the pagan "Virgin of Athens by Phidias" (see figs 7.32 and 7.33 ), whose loss is lamented greatly by the Scaligerian history ([544], Volume 4, page 806).

Modern historians are of the opinion that "in 1460 Muslim rulers added a prayer-tower to the Parthenon, turning the ancient temple of Athena Pallas into a


Fig. 7.34. The general view of the reconstruction of the "ancient" Athenian Acropolis. The reconstruction was performed by H . Ralender from the surviving ruins. Taken from [304], Volume 1, pages 148-149.
mosque" ([198], page 14). However, as we are beginning to understand nowadays, it is possible that the Parthenon had originally been a Christian temple where the elements that were subsequently separated and declared exclusively Muslim, Orthodox, or Catholic, still existed in fusion with each other. Thus, a high belfry may well have been baptized the "minaret of the Parthenon."

Another "ancient" temple that was active in the XIII century-also seemingly built only recently - was dedicated to the Holy Mother of God, and is called "the ancient Erechtheion Temple" nowadays ([1274], page 17, quoted in [544], Volume 4, page 807).

The same XIII century sees the temple of St. George, which is called "the ancient temple of Theseus," operational and active. Its "undisputable antiquity" was estimated as recently as the XVII century ([1274], page 17; quoted in [544], Volume 4, page 807).

The entire Athenian Acropolis is perfectly functional in the XIII century as an active fortress protecting Athens. In fig. 7.34 one sees a later theoretical reconstruction of the Acropolis performed by H. Ralander. It was relatively recently that the fortress became declared "extremely ancient." The ruins of the Acropolis can be seen in fig. 7.35 the way they were in the XIX century. See similar examples in [1274] and [544], Volume 4.
F. Gregorovius tells us that "The famous Byzantine George Gemisto (Pleton) - an ancient Hellene born again.. the fantastical admirer of the ancient gods - lived at the court of Theodore II" ([195], pages 308-309).

According to historians, that was the time when the "concept of Hellenism" came to existence, whose main goal was the unification of the mediaeval Greeks against the Ottoman $=$ Ataman conquerors ([195]).


Fig. 7.35. General view of the ruins of the Athenian Acropolis from its southern side. Its XIX century condition. Taken from [304], Volume 1, page 160.

We are also told that "The total absence... of foreign chroniclers in Athens and Hellas in general is most woeful indeed. Since the Byzantine chronographers didn't consider the Hellenic history worthy of attention, the Hellenes were the only ones that their descendants could turn to for this kind of information" ([195], page 326).

We also find out that the genesis of "ancient" Greek history can be traced to Florence of the alleged XIV century. "The Strozzi and the Medici... have been philhellenes, they have invested their funds into... Greek literary studies... Cosimo conceived of the plan to revive the academy of Plato in Arno" ([195], page 330). The head of this undertaking was Pleton, the double of the "ancient" Plato in both name and occupation (see Chroni, Chapter 1). It is assumed that the propagation of the "ancient" Greek literature across Europe started in Florence.

### 5.3. The history of Greek and Athenian archaeology is relatively short

Archaeology first came to Athens in 1447 - the XV century! Furthermore, there is hardly any information left in what concerns those "origins." In the XV century Ciriaco d'Ancona arrived in the city. He is also known as Ciriaco de Pizzicolli nowadays ([198], page 14). He was the first to "introduce Western science into the world of the Athenian ruins... he thus occupies an honorific place" ([195], page 331). He created the first catalogue of inscriptions and local monument names. However, these documents perished ([195], page 339). Modern historians are only familiar with the data obtained by Ciriaco from paraphrases done by later authors of the XV-XVII century. "The notebooks [of Ciriaco - A. F.] were destroyed in a blaze in 1514, as it is assumed. There is
only one fragment that is written by his own hand" ([198], page 14).
F. Gregorovius tells us the following: "After the passage of some time, the initial names of most Athenian monuments have been forgotten... the fantasy of certain archaists... tried to link them to the names of great men of the past" ([195], pages 340-342).

The ruins of the "ancient" Olympion used to be called a basilica in the Middle Ages, since, according to F. Gregorovius, "nobody knew [sic! - A. F.] that these were the ruins of the famous Olympian temple. Ciriaco calls this colossal wreck... the palace of Hadrian, as the Athenians did" ([195], pages 340-342). The latter apparently were wrong; only the historians of the subsequent generations managed to "learn the truth" and "correct" the allegedly ignorant inhabitants of mediaeval Athens.

Gregorovius also tells us that "as early as 1672 Ba bine had no idea as to the correct location of the Temple of Zeus in Athens... in a few years... Spone would be similarly confused... The Stoa ruins were fancied as the palaces of Themistocles or Pericles; the walls of the Odeon of Herod Atticus - as the palace of Milthiades, the ruins of other unidentidfied buildings - as the residences of Solon, Thucydides, and Alcmeones.

As early as $1647 \ldots$. Pointel was shown the ancient ruins of the palace of Pericles; the tower of the winds was called the tomb of Socrates. The memories of Demosthenes were associated with the monument to Lisicrates... this monument of the choir patrons... was called... the Lamp of Demosthenes...

The Academy, the Lycaeum, Stoa, and the Epicurean gardens... were gone without a trace. In the times of Ciriaco, some group of basilicae, or large ruins, was called "Academy"; nowadays, this site is impossible to locate...

Plato's "didascalion" in "the garden" had also been shown; it may have been a tower in the Ampelokipi gardens... there were legends about the schools of a certain Caisarini on this hill... the Lycaeum or the Didascalion of Aristotle would be located in the ruins of the Dionysian theatre...

Stoa and the Epicurean School have been moved as far as the Acropolis, to the large buildings that possibly constitute part of the Propylaea, and the Nike temple... had seemingly been taken for... the school of Pythagoras.

To the West of the Acropolis the school of the Cynics was shown, as well as the school of the Thespians that wound up in its vicinity in defiance of all comprehension. The ruins by Kalliroe turned out to be the remnants of the scene of Aristophanes." ([195], pages 340-342)

We shall cease with quoting. This list goes on for several pages. The general picture of archaeological chaos and confusion in the history of Athens is perfectly clear. And all of this happens in the XVI-XVII century A.D.

Byzantium fell in 1453. The last of the Franks defended the Acropolis for some time; however, the Ottoman warlord Omar, infuriated by the resistance of this stronghold, ordered the Acropolis and its environs to be shelled (!), which resulted in the demolition of the Acropolis and its temples [195]. This great destruction, which claimed many beautiful monuments of the XIII-XV century, created many ruins in the territory of Athens that were subsequently declared "ancient" - see figs. 7.30, 7.31, and 7.35.

After the Ottoman conquest of the XV century, Athens become obscured by darkness yet again. "The historian studying Athens and Greece in the period of Turkish rule has as formidable a task before him as it is mirthless. What he sees before himself is a desert" ([195], page 362). It is possible that the XV-XVI century documents describing the events in Greece and the Balkans, which belonged to the Ottoman empire in the XV-XVI century, were destroyed after the defeat of the Ottomans and their withdrawal from the Balkans. The Ottoman period in the history of Greece thus became immersed in utter obscurity.
"The West... had become reconciled to the decline of Greece, and had almost completely forgotten it... Already in 1493 a German humanist had considered it sufficient to make the following passing remark in his chronicle: "the city of Athens used to be the most glorious one in all of Attica; only a few traces of its existence remain"" ([195], pages 364-365).

Finally, towards the end of the XVI century, "the need of the scientists for possessing veracious and exact information about the fate of the splendorous town could be formulated by just one question, that of whether Athens still existed. The person to ask this question was Martin Kraus, a German philhellene... this is how his name became immortalized. Martin

Crusius... rediscovered Athens. In 1573 he had written a letter to Theodosius Zygomalas, the chancellor of the Patriarch of Constantinople, asking him to tell whether the mother of all knowledge could have indeed reached complete decline, as German historians claimed; whether the great city of Athens could really have vanished and whether it were true that nothing remained of it but a few fishermen's huts standing on its former site.

The answer of the illuminated Byzantine, together with the letter from the Akarnan Simeon Cabasilas that followed... proved the first exact information that reassured the German scientist in what concerned the city's existence; it was the first dim light shed on its monuments and their condition, as well as the obscure vegetation of its inhabitants". ([195], pages 364-366).

Obscure vegetation or not, the inhabitants, according to the Scaligerian history, still kept the tradition that the Parthenon had been built by the "ancient" architects Ictinus and Kallicrates in the time of the famous orator and warlord Pericles, the leader of the democratic party that had allegedly originated in Athens as early as the $V$ century b.c., and expired of the plague together with its dux in the alleged year 429 B.c. However, the month when this is supposed to have happened remains unknown.

All knowledge of "ancient Greece" remained rudimentary up until the beginning of the XVII century. In 1607, for instance, the Geographical Atlas of H. Mercator and J. Hondius was published. It contained a map of Greece, with the following written on its reverse, among other things: "Back in the days of yore Athens gave the world well-educated scientists who wrote books on all subjects of all sciences, which were kept in Athenian libraries, public and private. However, nowadays no one in either Greece or any other barbaric country studies or even understands belles letters and science. It is impossible to find a town that would have an academy... the people of Greece remember nothing of their history nowadays" ([90], page 71).

Scientific Athenian archaeology developed as late as the middle of the XVII century - that is to say, when Scaligerian chronology had already been in existence. Archaeology first reached Athens by the agency of the Dutchman Jaan de Maer ([195], page 366). Nevertheless, "as late as 1835, a German scientist... had voiced the opinion that after Justinian, Athens had re-
mained a wasteland for four centuries. In comparison to the Roman studies, the archaeology of Athens was about two centuries late...

Only immediate acquaintance with the matter could destroy the superstition that Athens didn't exist anymore, which was rather widespread in Europe: the French Jesuits and Capuchins are to be credited for it, since they were the first to come to Athens in 1645." ([195], pages 364-66)

In the second half of the XVII century, the French monks drew the first (!) plans of the city. That was the moment when the uninterrupted and more or less scientific studies of Athens really began. This happened in the environment where Scaligerian chronology had already existed for the most part; therefore, the historians of the XVII-XVIII century who began the reconstructions of Greek history based their research on the Roman chronology, ipso facto distorting the history of Greece.

### 5.4. The tendentious distortion of the image of mediaeval Athens in the "restoration works" of the XIX-XX century

Let us now divert our attention to the moment in the XIX century when the Europeans achieved a hard and final victory over the Ottomans, and come to the territory of Greece in general and Athens in particular. One would wonder what they saw, in the Athenian Acropolis, for instance? They witnessed the most natural things of all. It turned out that Athens (including the Acropolis) ware full of Ottoman buildings, towers and temples. Many of them were damaged in the Ottoman wars of the XVII-XVIII century. For instance, we are nowadays told that "when war broke out between Venice and the Ottoman empire, a shell from a cannon hit the Parthenon, where the Turks kept their ammunition. It detonated, and many of Phidias' sculptures were shattered" ([198], page 19).

However, it isn't exclusively the Ottomans who are portrayed as culprits responsible for the majority of destructions that occurred in the territory of Greece. Lord Elgin, for instance (fig. 7.36), and the Italian painter Lusieri, who headed the International Commission for the Restoration of Athens, uttered loud public lamentations about "the state of the surviving statues being truly deplorable... which is to be blamed
on the Turkish garrison of the Acropolis; some of the Statues were smashed to bits by the Ottomans for the production of shells [? - A. F.]. The actual ancient Parthenon remained untouched for the most part even after the explosion of 1687 , and was baptised 'the ancient idol temple' by the Turks, who had periodically ransacked it in search of lead" ([198], page 19). That is to say, the benevolent and righteous West Europeans have gone out of their way in order to keep the "ancient" Greek masterpieces for posterity - masterpieces which, as we are beginning to understand, were created there by none other but the Ottomans in the "Mongolian" period of the XIV-XVI century.

Modern accusations of the Ottomans that incriminate them in a total destruction of Greece are hardly wholly justified. Some of the destructions may have occurred during the Ottoman $=$ Ataman conquest of the XV-XVI century, of course; however, a lot had obviously perished in the "liberation wars" against the Ottomans in the XVII-XVIII century. As we have already learnt, the famous Parthenon, for instance, was destroyed by the Venetians, and not the Ottomans (see above and in [198], pages 15-16).

Let us now regard the preservation of the ancient legacy of the past in the interpretation of the civilized XIX century West Europeans. Having thrown a cursory glance over the Acropolis, for instance, they would claim with absolute certainty that some of the constructions had doubtlessly been "ancient Greek" -and the others, ugly, barbaric-Ottoman. Nowadays we possess no knowledge of just how the noble lords and dainty artists separated "antiquity" from the Middle Ages. Most probably, their judgement was quite simple. Everything that bore visible signs of Christianity or Islam was declared a distortion of the classical city of Athens. The belfries, minarets, Christian crosses, Ottoman crescents, Slavic and Arabic inscriptions, "irregular" sepulchres, etc. were clearly "travesties." Everything else was confidently declared "ancient."

After the separation of the "untainted" buildings from the "corrupt" ones, the second stage soon commenced. The buildings that could be authoritatively declared priceless, Greek, and ancient would naturally have to be preserved for posterity, to serve as tourist attractions for everyone in the whole world. As for the ugly and preposterous Ottoman constructions -


Fig. 7.36. A portrait of Lord Elgin. Modern historians say the following about this picture: "the nonchalant posture of the young lord is filled with self-assurance which had allowed him to claim some of the greatest treasures of Greece as his own - primarily, the sculptures from the Parthenon and some other constructions from the Acropolis - and ship them to England. His Lordship was ailing greatly sometime later, having become covered with sores (possibly as a result of treating syphilis with mercurials) and lost his nose almost entirely. He became so ill-looking that the very sight of him invoked pity" ([198], page 19).
those were to be blown up immediately so as not to spoil the refined classical shapes of antiquity revived.

In the XIX century, a wave of the noblest destructions archly dubbed "restorations" swept over the entire Acropolis. Incidentally, "Heinrich Schliemann, the discoverer of Troy, had been among the numerous restorers [of Athens - A. F.]... He financed the demolition of the 21 metre tall tower built on the site of the Propylaea in the Middle Ages since he had understood that the tower distorted the harmonious outline of the entire Acropolis" ([198], page 99). We shall give a detailed account of Schliemann's actual "dis-


Fig. 7.37. A rare photograph of the Parthenon's environs dating from 1869. It is reported that this territory had already been "slightly cleared" from the Ottoman buildings ([198], page 34). However, one can still observe the last Ottoman tower on the right. Taken from [198], pages 34-35.


Fig. 7.38. A close-in of a photograph dating from 1869. A mediaeval tower can be seen in the distance, to the right from the Parthenon. It isn't there today, since the Western European restorers were forethoughtful enough to demolish it. Taken from [198], page 35.

covery" of Troy, and tell the reader what exactly it was that he had unearthed, in Chron2.

And so it came to pass that the Ottoman buildings, towers and other constructions were destroyed on a great scale, zealously, and with the feeling of total impunity, primarily in Athens. Some of the rarest photographs reflecting the state of the Acropolis in the XIX century are still in existence, and they can show us the final stages of this "scientific restoration." In fig. 7.37 we can see a panoramic photograph of the Parthenon's environs in 1869. The commentary given by historians is as follows: "On the landscape snapshot made by Stillman in 1869 we can see the Parthenon in the Acropolis with only a small part of the Turkish dwellings, which have covered the ancient relic from top to bottom, cleared away. The restoration of the temple and the methodical liquidation of ground layers had not yet begun" ([198], page 34).

As we understand nowadays, a lot had been demolished before that, and therefore couldn't be photographed. However, we can see a tall Ottoman tower on this old photograph, to the right of the Parthenon. Nowadays it doesn't exist anymore. The restorers destroyed it after 1869 in order to keep the classical landscape with its harmony of lines, as we are told nowadays. Other vulgar Ottoman fortifications have also been destroyed, qv below.

Another valuable photograph of the 1860s can be seen in fig. 7.39. The historians comment as follows: "the foundation of the small temple of Athena Nike (top right-hand corner on the right photograph) was only unearthed in 1835, when the Turkish bastion had been destroyed. The square mediaeval tower behind the temple would be demolished in 1875, in order to reconstruct the ancient image of this part of town" ([198], page 38).

However, the close-up of a fragment of the photograph that can be seen in fig. 7.40 makes it plainly visible that the masonry of the mediaeval tower is identical to that of the "ancient" temple foundation. One gets the idea that all of this was erected around the same time by the same masters who had used similar construction materials - around the XV-XVI century. Why would the Ottoman tower have to be demolished then, and the foundation of the nearby temple left intact? One would think it needed to be pulled down as well, since it was just as mediaeval as
the tower. Apparently, the sole reason for this was the existence of some columns upon the mediaeval foundation, which were simply declared "ancient" and classical ipse dixit.

Furthermore, the demolition of the Ottoman tower had been an absolute necessity, since its proximity to the "ancient" foundation with identical masonry posed a danger for Scaligerian history. Any unprejudiced observer would have the right to ask the historians about the difference between the mediaeval constructions and the ancient ones, and they would have nothing to say in reply.

After the destruction of all the buildings that had obvious mediaeval, Christian, or Ottoman indicia, the ones remaining could not be compared to anything anymore. All the dangerous questions became impossible when the debris of the Ottoman buildings and fortifications had been pulled away. The old photographs of these parts aren't really available to that many people. The German, English and French restorers ([198]) were thus certain of their impunity, and didn't have to worry about anyone asking them the reasons why the "ancient" and the mediaeval buildings were made of the same stone and in a similar manner.

A few years later the Athenian guides have all started to assure the tourists that the city has "always been like this." It isn't difficult to understand the guides, since that was how the historians had taught them.

The scale of the "restoration works" in Athens was truly impressive. In figs. 7.41 and 7.42 one can see another rare old photograph taken in 1865. The comment of the historians is as follows: "on this snapshot of the Acropolis made in 1865 one can observe the uneven trenches going from top to bottom that remained after the Turkish buildings had been pulled down and shipped away. The Propylaea and the mediaeval tower that hadn't been demolished yet can be seen on the left" ([198], page 40). In fig. 7.43 we see a close-up of a photograph fragment showing this mediaeval Ottoman construction that was pulled down shortly afterwards.

We also came across a photograph of the Athenian Acropolis taken in 1896 during the Olympic Games in Athens (see fig. 7.44). One still sees the tall Ottoman tower on it, rising higher than the Parthenon. This means there were still many remnants of Ottoman buildings in the Acropolis towards the end of the XIX century, and considerable ones at that.


Fig. 7.41. A rare photograph of the Acropolis dating from 1865. One sees the aftermath of the demolition of a large number of Ottoman buildings. Great piles of stone and rubble flow over the walls of the fortress in some places. One sees the mediaeval tower, still intact, on the left. Taken from [198], pages 40-41.


Fig. 7.42. A close-in of a photograph dating from 1865. We see the Propylaea, and an Ottoman fortification next to it, as well as piles of rubble from the buildings demolished by the caring restorers. Taken from [198], page 40.


Fig. 7.43. A close-in of a photograph dating from 1865. The mediaeval Ottoman tower clearly belonged to the same group of buildings as the Propylaea. Nevertheless, it hadn't survived to our day. Taken from [198], page 40.

In fig. 7.45 we can see a modern bird's-eye view of the Acropolis. It is plainly visible that the entire surface of the rock had once been occupied by buildings of some sort. Only the remnants of their foundations remain. The "restorers" of the XIX century have left nothing but a few buildings intact - the ones they declared "ancient" - namely, the Parthenon, the Propylaea, and some others. The remaining, and clearly predominant, part of the constructions obviously failed to satisfy them - most probably due to their indisputably mediaeval or Ottoman origins. They have been nonchalantly demolished and taken away. The landscape contours became harmonic, according to the frank and somewhat cynical statement made by Schliemann ([198], page 99). The remnants of the foundations were, with some foresight, left intact, since these silent stones barely seen above the ground couldn't tell anything to anyone anymore, and were declared "very old indeed" on the spot. The awed tourists have been visiting them ever since the end of the XIX century. They would be told that the great Plato used to sit and meditate on "this very stone," whereas the legendary Demosthenes would deliver his inspired orations standing on another one nearby. The tourists posture happily, and take countless photographs.

The tendentious "restoration" of Athens continued well into the XX century. "The Acropolis only assumed its modern world-famous shape after the Greek engineer Nikolaos Balanos had started his work here in the late XIX and early XX century" ([198], page 99). He had done a great body of work; however, we learn that his "reconstruction" of the Parthenon, for instance, had very little to do with the original image of the temple."Thanks to Balanos, Parthenon regained its primary shape by 1933 , to the extent feasible by that time, and began to look the way it had presumably 250 years ago, although the opinions of the scientists as to whether such an achievement should be commendable were polarized. As early as 1922, Anastasios Orlandos, the personal assistant of Balanos, protested against the reconstruction of the colonnade... and publicly ceased all relations with his superior. Others have accused Balanos of wanting to build [and not reconstruct - A. F.] an imposing evidence of the glory of the Periclean Athens, not caring too much about the information concerning the true shape of the temple.


Fig. 7.44. A picture taken from 1896 depicting the subsequently demolished Ottoman tower on the Acropolis. It was taller than the Parthenon. Taken from [340], page 40.

What Balanos has really done was to use the first pieces of marble he could find for the reconstruction, without paying much attention to the original locations of the stones. Furthermore, if the shape of the fragments failed to satisfy him, Balanos would cut them the way he needed so that they would fit his master plan" ([198], page 104). As we can see, Balanos basically built the surviving fragments of the Parthenon anew, guided by his subjective concept of "antiquity."

There is good evidence of the blatantly tendentious "reconstruction" of the Acropolis by Balanos, who had based his work on Scaligerian chronology. Exempli gratia, he thought it a travesty to reconstruct the parts of the Parthenon that the historians had considered a Moslem mosque ([198]). Everything is perfectly clear. Scaligerian chronology considers it a crime to so much as assume that the Parthenon had originally been a Christian temple, and was subsequently transformed into a mosque. All the evidence of the Parthenon having served as a Christian or


Fig. 7.45. A modern view overlooking the Acropolis. It is plainly observable that the "ancient" buildings left intact by the restorers comprise a visible minority of the entire architectural group that had occupied the entire top of the rock in the Ottoman epoch. Apparently, most of the buildings were too obviously Christian, dating from the XV-XVI century. This is why they had to be demolished "so that the ancient landscape could be restored". Taken from [198], pages 100-101.

Islamic temple that we cite above is declared to be a result of its "barbaric reconstruction in the Dark Ages" by modern historians.

However, nowadays we may be seeing the signs of changes for the better. A couple of years ago, the eminent architect Manolis Korres, who took charge of the Parthenon's restoration, declared his intention to reconstruct the "Parthenon mosque." It is needless to say that he immediately faced strong opposition on the part of the historians. It is said that "the greatest debates arose in regard to the plans of Korres to keep the relics of some of the changes done to the Parthenon over the many centuries. For instance, he intends to make the Muslim mosque erected inside the temple partially visible" ([198], page 102). As far as we know, the attempts of Korres to make the Parthenon
look the way it did in the XIV-XVI century, even partially, haven't led to anything as to yet.

We shall conclude with a minor, but most edifying example, which clearly demonstrates that many of the modern "restorations" are to be treated with caution. In fig. 7.46 we can see the famous composition depicting Laocoon that was "found near Rome during the Renaissance" ([198], page 12). It is supposed to be a marble copy of the alleged I century A.D. made from an original presumably dated II century B.c. Antediluvian times, in other words. Nevertheless, the style and the quality of the composition greatly resemble the works of Michelangelo, for instance; that is to say, they look very much like the works of art created in the Renaissance epoch.

It is also considered that the composition show-


Fig. 7.46. A reconstruction of the statue of Laocoon allegedly dating from the XVI century. The right hands of all three statues are raised. This is most probably an original made in the XVI century, and not a reconstruction on any sort. Taken from [198], page 13.
ing Laocoon is a XVI century reconstruction ([198], page 13). However, it was most probably simply made in the XVI century.

Let us pay attention to the fact that the right arms of all three statues are raised. This may have had some meaning - religious, for instance. It is difficult to say anything certain about it nowadays. However, the most interesting fact concerns what we observe in fig 7.47, which shows another photograph of the same composition that had already undergone "restoration" in 1960 ([198], page 12).

What we see is that the modern restorers broke off the right arms of all the statues for some reason. Two of them now have useless stumps instead. As for the central statue, the largest one, it received some curved fragment in lieu of an arm after long scientific considerations. Historians claim it to be the very fragment that they needed so much, one that had remained buried in the ground for many centuries. It is supposed to have been found in the "Vatican storage rooms" ([198], page 11). Modern historians finally


Fig. 7.47. A 1960 "reconstruction" of the statue of Laocoon. Modern restorers broke off all three raised statue arms. The largest received some fragment instead of the arm which was authoritatively declared "the spitting image of the ancient original". Taken from [198], page 12.
managed to recognize it amongst thousands and thousands of similar fragments without the merest shadow of doubt, and have confidently declared it to be the missing right arm of Laocoon - a much more congruous one than the arm that he had possessed for three centuries, ever since the XVI century. The incongruous arm had then been assertively sawed off, as well as half of the snake, see figs. 7.46 and 7.47. The sawed-off bits were probably thrown away as useless rubbish, with the congruous fragment taking their place. Obviously, an article had to be written in order to provide scientific basis for the absolute necessity of such an improvement. However, the historians have involuntarily disclosed that in order to make the found fragment fit they had to damage the actual statue of Laocoon. The cautious commentary runs as follows: "the extended arm was replaced by the newly-found genuine fragment... it took a marble inset to meet the due proportions" ([198], page 13).

In our opinion, it is very hard to perceive all of this activity as scientific research.

## 6.

## STRANGE PARALLELS IN THE SCALIGERIAN HISTORY OF RELIGIONS

### 6.1. Mediaeval Christianity and its reflection in the Scaligerian "pagan antiquity"

Let us give a brief account of the situation in what concerns the history of ancient religions. We are being convinced nowadays that every chronological epoch possessed individual religious cults of its own, with hundreds and even thousands of years between them. The XIX century historians and ethnographers have performed a great deal of comparative studies of global religions and cults. It was discovered that certain religions separated by centuries and even millennia in Scaligerian chronology have a great number of "parallels" between them, or even coincidences, as amazing as they are complete. This indisputable fact spawned a great number of theories postulating influences, naturalization, infiltration, etc. However, all of these latter-day speculations are based on Scaligerian chronology exclusively. A chronological change shall lead to the revision of the prevailing point of view on the genesis and formation of religions. We shall just cite a few typical examples of parallels in order to explain the peculiar effect of "duplicate religions" that we observe. This effect is most probably a child of Scaligerian chronological shifts.

The so-called "Celtic monument" that was discovered in 1771 is nowadays considered to be an effigy of some pagan pre-Christian Gaulish god of the woods ([966], Vol. 2, p. 465; see fig. 7.48). However, what we see above the head of this deity is a carving that clearly says ESUS. That should very plainly stand for "Jesus." However, the pressure of Scaligerian chronology made the historians claim this to be "a totally different Jesus." Just some pre-Christian god bearing the same name, nothing more. See also [544], Volume 5, page 683.

Arthur Drews, an eminent specialist in comparative history of religions, used to claim that nearly all of the principal allegedly pre-Christian "ancient" religious cults are really nearly identical parallels (and, by our reconstruction, merely later reflections, repercussions and modifications) of the Christian cult of Jesus Christ ([259] and [260]). He wrote that he had "ascribed... great meaning to the mythological par-


Fig. 7.48. A "Celtic" monument found under the choir loft of Notre Dame de Paris in 1771 which is now an exhibit of the Cluny Museum. One clearly sees the semi-obliterated but still quite visible inscription saying ESUS, or Jesus. However, the archacologists consider this deity to be some pagan Gaulish god of the woods, pre-Christian and "very ancient". Taken from [966], page 465.


Fig. 7.49. The allegedly Mesopotamian Assyro-Babylonian king Ashur-Nazareh-Khabal who had allegedly lived around 930 B.C. Taken from [508]; see also [544], Volume 4, page 673, ill. 139. However, the "ancient Assyrian king" has a Christian cross on his chest, very much like the ones worn by modern Orthodox eparchs.


Fig. 7.50. The allegedly ancient Phoenician goddess Astarte ([508] and [544], Volume 4, page 673, ill. 140). However, she has a sceptre with a Christian cross in her hand.


Fig. 7.51. An allegedly ancient Gaulish figurine of the "ancient" Frankish god Jupiter. All of his clothing is nevertheless covered in Christian crosses. See [508] and [544], Volume 4, page 674, ill. 141.


Fig. 7.52. The "ancient" Egyptian goddess Isis breast-feeding her son who holds a Christian ankh in his hand. Taken from [544], Volume 4, page 675, ill. 143.
allels between Christianity and paganism. Anyone who cannot see the commonly known relation between the resurrection story told by the gospels and the rites of the religion of Attis-Adonis-Osiris etc., anyone who claims that "there is nothing remotely resembling" entombment and resurrection in the myths of Attis and Adonis, anyone who tries to prove the death of Jesus to have been different from the way his cousins from Asia Minor had died... anyone who fails to recognize Mary Magdalene and other Maries that stood vigil near the cross and at the casket of the Saviour in the Indian, Asianic, and Egyptian mother goddesses named Maia, Mariamme, Marithale... Marianne... Mandane, the mother of Cyrus the "Messiah," the "Great Mother" of Pessinunt, the grieving Semiramis, Mariam, Merris, Myrrah, Myra (Mera) and Maya... should 'jolly well keep away from the issues of religious history' [as Weis puts it]." ([259], page 150)
A. Drews cites many spectacular parallels identifying the holy family of Jesus Christ with other "holy families" of Asiatic gods allegedly preceding the new era by many centuries. If we step aside from Scaligerian chronology, we shall see that all of these parallels indicate the simultaneity of these cults, whose differences are merely a consequence of the ethnic distinctives of their localization. All of them probably hail back to the same common source - that is, they are a reflection of the life and the deeds of Jesus Christ in the XII century a.d. The XIX-XX century historians who have discovered these parallels, but remained bound by the erroneous Scaligerian chronology, had to turn everything upside down. As a result, they have interpreted the parallels as "late Christianity" drawing heavily upon the numerous "ancient cults" and failing to produce anything original worthy of mentioning.

In fig. 7.49 we can see a picture of the allegedly Me sopotamian Assyro-Babylonian king Ashur-NazarehKhabal, who had allegedly lived 930 years before the birth of Christ ([508], also see [544], Volune 4, page 673). However, what he has on his chest is simply a Christian cross, very much like the one worn by the present-day Orthodox eparchs. This is most probably a mediaeval king.

In fig. 7.50 we see an old image of the "extremely ancient" Phoenician goddess Astarte ([508] and [544], Volume 4, page 673). However, she has a sceptre with a Christian cross in her hands. It is only Scaligerian

1.
2.

3.

16.

5.

6.
7.

8.

9.

10.

Fig. 7.53. Mediaeval anagrams of the name of Jesus Christ from the Roman catacombs. Taken from [544], Volume 4, page 675 , ill. 144.

Fig. 7.54. Various shapes of the Christian cross. We shall point out the old T-shaped cross (number 3 in the table) as well as the forking cross (number 5). The "ancient" Egyptian ankh can be seen as number 20 .

Taken from [1427], page 5.

Shapes of the cross

1

7

13

19

25


31


2


8


14


3


9


15


20


32

27

33



21


5


10


16

28

34



22


35

6

12

18

24

Cross shapes. 1) Greek cross; 2) Latin cross (High cross); 3) Tau cross, St. Anthony's cross; 4) St. Peter's cross; 5) Forked cross; 6) St. Andrew's cross (Saltire); 7) Sprag cross; 8) Repeated cross, German cross; 9) Branching cross; 10) Double cross, patriarchal cross, Lotharingian cross; 11) Orthodox cross, or the Cross of Lazarus; 12) Papal cross; 13) Pawed cross; 14) Club cross or Apple cross; 15) Clover cross; 16) Lily cross; 17) Diamond cross; 18) Circular cross; 19) Nimbus cross; 20) Handle cross; 21) Coptic cross; 22) Wheel cross, Solar Wheel; 23) Celtic cross; 24) The Orb; 25) Anchor cross; 26) Graded cross; 27) Jerusalem cross; 28) Monogram of Christ; 29) Angled cross, or Gamma cross; 30) Angled cross; 31) Red Cross; 32) Iron cross; 33) Equilateral cross; 34) Maltese cross; 35) Swastika; 36) Crooked cross.


Fig. 7.55. A copy of a Syrian sigil allegedly dating from the middle of the second millennium B.C., Berlin, the Middle East Museum. Taken from [533], Volume 1, page 457. In the centre of the sigil we see an ankh with a loop on top that facilitates its use as a pendant.


Fig. 7.56. Apparently a mediaeval picture of the Virgin Mary as Christ's mother-to-be which is considered to be an effigy of the "ancient" goddess Maia nowadays. Taken from [544], Volume 4, p. 675, ill. 145.


Fig. 7.57. A copper statuette of the "ancient" Buddha with a Christian gammadion cross on his chest. Taken from [544], Volume 4, page 677 , ill. 146.


Fig. 7.58 An "ancient" picture of the Classical Bellerophontes battling an "ancient" chimera. This picture is virtually identical to the numerous mediaeval representations of St. George slaying the dragon. Taken from [508] and [544], Volume 4, page 687, ill. 150.


Fig. 7.59. "Ancient" effigies of goddesses with infants; what we see are most probably various mediaeval representations of Virgin Mary with the infant Christ. Taken from [544], Volume 3, page 631, ill. 101.
chronology that keeps the experts in the history of religions from identifying this as a mediaeval Christian effigy.

In fig. 7.51 we see the allegedly "ancient" Gaulish figurine of the "ancient" Frankish god Jupiter. However, his clothing is all covered by regular Christian crosses ([508], [544], Volume 4, page 674).

In fig. 7.52 we see an "ancient" Egyptian effigy of the goddess Isis breast-feeding her son who has a Christian ankh in his hand ([544], Volume 4, page 675). It is hard to get rid of the impression that this really is a mediaeval representation of Virgin Mary with her son Jesus Christ - however, misdated by Scaligerian history and transferred into the "distant past."

In fig. 7.53 we cite the most popular mediaeval anagrams of the name Jesus Christ from the Roman catacombs ([544], Volume 4, page 675, ill. 144). Anagram 8 is clearly an ankh. We see those in great abundance on the "ancient" Egyptian drawings and sculptures, dated as preceding the new era by centuries and even millennia nowadays. Ankhs were worn as pendants, the way they are today, or held in a hand. The mediaeval Christian ankh was also occasionally interpreted as symbolizing a key.

In fig. 7.54 we cite an extremely interesting table showing different shapes of mediaeval Christian crosses ([1427], page 5). The "ancient" Egyptian ankh can be seen as number 20 . Note also the T-cross (number 3), and the fork cross (number 5). We shall repeatedly encounter these apparently rather old versions of the Christian cross in the future. Let us also point out number 25 , which is practically the Ottoman crescent with a cruciform star.

In fig. 7.55 we see a print of an "ancient" Syrian sigil allegedly dated as the second millennium before Christ ([533], Volume 1, page 457). In its centre we can clearly observe the Christian ankh, whose loop may have been used for wearing it as a pendant.

In fig 7.56 is an "ancient" statuette found in Hissarlyk, Asia Minor, portraying the goddess Maia ([544], Volume 4, page 676, ill. 145). This is most probably Virgin Mary that is represented as Jesus Christ's mother-to-be. The Christian cross is drawn as a swastika here.

In fig. 7.57 we see a fragment of a brass statuette of the "ancient" Buddha. However, what we see on his chest is a Christian gammadion. Russian Museum of

Ethnography and the museum of Gimet in France ([544], Volume 4, page 677, ill. 146).

In fig. 7.58 is an amazing "ancient" picture of the allegedly "ancient" Bellerophontes battling a chimera ([508] and [544], Volume 4, page 687, ill. 150). This is merely the mediaeval St. George fighting the dragon! Only the hypnotic effect of Scaligerian chronology has kept the admirers of "great antiquity" from seeing this.

Many of the mediaeval Christian symbols are related to the so-called keys of St. Peter which he is supposed to use for opening the Pearly Gates ([259]). Let us remind the reader that the key is but another form of the mediaeval Christian ankh (see fig. 7.53, anagram 8). However, it turns out that "classical ancient mythology" is also full of deities whose primary attribute is either a key, or a key-shaped cross - the mediaeval ankh, that is. Such are the "ancient" Greek Helios, the "ancient" Roman Pluto, the "ancient" Egyptian Serapis and the "ancient" infernal queen Hecate ([259], page 58). Dupuis and Volnay point out the de facto identity of apostle Peter and the "ancient" Roman god Janus.

In fig. 7.59 we see the allegedly "ancient" effigies of various "ancient" goddesses with infants. They are the "ancient" Roman Juno with Mars (according to Malver), the Indian Devas with the infant Krishnu (according to Jeremias), Demetre with Bacchus, or simply "D-Mother," or "Deo-Mater," or Mother of God (Malver). Further on we see the "ancient" Diana with a cross on her head, and the Ottoman crescent with a cruciform star nearby. After that comes the "ancient" Egyptian goddess Athyr, or Hathor, with the infant Osiris (Jeremias). Finally, we see the socalled "Our Lady of Salisbury" (according to M. Brocas). See [544], Volume 3, page 631, ill. 101.

### 6.2. Mediaeval Christianity and the "ancient" Mithraism

A. Drews provides an illustration for [259] that portrays the "ancient" god Mithras on a so-called "Mithraist icon," q.v. in fig. 7.60. Mithras' head has a halo with sunrays - exactly like the halos on the icons of Christ. The halo is obviously Christian in its origin. Failing to realise the profound inveracity of Scaligerian chronology, Drews makes the following cau-


Fig. 7.60. "Ancient" effigy of the god Mithras. We see a halo and sunrays around his head, just like the ones observable on the mediaeval icons of Jesus Christ. Taken from [533], Volume 2, page 154.
tious comment: "It is hardly a coincidence that many Christian icons resemble this effigy. There is a circle, or a halo, around the head of the deity."

To this comment we reply that it isn't a case of Christ resembling the "ancient" Mithras, but rather that Mithraism was a form of the Christian cult after the XI century A.D. As we know, Scaligerian history considers Mithras to be an "ancient" Aryan god from the Orient, and subsequently an "ancient" Persian deity, whose cult spread across all of Asia Minor ([966], Volume 2, page 416). One of the effigies of the "extremely ancient" Mithras can be seen in fig. 7.61. Mithras is shown here slaying an ox. It is possible that bullfighting, which is still popular in Spain and parts of France, is a reflection of this archetypal subject possibly also Mithraist, but clearly Christian in origin, and reflected on many Orthodox icons. One can observe an Orthodox Trinity icon in fig. 7.63. The foreground of this icon is identical to the "ancient" basreliefs representing Mithras slaying an ox.
A. Drews says this about strong and extensive parallels between "ancient" Mithraism and mediaeval Christianity:
"The main Roman sanctuary of Mithras was in the Vatican, on the site of St. Peter's Cathedral. That is


Fig. 7.61. An effigy of the "ancient" Aryan and "ancient" Persian god Mithras slaying a bull. Taken from [966], Volume 2, page 416.


Fig. 7.62. "The Holy Trinity", Russian icon dating from the first half of the XVII century. In front we see the "ancient" Mithras killing a bull, which makes this subject Christian and Orthodox (this theme is often linked to Abraham nowadays). Taken from [647], page 36.


Fig. 7.63. A close-in of the fragment of the Orthodox Holy Trinity icon with Mithras killing a bull. Taken from [647], p. 36.
where he was worshipped, together with Attis, who had been recognized officially even earlier... . Mithras, or Attis, was called Pater, or Father. The High Priest of this deity was also called "Pater" (or the Father of Fathers); the Roman Pope is still called the Holy Father. The latter wears a tiara, or a mitre, on his head, which is a head-dress of Mithras, or Attis... and red soldier shoes of the priests of Mithras, as well as keeping the keys of the "Rock God" [or St. Peter - A. F.], and has "the power to bind, and the power to permit"... . The Catholic Pope's equal in rank was the Pater, the Pope of the Mithraist cult. This pagan Pope resided in the Vatican, worshipped the sun as the saviour, and Cybele as the virginal Mother of God, who was usually depicted sitting with a child on her lap - her Christian double is the Virgin Mary." ([259], page 69)

Like mediaeval Christianity, "ancient" Mithraism had a concept of purgatory; the two also shared the use of the aspersorium, and the tradition of crossing oneself ([259], page 70). Ecclesial ceremonialism and public forms of church office are similar - the liturgy was read in a dead language that the masses did not understand, both services used hosts (wafers, or altar bread), albs, wide cingula, episcopal hats, etc. This parallelism was discovered by the eminent scientist J. Robertson ([1371] and [259], pages 70-71). He wrote that "the oriental saviour deities are all brothers of Jesus Christ" ([1371] and [544], Volume 4, page 695).
N. A. Koun also tells us that "the Mithraist oblation is virtually similar to the Christian Eucharist... Christians, as well as Mithraists, considered Sunday a Holy Day, and celebrated... Christmas in the Christian tradition, on the 25 December, as the day their 'Invincible' deity was born" ([454] and [544], Volume 4 , pages 701-703). Some monuments depicting a clandestine Mithraist Lord's Supper have reached our age. We can see altar bread with Christian crosses on these "ancient" pictures ([259], page 3). The famous Cathedra Petri, or the Chair of Peter in Vatican, also appears to belong to the Mithraist cult.

We conclude that the "ancient" cult of Mithras was virtually identical to the mediaeval cult of Jesus Christ, and the gap of several centuries that separates them is merely a Scaligerian chronological simulacrum.
"The concept of Mithras coming to Europe from Asia and not vice versa is based on the fact that we find a particularly large number of the cult's traces in the

Veda, where Mithras is one of the key figures" ([544], Volume 4, page 704). This implies that the famous Veda, which was actually discovered relatively recently, dates from the end of the Middle Ages and not some hypothetical antediluvian age. Mithraism is also present in Zoroastrianism, or the religion of Zoroaster, which is supposed to have been prevalent in "ancient" Persia before its conquest by Alexander the Great. It is also supposed to have made a sudden disappearance for the period of six centuries (!) in order to be "revived" under the Sassanides in the alleged IV century A.D. ([544], Volume 4, pages 715-716). This all leads one to the conclusion that Zoroastrianism is also mediaeval in its origin, dating to the XI century a.D. at the earliest.
J. Frazer says, on the subject of the "ancient" Attis: "Attis... had been the same for Phrygia as Adonis was for Syria... the tradition and the cults of both deities were so similar that the ancients often used to identify them with each other" ([917], page 19).

The "ancient" Greek religion also echoes the various attributes of Jesus Christ. In particular, experts in the history of religions point out that "the figure of the dying and resurrecting saviour was embodied in Dionysus and Bacchus" ([743], page 41).

### 6.3. References to Jesus Christ contained in "ancient" Egyptian artefacts

Ancient Egypt is considered to have been a "classical cross country." Mesopotamia, Persia and India all have similar Christian crosses. As we have already pointed out, many "ancient" Egyptian gods are portrayed in drawings and bas-reliefs holding the mediaeval Christ glyph - an ankh ([259]). Such are the deities Re-Horakhty (fig. 7.64), Tefnut, the goddess of moisture and dew (fig. 7.65), and the divine lions Shu and Tefnut (fig. 7.66). In fig. 7.67 we can see an incumbent effigy of the "ancient" Egyptian god Osiris surrounded by Christian ankhs. The "ancient" Egyptian pharaoh statue (fig. 7.68, on the right) is particularly impressive. There is a large Orthodox Christian cross on the backrest of his throne, see fig. 7.69. The "ancient" statue is exhibited in the Metropolitan museum of New York.
N. V. Rumyantsev compiled a table that includes 32 different versions of the Christian cross. These crosses were abundant in the entire "ancient" Mediterranean region in particular, and are often dated to hypothet-
ical distant b.c. epochs. The apparent unity of this symbol is so amazing that this alone, proved as it is by a great body of facts, suffices to question the veracity of Scaligerian datings of all these "ancient" cults.

It turns out that the cult of Isis was also exceptionally similar to the mediaeval Christian cult, since "her idolaters had... morning, afternoon, and evening masses which were extremely similar to Catholic and occasionally even Orthodox liturgy" ([259], page 71). The expert in the history of religions N. V. Rumyantsev doesn't question Scaligerian chronology which arbitrarily moves the cult of Isis, Osiris and Serapis into a distant age, but is nonetheless forced to make the observation that "this semblance between the Egyptian liturgy and the Christian is too great and too stunning to be a coincidence" ([259], page 72).

Let us also point out that the name of the famous "ancient" Egyptian god Osiris most probably originates from "Esu-Rex," or Jesus the King.

This is how N. V. Rumyantsev comments on one of the "ancient" Egyptian pictures that clearly refer to evangelical events: "This is Osiris rising from the dead after having been buried for three days. He is portrayed at the moment of his resurrection, stepping out of the coffin... Next to him we see his wife and sister... Isis" ([743], page 10). Another Egyptian deity is handing $a$ cross to the rising Osiris. "The resurrection of Osiris... occurs on the third day after his death. This feast would end with the "mounting of the stake of Osiris." The stake would be elevated with the aid of special contraptions... and mounted vertically" ([743], pages $10-11$ ). This "death of Osiris at a stake" is probably a reflection of the crucifixion of Christ. We shall cover this in more detail later.

There's a woman standing next to the rising Osiris - just like the Christian Virgin Mary and Mary Magdalene who are often depicted bearing holy oil at the coffin of Christ.

In figs. $7.70,7.71$ and 7.72 we see five "ancient" Egyptian bas-reliefs portraying five different moments in the birth of the Pharaoh Amenope ([576] and [544], Volume 6). This is supposed to have happened in 1500 B.C., a millennium and a half before Christ was born. N. V. Rumyantsev writes: "In the first picture we see a divine messenger who is standing before the virgin queen Met-em-ve [Mary? - A. F.] and gives the Annunciation of the birth of her son [see fig. 7.70-A. F.].


Fig. 7.64. "Ancient" Egyptian deities Re-Horakhty and Hathor with Christian crosses in their hands. Taken from [486], page 119.


Fig. 7.65. The "ancient" Egyptian goddess Tefnut with a Christian cross in her hand. Taken from [486], page 119.


Fig. 7.66. "Ancient" Egyptian lion deities Shu and Tefnut with a Christian cross between them. Taken from [486], page 19.


Fig. 7.67. "Ancient" Egyptian effigy of the god Osiris incumbent surrounded by Christian ankhs. Taken from [533], Volume 1, page 425.

In the second illustration we see the explanation of the pharaoh's parentage: his virgin mother and the chief solar god Amon hold each other in a lovers' embrace.

The third illustration elaborates on the meaning of the previous one and provides details of the immaculate conception from the divine seed. This idea is conveyed through the cross that is held near the nose of Met-em-ve [the author makes a reference to the poly-
semy of the Russian word dukh, which means both "breath" and "spirit" or "ghost," and expresses the opinion that the cross symbolizes the immaculate conception from the olfactory perception of the Holy Ghost], and the roundness of her stomach [see fig. 7.71 A. F.]... the Egyptian priests would thus write the first pages of the divine ruler's biography on the wall of their temple." ([743], page 130)

Commenting on this amazing, but hardly unique, series of Christian and Evangelical bas-reliefs of the "ancient" Egypt, J. Robertson, the prominent expert in the history of religions, wrote that "the most exact analogy of the Egyptian myth of the divine royalty birth is that with the Christian Annunciation" (quoted in [743], page 130).

We have just covered three bas-reliefs out of five. What about the remaining two?
"Three out of these five subjects depicting various moments of his [Amenope's] birth show us the Annunciation, the coition of the lovers... and its result - immaculate conception... .

In the fourth illustration we see the actual birth of the divine royalty, and the fifth shows us the adoration of the child by the Magi [exactly the way the Gospel has it, qv in fig. 7.72 - A. F.]. The three genuflected human figures [or the evangelical magi accompanied by a king who is also on his knees, see Chron6-A. F.]


Fig. 7.68. "Ancient" Egyptian pharaoh sculpture exhibited in the Metropolitan Museum of New York. One can clearly see a broad Orthodox Christian cross on the back of the Pharaoh's throne. Picture taken by A. T. Fomenko in 1995.

Fig. 7.69. A close-in of the back of the Pharaoh's throne. New York, the Metropolitan Museum.



Fig. 7.70. An "ancient" Egyptian picture using the evangelical subject of Christ's birth. The Annunciation. Taken from [576], page 81.


Fig. 7.71. An "ancient" Egyptian picture using the evangelical subject of Christ's birth. Immaculate Conception. Taken from [576], page 81.
say benedictions and present him [the infant Christ? -A. F.] with gifts, and there are gods near them doing likewise... We consider further commentary to these five effigies unnecessary." ([743], page 149)

Historians point out that "they [the evangelical subjects of the Annunciation and the immaculate conception -A. F.] bear the greatest resemblance to similar subjects pertinent to the biographies of other famous mythical saviours of the past - the Jewish... Samson, the Babylonian and Phoenician Tammuz, or Adonis, and the Indian... Buddha" ([743], page 132).

Also "the Egyptian chrismation, or the baptism of
the pharaoh by kings Horus and Thoth... they pour holy water over the king, which is represented as a stream of crosses here... with the king himself holding another cross in his hand" ([743], page 198). A similar "ancient" Egyptian picture can be seen in fig. 7.73.

In fig. 7.74 we see mediaeval Coptic representations of Christian crosses ([544], Volume 6). Let us remind the reader that the Copts were the mediaeval Egyptian Christians. It is clearly visible that the mediaeval Coptic ankhs are virtually identical to the "ancient" Egyptian ones.

In fig. 7.75 one sees an "ancient" Egyptian obelisk that stands in Italian Rome nowadays, in Minerva Square ([1242], page 43). We see a Christian cross on its top. Nowadays historians assure us that this cross is a later addition. We are extremely sceptical about that. Most probably the obelisks, including the "ancient" Egyptian ones, were built as tall pedestals for the specific purpose of bearing crosses or other Christian symbols. Therefore, they were manufactured in the XVI-XVI century.

A similar Egyptian obelisk with a Christian cross on top was erected in St. Peter's square in Rome ([1242], page 43. See fig. 7.76). In fig. 7.77 we see an ancient engraving depicting the same obelisk in the Vatican. Here we also see a Christian cross upon the spire, qv in fig. 7.78. However, another ancient engraving dating from 1585 (fig. 7.79) allegedly depicts


Fig. 7.72. An "ancient" Egyptian picture using the evangelical subject of Christ's birth. The birth of Christ and the Wise Men of the East bearing gifts.


Fig. 7.73. A magical resurrection of a dead man by the "ancient" Egyptian gods. The dead man is portrayed between Anubis and a god with an undefined name. Taken from [486], page 66.
the very same Vatican obelisk, but looking completely different, as is its setting, although it is supposed to be depicted as standing close to St. Peter's cathedral in this picture as well ([1374], page 121). The spire of this Egyptian obelisk in the Vatican is crowned with a large sphere, possibly solar imagery (see fig. 7.79). This symbolism is Christian, since Jesus Christ was referred to as "the Sun."

It is possible that Christian crosses or solar spheres were taken off the "ancient" Egyptian obelisks in the XVII-XVIII century, in the tumultuous epoch of the Reformation, so as to facilitate dating them to some hypothetical "ancient" period long before Jesus Christ.

Furthermore, there's a XVIII century obelisk in front of the façade of the "ancient" Roman Pantheon, which dates from the alleged II century A.D. (fig. 7.80). However, its style isn't any different from that of the other "ancient" Egyptian obelisks that one sees in other Roman squares and in Egypt. All of them most probably belong to the same epoch and tradition of the XV-XVIII century.

In fig. 7.81 we see a picture allegedly dating from 1650 which shows an "ancient" Egyptian obelisk covered in hieroglyphs from top to bottom. The obelisk


Fig. 7.74. Mediaeval Coptic crosses. The drawing is ours. Taken from [544], Volume 6, pages 1048-1049.


Fig. 7.75. "Ancient" Egyptian obelisk in Minerva Square in Rome. There's a Christian cross on its spire. Taken from [1242], page 43.


Fig. 7.76. "Ancient" Egyptian obelisk in St. Peter's square in Rome. Taken from [1242], page 42.


Fig. 7.77. Ancient engraving depicting the "Egyptian" obelisk in Vatican with a Christian cross on its spire. It is presumed that this engraving pictures a "new consecration" of the obelisk. Taken from [1374], page 21.


Fig. 7.78. A close-in of a fragment of the engraving depicting the "Egyptian" obelisk topped by a Christian cross. Taken from [1374], page 21.

## LVDOVICI DEMONTIOSII



Fig. 7.79. A mediaeval picture depicting the Vatican obelisk in St. Peter's square in Rome allegedly dating from 1585. It differs from the ones given above, since its spire is crowned by a globe. The globe must have symbolized the sun, which was one of Christ's symbols. Taken from [1374], page 121.
of Pamphilius can be seen in the centre with either an alectryon or a dove on its top (fig. 7.82). Both are well-known Christian symbols. The same "ancient" Egyptian alectryon symbolism can be seen topping many Western European Christian temples. In Chron6 we demonstrate that the alectryon used to symbolize the Ottoman=Ataman crescent. Also, modern commentators assure us that Kircher, the author of the XVII century book this picture is taken from, interpreted the hieroglyphs in a "fanciful manner" ([1374], page 123). It would be interesting to find out what exactly it is that the present day historians dislike in Kircher's translation. We haven't had the opportunity of studying this issue yet.

In fig. 7.83 we see an engraving allegedly dating from 1499 that shows an "ancient" Egyptian obelisk mounted upon an elephant ([1374], page 119). Once again, we observe a spherical solar symbol on the top of the obelisk that symbolizes Jesus Christ. This engraving is taken from a book by Francesco Colonna which never fails to irritate the present day commentators. For instance, they have the following to say about this "ancient" Egyptian obelisk: "This romantic pseudo-Egyptian image was very popular in the XVI century. The book that [the drawing] was taken


Fig. 7.80. A XVIII century obelisk in front of the façade of the "ancient" Pantheon allegedly built in the II century A.D. One can clearly see that the XVIII century obelisk resembles other "ancient" Egyptian obelisks in style. Apparently, the recent XV-XVII century tradition of building similar Christian obelisks still existed in the XVIII century. Taken from [726], page 61.


Fig. 7.81. An "ancient" engraving of 1650 depicting "ancient" Egyptian obelisks covered in hieroglyphs. The obelisk of
Pamphilius at in the centre; we can clearly see an alectryon or a dove on its spire - a Christian symbol, in other words. One can still see such ornithic images on tops of many mediaeval cathedrals. As we shall demonstrate in Chron6, it used to symbolize the Ottoman crescent. Taken from [1374], page 123.
from originally is called the Hypnerotomachia, and really is a romantic fantasy text written in a strange mixture of languages - Italian, Latin, babelized Hebrew, and imaginary hieroglyphs. However, the illustrations are very artful; the ascetic style was considered authentically Classical by many readers" ([1374], page 119).

In other words, despite the fact that this old book is written in a rather austere manner, modern historians know the exact nature of "real Egyptian antiquities" better than the mediaeval author. Their consensual decision treats Francesco Colonna in a patronizing manner, deftly withdrawing his book from scientific circulation.

### 6.4. Researchers of the ancient religions commenting on the strange similarities between the cults of the "antiquity" and of the Middle Ages

The "ancient" Greek legends would have it that the "ancient" god Dionysius (fig. 7.84) performed the miracle of transforming water into wine ([743], page 198). Experts in the history of religions have noted this to be a perfect analogue of the famous evangelical miracle, or the transformation of water into wine by Jesus Christ in Canaan, Galilee. Could Galilee refer to "Gaul," or France, and the well-known city of Cannes? Saintyves wrote that "after this, no one could possibly fail to see the origins of the matrimonial miracle in Galilean Canaan... ever since the Dionysian cult and during the age of the Christian cult, water never ceased to turn to wine on the 9th of January" (quoted in [743], page 259 ).

A great body of scientific literature is dedicated to the discovery of parallels between the legends of the "ancient" Indian Buddha and Jesus Christ. Buddha's "biography" doesn't only include the principal evangelical myths, such as the immaculate conception, the birth miracles, Candlemas etc, but finer details as well - the baptism, the temptation in the desert, and so forth. Lists of such parallels can be seen in the works of Drews, Frazer, Saintyves, Rumyantsev, etc.
N. V. Rumyantsev wrote the following as a summary of his research:
"An entire caravan of suffering, dying and resurrecting ancient gods has passed in front of our eyes;


Fig. 7.82. A close-in of the image of an alectryon or a dove on top of the "ancient" Egyptian obelisk of Pamphilius. The ornithic image is a Christian symbol. Taken from [1374], page 123.


Fig. 7.83. An "ancient" Egyptian obelisk topped by a sphere, which probably symbolized the sun - one of the most common symbols of Jesus Christ. The engraving allegedly dates from 1499. Taken from [1374], page 119.
we have seen their mythology, studied their feasts and rites. However, despite the fact that they have different names, individual mythological characteristics, countries of origin, or specialization, one feels a clear presence of something that unites them all. The ancients themselves have marked this fact... .

Indeed, if we regard the last centuries before Christ and the first centuries of the new era we shall see a most peculiar tableau. All of the deities that we have listed with all their attributes appear to have blended into each other, often to the extent of becoming indistinguishable. Osiris, Tammuz, Attis, Dionysius and a host of others appear to have formed a common gestalt of sorts, transforming into some syncretic deity that reigned supreme over the entire territory of the Roman state... the deities have transformed into a single eclectic, but de facto unified saviour figure. This intense merging occurred during the age of the Roman Empire, and affected Rome itself in particular." ([743], pages 44-45)


Fig. 7.84. An allegedly "ancient" sculpture of the "ancient" god Dionysius. The sculpture is most probably mediaeval and dates from the XIV-XVI century. Taken from [304], Volume 1, page 102.

Let us conclude with a discussion of another issue that is of great interest to us. N.A. Morozov paid special attention to the evangelical fragments where "our translations speak of the crucifixion of Jesus. I emphasize 'our translations' in particular, since the original Greek text of the Gospels uses the word stavros instead of 'cross,' and the verb stavroo instead of 'crucifixion.' However, stavros is used to refer to a stake or a pale, and not cross" ([544], Volume 1, page 84).N. A. Morozov suggests the translation "execution at the stake" instead of crucifixion - as in being tied to a stake. The semantic transformation of the Greek word for "stake" (stavros) occurred in the Latin translation of the Bible where, according to Morozov:
"The word crux, or cross, was used instead of the Greek stavros, and the feedback from this transformation affected the interpretation of the original Greek word stavros. The Slavic translation is actually
somewhat more precise, since it tells us Jesus was "pinioned to a tree"... Contemplating a possible solution to my quandary, I decided to go by the Church Slavonic text and translate the Greek word stavros as "stake," and the verb "stavroo" as "execute at a stake," since it reports no details of the execution." ([544], Volume 1, page 85)

In fig. 7.85 one sees an ancient miniature taken from The Great French Chronicle titled "Kings Hildebert and Lothar Laying Siege to Saragossa and the Death by Stoning Inflicted by the Franks upon the Roman Prince Belisar [Belisarius - A. F]" ([1485], page 156). We see the execution of Belisarius (the great Czar?). He was tied to a stake and stoned to death (see fig. 7.86).

Let us now turn to the allegedly pagan "ancient" Greek myths. Heracles is one of the protagonists of the "ancient" Greek mythology. Drews points out that "Heracles carrying pillars used to be a symbol greatly favoured in antiquity... Furthermore, the mystical meaning ascribed to those columns is the same as that of Christ's cross. We can see God stoop under... the weight of the pillars and recognize him as the Saviour from the New Testament" ([259], page 49). Thus, the pictures of the "ancient" Hercules bent over under the weight of the cruciform pillars are probably mediaeval pictures of Christ carrying a cross and suffering from its great weight. See the mediaeval paintings by Tintoretto in fig 7.87 , for instance [1472], or those by Marko Palmezano allegedly dating from the XVI century, seen in fig. 7.88 ([713], ill. 129).
A. Drews continues, telling us that:
"The cross made of two bars in Christianity is as much of a symbol of the new life and all things divine... as both of the pillars in the Tyrean or Libyan cults of Heracles, Shamash, or Simon... . One of the drawings portrays Christ bearing both pillars in such a way that they form a slanting cross." ([259], page 49)

The "ancient" Heracles bearing a cross is present in Scaligerian history as yet another phantom reflection of Jesus Christ. We are referring to the "mediaeval Emperor Heraclius" who, as we learn, is also often portrayed bearing a cross, the scene of action being Jerusalem, no less. The names Heracles and Heraclius are virtually identical. Allow us a short reminder in this respect - Jesus was often called Horus, which was where the "ancient" Egyptian name Horus originates



Fig. 7.87. Jesus Christ bearing his cross to Golgotha. A painting by Tintoretto (XVI century). Taken from [1472], No. 27.


Fig. 7.88. Jesus Christ bearing a cross. A painting by the XVI century artist Marco Palmezano. Taken from [713], ill. 129.
from (see Chron6, Ch. 3). In fig. 7.89 we see a painting by Michael Wohlgemut allegedly created in 14851490. Modern commentary is as follows: "King Heraclius in Jerusalem... we have a simultaneous representation of the king approaching the city gate on a horse... and then carrying a cross barefoot" ([1425], page 8). See a close-up detail in fig. 7.90. King Heraclius is also depicted barefoot and bearing a cross in an ancient picture that can be seen in fig. 7.91.

The crucifix that one sees in the Cologne Cathedral is called "The Gero Crucifix," see Chron6, Chapter 3. Let us point out that the "Grave of Jesus" located on Mount Beykos near Istanbul is also called the "Grave" or "Resting Place of Heracles" ([240], pages 76-77). More about this in Chrong.

Most probably, the "ancient" Heracles, as well as the mediaeval king Heraclius, are phantom duplicates of the XI century Christ = Horus. Both ancient pictures of king Heraclius show him bearing a T-shaped cross, which must be the original shape of the Christian cross.

In fig. 7.93 we see an ancient sculpture from Palmyra, the so-called "Palmyra God Triad" allegedly dating from 150 в.с. ([1237]). The characters that we



Fig. 7.91. An ancient picture of king Heraclius = Heracles bearing a cross near Jerusalem. "King Heraclius barefoot at the city gates". Taken from [1427], page 103. See also [1425], page 9.


Fig. 7.92. An "ancient" sculpture from Palmyra, the so-called "Palmyra Deity Triad" allegedly dating from 150 B.C. It is very likely that it really depicts Christian saints with halos around their heads. One of them has an Ottoman crescent over his head. Taken from [1237].
observe, however, are clearly Christian saints. Two of them have Christian halos over their heads. Furthermore, the saint on the left has got an Ottoman crescent behind his head. One should mark the fact that the right arm of every statue is broken off, but the rest of the sculpture is in a good condition. Could their right hands have been raised in Christian benediction? It is possible that some devout Scaligerite broke their fingers that were raised in the familiar Christian gesture in order to eliminate such blatantly mediaeval relics from "antiquity."

This array of facts proves that Christianity and the "ancient" symbolism share the same mediaeval origins that can be traced back to the XI-XIII century a.D.

In fig. 7.93 we see an archaeological finding from Iran allegedly dating from the XIII-XII century b.c. ([1237]). It is kept in the Louvre nowadays and considered an "ancient" figure of some "fantasy monster." However, the unprejudiced observer will instantly recognize it as the bicephalous eagle, which was a wellknown imperial symbol in the Middle Ages.

### 6.5. Moses, Aaron and their sister Virgin Mary on the pages of the Koran

As one sees from folding the "Scaligerian History Textbook" into a sum of four shorter chronicles, we get several options for dating the beginning of the Muslim Hijra era, that is dated at 622 A.D. nowadays. All of them supersede the Scaligerian version. N. A. Morozov cites a great number of exceptional oddities pertinent to Mus$\lim$ as well as Christian history. Let us give an example.

The chronology of the Koran is often radically different from the Scaligerian chronology of the Bible. The Koran insists on Aaron (Arius?) being the uncle of the evangelical Jesus, no less. Mary, the mother of Jesus, is declared to be the sister of Moses and Aaron. Thus, according to the Koran, these Old Testament characters belong to the generation that immediately preceded Jesus Christ. Naturally, this is in drastic contradiction of the Scaligerian chronology, the discrepancy comprising several centuries. However, it concurs well with our abbreviated chronology. Let us turn to the 19th Sura of the Koran ([427], page 239). The Koran commentator I. B. Krachkovsky writes that it is "the oldest Sura that mentions such evangelical characters as... Mary and Jesus" ([427], page 560).

The 19th Sura refers to the birth of Jesus, the son of Mary, in the following manner: "O Mariam, thou hast performed a feat unheard of O sister of Harun [Aaron - A. F.]..." ([427], the 19th Sura, 28(7); 29 (28), pages 240-241). The commentary to this fragment is as follows: "the sister of Moses and Aaron is the mother of Jesus" ([427], page 561, No. 17).

### 6.6. The XII century as the apparent epoch of St. Mark's lifetime. The history of Cathedral of San Marco in Venice

The gigantic Venetian cathedral of San Marco is a true architectural gem adorning the city. It is also one of the most popular mediaeval buildings in Italy. Its history proves to be particularly fascinating in light of the new abbreviated chronology. Let us begin with reminding the reader of the official history of San Marco as it is related in the books titled Basilica of San Marco ([1265]) and Venice ([1467]). This is what we learn from [1265]:
"The Basilica of San Marco is an object of adoration of the Venetians that also symbolizes their historical unity. This is doubtlessly the main symbol of Venice that attracts visitors from afar by the uniqueness of its beauty and its oriental splendour.

The Basilica of San Marco had been a ducal chapel until the end of the XVIII century and has thus absorbed the secular and the ecclesial history of the Venetian republic. Ever since 1807, when the church transformed into the city cathedral having substituted the church of San Pietro de Castello in this capacity, it became a Mecca not only for the Venetians, but also visitors from across the world. Its bishop bears the ancient title of the Patriarch.

The initial construction of the Church of St. Mark occurred... after 828 A.D., when the body of St. Mark was saved from desecration and delivered from Alexandria on a ship by some Venetians". ([1265], page 7).

The story unfolds as follows: nowadays St. Mark is supposed to have been the first of the four canonical evangelists ([765]). His Gospel - The Gospel According to Mark - is presumed to be the oldest, written around 50 a.d. at the insistence of either St. Peter or the Christian community. Sometime later Mark returned to Alexandria in Egypt, which is where he died on 25 April of the alleged year 68 A.D. ([1265], page 26).


Fig. 7.93. An "ancient" effigy found in Iran and allegedly dating from XIII-XII century B.C. We are being told that this is an effigy of some "prehistoric fantasy monster". It is however hard to fail seeing the well-known mediaeval Imperial symbol here, namely, the dicephalous eagle. Taken from [1237].

Scaligerian chronology contains an informational gap of many centuries in what concerns St. Mark, whose name allegedly resurfaces from oblivion in the IX century a.d. - a millennium later, in other words. His body is supposed to have been secretly delivered to the Italian Venice from the Egyptian Alexandria. The canonical legend runs as follows ([1265]): two Venetian traders paid a chance visit to a Christian church in Alexandria that was consecrated to St. Mark and housed his ossuary. Some monk, as well as the prior, complained to them about the constant desecrations inflicted upon the church by the Muslims seeking to convert all Christian churches into mosques. The Venetian traders then uncoffined the body of St. Mark and smuggled it out of Alexandria in a basket full of vegetables and pork. After a sea journey full of deadly perils, the salvaged holy relic was delivered to Venice, where the construction of a new temple instantly began, designed as a shrine for St. Mark. All the episodes of this abduction are illustrated by inlays covering the walls of the Venetian cathedral.

The first church of St. Mark was thus constructed after the alleged year 828 A.D. as a shrine for his body that was "miraculously salvaged" from Alexandria.


Fig. 7.94. Scaligerian chronology of the events related to the burial of the evangelist Mark in Venice.

However, alack and alas, there are no traces of the first Venetian church of St. Mark anywhere. The historians say: "There is a large number of different $h y$ potheses concerning the shape of this original church, all of them based on a very limited number of archaeological findings" ([1265], page 7).

The first Basilica of San Marco is supposed to have burnt down in the alleged year 976. According to [1265], page 7, "it was immediately reconstructed." As a result, the second San Marco Basilica was built in Venice, allegedly towards the end of the X century. It was destroyed as well ([1265]).

Then, allegedly around 1063, the doge Domenico Contarini began the construction of a new and much larger church of St. Mark on the site of the second basilica. It is assumed that this third basilica was built in the fashion of the Basilica of the Twelve Apostles in Constantinople.

This is where oddities begin, well shrouded in mystery. See for yourselves, we are quoting verbatim:
"The rediscovery [sic! - A. F.] of St. Mark's body is the last episode of the Venetian legend. During the construction of the third basilica, the ossuary was hidden so well [?! - A. F.] that several years later, after the death of the doge, no one had a clue about their possible location. It was only in 1094, after several days of ardent prayers of the doge Vitali Falier, the Patri-
arch, and the entire populace, that the holy relic [the body of St. Mark - A. F.] had manifested itself miraculously from inside a column [sic! - A. F.]". ([1265], page 67).

This miraculous event is also represented on one of the inlays inside the Cathedral of St. Mark. Below one can see the famous painting on this subject by the XVI century artist Tintoretto.

Now then, we are being assured in a poised, nononsense manner that the XI century Venetians erected the gigantic cathedral of St. Mark without having the slightest notion of the location of the holy relic that hed served as the very reason for the cathedral's construction. And all the while, the body of St. Mark the evangelist was right there, on the building site!

Apparently, the cathedral was erected first; after that, the loss of the holy relic was suddenly noticed, and the search for it was long and fruitless. It took the fervent prayers of the doge, the Patriarch, and all of the population of Venice to make the body of the evangelist manifest itself inside a stone column (?). It was taken out with the utmost care (does that mean the stone pillar had to be shattered?) and solemnly buried by the altar.

This is where the body of St. Mark lies until the present day, being the central object of adoration in the


Fig. 7.95. A XVI century painting by Tintoretto titled "The Discovery of the Body of St. Mark". It may have had a different title at some point, something along the lines of "The Burial of St. Mark". Taken from [1472], ill. 17.
cathedral. Scaligerian chronology of the events that we have related is shown in fig. 7.94. It is noteworthy that the eminent XVI century artist Tintoretto had an altogether different concept of the history of St. Mark's burial in this cathedral. His famous painting with this exact subject can be seen in fig. 7.95 ([1472]). Mark the fact that St. Mark does not resemble a desiccated mummy the least bit, looking like a man who has just
died and is going to be buried, q.v. in the left corner of the painting. According to the opinion that prevailed in the XVI century, St. Mark the evangelist was buried in the cathedral built specifically for this purpose in the alleged XI century as befitting a person who has just died and earned great honours. As we can see, there wasn't any "millenarian vagrancy of St. Mark's body" in Tintoretto's perception.

Apparently, the bizarre legend of the "pilgrimage of Mark's body" was a product later historians' efforts to delve deeper into the real events of the XII century and make them concur with the erroneous Scaligerian chronology. This is what we think really happened:

St. Mark, the first evangelist, lived in the XII century A.D. and died in the second half of that century. He was buried for the first and the last time in the Cathedral of St. Mark, erected in his honour. This opulent inhumation, which took place in the alleged year 1094 (around 1194, most likely) with the doge, the patriarch, and the entire city present, was later misinterpreted as the rediscovery of his body, since Scaligerian chronology had already shifted the lifetime of St. Mark into the I century A.D.

There were no mysterious disappearances or miraculous rediscoveries. These legends date from a much later age, when historians attempted to make Scaligerian chronology concur with the documents that explicitly pointed to the XII century as the age of St. Mark's life and activity.

The cathedral of St. Mark obviously assumed its current shape a great deal later than the XII century. When we look at this cathedral nowadays we see a building whose construction was finished by the XVI century. On its walls we see inlays illustrating the rather airy legend of the fate of St. Mark's body. Even within Scaligerian chronological paradigm, the cathedral's construction continued well into the XIII century, when it was adorned with an equine sculptural group that was allegedly smuggled from the hippodrome of Constantinople in Byzantium ([1467], page 39).

It is difficult to pinpoint the exact place of St. Mark's residence. It may have been Asia Minor or Constantinople, as Scaligerian history insists, and not Italy. But, at any rate, his lifetime falls within the XII century A.D. and not the first.

The idea that St. Mark could have lived in Venice for some time is indirectly substantiated by the fact that "for many centuries the town was associated with the symbol of the winged lion that the Christian tradition ascribes to St. Mark the evangelist. Venetian banners, churches, palaces and ships, as well as the lands that the Venetians conquered all bore the sigil of the winged lion" ([1265], page 27).

It is however possible that Italy received the "copy-
right" for St. Mark merely as a result of a chronological and geographical transfer of Byzantine events from Constantinople (on paper, naturally).

This conclusion fits our hypothesis that Jesus Christ lived in the XII century A.D. Mark, the first evangelist, lived in the same century and died near its end.

The implication is that the other three evangelists - Luke, Matthew, and John - also couldn't have lived earlier than the XII century, since they wrote their Gospels after Mark, according to Scaligerian history. It would be very interesting indeed to find the real graves of these three evangelists as well.

## 7.

## THE "ANCIENT" EGYPT AND THE MIDDLE AGES

### 7.1. The odd graph of demotic text datings

We give a detailed account of Egyptian history in Chrons. Presently, we shall limit ourselves to several brief introductory notes.

As we have already mentioned in Chroni, chapter 1, Scaligerian chronology of Egypt contains gigantic gaps and actually consists of assorted fragments, either linked in an arbitrary manner or altogether independent. [1069] contains a complete list of all dated demotic texts for 1966. It goes without saying that certain Egyptian texts can be ascribed no exact dating; we shall refrain from considering them here and turn to the ones described in [1069] instead. It is most edifying to observe their distribution across


Fig. 7.96. Quantity distribution graph for dated demotic Egyptian documents compiled from the data collected in [1069]. One's attention is instantly drawn to the strange gaps in the beginning and at the end of the Second Roman Empire, as well as a suspicious lack of such documents pertinent to the Third Roman Empire epoch.
the time axis of Scaligerian history. The result can be seen in fig. 7.96. The resulting graph is extremely noteworthy.

Primo, one sees that the majority of dated demotic Egyptian texts falls over the epoch of the Second Roman Empire allegedly covering the period of the IIII century A.D. It is significant that the gaps in the graph fully correspond to the chronological framework of the Second Roman Empire. Some of them are dated to earlier epochs, but those are separated from the Second Roman Empire by a strange gap in the middle of the alleged I century A.D.

Secundo, the graph in fig. 7.96 shows a complete absence of dated demotic documents in the epoch of the Third Roman Empire.

The Scaligerian chronology of demotic texts ipso facto reveals itself as several groups of documents whose relation to each other is rather far-fetched and fanciful. These groups are separated by gaps whose boundaries most peculiarly coincide with the break points between the dynastic duplicates that we have discovered with the aid of completely different methods - those based on statistical analysis, qv in Chroni, Chapter 5. Ergo, the folding of the European chronological scheme results in a corresponding abbreviation of the "ancient" Egyptian chronology.

### 7.2. The enigmatic "revival periods" in the history of "ancient" Egypt

In Chron1, Chapter 1, we have already discussed the fact that the chronology of Egypt counts amongst the youngest of historical disciplines. Its formation was based on the existing Scaligerian chronology of Rome and Greece, and has therefore been dependent on it from the very start. The Egyptologists who initiated the compilation of the Egyptian chronology did not possess the objective criteria necessary for the verification of their hypotheses. This led to major discrepancies between the "different chronologies" of Egypt, amounting to 2-3 millennia, q.v. in Chron 1 , chapter 1 .

The few dynastic lists that have survived until our day occasionally indicate reign durations for certain pharaohs, but the pharaohs are often referred to by different names; moreover, these numbers change drastically from list to list.

For instance, Eusebius gives 26 years as the reign
duration for Amenmesse (second version), as it is pointed out in [544], whereas Africanus gives 5 years. The durations differ from each other by a factor of five.

Eusebius indicates 40 years for Amenope (both versions), Africanus indicates 20 , and Ophis only 8. And so on, and so forth.

Nevertheless, all of these data can still provide the basis for some speculation at least, the obvious and numerous distortions notwithstanding, and it is little wonder that the XIX century Egyptologists attempted to use these numbers for the construction of chronological scales. However, their calculations were afflicted by discrepancies of several millennia, as we have seen above, not to mention the inveracity of the very concept of Scaligerian "elongated history."

However, for most Egyptian dynasties, reign durations of the pharaohs remain a complete mystery ([99], pages 725-730). The entire sixth dynasty can be cited as an example (according to Brugsch). There is no chronological data for most of its pharaohs, which makes it all the more peculiar to observe Brugsch ascribing reign durations of 33.3 years to every pharaoh of this dynasty with some determined and glum exhilaration, counting 3 pharaohs per century. His datings of the sixth dynasty are as follows:

Userkaf - reigned from 3300 b.c. onwards,
Teti - from 3266 в.c.,
Pepy I (Meryre) - from 3233 в.c.,
Merenre - from 3200 в.с.,
Neferkaf - from 3166 в.с.,
Merenre Zafemzaf - from 3133 в.с. (see [99], page 725).
Furthermore, Brugsh used the very same principle - numbers ending in 00,33 , and 66 , for the "dating" of every dynasty starting with the first and ending with the twenty-fourth inclusive. Only the pharaohs of the last seven dynasties (out of thirty!) that enjoyed some sort of heterogeneity in the dating of their reigns ([99], pages 725-730).

This "dating method" is so ludicrous one feels embarrassed to so much as discuss it nowadays. Nevertheless, this is the very method, with a number of minor later modifications, that the consensual version of Egyptian chronology was based upon. Brugsch's datings haven't ever been revised in any cardinal way. See [1447], page 254, for instance.

The dynastic history of Egypt is anything but con-
tinuous. Some of the gaps that it contains swallow entire dynasties ([99] and [544], Volume 6). At the same time, the researchers of the "ancient" Egyptian history have noted that it has an uncannily cyclic nature. Scaligerian history of Egypt demonstrates a strange "renaissance effect," much like its European cousin. This effect is well known to us already - we constantly encounter phantom duplicates of the same mediaeval events that were cast far back into the past.

Chantepie de la Saussaye, for one, wrote:
"If we are to turn to later ages in Egyptian history, we shall be surprised to discover that the culture of the Sais epoch is a spitting image of the culture of the pyramid epoch. The texts used almost 3000 years ago [sic! - A. F.] enter circulation once again, and the ancient fashion of decorating graves makes a comeback". ([966], page 99)
H. Brugsch pointed out the following:
"As Mariett-Bey justly noted, the names typical for the twelfth and especially the eleventh dynasty come back on the monuments of the eighteenth dynasty in the same shape and form as they had once possessed, and similar sepulchres with identical ornamentation were used in both these periods. What we have in front of us is a historical enigma that we sadly lack the means to solve so far". ([99], page 99)

Egyptologists find inscriptions referring to pharaohs and kings set apart by millennia in Scaligerian chronology, coexisting side by side on the walls of Egyptian temples. In order to provide some kind of explanation, the Egyptologists have thought up the following hypothesis:
"The temples, constructed recently by the Ptolemaic rulers and adorned by the Romans, have all been built on the sites of the ancient shrines; all the ancient inscriptions found on temple walls were meticulously and devoutly copied onto the walls of the new temple," suggests Brugsch in [99], page 145.

The practice of copying old and unintelligible inscriptions from the walls of ancient temples hasn't been noted in any veracious historical period. One has to think no such nonsense occurred in "ancient" Egypt, either.

All of these recurrences and renaissances have received the legitimate and earnest title of "restorations." We are told, for instance, that the nineteenth dynasty was followed by a restoration when "Egypt... returned
to the ancient epoch of pyramid construction, which becomes regarded as an age worthy of imitating. The ancient religious texts are resurrected, although the ability of the Egyptians to understand them is supposed to be limited. The funereal rites of the fourth dynasty are adhered to once more. Their pyramids are restored; the ancient titles of the kings that have remained in complete obsurity for over two millennia are celebrated in quotidian use yet again. Art comes back into the solid realistic manner of the Old Kingdom" ([966], page 166).

It is obvious that Scaligerite historians should want to find some sort of explanation for these bizarre "mass recurrences" of ancient rites, failing to recognize them for the products of an erroneous chronological system that they are. The "explanation" offered by historians is the alleged extreme conservatism of the Egyptians. It is written that "the Sais restoration can be counted amongst the most significant periods in the history of the Egyptian culture, and provides for the best possible illustration of just how conservative the Egyptian national spirit was" ([966], page 166).

This is what B. A. Turayev has to say about the "restorations":
"Attempts were made to edit all of the official texts using an archaic language that is hardly understood by many... the forgotten ranks and offices are revived, the inscriptions made during the epoch, even the private ones, can be taken for those made during the epoch of the Old Kingdom [sic! - A. F.]... . The most typical phenomenon here is the appearance of the pictures of agricultural works, pastoral scenes, etc., on the sepulchral wall that are familiar to us from the Old Kingdom epoch." ([853], Volume 2, pages 102-103)

All of this after two thousand years?
Imagine having to write a message to your friends using the language of I b.c. This hardly seems possible, even if one were to express such a volition.

The new chronology eliminates the necessity of inventing such absurd explanations. Apparently, there have been no "global renaissances" on such a scale.
N. A. Morozov gives a consecutive analysis of all thirty dynasties of the Egyptian pharaohs. He comes to the conclusion that nearly all of the dynasties preceding the IV century A.D. are phantom duplicates of several mediaeval dynasties.

We shall refrain from quoting his speculations
here. It isn't Morozov's conclusions that our research is ultimately based upon, but, rather, our mathematical and statistical research, $q v$ in the bibliography of our publications. Our research has shown, among other things, that N. A. Morozov was really very far from concluding his research. He stopped at too early an epoch - the beginning of the IV century A.D. - having adhered to the erroneous opinion that subsequent Egyptian history doesn't need to be revised.

He turns out to have been wrong. Apparently, the entire "Scaligerian Textbook of Egyptian History" preceding the X-XII century A.D. is compiled from phantom duplicates of the mediaeval history of Egypt of the XIII-XVII century A.D., as well as the XIV-XVII century history of the Great=Mongolian empire, $q \mathrm{~V}$ in Chron5. Furthermore, the Biblical "Land of Egypt" apparently has got nothing to do with the territory of modern Egypt, since the Biblical Egyptian events apparently took place in an altogether different location. See Chron6 for more details.

### 7.3 The ancient Hittites and the mediaeval Goths

It is commonly known that the "ancient Hittites" were "discovered" as late as 1880 , when Professor Archibald Sayce read his lecture proclaiming the existence of "the ancient nation of the Hittites," basing his research on analysis of the Bible, q.v. in [291], page 21. Sayce was granted the title of the Inventor of the Hittites ([291]). The Biblical studies of Archibald Sayce and William Wright led them to the conclusion that the "Hittites" used to live to the north of the Biblical Promised Land. Being raised on Scaligerian history and adhering to the erroneous opinion that the Promised Land was located on the territory of modern Palestine, Sayce and Wright confined the "ancient Hittites" to Asia Minor, which lies to the north of Palestine. However, nowadays we are beginning to understand that the Biblical Promised Land covers large territories in Southern Europe and the Mediterranean lands, q.v. above and in Chron6. However, in this case the "Hittites" would have lived to the north from Southern Europe - in the lands populated by the Goths. What we witness here is a superimposition of the "ancient Hittites" over the mediaeval Goths.

We can now see the roots of the mistake made by Sayce and Wright. They suggested searching for Hit-
tite relics in Asia Minor, which was the place of the erroneous XVII century Scaligerian localization of Biblical events, and not in Europe, where one wouldn't have to search for them since these "Hittites" were already perfectly well known under the name of Goths. The "Hittite studies" were conducted in the same manner as previous Biblical research, with archaeologists going to Asia Minor in search of ruins and finding plenty to ascribe to "Hittites." This is how another error of Scaligerian chronology received "archaeological proof."

## 8. <br> PROBLEMS INHERENT IN THE SCALIGERIAN CHRONOLOGY OF INDIA

Scaligerian history of the East is closely related to the history of Europe and Egypt as presented by Scaliger and Petavius. Thus, all possible alterations of the European chronology automatically affect the chronology of "ancient" India. Let us give a brief summary of Scaligerian chronology of India. The historian N. Gousseva writes that "historical science runs into such problems in India as the researchers of the ancient history of other countries and peoples cannot even conceive of [this confession was made in 1968 - A. F.]. The primary difficulty here is the absolute lack of dated monuments" ([433], page 5).Apparently, all of the main "chronological landmarks" in Indian history are a product of a rather recent age, and they are directly dependent on the previously compiled Scaligerian chronology of Rome, Greece, and Egypt. Hence the obvious necessity for the revision of Scaligerian history of India.

The historian D. Kosambi reports:
"There is virtually nothing of what we know as historical literature in India... all we have is a vague oral tradition and an extremely limited number of documented data, which is of a much greater value to us than that obtained from legends and myths. This tradition gives us no opportunity of reconstructing the names of all the rulers. The meagre remnants that we do possess are so nebulous that no date preceding the Muslim period [before the VIII century A.D. - A. F.] can be regarded as precise... the works of the court chroniclers didn't reach our time; only Cashmere and Camba can be regarded as an excep-
tion of sorts... all of this leads some rather earnest and eminent scientists claim that India has no history of its own". ([433], pages 19-20).

For instance, this is what the historians tell us about the "ancient" culture of the Indus valley:
"Written memorials of the Indus culture defy decipherment to this day... not a single finding can be associated with an actual person or historical episode. We don't even know the language that was spoken by the inhabitants of the Indus valley". ([433], pages 65-66).

We are told that Scaligerian chronology of "ancient" India contains gaps larger than 600 years ([433], pages 65-66). Likewise the Scaligerian "ancient" Europe, India "suddenly" rolls back to barbarism around the beginning of the new era, and then "resumes" its ascension to the mediaeval "position of eminence"; which is suspiciously similar to the fate of the culture of "ancient" Europe, allegedly forgotten by everyone and only achieved once again in the Middle Ages.

The VII century A.D. is the time when the alleged "renaissance" of the Indian culture began - rather gradually, based on the Aryan culture (possibly the Christian-Arian ideology). The famous "ancient" Indian "Aryans" can apparently be identified as the Arian Christians of the XII-XIV century, according to our reconstruction. The mysterious Aryans began to haunt an antediluvian age courtesy of Scaligerian chronology.

Furthermore, it turns out ([433]) that the texts concerning the cult of Krishna in India are of a relatively recent origin. Specialists in the history of religions have long since confirmed the existence of a vast number of parallels between Krishna and Christ ([544], Volume 4). This is why certain statements made by latter day historians reek of ambiguity, such as "the complete biography of Krishna was completed as late as the XII century A.D." ([433], page 122). It is possible that the Indian Krishna cult is nothing but the cult of Jesus, brought to India by the Christian missionaries of the XII-XIV century.

It is assumed that the god Krishna is mentioned in the Bible ([519], Volume 4, page 17). According to some Indian sources, the god "Krishna" can practically be identified as Christ ([519], Volume 4).

Mediaeval authors occasionally located India in Africa or Italy (!). See more details in Chrons. We should point out another very odd fact of Scaligerian
history in this respect. It is presumed that the "ancient" Alexander the Great had reached India and defeated the Indian king Porus, having conquered many lands in India ([433]). One would think an event of this calibre would leave some trace in Indian history at the very least. However, this doesn't seem to be the case. "This invasion... appears to have remained unnoticed by the Indian tradition, although some foreign historians consider it to be the only large-scale event in the ancient history of India" ([433], page 143).

One feels like asking the obvious question of whether the "India" of the mediaeval manuscripts really is the same country as the modern India? Could it have been an altogether different country that Alexander had conquered?

We are told further on that many vital issues concerning the "ancient" history of India are based on the manuscripts found as late as the $X X$ century. It turns out, for instance, that "the main source of knowledge in what concerns the governmental system of India and the policy of the state in the epoch of Maghadhi's ascension is the Arthashastra - the book... that had only been found in 1905, after many a century of utter oblivion" ([433], page 146). It turns out that this book is basically the Indian version of the famous mediaeval oeuvre of Machiavelli. However, in this case the "ancient Indian Arthashastra" couldn't have been written before the Renaissance. This could have happened in the XVII-XVIII century, or even the XIX.

Scaligerian history of India resembles its European cousin in that it rolled back to barbarism in the beginning of the new era, and had to "resume" its "long ascension to the heights of civilization" ([433]). We are also told that the "first significant Sanskrit inscription was found in Ghirnar and dates from roughly 150 A.D." ([433], page 172). However, we instantly discover that the heyday of Sanskrit literature in India began around the XI century A.D. This is most probably a result of the chronological shift of a thousand years that we so familiar with by now. A propos, could "Sanskrit" stand for "Saint Script," or the Holy Writ?

Scaligerian history of mediaeval India also contains a great number of centenarian chronological gaps, and is confusing and chaotic.
"The apathy of the Brahmans to everything real in the past and the present... had erased the history of

India from human memory... . The reconstruction of the history and the realities... of the ancient India... we have to rely on the reports of the Greek geographers and Arab travellers... there isn't a single Indian source that would equal the reports of the foreigners in value". ([433], page 180).

Thus, Scaligerian history of India is wholly dependent on the consensual chronology of Rome and Greece and will have to be reconstructed in turn.

Historians characterize the dynastic history of India thusly: "The names of individual kings are obscured by the quaint haze of legends. We possess nothing that would remotely resemble palace chronicles" ([433], page 192). We fail to see the quaintness of historical haze. Could it reside in the freedom it gives to one's fantasy?

The famous Mahabharata, a collection of the "ancient" Indian epos, is relegated to a distant b.c. epoch by Scaligerite historians. On the other hand, the work is supposed to have been based on the "ancient" Greek epos. A large number of parallels between the Mahabharata and the poems of Homer were discovered quite a while ago ([519]). Historians claim that the Indians were "rephrasing Homer" ([520], page 13). If this be the case, the dating of the Mahabharata becomes completely dependent on the datings of the poems written by the "ancient" Homer. We have already demonstrated that events that occurred in "ancient" Greece were most probably really mediaeval, that is, dating to the XIII-XVI century A.D.

An in-depth analysis of the Mahabharata, the great body of epic text, as seen from the stance of the new chronology, is performed in our new book titled The Chronology of India. Ptolemy's 'Geography'. The 'Atlas' of Ortelius, 2003.

## 9.

## WAS THE ARTIFICIAL ELONGATION OF ANCIENT HISTORY DELIBERATE?

According to the results obtained by the new methods of dating, virtually all of the old documents that have reached our age are copies from ancient originals, presumed lost. These originals were written in order to reflect the current events of the XI-XVI century A.D., and not for the purpose of confusing fu-
ture historians. It seems that earlier documents simply failed to have survived until the present day. However, the overwhelming majority of XI-XVI century originals either got destroyed, or were subjected to tendentious editing in the XVI-XVII century, during the creation of Scaligerian chronology. Whatever meagre genuine evidence of antiquity escaped such editing (or re-writing in the light of the veracious Scaligerian Chronology) are declared to be forgeries or creations of ignorant authors.

In Chrons and Chron6 we give examples of how our revised chronology acquits several old documents from accusations of forgery, such as the famous Gift of Constantine, the Gift of Alexander the Great, and so on. In other words, many of the documents declared counterfeits nowadays turn out to be original, concurring perfectly well with the new chronology. Such is the case with the "Privileges" given to the mediaeval Ducal House of Austria by Caesar and Nero (see Chroni, chapter 1). In our opinion, nearly all of the events described in the ancient chronicles really did take place. The question is one of their exact location and timing. This is precisely where chronological and geographical confusion began, aided by the deliberate distortions of Scaligerite chronologers, which has led to the "elongation of history." However, the key role was most probably played by the tendentious "editing of history" in the XVI-XVII century.

## Summary.

1) Most of the documents that have reached our age - the ones referring to pre-XVI century events are based on old originals. However, nearly all of the latter went through the hands of the tendentious editors of the XVI-XVII centuries. Their reading and interpretation are ambiguous, and an altered chronology leads to a new understanding.
2) Some chronological errors were accidental. A millenarian shift of the years of Christ's life from the XII century A.D. to the I might be an example of such an error.
3) Some of the distortions of mediaeval history preceding the XVI century A.D. were deliberate and verged on blatant falsification. We shall provide more details in Chron5, Chron6 and Chron7.

## Annexes

# Grammatical analysis of an eclipse description in History by Thucydides 

This section contains quotations from works by Y. V. Alexeyeva

In the present Annex, references are made to the list of books and notes in the end of the Annex.

Curcius [d1], Schwyzer [d2] and Cherny [d3] noted the similarity between systems [d4] of perfective and imperfective aspects of the verb in the ancient Greek and Slavonic languages. Thus, the imperfective aspect of a verb (praesens) indicates that the action in question is rather a process that goes through various stages over the course of time. Cf.: I am dying (imperfective aspect), I have died (perfective aspect), I am dead (conveys effective aspect). While perfective aspect of a verb (aoristus) (cf.: similarly) indicates either a momentary action (cf.: gave a cry, drew breath), or the moment when a given action begins (cf.: she started singing), or ends (cf.: she stopped singing). One should note, however, that the ancient Greek language has, besides perfective and imperfective aspects, effective aspect (perfectum) (cf.: gave a cry, drew breath), which does not exist in contemporary Slavonic languages but still can be seen as traces (in the Russian language, for instance ([d5])). This aspect is used to either refer to an achieved result of action usually continuing at the moment of speech, or a state caused by such completed action which is still a reality.

Let us look at a phrase by Thucydides:
$\kappa \alpha i ̀ \alpha \sigma \tau \varepsilon ̀ \varrho \omega \nu \tau \iota \nu \varpi \vee$ દ̇кц $\alpha \nu \varepsilon ́ v \tau \omega \nu$.

Let us research it grammatically in order to establish the correct order of events. In doing so, we shall present other possible interpretations of this phrase
which, albeit constructed correctly from the grammatical point of view, can prove void of meaning, such as the phrase "he had died, but continues to breathe".

The beginning of the phrase goes as follows:

That is, "The sun darkened (disappeared)... and again (anew) replenished". The form [d4] $\dot{\varepsilon} \xi \dot{\xi} \lambda_{1} \pi \varepsilon$ (darkened) is used to refer to the 3rd person, singular, active voice of the verb $\dot{\varepsilon} \kappa \lambda \varepsilon i ́ \pi \omega$, indicative mood, perfective aspect ( 3 Sin . aoristi indicative activi). The form [d4] $\alpha v \varepsilon \pi \lambda \eta \varrho \omega \theta \eta$ (replenished) is used to refer to the 3rd person, singular, passive voice of the verb $\alpha \times \grave{\alpha} \pi \lambda \eta \varrho \alpha \dot{\alpha} \omega$, indicative mood, perfective aspect (3 Sin. aoristi indicativi passivi). Further: $\dot{\varepsilon} \xi \dot{\xi} \lambda \imath \pi \varepsilon$ and $\dot{\alpha} v \varepsilon \pi \lambda \eta \varrho \omega \theta \eta$ are similar predicates related to the subject ó $\eta \lambda 10 \zeta$ (the sun). Actions expressed by these verbs in perfective aspect are not simultaneous. This difference, a certain gap between $\dot{\varepsilon} \xi \dot{\varepsilon} \hat{\lambda} 1 \pi \varepsilon$ (darkened) and $\dot{\alpha} \nu \varepsilon \pi \lambda \eta \varrho \omega \dot{\omega} \eta$ (replenished), is indicated by $\pi \dot{\alpha} \lambda \iota v$ (again, rursus, wieder, вновь).

Note 1. In the Greek language, in order to indicate the simultaneity of actions performed by the same person (in present, past, and future tense), personal form of one verb and the imperfective aspect of another one's participle [d6].E.g.: "The sun, darkening, replenished", "The sun, having darkened, replenished".

Note 2. A number of verbs in imperfective aspect, being predicates with one subject, can denote actions which at a certain moment of development occur simultaneously (i.e. imperfective aspect neither indicate the beginning nor the end of an action).

The next part of the phrase:
$\alpha \sigma \tau \varepsilon ̀ \varrho \omega \nu ~ \tau ı \nu \varpi \nu ~ દ ̇ \kappa \varphi \alpha v \varepsilon ́ v \tau \omega \nu$

- explains circumstances that provide us with additional information. In adverse case, these actions would likewise be expressed by personal forms of verbs:

 غ̇ $\xi \varepsilon \varphi \alpha ́ v \eta \sigma \alpha \nu$ ह̇ $\xi \varepsilon \varphi \alpha ́ \alpha \theta \eta \sigma \alpha \nu$,
"The sun darkened... and again replenished, and became similar to the crescent, and some stars appeared in sight". Further: $\gamma \varepsilon v_{0} \mu \varepsilon v o \zeta$ - the perfective aspect participle from the verb $\gamma i \gamma v o \mu \alpha l$, the coordinated in masculine gender, singular, nominative with the subject o ทัク $\lambda 10 \zeta$. The participle is used instead of adverbial modifier subordinate clause, when the subject of a subordinate clause is a part of the principal clause (in this case, the subject of the principal clause) [d7]. Perfective aspect participle (adverbial modifier and the predicative participles) always expresses precedence [d8] to the action of the principal verb, as opposed to the imperfective aspect participle that refers to the simultaneity of its action and that of the principal verb. See Par. III, Note 1. In our phrase $\gamma \varepsilon v o ́ \mu \varepsilon v o \zeta$ (having become, having turned) means precedence only to the action $\alpha v \varepsilon \pi \lambda \eta \varrho \omega \theta \eta$ (replenished). First, if the author should need to indicate that this action ( $\gamma \varepsilon v o ́ \mu \varepsilon v \circ \zeta-$ having become) equally precedes action $\dot{\varepsilon} \xi \dot{\varepsilon} \lambda_{\lambda} 1 \pi \varepsilon$ (darkened) and action $\alpha v \varepsilon \pi \lambda \eta \varrho \omega \theta \eta$, then the phrase would be constructed differently, along the lines of:
 $\kappa \alpha i ̀ ~ \pi \alpha ̀ \lambda ı \nu ~ \alpha ̉ v \varepsilon \pi \lambda \eta \varrho \omega \theta \eta \eta ~ \varepsilon ่ \kappa \varphi \alpha \nu \varepsilon ́ v \tau \omega \nu \delta \varepsilon ́ ~ . . ., ~$
or "having become similar to the crescent, the sun darkened and again replenished».

Second, k $\alpha i \pi \alpha \lambda_{\lambda} v$ means a strict sequence of actions $\dot{\varepsilon} \xi \dot{\xi} \lambda ı \pi \varepsilon$ and $\alpha \dot{\alpha} v \pi \lambda \eta \varrho \omega \dot{\theta} \eta$, clearly dividing one from the other [d9]. Therefore, one should not believe the circumstances accompanying one action ( $\alpha v E \pi \lambda \eta \varrho \omega ́ \theta \eta \eta$ ) to equally relate to the other ( $\varepsilon \xi \xi \dot{\varepsilon} \lambda i \pi \varepsilon$ ). Thus, the sun had acquired the shape of the crescent before it replenished, and after (or simultaneously with) having darkened. Translators to German, English, and French can only convey this sequence by description: these languages have no participle which would possess the
meaning of precedence. Adverbial modifier subordinate clause, the subject of which does not occur in the principal clause, neither in nominative nor in any other indirect case, can be replaced by a special adverbial modifier construction Genitivus Absolutus, where the subject of a subordinate clause is in the genitive case, and the predicate is replaced [d10] by the genitive case of the participle of the same verb.

If the construction Genitivus Absolutus contains an imperfective aspect participle, then the action of the construction occurs simultaneously with that of the principal clause [d10]. E.g.,

##  غ̇кү $\alpha i v o \mu \varepsilon ́ v \omega v$,

"The sun replenished, at the same time some stars were coming in sight".

If the construction Genitivus Absolutus contains a perfective aspect participle, then the action of the construction precedes that of the principal verb [d10]. E.g.,

$$
\begin{aligned}
& \alpha \sigma \tau \varepsilon ̀ \varrho \omega \nu \tau \tau \nu \varpi \nu \text { દ̇кц } \alpha \nu \varepsilon \nu \tau \omega \nu,
\end{aligned}
$$

"The sun replenished, before that some stars came in sight".

In our phrase, the action of the construction Genitivus Absolutus only precedes the action $\alpha v \varepsilon \pi \lambda \eta \varrho \omega \theta \eta$ (replenished). Indeed, the phrase:

$$
\begin{aligned}
& \kappa \alpha i ̀ \alpha \sigma \tau \varepsilon ̀ \varrho \omega \nu \tau ı \nu \varnothing \nu \text { દ̇кৎ } \alpha v \varepsilon ́ v \tau \omega v \text {, }
\end{aligned}
$$

the conjunction $\kappa \alpha i ̀ \pi \grave{\alpha} \lambda l v$ joins the predicate $\dot{\varepsilon} \xi \dot{\varepsilon} \lambda_{1} \pi \varepsilon$ (darkened) and the predicate $\alpha v \varepsilon \pi \lambda \eta \varrho \omega \theta \eta$ (replenished), while the conjunction [d11] א $\alpha$ ì joins the circumstance actions which, for the purposes explained above, are constructed differently from the grammatical viewpoint. However, Thucydides might have expressed both circumstance actions through similar adverbial modifier phrases, such as:
"The sun darkened and again replenished after it had become similar to the crescent, and after some stars have come in sight".

Thus, he actions $\gamma \varepsilon v o ́ \mu \varepsilon v o \zeta$ and $\alpha \dot{\alpha} \sigma \tau \varepsilon \varrho \omega v \tau \tau v \varpi v$ $\dot{\varepsilon} \kappa \varphi \alpha \nu \varepsilon ́ v \tau \omega \nu$ are joined by the conjunction $\kappa \alpha i$ and compose a united adverbial modifier group related to $\alpha \dot{\alpha} \varepsilon \pi \lambda \eta \varrho \omega \dot{\theta} \eta$; however, it is impossible to establish, judging merely by the grammatical analysis, the correlation between the actions $\gamma \varepsilon v o ́ \mu \varepsilon v o \zeta \mu \eta$ voعı $\delta$ 亿̆ $\zeta$ and $\alpha \sigma \tau \varepsilon ̀ \varrho \omega \nu \tau \imath v \varpi v$ ย̇к $\varphi \alpha v \varepsilon ́ v \tau \omega \nu$ (the appearance of the crescent sun and the stars) - namely, the precedence of one over the other, or the determination of a dependence existing between the two events.

Note 3. If we consider к $\alpha$ ì to unite the construction Genitivus Absolutus with the whole of the phrase



- then the appearance of stars in the sky turns out to have preceded both the darkening and the replenishing of the sun. In this case, the contraposition (of the appearance of stars against the darkening and the replenishing of the sun) is obvious and not expressed by particles $\mu \varepsilon ́ v$ and $\delta \varepsilon \check{\varepsilon}$ grammatically:



Therefore, such a stance is erroneous. On the other hand, acknowledging that $\kappa \alpha i$ simply unites the construction Genitivus Absolutus with the whole of the phrase, without any contrapositions of any kind attests to the fact that the action of the "appearance of stars" is of equal value with, and similar to, the action of "darkening-replenishing", which is impossible. Firstly, Genitivus Absolutus is by nature an adverbial modifier and of equal value with a subordinate clause, therefore cannot have equal rights with the principal clause, but should be subordinate thereto. Secondly, $\mathfrak{\varepsilon} \xi \in \dot{́} \lambda ı \pi \varepsilon$,
 possess no similarity, and so it would be an error to ascribe the actions "darkened", "replenished", "stars appeared", etc. to the same class of events.

Conclusion. Sequence of events is as follows: the sun darkened - assumed the shape of a crescent - the stars came into sight - the sun replenished again.

As a rule, contemporary languages convey the constructions of the ancient Greek by proxy of description, where the forms available are clarified by means of adverbs or other form words [d13]. Thus, the con-
struction of Genitivus Absolutus is replaced by a subordinate clause, and the adverb $\gamma \varepsilon v o ́ \mu \varepsilon v_{0} \zeta$ - by a personal form of verb. To show the precedence of the action "assumed the shape of a crescent" to the action "replenished", a relevant word order is used.

## Literature and notes to Annex 2.1.

[d1] Curtius, Erläuterungen $z u$ meiner griechischen Schulgrammatik, pp. 181-182.
[d2] Schwyzer, Griechische Grammatik, t. 1, Bd. 2, 1950, p. 248 and on.
[d3] Cherny, On Relation of Aspects of Russian Verb to Greek Tenses. SPb., 1887, pp. 4-8.
[d4] The issue of terms needs to be discussed: verbal forms are a complex fusion of meanings - aspect, mood, tense, etc. Disagreement may arise on whether a verb is in an indicative mood of the perfective aspect, or whether the verb of perfective aspect is in the indicative mood; whether an aspect has the participles of verb " $x$ ", or whether the verb " $x$ " of a certain aspect has participles. Issues like that are beyond the scope of the current work and believed to be terminological issues. In this case, we are concerned with the fact that two forms can be contraposed by the same feature - aspect of verb, e.g. $\bar{\varepsilon} \dot{g} \dot{\xi} \lambda \varepsilon \| \pi \varepsilon$, $\dot{\varepsilon} \xi \dot{\xi} \bar{\lambda}^{\prime} \pi \pi \varepsilon$ - 3rd person, singular, active voice, indicative mood, but $\dot{\xi} \xi \dot{\varepsilon} \hat{\lambda} \varepsilon \pi \pi \varepsilon$ is a verb of the imperfective aspect, while $\dot{\varepsilon} \xi \dot{\xi} \lambda \lambda I \pi \varepsilon$ is a verb of the perfective aspect.
[d5] Such as gender contraposition in the past tense. The existing form originates from a perfect adverb.
[d6] Cherny, Grammar of the Greek Language, part 2, 103 a, paragraph 45.
[d7] Ibid., paragraphs 45 and 138-143.
[d8] Ibid., paragraph 103 b, Cherny, On the Relation of Aspects..., pp. 21-28.
[d9] Künner, Ausführliche Grammatik der Griechischen Sprache, t. 2, Bd. 2, 524 (1).
[d10] Cherny, Grammar of the Greek Language, part 2, paragraphs 45 and 144.
[d11] Künner, Ausführliche Grammatik der Griechischen Sprache, 521(1-2).
[d12] Ibid., paragraph 522 . On simultaneity and the precedence of actions, see also Cherny, On the Relation of Aspects..., especially the pages 21-28.
[d13] For instance, in the English translation by Bloomfield «having been» is clarified by «after», in the French translation - «avoir eu», «ayant brillé" - by «après» and «dans l'intervalle».

ANNEX 5.1 (TO CHAPTER 5)

# Per annum volume distribution in some Russian chronicles 

## 1. VOLUME FUNCTION FOR DVINSKOY LETOPISETS (The complete version of the chronicle)

Volumes calculated as per edition of The Complete Russian Chronicles, Volume 33, Leningrad, 1977. For every year described in the chronicle, the volume of the relevant text fragment (in lines) is indicated. For instance, entry 1342-7 means that the volume of the fragment related to 1342 equals 7 , etc.

For certain years, there are two volume values and not one. This means that the commentators of this
chronicle distinguish between the principal ancient text and later inserts and addenda. Therefore, in order to obtain a complete picture of the evolution of a certain text, we calculated the volume of the principal fragment separately, as well as the volume of the same fragment including addenda. We only provide values of volumes other than zero. If a certain year is not described in a chronicle, we omit this year in our table.

| 1342-7; | 1397-5; | 1398-13; | $1417-6 ;$ | 1431-2; | 1464-19; | 1491-5; |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1499-4; | 1511-19; | 1530-3; | 1534-2; | 1541-2; | 1543-2; | 1546-25; |
| 1547-1; | 1549-3; | 1550-2; | 1553-17; | 1555-19; | 1556-4; | $1557-2$; |
| 1584-8; | 1587-1; | 1588-12; | 1589-12; | 1591-3; | 1593-3; | 1597-4; |
| 1598-5; | 1600-2; | 1601-2; | 1603-12; | 1604-5; | 1608-3; | 1610-4; |
| 1611-3; | 1613-9; | 1614-11; | 1615-11; | 1616-11; | 1617 - 11; | 1618-2; |
| 1619-2; | 1620-2; | 1621-2; | 1622-2; | 1624-3; | 1627-4; | $1629-5$; |
| 1633-1; | 1634-5; | 1635-1; | 1636-14; | 1638-2; | 1640-2; | 1641-1; |
| 1642-4; | 1643-1; | 1644-1; | 1645-5; | 1646-14; | 1647-6; | 1648-2; |
| 1650-2; | 1652-28; | 1653-6; | 1654-15; | 1655-16; | 1656-5; | 1658-8; |
| 1659-3; | 1661-3; | 1663-12; | 1664-3; | 1665-7; | 1666-8; | 1667 - 30; |
| 1668-41-85; |  | 1669-0-4; |  | 1670-15 |  |  |
| 1671-9-18; |  | 1672-4-19; |  | 1673-7- |  |  |
| 1674-22-50; |  | 1675-31-54; |  | 1676-69- |  |  |
| 1677-0-20; |  | 1678-17; | 1679-29; | 1680-6; | 1681-17; | 1682-61; |
| 1683-15; | 1684-4; | 1685-12; | 1686-5; | 1688-8; | 1689-3; | 1690-16; |
| 1691-69; | 1692-17; | 1693-106; | 1694-68; | 1695-3; | 1696-121; | 1697-7; |
| 1698-6; | 1699-9; | 1700-17; | 1701-3; | 1702-36; | 1703-3; | 1704-3; |
| 1705-18; | 1706-12; | 1707-3; | 1708-17; | 1709-8; | 1710-20; | $1711-9$; |
| 1712-11; | 1713-2; | 1714-9; | 1715-9; | 1716-8; | 1717-7; | 1718-8; |


| $1719-7 ;$ | $1720-12 ;$ | $1721-12 ;$ | $1722-3 ;$ | $1723-15 ;$ | $1724-15 ;$ | $1725-5 ;$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $1726-8 ;$ | $1727-13 ;$ | $1728-4 ;$ | $1729-5 ;$ | $1730-21 ;$ | $1731-11 ;$ | $1732-12 ;$ |
| $1733-6 ;$ | $1734-13 ;$ | $1735-23 ;$ | $1736-5 ;$ | $1737-46 ;$ | $1738-22 ;$ | $1739-11 ;$ |
| $1740-15 ;$ | $1741-59 ;$ | $1742-32 ;$ | $1743-28 ;$ | $1744-3 ;$ | $1745-29 ;$ | $1747-7 ;$ |
| $1748-8 ;$ | $1749-15 ;$ | $1750-26$. |  |  |  |  |

## 2. VOLUME FUNCTION FOR DVINSKOY LETOPISETS (The concise version of the chronicle)

Volumes calculated as per edition of The Complete Russian Chronicles, Volume 33, Leningrad, 1977.

| $1397-4 ;$ | $1398-6 ;$ | $1417-6 ;$ | $1431-1 ;$ | $1464-19 ;$ | $1491-5 ;$ | $1499-4 ;$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $1530-2 ;$ | $1534-2 ;$ | $1541-2 ;$ | $1543-3 ;$ | $1546-2 ;$ | $1547-1 ;$ | $1549-4 ;$ |
| $1550-2 ;$ | $1553-16 ;$ | $1555-19 ;$ | $1556-6 ;$ | $1584-5 ;$ | $1587-2 ;$ |  |
| $1588-1-2 ;$ |  | $1589-1-2 ;$ |  | $1590-2 ;$ | $1593-3 ;$ | $1597-8 ;$ |
| $1605-6 ;$ | $1606-5 ;$ | $1610-4 ;$ | $1611-7 ;$ | $1614-7 ;$ | $1615-7 ;$ | $1616-7 ;$ |
| $1617-7 ;$ | $1618-2 ;$ | $1619-2 ;$ | $1620-2 ;$ | $1621-2 ;$ | $1622-5 ;$ | $1627-10 ;$ |
| $1636-9 ;$ | $1637-5 ;$ | $1638-6 ;$ | $1645-2 ;$ | $1646-13 ;$ | $1647-6 ;$ | $1648-2 ;$ |
| $1650-2 ;$ | $1652-9 ;$ | $1655-3 ;$ | $1656-3 ;$ | $1658-5 ;$ | $1659-3 ;$ | $1663-11 ;$ |
| $1664-3 ;$ | $1665-7 ;$ | $1666-6 ;$ | $1667-5 ;$ | $1668-33 ;$ | $1669-4 ;$ | $1670-8 ;$ |
| $1671-9 ;$ | $1672-4 ;$ | $1673-7 ;$ | $1674-19-24 ;$ | $1675-0-8 ;$ |  |  |
| $1676-15-49 ;$ | $1678-4 ;$ | $1679-9 ;$ | $1681-10 ;$ | $1682-30 ;$ | $1683-16 ;$ |  |
| $1685-7 ;$ | $1686-3 ;$ | $1688-6 ;$ | $1690-3 ;$ | $1691-14 ;$ | $1692-7 ;$ | $1693-22 ;$ |
| $1694-2 ;$ | $1698-3 ;$ | $1700-4 ;$ | $1701-4 ;$ | $1702-21 ;$ | $1703-5 ;$ | $1705-2$. |

## 3. VOLUME FUNCTION FOR POVEST VREMENNYKH LET

Volumes calculated as per edition of Memorials of Literature of the Ancient Russia. The Beginning of the Russian Literature, Moscow, 1978.

| $852-25 ;$ | $858-5 ;$ | $859-4 ;$ | $862-31 ;$ | $866-15 ;$ | $868-1 ;$ | $869-1 ;$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $879-3 ;$ | $882-26 ;$ | $883-2 ;$ | $884-3 ;$ | $885-7 ;$ | $887-3 ;$ | $898-75 ;$ |
| $902-5 ;$ | $903-2 ;$ | $907-67 ;$ | $911-2 ;$ | $912-223 ;$ | $913-3 ;$ | $914-3 ;$ |
| $915-13 ;$ | $920-2 ;$ | $929-4 ;$ | $933-2 ;$ | $941-30 ;$ | $942-3 ;$ | $943-2 ;$ |
| $944-21 ;$ | $945-276 ;$ | $946-56 ;$ | $947-7 ;$ | $955-89 ;$ | $964-10 ;$ | $965-4 ;$ |
| $966-2 ;$ | $967-4 ;$ | $968-48 ;$ | $969-38 ;$ | $970-12 ;$ | $971-105 ;$ | $972-5 ;$ |
| $973-1 ;$ | $975-7 ;$ | $977-23 ;$ | $980-143 ;$ | $981-5 ;$ | $982-2 ;$ | $983-40 ;$ |
| $984-7 ;$ | $985-9 ;$ | $986-523 ;$ | $987-347 ;$ | $989-7 ;$ | $991-3 ;$ | $992-44 ;$ |
| $996-73 ;$ | $997-48 ;$ | $1000-2 ;$ | $1001-2 ;$ | $1003-2 ;$ | $1007-2 ;$ | $1011-1 ;$ |
| $1014-7 ;$ | $1015-262 ;$ | $1016-19 ;$ | $1017-1 ;$ | $1018-30 ;$ | $1019-48 ;$ | $1020-2 ;$ |
| $1021-6 ;$ | $1022-18 ;$ | $1023-2 ;$ | $1024-19 ;$ | $1025-19 ;$ | $1026-5 ;$ | $1027-2 ;$ |
| $1028-2 ;$ | $1029-1 ;$ | $1030-6 ;$ | $1031-5 ;$ | $1032-1 ;$ | $1033-1 ;$ | $1036-26 ;$ |
| $1037-45 ;$ | $1038-1 ;$ | $1039-3 ;$ | $1040-1 ;$ | $1041-1 ;$ | $1042-3 ;$ | $1043-23 ;$ |
| $1044-9 ;$ | $1045-2 ;$ | $1047-2 ;$ | $1050-1 ;$ | $1051-117 ;$ | $1052-3 ;$ | $1053-2 ;$ |
| $1054-16 ;$ | $1055-16 ;$ | $1057-3 ;$ | $1058-1 ;$ | $1059-3 ;$ | $1060-8 ;$ | $1061-5 ;$ |
| $1063-4 ;$ | $1064-4 ;$ | $1065-48 ;$ | $1066-16 ;$ | $1067-17 ;$ | $1068-122 ;$ | $1069-30 ;$ |
| $1070-3 ;$ | $1071-152 ;$ | $1072-26 ;$ | $1073-23 ;$ | $1074-322 ;$ | $1075-12 ;$ | $1076-6 ;$ |
| $1077-7 ;$ | $1078-104 ;$ | $1079-7 ;$ | $1080-3 ;$ | $1081-3 ;$ | $1082-1 ;$ | $1083-4 ;$ |


| $1084-7 ;$ | $1085-7 ;$ | $1086-32 ;$ | $1088-6 ;$ | $1089-14 ;$ | $1090-14 ;$ | $1091-114 ;$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $1092-23 ;$ | $1093-214 ;$ | $1094-18 ;$ | $1095-60 ;$ | $1096-225 ;$ | $1097-374 ;$ | $1098-3 ;$ |
| $1099-4 ;$ | $1100-32 ;$ | $1101-15 ;$ | $1102-34 ;$ | $1103-71 ;$ | $1104-17 ;$ | $1105-4 ;$ |
| $1106-16 ;$ | $1107-30 ;$ | $1108-13 ;$ | $1109-5 ;$ | $1110-30$. |  |  |

## 4. VOLUME FUNCTION FOR SUPRASLSKAYA LETOPIS

Volumes calculated as per edition of The Complete Russian Chronicles, Volume 35, Moscow, 1980.

| $854-1 ;$ | $858-2 ;$ | $859-4 ;$ | $862-17 ;$ | $869-1 ;$ | $879-2 ;$ | $881-49 ;$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $912-7 ;$ | $913-26 ;$ | $947-6 ;$ | $970-7 ;$ | $972-3 ;$ | $977-4 ;$ | $980-45 ;$ |
| $981-2 ;$ | $988-36 ;$ | $989-3 ;$ | $1015-6 ;$ | $1016-2 ;$ | $1017-4 ;$ | $1019-10 ;$ |
| $1021-3 ;$ | $1037-2 ;$ | $1039-2 ;$ | $1041-5 ;$ | $1045-1 ;$ | $1047-2 ;$ | $1050-2 ;$ |
| $1053-1 ;$ | $1073-1 ;$ | $1074-1 ;$ | $1237-36 ;$ | $1238-48 ;$ | $1240-70 ;$ | $1241-2 ;$ |
| $1242-2 ;$ | $1246-1 ;$ | $1247-2 ;$ | $1253-1 ;$ | $1258-1 ;$ | $1263-1 ;$ | $1280-1 ;$ |
| $1283-1 ;$ | $1285-2 ;$ | $1303-1 ;$ | $1305-4 ;$ | $1306-1 ;$ | $1310-10 ;$ | $1315-6 ;$ |
| $1316-3 ;$ | $1317-3 ;$ | $1318-3 ;$ | $1322-3 ;$ | $1325-4 ;$ | $1326-4 ;$ | $1327-7 ;$ |
| $1328-2 ;$ | $1332-1 ;$ | $1333-2 ;$ | $1334-2 ;$ | $1338-2 ;$ | $1339-5 ;$ | $1340-4 ;$ |
| $1341-5 ;$ | $1342-2 ;$ | $1343-3 ;$ | $1344-2 ;$ | $1346-4 ;$ | $1348-2 ;$ | $1349-9 ;$ |
| $1350-4 ;$ | $1352-6 ;$ | $1353-16 ;$ | $1354-6 ;$ | $1356-3 ;$ | $1357-8 ;$ | $1359-9 ;$ |
| $1360-4 ;$ | $1362-7 ;$ | $1364-1 ;$ | $1365-15 ;$ | $1366-2 ;$ | $1368-7 ;$ | $1370-4 ;$ |
| $1371-6 ;$ | $1372-5 ;$ | $1373-9 ;$ | $1375-9 ;$ | $1376-5 ;$ | $1377-2 ;$ | $1378-10 ;$ |
| $1379-4 ;$ | $1380-33 ;$ | $1382-5 ;$ | $1383-7 ;$ | $1384-2 ;$ | $1385-1 ;$ | $1386-1 ;$ |
| $1387-8 ;$ | $1388-8 ;$ | $1389-4 ;$ | $1390-3 ;$ | $1391-2 ;$ | $1392-5 ;$ | $1393-5 ;$ |
| $1394-1 ;$ | $1395-28 ;$ | $1396-2 ;$ | $1397-2 ;$ | $1398-19 ;$ | $1399-1 ;$ | $1400-3 ;$ |
| $1401-10 ;$ | $1402-10 ;$ | $1403-4 ;$ | $1404-22 ;$ | $1405-19 ;$ | $1406-16 ;$ | $1407-7 ;$ |
| $1408-4 ;$ | $1409-3 ;$ | $1410-20 ;$ | $1411-4 ;$ | $1412-5 ;$ | $1414-7 ;$ | $1415-15 ;$ |
| $1416-19 ;$ | $1418-22 ;$ | $1419-1 ;$ | $1420-4 ;$ | $1421-4 ;$ | $1425-6 ;$ | $1426-7 ;$ |
| $1427-13 ;$ | $1430-138 ;$ | $1432-2 ;$ | $1433-1 ;$ | $1435-2 ;$ | $1436-2 ;$ | $1437-2 ;$ |
| $1438-2 ;$ | $1440-30 ;$ | $1443-5 ;$ | $1444-4 ;$ | $1445-18 ;$ | $1446-2$. |  |

## 5. VOLUME FUNCTION FOR NIKIFOROVSKAYA LETOPIS

Volumes calculated as per edition of The Complete Russian Chronicles, Volume 35, Moscow, 1980.

| $854-1 ;$ | $858-2 ;$ | $859-3 ;$ | $862-16 ;$ | $869-1 ;$ | $880-2 ;$ | $881-39 ;$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $912-7 ;$ | $913-26 ;$ | $947-10 ;$ | $970-36 ;$ | $981-2 ;$ | $985-1 ;$ | $986-1 ;$ |
| $988-36 ;$ | $989-3 ;$ | $990-2 ;$ | $1015-6 ;$ | $1016-2 ;$ | $1017-4 ;$ | $1019-9 ;$ |
| $1021-3 ;$ | $1037-2 ;$ | $1039-2 ;$ | $1041-5 ;$ | $1045-1 ;$ | $1047-2 ;$ | $1050-2 ;$ |
| $1054-1 ;$ | $1073-1 ;$ | $1074-1 ;$ | $1237-53 ;$ | $1238-47 ;$ | $1240-70 ;$ | $1241-2 ;$ |
| $1242-2 ;$ | $1246-1 ;$ | $1247-2 ;$ | $1253-1 ;$ | $1306-2 ;$ | $1310-10 ;$ | $1313-3 ;$ |
| $1315-3 ;$ | $1316-4 ;$ | $1317-4 ;$ | $1318-3 ;$ | $1322-3 ;$ | $1325-4 ;$ | $1326-4 ;$ |
| $1327-7 ;$ | $1328-2 ;$ | $1329-2 ;$ | $1330-2 ;$ | $1332-2 ;$ | $1334-2 ;$ | $1338-2 ;$ |
| $1339-5 ;$ | $1340-4 ;$ | $1341-5 ;$ | $1342-2 ;$ | $1343-3 ;$ | $1344-3 ;$ | $1350-3 ;$ |
| $1353-9 ;$ | $1368-7 ;$ | $1370-4 ;$ | $1371-2 ;$ | $1372-1 ;$ | $1373-8 ;$ | $1377-1 ;$ |
| $1378-11 ;$ | $1380-31 ;$ | $1387-3 ;$ | $1389-3 ;$ | $1392-2 ;$ | $1394-1 ;$ | $1395-26 ;$ |
| $1397-2 ;$ | $1398-28 ;$ | $1405-18 ;$ | $1406-16 ;$ | $1407-7 ;$ | $1408-4 ;$ | $1409-3 ;$ |

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1410-18; 1411-6; 1412-2; 1414-8; 1415-14; 1416-9; 1421-7;
1427-14; 1430-73.
```


## 6. VOLUME FUNCTION FOR KHOLMOGORSKAYA LETOPIS

Volumes calculated as per edition of The Complete Russian Chronicles, Volume 33, Moscow, 1977.

| 852-6; | 858-4; | 859-3; | 862-25; | 866-8; | 868-2; | $869-1$; |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 882-15; | $883-2$; | 885-2; | 898-43; | 902-3; | 903-2; | 907-37; |
| 912-49; | 914-5; | 915-7; | 920-2; | 929-3; | 934-2; | 941-21; |
| 942-2; | 943-1; | 944-12; | 945-26; | 946-45; | 947-4; | 955-46; |
| 964-7; | 965-3; | 966-4; | 967-2; | 968-29; | 969-7; | 970-8; |
| 971-51; | 972-4; | 973-2; | 975-4; | 977-12; | 980-56; | 981-2; |
| 982-1; | 983-23; | 985-6; | 986-47; | 987-36; | 988-112; | 989-9; |
| 992-2; | 993-38; | $997-26 ;$ | 1001-1; | 1011-1; | 1014-4; | 1015-160; |
| 1020-2; | 1021-8; | 1022-12; | 1024-16; | 1027-1; | 1030-2; | 1031-3; |
| 1032-2; | 1033-1; | 1034-9; | 1036-5; | 1037-1; | 1038-1; | 1040-1; |
| 1041-1; | 1043-21; | 1044-5; | 1045-1; | 1047-2; | 1049-3; | 1050-2; |
| 1051-4; | 1052-3; | 1053-1; | 1054-16; | 1055-3; | $1057-2$; | 1058-1; |
| 1059-2; | 1060-8; | 1061-3; | 1064-3; | 1066-10; | 1067-20; | 1068-26; |
| 1069-18; | 1070-2; | 1072-13; | 1074-1; | 1075-5; | 1076-4; | 1077-3; |
| 1078-28; | 1079-4; | 1080-1; | 1081-2; | 1087-5; | 1088-3; | 1093-9; |
| 1094-3; | 1095-15; | $1097-4$; | 1099-1; | 1101-3; | 1103-8; | 1104-3; |
| 1105-1; | 1106-4; | 1107-7; | $1109-1$; | 1112-8-4; | 1113-2; |  |
| 1114-5; | 1115-2; | 1116-2; | 1118-49; | 1120-3; | 1121-2; | 1123-6; |
| 1125-3; | 1128-3; | 1131-1; | 1132-2; | 1135-5; | 1136-4; | 1138-2; |
| 1139-4; | 1141-4; | 1146-3; | 1147-87; | 1148-27; | 1149-52; | 1150-107; |
| 1153-2; | 1154-36; | 1155-9; | 1156-7; | 1157-9; | 1158-4; | 1159-17; |
| 1160-23; | 1161-8; | 1162-11; | 1163-2; | 1164-10; | 1166-40; | 1167-19; |
| 1169-11; | 1171-4; | 1172-3; | 1174-6; | 1175-34; | 1176-21; | 1177-50; |
| 1178-5; | 1179-3; | 1180-10; | 1181-3; | 1182-3; | 1184-6; | 1185-29; |
| 1187-6; | 1188-4; | 1189-2; | 1191-1; | 1194-3; | 1196-23; | 1198-2; |
| 1199-4; | 1200-5; | 1201-11; | 1203-13; | 1204-23; | 1205-7; | 1206-14; |
| 1207-30; | 1208-8; | 1209-5; | 1210-5; | 1211-8; | 1212-27; | 1215-14; |
| 1216-34; | 1217-12; | 1218-18; | 1220-31; | 1221-8; | 1223-115; | 1226-27; |
| 1228-6; | 1229-20; | 1231-6; | 1234-3; | 1235-3; | 1236-4; | 1237-48; |
| 1238-4; | 1239-11; | 1240-18; | 1241-41; | 1242-19; | 1243-12; | 1244-3; |
| 1245-6; | 1246-4; | 1247-95; | 1248-11; | 1252-11; | 1255-4; | 1256-8; |
| 1259-5; | 1261-2; | 1262-6; | 1263-8; | 1264-4; | 1265-43; | 1269-5; |
| 1270-16; | 1272-10; | 1273-9; | 1275-3; | 1277 - 43; | 1278-5; | 1279-4; |
| 1280-13; | 1281-13; | 1282-7; | 1283-9; | 1286-3; | 1288-3; | 1292-1; |
| 1293-13; | 1294-8; | 1295-1; | 1296-11; | 1297-1; | 1300-6; | 1301-15; |
| 1305-4; | 1307-1; | 1308-2; | 1311-2; | 1313-2; | 1314-7; | 1316-3; |
| 1317 - 80; | 1318-26; | 1321-4; | 1322-7; | 1323-3; | 1324-3; | 1325-2; |
| 1326-18; | 1329-11; | 1330-11; | 1335-2; | 1337-2; | 1338-2; | 1339-11; |
| 1340-11; | 1342-14; | 1343-15; | 1346-6; | 1346-9; | 1347-5; | 1349-7; |
| 1350-10; | 1352-24; | 1353-6; | 1354-7; | 1357-18; | 1359-6; | 1360-2; |


| $1361-8 ;$ | $1362-6 ;$ | $1363-7 ;$ | $1365-15 ;$ | $1367-27 ;$ | $1370-15 ;$ | $1371-16 ;$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $1372-2 ;$ | $1373-14 ;$ | $1375-26 ;$ | $1376-10 ;$ | $1377-47 ;$ | $1379-5 ;$ | $1381-5 ;$ |
| $1382-72 ;$ | $1383-5 ;$ | $1384-2 ;$ | $1385-4 ;$ | $1386-9 ;$ | $1387-13 ;$ | $1388-12 ;$ |
| $1389-39 ;$ | $1390-7 ;$ | $1392-63 ;$ | $1396-2 ;$ | $1397-4 ;$ | $1398-34 ;$ | $1400-1 ;$ |
| $1401-5 ;$ | $1402-4 ;$ | $1403-4 ;$ | $1404-12 ;$ | $1406-8 ;$ | $1407-7 ;$ | $1408-45 ;$ |
| $1409-9 ;$ | $1411-1 ;$ | $1412-6 ;$ | $1415-6 ;$ | $1417-44 ;$ | $1418-12 ;$ | $1422-2 ;$ |
| $1423-5 ;$ | $1424-8 ;$ | $1426-2 ;$ | $1429-2 ;$ | $1431-12 ;$ | $1432-44 ;$ | $1433-31 ;$ |
| $1434-31 ;$ | $1436-24 ;$ | $1438-189 ;$ | $1440-1 ;$ | $1441-42 ;$ | $1445-34 ;$ | $1446-217 ;$ |
| $1448-14 ;$ | $1450-12 ;$ | $1452-2 ;$ | $1453-429 ;$ | $1454-4 ;$ | $1456-8 ;$ | $1459-3 ;$ |
| $1461-1 ;$ | $1462-5 ;$ | $1463-4 ;$ | $1464-4 ;$ | $1468-9 ;$ | $1469-63 ;$ | $1470-2 ;$ |
| $1471-182 ;$ | $1472-2 ;$ | $1474-2 ;$ | $1475-2 ;$ | $1477-1 ;$ | $1478-1 ;$ | $1479-7 ;$ |
| $1480-3 ;$ | $1481-2 ;$ | $1483-21 ;$ | $1485-12 ;$ | $1487-8 ;$ | $1488-2 ;$ | $1489-6 ;$ |
| $1490-4 ;$ | $1491-144 ;$ | $1492-20 ;$ | $1494-38 ;$ | $1495-43 ;$ | $1496-80-45 ;$ |  |
| $1497-22-10 ;$ | $1507-6 ;$ | $1508-9 ;$ | $1509-12 ;$ | $1510-10 ;$ | $1511-1 ;$ | $1525-6 ;$ |
| $1506-28 ;$ | $1507-10 ;$ | $1499-14 ;$ | $1500-36 ;$ | $1502-12 ;$ | $1505-12 ;$ |  |
| $1526-6 ;$ | $1529-2 ;$ | $1530-4 ;$ | $1533-1 ;$ | $1534-8 ;$ | $1537-2 ;$ | $1538-2 ;$ |
| $1541-6 ;$ | $1544-3 ;$ | $1546-9 ;$ | $1547-3 ;$ | $1549-5 ;$ | $1550-20 ;$ | $1553-29 ;$ |
| $1554-12 ;$ | $1555-16 ;$ | $1558-4 ;$ | $1559-12$. |  |  |  |

## 7. VOLUME FUNCTION FOR VOLYNSKAYA LETOPIS

Volumes calculated as per edition of The Complete Russian Chronicles, Volume 35, Moscow, 1980.

| $862-3 ;$ | $866-4 ;$ | $980-2 ;$ | $988-1 ;$ | $1015-17 ;$ | $1028-1 ;$ | $1035-1 ;$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $1052-1 ;$ | $1054-1 ;$ | $1055-2 ;$ | $1061-1 ;$ | $1065-24 ;$ | $1074-2 ;$ | $1088-3 ;$ |
| $1089-2 ;$ | $1090-2 ;$ | $1091-1 ;$ | $1092-6 ;$ | $1094-2 ;$ | $1095-2 ;$ | $1100-3 ;$ |
| $1104-3 ;$ | $1108-2 ;$ | $1114-2 ;$ | $1124-1 ;$ | $1125-2 ;$ | $1145-1 ;$ | $1154-1 ;$ |
| $1155-3 ;$ | $1165-3 ;$ | $1166-1 ;$ | $1177-4 ;$ | $1192-3 ;$ | $1204-1 ;$ | $1224-2 ;$ |
| $1230-3 ;$ | $1237-1 ;$ | $1240-1 ;$ | $1268-1 ;$ | $1327-1 ;$ | $1341-2 ;$ | $1346-1 ;$ |
| $1348-1 ;$ | $1371-1 ;$ | $1372-4 ;$ | $1377-7 ;$ | $1378-2 ;$ | $1380-2 ;$ | $1381-4 ;$ |
| $1382-4 ;$ | $1386-3 ;$ | $1390-2 ;$ | $1393-1 ;$ | $1395-2 ;$ | $1399-3 ;$ | $1401-5 ;$ |
| $1403-2 ;$ | $1404-2 ;$ | $1405-13 ;$ | $1415-2 ;$ | $1417-1 ;$ | $1428-1 ;$ | $1429-2 ;$ |
| $1430-1 ;$ | $1431-1 ;$ | $1433-1 ;$ | $1434-3 ;$ | $1440-4 ;$ | $1441-1 ;$ | $1449-2 ;$ |
| $1453-1 ;$ | $1461-4 ;$ | $1481-3 ;$ | $1483-5-2 ;$ |  | $1486-5 ;$ | $1487-1 ;$ |
| $1488-1 ;$ | $1489-3 ;$ | $1491-9 ;$ | $1492-13 ;$ | $1493-6 ;$ | $1494-10 ;$ | $1495-10 ;$ |
| $1486-42 ;$ | $1497-45 ;$ | $1498-2 ;$ | $1500-7 ;$ | $1514-3 ;$ | $1515-95 ;$ | $1544-9$. |

## 8. VOLUME FUNCTION FOR THE CHRONICLER OF PRINCE VLADIMIR OF KIEV

Volumes calculated as per edition of The Complete Russian Chronicles, Volume 35, Moscow, 1980.

| $970-7 ;$ | $973-1 ;$ | $977-5 ;$ | $980-44 ;$ | $981-2 ;$ | $986-37 ;$ | $989-3 ;$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $1015-6 ;$ | $1016-2 ;$ | $1017-4 ;$ | $1019-10 ;$ | $1021-3 ;$ | $1037-2 ;$ | $1039-2 ;$ |
| $1041-5 ;$ | $1045-1 ;$ | $1047-2 ;$ | $1050-2 ;$ | $1054-1 ;$ | $1073-1 ;$ | $1074-1 ;$ |
| $1237-92$. |  |  |  |  |  |  |

## 9. VOLUME FUNCTION FOR LETOPIS RACHINSKOGO

Volumes calculated as per edition of The Complete Russian Chronicles, Volume 35, Moscow, 1980.

| $1401-12 ;$ | $1404-16 ;$ | $1418-12 ;$ | $1428-44 ;$ | $1430-7 ;$ | $1432-1 ;$ | $1433-61 ;$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $1434-3 ;$ | $1438-7 ;$ | $1440-31 ;$ | $1444-2 ;$ | $1447-32 ;$ | $1482-3 ;$ | $1492-16 ;$ |
| $1500-7 ;$ | $1501-8 ;$ | $1505-11 ;$ | $1506-21 ;$ | $1507-1 ;$ | $1508-35 ;$ | $1509-1 ;$ |
| $1510-1 ;$ | $1512-13 ;$ | $1513-3 ;$ | $1514-41 ;$ | $1515-2 ;$ | $1517-4 ;$ | $1518-4 ;$ |
| $1519-4 ;$ | $1520-4 ;$ | $1521-2 ;$ | $1523-2 ;$ | $1524-4 ;$ | $1525-6 ;$ | $1526-9 ;$ |
| $1527-5 ;$ | $1528-2 ;$ | $1529-4 ;$ | $1530-8 ;$ | $1531-4 ;$ | $1533-1 ;$ | $1534-9 ;$ |
| $1542-6 ;$ | $1543-7 ;$ | $1544-17 ;$ | $1545-23 ;$ | $1547-25 ;$ | $1548-11$. |  |

10. VOLUME FUNCTION FOR YEVREINOVSKAYA LETOPIS

Volumes calculated as per edition of The Complete Russian Chronicles, Volume 35, Moscow, 1980.

| $1401-23 ;$ | $1404-15 ;$ | $1428-41 ;$ | $1430-7 ;$ | $1433-52 ;$ | $1434-5 ;$ | $1440-27 ;$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $1452-4 ;$ | $1500-5 ;$ | $1506-7 ;$ | $1508-8 ;$ | $1514-32 ;$ | $1517-9 ;$ | $1526-5 ;$ |
| $1527-6 ;$ | $1528-32 ;$ | $1531-3 ;$ | $1534-15 ;$ | $1535-24 ;$ | $1536-3 ;$ | $1538-3 ;$ |
| $1539-2 ;$ | $1541-2 ;$ | $1542-16 ;$ | $1543-10 ;$ | $1544-15 ;$ | $1545-10 ;$ | $1547-20$. |

## 11. VOLUME FUNCTION FOR AKADEMICHESKAYA LETOPIS

Volumes calculated as per edition of The Complete Russian Chronicles, Volume 35, Moscow, 1980.

| $1339-5 ;$ | $1340-4 ;$ | $1341-5 ;$ | $1342-2 ;$ | $1343-3 ;$ | $1344-3 ;$ | $1346-4 ;$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $1350-4 ;$ | $1352-6 ;$ | $1353-16 ;$ | $1354-6 ;$ | $1356-2 ;$ | $1357-7 ;$ | $1359-8 ;$ |
| $1360-4 ;$ | $1362-7 ;$ | $1363-1 ;$ | $1365-13 ;$ | $1366-2 ;$ | $1368-7 ;$ | $1370-4 ;$ |
| $1371-6 ;$ | $1372-5 ;$ | $1373-14 ;$ | $1416-20 ;$ | $1418-4 ;$ | $1430-134 ;$ | $1432-2 ;$ |
| $1433-1 ;$ | $1435-2 ;$ | $1436-2 ;$ | $1437-2 ;$ | $1438-2 ;$ | $1440-29 ;$ | $1443-5 ;$ |
| $1444-4 ;$ | $1445-18 ;$ | $1446-3$. |  |  |  |  |

# Frequency matrix of names and parallels in the Bible 

By V. P. Fomenko and T. G. Fomenko

Frequency square matrix of names in the Bible. The Bible is broken up into 218 'generation chapters'; therefore the size of the matrix should be $218 \times 218$. These 'generation chapters' are different from the regular chapters in the Bible. For more details, see Chroni, Chapter 5:9.

The leftmost column of numbers contains the numbers of lines in the matrix. After that, the frequencies of this line are listed. We do not enter zeros. Moreover, within every conglomeration like that, the column numbers are given in succession - without gaps, that is.

The number in parentheses denotes the value of the initial column of this conglomeration of nonvoid frequencies. One can see the list of frequencies for every such frequency conglomeration (the ones that do not equal zero).
$1 \quad(1)=10,2 ;(8)=5 ;(78)=1 ;(137)=1 ;(180)=2$; $(185)=1 ;(194)=1 ;(203)=1,2,3,1 ;(213)=3$.
2 (2) $=20,1 ;(7)=1,2 ;(76)=1 ;(192)=1 ;(194)=1 ;$ $(200)=1$.
$3 \quad(3)=2,1 ;(12)=2,4 ;(137)=1 ;(194)=1$.
$4 \quad(4)=2$.
$5 \quad(5)=2$.
$6 \quad(6)=3,4 ;(13)=7,3 ;(137)=2 ;(194)=2$.
$7 \quad(7)=11 ;(71)=5 ;(104)=2 ;(137)=1 ;(142)=2,1$;
$(167)=2 ;(190)=2 ;(194)=1$.
8
(8) $=7,6 ;(137)=2 ;(194)=2$.
$9 \quad(9)=2,3 ;(137)=1 ;(194)=2$.
$10(10)=2,3 ;(137)=1 ;(194)=1$.
$11(11)=2,3 ;(137)=1 ;(194)=1$.
12 Only zeros. In future we omit such lines.
$14(14)=2,27,9,1 ;(48)=1 ;(137)=1 ;(175)=2 ;(178)$ $=2 ;(192)=2 ;(194)=3 ;(198)=1,1 ;(217)=1$.
$15 \quad(15)=33,10,3,1 ;(21)=1 ;(35)=1,2,1 ;(47)=1$;
$(50)=3 ;(73)=1,28,3,1,8,30 ;(97)=1 ;(99)=39 ;$
$(101)=21,12 ;(137)=8,34,13 ;(165)=1 ;(171)=4 ;$
$(176)=1 ;(192)=1 ;(194)=1 ;(199)=1 ;(217)=2,1$.
$16 \quad(16)=5 ;(21)=1 ;(30)=1 ;(33)=1 ;(137)=2$.
$18 \quad(18)=7,1,1 ;(137)=10 ;(178)=4 ;(180)=1 ;(218)=1$.
$19 \quad(19)=3 ;(137)=2 ;(178)=1$.
$20(20)=4 ;(137)=4 ;(139)=1 ;(169)=1 ;(171)=1 ;$ $(175)=4$.
$21 \quad(21)=3,1 ;(24)=1 ;(137)=7 ;(171)=1 ;(186)=1$.
$22(22)=5,1 ;(45)=1 ;(101)=1 ;(137)=7 ;(169)=1$; $(171)=1$.
$23 \quad(23)=2 ;(44)=1 ;(64)=3 ;(137)=7 ;(171)=2$;
$(175)=1,1 ;(178)=3$.
$24 \quad(24)=2 ;(137)=1$.
$25 \quad(25)=1 ;(49)=1 ;(129)=1 ;(132)=4 ;(136)=26$; $(162)=1,1 ;(166)=7,15,1,1 ;(171)=3 ;(175)=12$, $166 ;(178)=21,16 ;(185)=1 ;(190)=1 ;(192)=4$; $(196)=1 ;(198)=1 ;(218)=6$.
$26 \quad(26)=1 ;(37)=1 ;(76)=2 ;(137)=1 ;(171)=1$; $(175)=1 ;(178)=8 ;(180)=5 ;(185)=3 ;(188)=1$.
$30 \quad(30)=2 ;(137)=1 ;(175)=2$.
$36(36)=1 ;(40)=1,1 ;(51)=1,2,1 ;(76)=1 ;(137)=6$; $(168)=1 ;(194)=1$.
$37 \quad(37)=4,1,1 ;(50)=3,1 ;(62)=1 ;(98)=2 ;(137)=9$; $(166)=5,4 ;(175)=3 ;(178)=2 ;(192)=2 ;(194)=2$.
$(99)=13,1,2,33,3,1 ;(119)=1 ;(129)=3,4,1$;
$(133)=1 ;(135)=8,4,1,2,8,2 ;(142)=3 ;(150)=1$;
$(156)=1 ;(165)=1,2 ;(168)=2 ;(171)=14 ;(175)=$
$45,70,1,65,4,12,1,6 ;(185)=4,1 ;(189)=1,4$;
$(192)=3 ;(196)=19 ;(203)=1 ;(217)=4,1$.
$(62)=141 ;(66)=8,8,9,2,113,9 ;(73)=15,12,1$,
$6,12,9 ;(87)=38,1,1 ;(99)=2 ;(101)=5,1 ;(105)$
$=3 ;(108)=1 ;(113)=2 ;(115)=5 ;(125)=1 ;(136)$
$=2,24,13 ;(141)=3 ;(145)=1 ;(149)=1,1 ;(153)$
$=1 ;(160)=1 ;(167)=8,3 ;(170)=2,7 ;(175)=12$,
$44 ;(178)=4 ;(182)=5 ;(188)=2 ;(192)=4,1,4$;
$(196)=4,1 ;(204)=3 ;(207)=3 ;(217)=13$.
$(108)=1 ;(125)=2 ;(137)=3,2 ;(171)=34 ;(175)=$ $42,18,3,4 ;(180)=3 ;(182)=6,10 ;(185)=11,1$; $(191)=6,12,15,12,3,15,1 ;(203)=1,3,1 ;(207)=3$; $(217)=5$.
$70(70)=101,64,38,220,176,60,382,88,242,23,8$, $15,10,9,11,3,4 ;(88)=12,18,3,4 ;(95)=2,16,34$, $6,41,9,49,28,11,6,5,2 ;(108)=6,2,6,3 ;(113)=$ $1,1,1 ;(117)=1 ;(120)=3 ;(122)=4 ;(125)=5,5$, $5,1,13,1,1 ;(133)=5,1,4,1,77,56,12,4,6,1,6,3$,
$5,1,2 ;(149)=1,4,2,1,1 ;(155)=1 ;(158)=3,1,8$, $2 ;(163)=3,6,3 ;(167)=18,26 ;(171)=59 ;(174)=$ $1,53,92,6,152,2,54,5,43,3 ;(185)=10,1 ;(188)=$ $3 ;(190)=20,5,30,8,33,14,26 ;(203)=1,9,1,2$; $(209)=1 ;(217)=9,14$.
$71(71)=145 ;(73)=16,9 ;(175)=37,5,14,3 ;(81)=2$, 5,$6 ;(88)=1 ;(90)=1 ;(97)=35 ;(99)=139,194,70$, 11,$2 ;(105)=1,4 ;(134)=2 ;(136)=136,140,33$; $(141)=6 ;(144)=2,3 ;(147)=1 ;(150)=1,1 ;(155)$ $=3 ;(161)=2 ;(164)=2 ;(168)=7,1,6,25 ;(175)=$ $3,12,2,9,1,1 ;(182)=1,4 ;(186)=1 ;(190)=1$; $(194)=2,2,2 ;(203)=1,1 ;(209)=1 ;(218)=1$.
$72 \quad(72)=22,9 ;(76)=13 ;(78)=1 ;(98)=4 ;(101)=$ $15 ;(137)=20,6 ;(168)=3 ;(192)=4 ;(194)=2$.
$73(73)=84,18 ;(76)=146,14,80,2,1,2,5,3,2,2,2$; $(88)=3 ;(90)=5 ;(95)=2,3,3,2,3 ;(101)=9,4,1$; $(117)=1 ;(122)=1 ;(126)=1 ;(132)=1,7 ;(135)=$ $2,1,101,28 ;(143)=1 ;(145)=3 ;(147)=1 ;(149)=$ 1,$1 ;(155)=3 ;(158)=1,3,7,3,1,10,6 ;(167)=4$, $5 ;(170)=56,9 ;(175)=14,9 ;(178)=8 ;(180)=34 ;$ $(183)=1 ;(190)=3 ;(192)=3 ;(194)=1 ;(197)=1$; $(218)=1$.
$74(74)=503,178,454,58,258,3,8,1,1 ;(87)=1,1,2$; $(91)=1 ;(97)=2,4,22 ;(101)=27,6 ;(104)=1,4$, $2 ;(126)=1 ;(128)=5 ;(130)=3 ;(133)=1 ;(135)=$ $2 ;(137)=76,78,6 ;(143)=2 ;(146)=1 ;(151)=1$; $(153)=2,2,1,1 ;(158)=1,3,1,3 ;(163)=1,1,4$; $(167)=29,33 ;(171)=17 ;(175)=4,6 ;(179)=7$; $(185)=3 ;(189)=5,6,1,190,116,135,274,94,2$, $11,9,12,2 ;(203)=7,44,29,24 ; 18,22,23,10,17$, $13,15,16,4,7,27,16$.
$75 \quad(75)=7 ;(102)=1 ;(134)=1,1 ;(175)=1,1 ;(182)$ $=1 ;(196)=1$.
$76 \quad(76)=415,39,61,9 ;(81)=1,1,1 ;(88)=3,7,2$; $(97)=5 ;(99)=119,8 ; 13,7 ;(104)=1 ;(127)=3 ;$ $(129)=4,1 ;(135)=6,1,82,28 ;(141)=2 ;(147)=$ 2,$1 ;(151)=1 ;(163)=5 ;(165)=2 ;(167)=4,16,1$; $(171)=11 ;(174)=1,1,21 ;(178)=7,3,3 ;(182)=$ $1 ;(185)=2 ;(188)=3 ;(192)=2,1,1,6,4 ;(199)=$ $1 ;(203)=2,1 ;(217)=1,3$.
$77 \quad(77)=4 ;(137)=5 ;(170)=1 ;(175)=1$.
$78 \quad(78)=43,7,2,3,5 ;(84)=8 ;(86)=3 ;(88)=2 ;(97)$ $=1 ;(99)=1,1,32,18,4,2,4,3 ;(108)=8,1 ;(112)=$ $2 ;(115)=1 ;(120)=2,1,17,2,3 ;(126)=6,3,2,1,6$, $3 ;(133)=9,2,17,12,18,18,14 ; 1,4,7,1,1,1 ;(147)$ $=1 ;(149)=4,7,4,2,2,6,5,4,2,5,2,10,1,12,8 ; 11$, $4,11,48,39,1 ;(171)=18 ;(173)=5,8,47,119,7,29$,
$10,6,5,3,2 ;(185)=8 ;(188)=5 ;(190)=38,2,13$, $10,33,13,62,1 ;(204)=5 ;(207)=5 ;(217)=2,3$.
$(123)=1,9,10,15 ;(137)=1,1 ;(148)=1 ;(152)=$
$1 ;(154)=5,7 ;(180)=1 ;(182)=1 ;(217)=1$.
$(79)=7$.
$(80)=1 ;(88)=1 ;(99)=3,1,2 ;(135)=1 ;(175)=1$.
$(81)=23,1,2 ;(187)=1$.
$(82)=31,11 ;(171)=1 ;(217)=1$.
$(84)=18,15,21,9 ;(99)=1 ;(101)=1 ;(112)=1 ;$
$(85)=8,2 ;(171)=2$.
$(86)=24 ;(101)=1,2 ;(137)=5 ;(171)=1$.
$(87)=27 ;(102)=2 ;(124)=1 ;(127)=6,1 ;(137)=$ 3,$1 ;(156)=2,4 ;(162)=1 ;(167)=1 ;(175)=2 ;$ $(180)=1 ;(185)=1 ;(192)=2$.
$(88)=1 ;(101)=1 ;(138)=2 ;(150)=1$.
$(89)=22,5 ;(99)=1 ;(217)=1$.
$(90)=5 ;(137)=3 ;(164)=1$.
$(91)=19,9,9,19 ;(217)=1$.
$(94)=7 ;(99)=10 ;(137)=1$.
$(95)=8,12 ;(101)=1 ;(137)=6,4 ;(168)=3$.
$(96)=1 ;(99)=29,43,23,2 ;(137)=7,4 ;(147)=1$;
$(167)=2,5 ;(176)=4$.
$(97)=1 ;(99)=2 ;(101)=3,8 ;(137)=1 ;(171)=1$.
$(98)=84 ;(100)=317,285,62,6,4,6 ;(112)=1 ;$
$(120)=2,1 ;(123)=1,1 ;(126)=2,2,2,1,1,1,2,1,1$;
$(137)=19,182,33,4,3,1,4 ;(146)=1,1 ;(151)=5$;
$(153)=4,2 ;(157)=1,1,5,1 ;(162)=3,2,2,3$;
$(167)=3,8 ;(171)=88,1,1,1,12,15 ;(178)=4$;
$(180)=1 ;(182)=2 ;(190)=6 ;(192)=26,7,17,2$, $12 ;(204)=4 ;(214)=1 ;(217)=2,3$.
$99(99)=92,33,84,9 ;(104)=8,7 ;(107)=9,23,10$; $(111)=4 ;(113)=9,12,2 ;(121)=1,2 ;(127)=3$; $(131)=1 ;(137)=39,31,1,1,2 ; 1,11 ;(151)=1$; $(153)=1 ;(159)=2 ;(168)=6,1,6,12 ;(175)=56$, $78 ;(179)=2 ;(181)=1,7 ;(185)=1,2,2,2,13,42$, $22,31,17,23,22,37,2 ; 21,9,11,4 ;(203)=6,71,71$, $51,41,47,38,27,15,13,17,16,4,7,16,11$.
$100(100)=97,157,31 ;(137)=16,32 ;(167)=3,2$;
$(171)=3 ;(175)=1 ;(193)=1$.
$101(101)=435,269,6,2,3 ;(109)=4 ;(112)=23,3$;
$(115)=9 ;(118)=1 ;(120)=21,16,4,5,8,5 ;(127)$
$=1 ;(133)=1 ;(135)=1,4,51,105,77,2 ; 5,1,2$;
$(147)=9,11,4,15,10,12,9,11 ;(157)=1 ;(159)=$
$1,1,2 ;(163)=1 ;(165)=2 ;(167)=16,23,1 ;(171)$
$=4,3 ;(174)=6 ;(176)=28 ;(178)=6 ;(181)=2,1$;
$(188)=1 ;(192)=10 ;(194)=5,1,3$.
$102(102)=56,22,30,11,9 ;(111)=2,2 ;(115)=2$;
$(121)=2,3 ;(125)=6,8,17 ;(129)=4 ;(134)=1,2 ;$
$(137)=26,17,9,15,10,15,13 ;(145)=2 ;(151)=1$, 1,$2 ;(156)=2 ;(158)=1,3 ;(161)=2 ;(165)=1$;
$(167)=4,11 ;(171)=1 ;(176)=1 ;(179)=5,1$;
$(182)=4 ;(192)=2$.
$105(105)=32,16 ;(110)=14,1,3 ;(118)=1 ;(120)=2$, $1 ;(125)=3 ;(137)=3 ;(143)=1,6,8,17,2 ;(150)=$ 1,$1 ;(176)=3 ;(182)=1 ;(192)=2$.
$106(106)=42,1,20,6,4,24,6,1 ;(115)=2 ;(120)=10$, 32,$26 ;(124)=1 ; 1,1,1 ;(133)=2 ;(137)=4,2 ;$ $(148)=5,2,2,3,9 ;(155)=1,1 ;(167)=2,6 ;(176)$ $=2 ;(185)=2 ;(218)=1$.
$108(108)=7 ;(137)=1 ;(159)=1 ;(167)=1 ;(183)=1$.
$109(109)=5 ;(114)=13,3,7,6,11,1,8,4 ;(125)=7$;
$(194)=1$.
$111(111)=18 ;(121)=4$.
$112(112)=21 ;(120)=4,6,2,3,1,1,1 ;(134)=1 ;(136)$ $=6,5 ;(147)=1,16 ;(150)=3 ;(152)=11 ;(164)=$ $1 ;(166)=2 ;(168)=3 ;(176)=52 ;(185)=1$.
$113(113)=3$.
$115(115)=1$.
$116(116)=7,3 ;(120)=1$.
$117(117)=11 ;(194)=1$.
$120(120)=1 ;(123)=6 ;(152)=3,3,1$.
$121(121)=1$.
$122(122)=1 ;(125)=9,3 ;(135)=3 ;(151)=1 ;(155)=3 ;$ $(164)=1 ;(166)=3$.
$123(123)=2 ;(152)=2,1 ;(176)=1 ;(192)=2$.
$124(124)=6,1,11,2 ;(137)=4,1 ;(147)=2 ;(154)=3$, 16,$2 ;(182)=3$.
$126(126)=4,2 ;(130)=1 ;(137)=3,9 ;(147)=1 ;(150)=1$, $1 ;(154)=1,1,1 ;(159)=2 ;(164)=1,1 ;(167)=6,6 ;$ $(175)=1 ;(184)=18 ;(190)=4 ;(192)=7 ;(194)=14,4$.
$127(127)=40,23,2,3 ;(132)=1 ;(135)=1 ;(137)=7$; $(156)=13,3,9,1 ;(167)=1,1 ;(175)=22,2 ;(180)$ $=1 ;(182)=1 ;(185)=1 ;(190)=1 ;(192)=4$.
$128(128)=1 ;(130)=17,9,15,1 ;(137)=3 ;(158)=2$, $7,5,9,19,1 ;(167)=1,2 ;(172)=1 ;(175)=33,3 ;$ $(185)=1 ;(188)=1 ;(192)=2$.
$129(129)=8,1,1 ;(175)=1,3$.
$130(130)=23,7 ;(134)=6,3 ;(137)=9,15,1 ;(150)=1$;
$(159)=4 ;(162)=5 ;(164)=8,3,1,3,12 ;(171)=11 ;$
$(175)=28,2 ;(192)=2 ;(194)=1$.
$131(131)=13,11 ;(137)=1,3 ;(156)=2 ;(159)=1$;
$(161)=1,4 ;(167)=1 ; 1 ;(175)=28,3 ;(182)=8 ;$
$(192)=6,1,3,4,3 ;(204)=5$.
$132(132)=3$.

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\(133(133)=6,2,10 ;(137)=4 ;(163)=1,2,13,1,1,1\);
    \((176)=18 ;(188)=1 ;(190)=1 ;(192)=4,3,1 ;\)
    \((196)=1\).
\(134(134)=21 ;(136)=2,13,11 ;(153)=1 ;(158)=1\);
    \((164)=13 ;(167)=8 ; 18 ;(176)=17\).
\(135(135)=14,6,5,4 ;(158)=1 ;(163)=1 ;(165)=4,7\),
    1,\(13 ;(176)=159 ;(178)=1,3 ;(190)=1 ;(192)=5\).
\(136(136)=32,9,4 ;(147)=2 ;(150)=1 ;(159)=1\);
    \((166)=6,14,12,2 ;(176)=82 ;(178)=4,30 ;(188)\)
    \(=1 ;(192)=2\).
\(137(137)=566,107,12 ;(141)=5 ;(147)=3 ;(149)=2,1\),
    1,\(1 ;(154)=1 ;(156)=1 ;(158)=3,6 ;(161)=7 ;(164)\)
    \(=2,4 ;(167)=76,129 ;(175)=1 ; 22 ;(178)=14,80\);
    \((185)=1 ;(189)=17,6 ;(192)=5,1,3 ;(196)=11\).
\(138(138)=236 ;(141)=1 ;(146)=1,1 ;(150)=1,1\);
    \((153)=3 ;(155)=1,1 ;(158)=2,3 ;(161)=4 ;(164)\)
    \(=1,2 ;(167)=23,40 ;(176)=7 ;(178)=2 ;(190)=1\);
    \((194)=3 ;(215)=1\).
\(139(139)=3\).
\(141(141)=2,2\).
\(143(143)=1\).
\(145(145)=2 ;(158)=1\).
\(147(147)=5 ;(167)=2,14 ;(190)=2\).
\(150(150)=1\).
\(151(151)=1\).
\(152(152)=1\).
\(153(153)=1\).
\(154(154)=1\).
\(158(158)=5 ;(168)=1 ;(190)=1\).
\(161(161)=5 ;(165)=1 ;(168)=2\).
\(163(163)=1\).
\(164(164)=2\).
\(166(166)=3,15 ;(175)=3 ;(179)=3\).
\(167(167)=203,128,84 ;(175)=2,1 ;(179)=8 ;(189)=12,3\).
\(168(168)=115 ;(171)=3,2 ;(176)=23 ;(178)=1\).
\(169(169)=169\).
\(170(170)=18 ;(218)=1\).
\(171(171)=5 ;(180)=1\).
\(172(172)=5\).
\(174(174)=2\).
\(175(175)=22 ;(182)=1 ;(190)=3 ;(192)=2 ;(199)=1\).
\(176(176)=117 ;(178)=3 ;(188)=1 ;(190)=2 ;(194)=3\).
\(178(178)=25\).
\(179(179)=67 ;(194)=2\).
\(180(180)=21 ;(190)=1 ;(196)=2\).
\(181(181)=1\).
\(182(182)=1 ;(196)=1\).
```

$185(185)=1$.
186 (186) $=1 ;(194)=1$.
$187(187)=2$.
$188(188)=1$.
$190(190)=8$.
$191(191)=1$.
$192(192)=144,118,135,158,139 ;(199)=1 ;(207)=6 ;$
$(213)=2 ;(218)=5$.
$193(193)=8 ;(196)=3 ;(204)=1 ;(207)=1 ;(213)=1,1$.
$194(194)=34,11,3$.
$195(195)=10 ;(205)=4 ;(207)=1$.
$196(196)=361 ;(198)=1,1 ;(202)=2 ;(204)=10,25$, $3,5,3,3,9,5,3,4,9 ; 3,6,1$.
$198(198)=1 ;(206)=1 ;(211)=1,1$.
$202(202)=1$.
$203(203)=1 ;(211)=1$.
$204(204)=22$.
$205(205)=4$.
$206(206)=11,2 ;(214)=1$.
$209(209)=5$.
$210(210)=7 ;(214)=2 ;(216)=5$.
$213(213)=1,1$.
$214(214)=14$.
$215(215)=1$.
$216(216)=2$.
$217(217)=2$.
$218(218)=2$.
Here we have a square frequency matrix of parallel places (repetitions, anagoges and the like) in the Bible. The Bible is broken up into 218 'generation chapters'.

The size of the matrix is $218 \times 218$. The numbers in the leftmost column indicate the amount of lines in the matrix. After that, we give a listing of non-zero frequencies for every line. Moving along the line from the left to the right, we omit the zeroes. As soon as we come across a conglomeration of frequencies other than zero arranged in succession, that is, without gaps, we indicate the number of a column that which this group of frequencies begins with. We no longer give the numbers of the following columns (within this group of frequencies). For instance, in line 2 you will see (among other things) the following group of numbers: $(170)=2,24$. This means that in line 2 , column 170, one can observe the frequency of 2 , following it in column 171 - frequency 24 , etc. Within
every conglomeration of frequencies of this variety, their column numbers follow sequentially - that is, without gaps.

1
(1) $=46,2 ;(8)=2 ;(14)=1,2,3 ;(62)=2 ;(74)=2$;
(77) $=1 ;(170)=2,24 ;(173)=3 ;(175)=1,3 ;(179)$ $=1 ;(182)=1 ;(192)=2,3 ;(195)=4,1 ;(204)=2$, 5,$2 ;(208)=1 ;(210)=1 ;(213)=2 ;(217)=2,4$.

2
$(2)=7 ;(16)=1 ;(171)=3,1 ;(175)=1 ;(192)=2 ;$
$(195)=1 ;(203)=1,1 ;(207)=1 ;(217)=2,1$.
3
$5 \quad(5)=1$.
$6 \quad(6)=1$.
$7 \quad(7)=5$.
$8 \quad(8)=6 ;(16)=1 ;(137)=1 ;(194)=1 ;(205)=2$.
$9 \quad(9)=5$.
$10 \quad(10)=3$.
$11 \quad(11)=3$.
$12 \quad(12)=3$.
$13 \quad(13)=6 ;(217)=1$.
$14 \quad(14)=3 ;(198)=1 ;(217)=1$.
$15 \quad(15)=56,2 ;(76)=1,1 ;(100)=1 ;(119)=1 ;(170)$ $=1,2,1 ;(176)=1 ;(192)=5,2,1,1,1 ;(198)=3,1$; $(207)=1 ;(217)=1$.
$(218)=1$.
$(19)=1 ;(76)=1 ;(137)=1 ;(175)=1$.
$(21)=1$.
$(22)=1$.
$(23)=1$.
$(24)=1 ;(137)=1 ;(176)=1 ;(182)=1$.
$(26)=1$.
$(27)=1$.
$(28)=1$.
$(29)=1 ;(77)=1$.
$(30)=1$.
$(31)=1$.
$(32)=1$.
$(33)=1$.
$(34)=1$.
$(35)=1$.
$(36)=1 ;(137)=1$.
$(38)=1$.
$(39)=1$.
$(40)=1 ;(49)=1 ;(137)=1$.
$(42)=1$.
$43 \quad(43)=1$.
$44 \quad(44)=1$.
$45 \quad(45)=1 ;(76)=1$.
$47 \quad(47)=1$.
$48 \quad(48)=1$.
$49 \quad(49)=7 ;(77)=2$.
$50 \quad(50)=2 ;(137)=2$.
$51 \quad(51)=2$.
$52 \quad(52)=1 ;(137)=1$.
$53 \quad(53)=3$.
$54 \quad(54)=2$.
$55 \quad(55)=2$.
$56 \quad(56)=2$.
$57 \quad(57)=2 ;(78)=1 ;(137)=2$.
$58 \quad(58)=1$.
$59 \quad(59)=3 ;(78)=1$.
$60(60)=12,3,6 ;(70)=5 ;(72)=1 ;(77)=1 ;(171)=$ $1 ;(196)=1 ;(207)=2$.
$61(61)=6,6 ;(70)=2,2 ;(76)=1,2 ;(171)=2,1$;
$(175)=1 ;(178)=2$.
$62(62)=267 ;(66)=2,5 ;(70)=11 ;(73)=4,3,3 ;(77)$
$=5,4 ;(97)=1 ;(100)=1,1 ;(107)=1 ;(125)=1 ;$
$(160)=1 ;(170)=2,7 ;(173)=1 ;((175)=7,4 ;(178)$ $=3 ;(182)=1 ;(190)=1 ;(192)=5 ;(194)=8,3,6,2$, 2,$3 ;(203)=1,7 ;(207)=7 ;(213)=1 ;(217)=12$.
$63 \quad(63)=1 ;(137)=2$.
$64 \quad(64)=1$.
$65 \quad(65)=1$.
$66 \quad(66)=2 ;(71)=1 ;(73)=2$.
$67 \quad(67)=4 ;(137)=1 ;(170)=1$.
$68(68)=4 ;(70)=1 ;(137)=1 ;(180)=1 ;(191)=1,1$;
(196) $=1 ;(204)=3$.
$69 \quad(69)=4,1,2 ;(217)=1$.
$70 \quad(70)=245,8 ;(73)=6,2 ;(76)=3,5,5 ;(86)=2,1$;
(91) $=1 ;(100)=1,4 ;(103)=1 ;(120)=1 ;(151)=1 ;$
$(171)=3,2 ;(175)=5 ;(180)=4 ;(183)=1 ;(192)=1$;
$(195)=1,1 ;(213)=1 ;(217)=4$.
$71 \quad(71)=57 ;(73)=5,4 ;(77)=3,4 ;(87)=1 ;(99)=1$, $3 ;(137)=1 ;(175)=2 ;(208)=1 ;(210)=1$.
$72 \quad(72)=39,7 ;(75)=4,4,2 ;(86)=1 ;(99)=1,2,1 ;(110)$
$=1 ;(118)=1 ;(137)=3 ;(170)=1,2,2 ;(176)=3 ;(179)$
$=1 ;(190)=1 ;(192)=3,1,2 ;(196)=1 ;(217)=1$.
$73 \quad(73)=301,11 ;(76)=10,10,6 ;(82)=1,1 ;(91)=1$; $(96)=1,2,2,2 ;(101)=2 ;(120)=1 ;(137)=13$;
$(168)=2,1,2,15,1 ;(174)=1,5,1 ;(178)=2,8$;
$(182)=1 ;(189)=1 ;(192)=4,1,5,4,15 ;(199)=1$; $(205)=1 ;(217)=5,1$.
$74 \quad(74)=968,51,79,102,22 ;(82)=1,2,1 ;(91)=1 ;(95)$ $=1 ;(97)=1 ;(99)=7,5,4,9,2,1 ;(108)=1,1 ;(137)=$ $16 ;(139)=3 ;(149)=1,2 ;(168)=5 ;(170)=1,84,2 ;$ $(174)=1,15,5,1,14,3,2,2 ;(184)=2 ;(190)=1$; $(192)=16,5,10,5,20 ;(198)=2 ;(200)=3 ;(204)=$ $12,15,5,3,3,1 ;(213)=1,2 ;(217)=31,5$.
$75 \quad(75)=741,44,77,5 ;(85)=1 ;(98)=5,2,3,5,2 ;(108)$ $=1 ;(111)=3 ;(116)=1 ;(118)=2 ;(129)=1 ;(133)=$ $1 ;(135)=2 ;(137)=1,1 ;(159)=3,1 ;(168)=7 ;(170)$ $=3,17,2 ;(174)=2,8,10 ;(178)=19,1,3,1,1 ;(186)$ $=1 ;(189)=1 ;(191)=4,26,8,14,5,8,3,8,2,2 ;(204)$ $=7,7,4,4,2 ;(210)=3,1 ;(213)=3,2 ;(217)=18,2$.
$76 \quad(76)=1020,91,47,3 ;(86)=1 ;(89)=4 ;(91)=2$; (97) $=1 ;(99)=7,2,7,6 ;(111)=1 ;(117)=1 ;(123)$ $=1 ;(130)=1 ;(136)=1,10,12,2 ;(143)=1 ;(153)$ $=1 ;(155)=1 ;(160)=1 ;(165)=1 ;(167)=2,8$; $(170)=1,37 ;(173)=1 ;(175)=9,9 ;(178)=2,2$; $(181)=1,2 ;(185)=2 ;(191)=1,9,1,4,7,3 ;(198)$ $=1,1 ;(203)=4,2,16,1,1,1 ;(210)=1,1 ;(213)=$ $1 ;(215)=1 ;(217)=14,3$.
$77 \quad(77)=646,50 ;(80)=3 ;(83)=2,1,1 ;(87)=1 ;(89)=$ $3 ;(91)=1 ;(98)=2,9,2,11,24 ;(104)=4 ;(106)=1$, 1,$4 ;(111)=1 ;(118)=2 ;(125)=1,2 ;(128)=1 ;(133)$ $=1,1,1 ;(139)=2 ;(145)=1 ;(149)=4,1 ;(155)=1$; $(158)=1,1 ;(163)=1 ;(165)=2 ;(168)=12 ;(170)=$ $3,53,18,2 ;(175)=32,51,5,15,3,12,1,4 ;(185)=3$, 2,$2 ;(189)=1,2,2,41,10,17,14,11,5,2,1 ;(203)=2$, $10,13,7,3,3 ;(210)=1 ;(213)=4 ;(217)=16,3$.
$(78)=461,9,5,1,2,1 ;(87)=2 ;(95)=1,2,1 ;(99)$ $=8,8,16,14,1,1,2,1 ;(108)=4 ;(113)=1 ;(121)=$ $1 ;(126)=3,1 ;(132)=1 ;(135)=1 ;(137)=16,1,1$, $1 ;(143)=1,1 ;(150)=1 ;(161)=1 ;(167)=1,6 ;$ $(170)=9 ;(172)=1 ;(175)=11,10 ;(178)=3,2,1$, $1 ;(184)=2,1 ;(190)=2 ;(191)=5 ;(194)=4,2,4$, $1 ;(204)=1 ;(206)=1 ;(217)=7$.
$80 \quad(80)=6,5 ;(86)=1 ;(88)=1 ;(171)=1,1 ;(175)=$ $1 ;(192)=1 ;(196)=1$.
$81 \quad(81)=20,2,1,1 ;(86)=1 ;(99)=1 ;(176)=1$.
$82 \quad(82)=13,3 ;(99)=2 ;(101)=1 ;(108)=1 ;(171)=3$.
$83 \quad(83)=15 ;(88)=1 ;(99)=1 ;(101)=1 ;(137)=1$; $(171)=4 ;(196)=2$.
$84(84)=14,2 ;(89)=1 ;(91)=1 ;(93)=1 ;(97)=1,2,5,1$, $2 ;(108)=1 ;(171)=2 ;(175)=1 ;(180)=1 ;(194)=2$.
$85 \quad(85)=11 ;(87)=1 ;(99)=1 ;(144)=1 ;(171)=3$; $(173)=1 ;(175)=2 ;(192)=1 ;(195)=1$.
$86(86)=18,3(90)=1 ;(97)=1 ;(103)=1 ;(122)=1$;
$(171)=1 ;(176)=1 ;(180)=1$.
$87 \quad(87)=38 ;(90)=1 ;(99)=1,2,4 ;(122)=2 ;(171)=$ $3 ;(178)=3 ;(188)=1 ;(192)=1$.
$88 \quad(88)=9,2 ;(99)=2 ;(108)=1 ;(176)=1$.
$89(89)=19,1 ;(92)=1,1 ;(99)=1 ;(102)=1 ;(135)=1$;
$(171)=1 ;(182)=1 ;(191)=1 ;(194)=1 ;(217)=1$.
$90 \quad(90)=7 ;(101)=2 ;(137)=1 ;(192)=1$.
$91(91)=10 ;(94)=1 ;(100)=1 ;(192)=3 ;(194)=4$; $(217)=1$.
$92(92)=14 ;(94)=2 ;(100)=1,1,1 ;(217)=1$.
$93 \quad(93)=15,1(100)=1$.
$94(94)=16,1(99)=1,1 ;(109)=1 ;(176)=1 ;(192)$ $=2,1,1 ;(217)=3$.
$95(95)=9,3,2,1,1 ;(175)=1$.
$96(96)=17 ;(100)=2,1 ;(103)=1 ;(175)=1,2$.
$97 \quad(97)=89 ;(99)=3,2,3,1 ;(176)=1 ;(180)=3$; $(196)=1 ;(208)=1 ;(217)=1$.
$98 \quad(98)=55,1,3,3 ;(111)=1 ;(120)=1 ;(137)=1$;
$(158)=1 ;(168)=1 ;(170)=1,4 ;(176)=1 ;(178)=$ $1 ;(190)=1 ;(192)=5 ;(194)=1 ;(206)=2$.
$99(99)=265,13,6,9 ;(108)=1,1 ;(117)=1 ;(129)=$ $1 ;(133)=1 ;(137)=2,1 ;(142)=1 ;(144)=1 ;(171)$ $=14,3 ;(175)=5,5 ;(178)=2,1,4 ;(182)=3 ;(184)$ $=1 ;(186)=1 ;(188)=1 ;(190)=1,1,7 ;(194)=8$, 1,$8 ;(204)=2,1,1 ;(217)=3$.
$100(100)=346,33,1 ;(130)=1,2 ;(137)=5 ;(171)=$ $29,7,1 ;(175)=2,2 ;(178)=3 ;(180)=1 ;(192)=3$, $1,3,1,3 ;(204)=3,1 ;(214)=1 ;(217)=2,1$.
$101(101)=514,31,1 ;(105)=2 ;(110)=1,1 ;(117)=1$; $(120)=1 ;(136)=1,15,96,2 ;(141)=1,1 ;(151)=$ $1 ;(163)=1 ;(170)=9,38,4 ;(175)=12,7 ;(178)=$ $4 ;(181)=1 ;(192)=7 ;(194)=4,4,6 ;(204)=3,1$; $(207)=1 ;(210)=1 ;(217)=3$.
$102(102)=242,7,4 ;(109)=1 ;(111)=1,2 ;(116)=1$; $(123)=1,2 ;(127)=1,1,1 ;(133)=4 ;(135)=1,2$, $4,17,102 ;(143)=1 ;(162)=1,1 ;(168)=1 ;(171)=$ $14,6,3,1,4,7 ;(178)=10,2 ;(192)=6,1,6,4,7$; $(198)=1 ;(217)=1,2$.
$103(103)=11 ;(129)=2 ;(140)=10,3 ;(143)=1 ;(176)$ $=1 ;(180)=1 ;(182)=1 ;(196)=1 ;(204)=1$.
$104(104)=35,3,3,1 ;(110)=1 ;(128)=1,1 ;(133)=1$; $(135)=3 ;(140)=2 ;(142)=6,2 ;(163)=1 ;(168)=$ $1 ;(175)=1,1 ;(204)=1 ;(206)=1,1$.
$105(105)=10,8 ;(111)=1,3 ;(120)=1,1 ;(124)=1$;
$(128)=1 ;(141)=1,1,3,2,2,9,1$.
$106(106)=19 ;(111)=1 ;(120)=1,3,1 ;(125)=1$;
$(127)=1 ;(138)=1 ;(146)=1 ;(218)=1$.
$107(107)=15,1 ;(116)=1 ;(171)=1 ;(183)=1 ;(194)$ $=2 ;(196)=3,1 ;(217)=1$.
$108(108)=23 ;(112)=1 ;(114)=2,1 ;(129)=1 ;(138)$ $=1,1 ;(148)=2 ;(175)=1 ;(179)=1,1 ;(190)=1 ;$ $(194)=3 ;(196)=2,3$.
$109(109)=7,1 ;(113)=1 ;(121)=3 ;(152)=1 ;(170)=$ 2,$1 ;(190)=1 ;(192)=1 ;(196)=1,1 ;(204)=3$.
$110(110)=35 ;(112)=5 ;(118)=1 ;(131)=1 ;(148)=1$.
$111(111)=14,1(121)=2 ;(129)=1 ;(142)=1 ;(170)$ $=3,1 ;(178)=1 ;(192)=2$.
$112(112)=14 ;(115)=1 ;(145)=1 ;(147)=1,22,2,1$, $1 ;(170)=1,1 ;(175)=1,4 ;(178)=1,2 ;(182)=1 ;$ $(192)=1 ;(207)=1 ;(212)=1 ;(214)=1$.
$113(113)=9 ;(115)=2 ;(152)=1 ;(171)=1 ;(175)=2 ;$
$(190)=1 ;(192)=2 ;(194)=2 ;(213)=1 ;(218)=1$.
$114(114)=15 ;(116)=1 ;(120)=1 ;(171)=1 ;(193)=1$; $(217)=1$.
$115(115)=16,1 ;(151)=1 ;(171)=1$.
$116(116)=31 ;(120)=1 ;(192)=1 ;(194)=1,1 ;(217)=1$.
$117(117)=22 ;(194)=2,1$.
$118(118)=23,1 ;(162)=1 ;(172)=1 ;(177)=1,1$;
$(195)=1,1 ;(204)=1 ;(217)=1$.
$119(119)=17 ;(131)=1$.
$120(120)=14 ;(122)=1,1,1,1 ;(128)=1 ;(148)=1$;
$(151)=5,2 ;(176)=1 ;(194)=1$.
$121(121)=16 ;(152)=4 ;(178)=1 ;(180)=1 ;(217)=1,1$.
$122(122)=20,1(125)=2 ;(127)=1 ;(152)=2 ;(176)$ $=1 ;(180)=1$.
$123(123)=4 ;(127)=1 ;(135)=1 ;(137)=1 ;(152)=3,13$.
$124(124)=4,1,1 ;(128)=1 ;(134)=2 ;(154)=11$.
$125(125)=17,5,1 ;(154)=1,1 ;(182)=1$.
$126(126)=5,3 ;(142)=1 ;(155)=12,2 ;(178)=1$;
$(180)=1 ;(182)=2 ;(184)=1 ;(190)=1$.
$127(127)=11,1 ;(135)=1 ;(137)=2 ;(154)=2 ;(156)$
$=6,4,2 ;(175)=1,1 ;(178)=1 ;(182)=1$.
$128(128)=8 ;(139)=1 ;(158)=8 ;(175)=3,1 ;(180)=1$.
$129(129)=12,3 ;(135)=1 ;(167)=1 ;(171)=1 ;(175)$
$=3,4 ;(178)=1 ;(180)=4 ;(184)=1 ;(194)=1,2 ;$
$(204)=2,1$.
$130(130)=11,2 ;(158)=1,1 ;(162)=8 ;(172)=2$;
$(175)=15 ;(178)=1,1 ;(185)=1$.
$131(131)=15,1(162)=4 ;(167)=1 ;(171)=3 ;(175)$
$=19 ;(178)=1 ;(190)=1$.
$132(132)=9 ;(136)=1 ;(159)=1 ;(162)=4 ;(168)=1$;
$(170)=1 ;(175)=6,1 ;(217)=1$.
$133(133)=3 ;(136)=1 ;(158)=1 ;(163)=13$;
$(175)=1,4,1,1 ;(182)=1$.
$134(134)=5,2,1,1 ;(164)=12,1 ;(171)=1$;
$(175)=2,5$.
$135(135)=6,3 ;(145)=1 ;(164)=6,7,4 ;(176)=2$.
$136(136)=7 ;(139)=1 ;(166)=9,1 ;(169)=2 ;(171)=$ $1 ;(175)=1,32,1,2,3 ;(192)=1$.
$137(137)=323,5 ;(167)=3,2 ;(171)=6 ;(176)=2$; $(192)=4$.
$138(138)=344,6 ;(150)=1 ;(159)=1 ;(161)=3 ;(167)$ $=1,1 ;(170)=1,17 ;(175)=3,4,1,1 ;(192)=2 ;(194)$ $=3 ;(196)=3 ;(207)=1 ;(213)=2 ;(216)=1,3,2$.
$139(139)=64 ;(150)=1 ;(167)=3 ;(171)=6,1,1$;
$(175)=4,4,1 ;(179)=1 ;(182)=1 ;(192)=3 ;(194)$ $=1,1 ;(197)=1 ;(200)=1 ;(208)=1 ;(217)=1$.
$140(140)=10$.
$141(141)=12,1,2 ;(195)=1$.
$142(142)=5 ;(145)=1 ;(176)=1 ;(179)=1$.
$143(143)=10 ;(171)=1$.
$144(144)=8 ;(146)=1,1 ;(150)=1$.
$145(145)=10 ;(152)=1 ;(175)=1 ;(180)=1 ;(182)=$ $1 ;(192)=1 ;(194)=2 ;(205)=1 ;(207)=1$.
$146(146)=6 ;(149)=1 ;(175)=1$.
$147(147)=14,1,1$.
$148(148)=16 ;(170)=1,1 ;(175)=1 ;(178)=1 ;(193)$ $=1 ;(195)=2 ;(200)=1$.
$149(149)=4 ;(168)=1 ;(170)=1,1 ;(190)=1 ;(196)=1 ;$
$(198)=1 ;(204)=1 ;(207)=1,1 ;(210)=1$.
$150(150)=24 ;(154)=1 ;(171)=4 ;(175)=1 ;(192)=1$.
$151(151)=11$.
$152(152)=2$.
$153(153)=5 ;(159)=1 ;(167)=1$.
$154(154)=7 ;(163)=1 ;(192)=1 ;(194)=2$.
$155(155)=12,2 ;(171)=1 ;(178)=1$.
$156(156)=12 ;(182)=1 ;(217)=1$.
$157(157)=4 ;(168)=3$.
$158(158)=10 ;(167)=1 ;(175)=1,2 ;(180)=1$.
$159(159)=15 ;(165)=1 ;(168)=1 ;(176)=2 ;(178)=1$.
$160(160)=14 ;(186)=2 ;(195)=1,2$.
$161(161)=12 ;(168)=1$.
$162(162)=12 ;(175)=10 ;(194)=1 ;(200)=1$.
$163(163)=11 ;(168)=1 ;(176)=1 ;(179)=1 ;(196)=1$.
$164(164)=16 ;(176)=1$.
$165(165)=11 ;(176)=1 ;(190)=1$.
$166(166)=3 ;(175)=2,7 ;(178)=1,3 ;(190)=1 ;(192)=2$.
$167(167)=222,23 ;(171)=2 ;(175)=3,2 ;(179)=2$;
$(189)=4,2,2,2 ;(198)=1 ;(205)=1,1 ;(213)=1$.
$168(168)=311,1,3,4,2 ;(175)=2,8,1 ;((179)=6,2$;
$(182)=1 ;(189)=1,1 ;(192)=3 ;(194)=2,2,2$;
$(204)=2 ;(206)=1,1,1 ;(211)=1 ;(217)=1$.
$169(169)=153,1,2,11,1,1 ;(178)=1,4 ;(195)=1$.
$170(170)=847,131,37,8 ;(175)=50,25,3,13,6,6$; $(182)=5 ;(185)=3,3,2,1 ;(190)=2,2,8,1,4,4,2$, $7,3,4,3 ;(203)=1,8,9,1,3,2 ;(210)=2,1,2,4$; $(215)=1 ;(217)=9,5$.
$171(171)=1775,70,13,3,195,69,10,30,24,14,6,6$; $((184)=5,8,4,7 ;(190)=8,8,69,16,57,35,42,4$, $17,3,10 ;(203)=1,48,16,11,9,13,1,4 ;(213)=2$; $(215)=1,3,41,39$.
$172(172)=706,22 ;(175)=26,13 ;(178)=4,4,3 ;(182)$ $=2 ;(185)=2 ;(188)=1 ;(191)=13,17,2,14,7,3$, $17,10,2,5 ;(204)=17,4,6,1,4 ;(210)=1,1 ;(213)$ $=8,1,3 ;(217)=8,4$.
$173(173)=143 ;(175)=1,1 ;(179)=2,2 ;(192)=3,1$, $9,2,7,3,2 ;(200)=3 ;(204)=7,4,4 ;(208)=2,3 ;$ $(213)=2,1$.
$174(174)=84,13,2(178)=4 ;(185)=1 ;(192)=10,1$, $4,7,1 ;(198)=2 ;(204)=1,1,2,2,8,2 ;(211)=1 ;$ $(214)=1 ;(217)=1,4$.
$175(175)=815,160 ;(178)=64,20,27,7,17,4 ;(185)=$ $17,5,10,8 ;(190)=26,10,68,14,60,45,30,4,13,4,5 ;$ $(204)=33,15,6,3,10,1,1,1,2,2,3,1 ;(217)=12,59$.
$176(176)=1150 ;(178)=81,10,25,8,20,5,2,14,2,3$, $6,2,8,2,23,4,13,14 ; 7,2,5,2,1 ;(204)=21,5,2,2 ;$ $(212)=1 ;(214)=1 ;(217)=7,30$.
$177(177)=68,11,4,6 ;(182)=1,1 ;(185)=1 ;(187)=$ $1 ;(192)=3 ;(194)=3,2 ;(205)=2 ;(218)=2$.
$178(178)=982,13,28,8,12,6 ;(185)=9,6,2,10,1,20$, $3,15,2,8,8,8 ;(198)=3,3 ;(204)=14,5,2,3 ;(209)$ $=1,1 ;(212)=1,1,1 ;(217)=5,33$.
$179(179)=282 ;(181)=1,1 ;(185)=2 ;(188)=1,1,1$, $1,15,2,10,3,9 ;(198)=4 ;(200)=1 ;(203)=1,1,5 ;$ $(208)=1 ;(211)=2,1,2,1,1 ;(217)=4,33$.
$180(180)=100,3,4 ;(185)=8 ;(188)=1,1,3 ;(192)=$ $5 ;(194)=5,4,4 ;(198)=2 ;(204)=2,2,1 ;(208)=$ $1 ;(216)=1,4,3$.
$181(181)=40,2 ;(184)=1,1,1 ;(188)=2 ;(190)=2$; $(192)=1,1,1,1,2 ;(198)=1 ;(204)=1,1 ;(207)=$ $1 ;(218)=4$.
$182(182)=69,2 ;(188)=3,1,1,1,1 ;(194)=3 ;(196)=$ 6,$1 ;(204)=2 ;(207)=1$.
$183(183)=6 ;(185)=2 ;(195)=1 ;(205)=1$.
$184(184)=26 ;(185)=1 ;(192)=6 ;(194)=2 ;(197)=$ $1 ;(205)=1 ;(217)=2,1$.
$185(185)=31 ;(188)=2,1,5 ;(192)=7 ;(199)=3,3,1$;
$(204)=1 ;(212)=1 ;(217)=3,1$.
$186(186)=26,1 ;(204)=1 ;(214)=1 ;(218)=2$.
$187(187)=20 ;(192)=1,1,1,1,1 ;(200)=1 ;(204)=1$;
$(207)=1 ;(213)=1 ;(217)=2$.
$188(188)=19 ;(190)=4,1 ;(195)=2 ;(198)=2 ;(204)$ $=2,1 ;(218)=2$.
$189(189)=17,3,1,1 ;(195)=1 ;(217)=1,1$.
$190(190)=114,1,13,2,6,7,3 ;(203)=1,3,4,1 ;(208)$ $=4 ;(217)=5,19$.
$191(191)=13,6,2,4 ;(103)=1,2,1,1 ;(108)=1$.
$192(746,178,228,61,22,11,10,3,5 ;(204)=15,21,3$; $(208)=4,5,2,4,2,4,2 ;(217)=11,9$.
$193(193)=456,122,42,13,5,2 ;(200)=2 ;(204)=4,11$;
$(207)=1,2,2,3,1,1,4 ;(215)=2 ;(217)=7,1$.
$194(194)=79,63,24,5,12,4,4 ;(204)=11,14,3 ;(208)$ $=7,3,1,4,11,4 ;(217)=9,10$.
$195(195)=734,19,3,8,1,22 ;(204)=15,8,7,3,12,4$, 4,$4 ;(213)=2,1,1 ;(217)=11,5$.
$196(196)=888,1,6,3,4 ;(204)=25,22,11,19,9,6,7$, $8,2,12,8,4 ;(217)=8,5$.
$197(197)=41,6 ;(200)=2 ;(204)=8,4,2,4,3 ;(213)=$ 3,$2 ;(207)=5$.
$198(198)=31,1,2 ;(204)=18,4,7,4,9,3,4 ;(213)=2$, $2 ;(217)=5,2$.
$199(199)=20,3 ;(203)=6,6,5 ;(209)=1 ;(211)=2$; $(213)=4,2,1 ;(217)=1,2$.
$200(200)=52 ;(204)=5,6,4 ;(208)=4 ;(213)=2$;
$(217)=4,2$.
$201(201)=7 ;(204)=1,1 ;(215)=1$.
$202(202)=12 ;(205)=1$.
$203(203)=8 ;(205)=1 ;(208)=1,1,1 ;(213)=2$; $(218)=2$.
$204(204)=212,43,23,31,20,8,9,4,1,3,5,3 ;(217)=14,6$.
$205(205)=239,19,9,17,8,10,13,4,7,8,2,1,5,4$.
$206(206)=167,5,4,6,4,2,1,4,1,1 ;(217)=6,4$.
$207(207)=72,4,3,4,2,1 ;(215)=2 ;(217)=6,1$.
$208(208)=59,2,23,5,2,1,2,4 ;(217)=5$.
$209(209)=45,5,7,1,3,1 ;(217)=6,2$.
$210(210)=33,1 ;(215)=2 ;(217)=9$.
$211(211)=42,5,1,2 ;(217)=1,2$.
$212(212)=29 ;(217)=1,2$.
$213(213)=71,2,3 ;(218)=2$.
$214(214)=44,5,1,1,2$.
$215(215)=20 ;(217)=1$.
$216(216)=19$.
$217(217)=145,11$.
$218(218)=347$.

The square frequency matrix of parallel places (repetitions, or anagoges) in the Bible after the identification of the duplicates in the $T$ series. This 'summary chapter $T^{\prime}$ is placed in the 15 th position. The matrix obtained as a result satisfies the frequency damping principle a great deal better. However, since we have not yet identified all the duplicates, the matrix is not completely 'evenly damped' yet.

During this operation, the size of the matrix decreases somewhat. Having changed the order of 'generation chapters', we did not calculate the frequencies from scratch, but restricted ourselves to describing the relocation of part of its frequencies. The remaining columns and lines retained their previous numbers. It is obvious that certain numbers of lines and columns have now disappeared.

2
(2) $=7 ;(16)=1 ;(171)=2,1 ;(175)=1 ;(192)=2$; (195) $=1 ;(203)=1,1 ;(207)=1 ;(217)=2,1$.
(3) $=1$.
$(4)=1$.
$(5)=1$.
$(6)=1$.
$(7)=5$.
(8) $=6 ;(16)=1 ;(194)=1 ;(205)=1$.
$9 \quad(9)=5$.
$10 \quad(10)=3$.
$11 \quad(11)=3$.
$12 \quad(12)=3$.
$13 \quad(13)=6 ;(217)=1$.
$14 \quad(14)=3 ;(198)=1 ;(217)=1$.
$15 \quad(15)=4155,3 ;(61)=3,5 ;(70)=4 ;(72)=1 ;(75)=$ $44,84,109,26 ;(82)=2,3,1 ;(91)=2 ;(95)=1,1$; (103) $=10,3,2 ;(108)=2,3,1,3,2 ;(116)=1,2$; (119) $=1,3,1 ;(123)=1,2 ;(127)=1,1,2,1,2$; $(133)=5 ;(135)=3,3 ;(141)=1,2,1,1,1 ;(148)=$ $1,4,1 ;(158)=1,1 ;(161)=3,1,2 ;(168)=37,1,21$, $203,24,6,3,50,48,2,35,22,10,3,6,3 ;(186)=1$; $(188)=1,5,6,2,62,12,39,25,63,1,7,2,3 ;(204)=$ $18,25,11,7,6,1,2 ;(213)=6,3 ;(216)=1,48,13$.
(16) $=23 ;(75)=1 ;(78)=1,1 ;(175)=1 ;(192)=1$; $(218)=1$.
$19 \quad(19)=1 ;(76)=1 ;(175)=1$.
$21 \quad(21)=1$.
$22(22)=1$.
$23(23)=1$.
$24 \quad(24)=1 ;(176)=1 ;(182)=1$.
$26(26)=1$.
$27 \quad(27)=1$.
$28 \quad(28)=1$.
$29 \quad(29)=1 ;(77)=1$.
$30 \quad(30)=1$.
$31(31)=1$.
$32 \quad(32)=1$.
$33 \quad(33)=1$.
$34 \quad(34)=1$.
$35 \quad(35)=1$.
$36 \quad(36)=1$.
$38 \quad(38)=1$.
$39 \quad(39)=1$.
$40 \quad(40)=1$.
$42 \quad(42)=1$
$43(43)=1$.
$44 \quad(44)=1$.
45
47
48
50
51
52
53
54
55
56
57
58
59
61
$=1 ;(175)=1 ;(178)=2$.
62
$=1 ;(125)=1 ;(160)=1 ;(170)=2,9,1,1 ;(175)=$
5,$4 ;(178)=3 ;(182)=1 ;(190)=1 ;(192)=5 ;(194)$
$=7,3,6,2,2,2 ;(203)=1,7 ;(207)=6 ;(213)=1$;
$(217)=11$.
$63 \quad(63)=1$.
$64 \quad(64)=1$.
$65 \quad(65)=1$.
$66 \quad(66)=2 ;(71)=1 ;(75)=1 ;(217)=1$.
$67 \quad(67)=4 ;(170)=1$.
$68(68)=4 ;(70)=1 ;(180)=1 ;(191)=1,1 ;(196)=1$; $(204)=1$.
$69 \quad(69)=4 ;(70)=1,1 ;(217)=1$.
$70 \quad(70)=240,7 ;(76)=2,3,4 ;(86)=2,1 ;(91)=1 ;(103)$
$=1 ;(120)=1 ;(151)=1 ;(171)=3,1 ;(175)=4 ;(180)$
$=3 ;(192)=1 ;(195)=1,1 ;(213)=1 ;(217)=4$.
$71 \quad(71)=57 ;(77)=2,4 ;(87)=1 ;(175)=1 ;(185)=1$; $(208)=1 ;(210)=1$.
$72 \quad(72)=39 ;(75)=3,4,2 ;(86)=1 ;(110)=1 ;(118)=$ $1 ;(170)=1,1,2 ;(176)=2 ;(179)=1 ;(190)=1 ;$ $(192)=3,1,1 ;(196)=1 ;(217)=1$.
$(75)=652,41,57,5 ;(108)=1 ;(111)=1 ;(116)=1$; $(127)=1 ;(129)=1 ;(133)=1 ;(135)=1 ;(159)=3 ;$ $(160)=1 ;(168)=6 ;(170)=3,15,2 ;(174)=2,8,8$, $2,28,1,1,1,1 ;(186)=1 ;(189)=1 ;(191)=3,17,8$, $12,5,4,3,5,2,1 ;(204)=7,7,5,3,3 ;(210)=3,1$; $(213)=3,2 ;(217)=16,2$.
$76 \quad(76)=974,84,43,3 ;(86)=1 ;(89)=4 ;(91)=2$; $(109)=1 ;(111)=1 ;(116)=1 ;(123)=1 ;(130)=1 ;$ $(143)=1 ;(153)=1 ;(155)=1 ;(160)=1 ;(165)=1 ;$
$(168)=8 ;(170)=1,33 ;(173)=1 ;(175)=8,6 ;$ $(178)=2 ;(180)=2 ;(182)=1,2 ;(186)=2 ;(191)=$ $1,9,1,4,7,2 ;(198)=1,2 ;(203)=4,2,15,1,1,1$; $(210)=1,1 ;(213)=1 ;(215)=1 ;(217)=12,3$.
$(77)=524,44 ;(80)=3 ;(83)=1,1,2 ;(87)=1 ;(89)$ $=2 ;(91)=1 ;(104)=1 ;(106)=1,1,4 ;(111)=1$; $(115)=3 ;(118)=1 ;(125)=1,2 ;(128)=1 ;(131)=$ $1 ;(134)=1,1 ;(145)=1 ;(149)=1,1 ;(155)=1$; $(157)=1 ;(159)=1 ;(163)=1 ;(165)=2 ;(168)=$ $12 ;(170)=3,44 ; 17,2 ;(175)=27,46,5,15 ;(179)=$ $3,12,1,4 ;(185)=3,2,2,1,1,2,2,35,9,16,11,9,4$, 1,$1 ;(203)=2,9,12,7,3,3 ;(210)=1 ;(213)=4$; $(217)=14,3$.
$(78)=444,8,5,1,2,1 ;(87)=2 ;(103)=1,1,1,1$; $(108)=1 ;(113)=1 ;(121)=1 ;(126)=3,1 ;(132)=$ $1 ;(135)=1 ;(143)=1,1 ;(150)=1 ;(161)=1 ;(168)$ $=6 ;(171)=8,1 ;(175)=11,10 ;(178)=3,2,1,1$; $(184)=2,1 ;(187)=1 ;(190)=2 ;(192)=5 ;(194)=$ $4,2,6,1 ;(204)=1 ;(206)=1 ;(217)=7$.

87
$86(86)=18,3 ;(90)=1 ;(103)=1 ;(122)=1 ;(171)=$ $1 ;(176)=1 ;(180)=1$.
$(79)=8 ;(96)=1 ;(113)=1 ;(192)=1$.
$(80)=6,5 ;(86)=1 ;(88)=1 ;(171)=1,1 ;(175)=$ $1 ;(193)=1 ;(196)=1$.
$(81)=20,2,1,1 ;(86)=1 ;(176)=1$.
$(82)=13,3 ;(108)=1 ;(171)=3$.
$(83)=15 ;(88)=1 ;(171)=4 ;(196)=2$.
$(84)=14,2 ;(89)=1 ;(91)=1 ;(93)=1 ;(108)=1 ;$
$(129)=1 ;(171)=2 ;(175)=1 ;(180)=1 ;(194)=2$.

$$
5 \quad(85)=11 ;(87)=1 ;(144)=1 ;(171)=3 ;(173)=1 ;
$$

$(85)=11 ;(87)=1 ;(144)=1 ;(171)=3 ;(173)=1$;

$$
(175)=2 ;(192)=1 ;(195)=1
$$

$(87)=38 ;(90)=1 ;(122)=1 ;(171)=3 ;(178)=2 ;$
$(188)=1 ;(192)=1$.
$88 \quad(88)=9,2 ;(108)=1 ;(176)=1$.
$89 \quad(89)=19,1 ;(92)=1,1 ;(135)=1 ;(171)=1 ;(182)$ $=1 ;(191)=1 ;(194)=1 ;(217)=1$.
$90 \quad(90)=7 ;(192)=1$.
$91(91)=10 ;(94)=1 ;(192)=3 ;(194)=4 ;(217)=1$.
$92(92)=14 ;(94)=2 ;(217)=1$.
$93(93)=15,1$.
$94(94)=16,1 ;(109)=1 ;(176)=1 ;(192)=2,1,1$; $(217)=3$.
$95 \quad(95)=9,3 ;(175)=1$.
$96(96)=17 ;(103)=1 ;(175)=1,2$.
$103(103)=11 ;(129)=2 ;(141)=3 ;(143)=1 ;(176)=$ $1 ;(180)=1 ;(182)=1 ;(204)=1$.
$104(104)=34,3,3 ;(110)=1 ;(128)=1,1 ;(133)=1 ;$ $(135)=3 ;(142)=6,2 ;(163)=1 ;(168)=1 ;(175)=$ $1 ;(176)=1 ;(196)=1 ;(204)=1 ;(206)=1,1$.
$105(105)=10,6 ;(111)=1,3 ;(120)=1,1 ;(124)=1$;
$(128)=1 ;(141)=1,1,3,2,2,8,1$.
$106(106)=16 ;(111)=1 ;(120)=1,3,1 ;(125)=1$;
$(127)=1 ;(146)=1 ;(185)=1 ;(218)=1$.
$107(107)=15 ;(116)=1 ;(171)=1 ;(183)=1 ;(194)=$ $2 ;(196)=4,1 ;(217)=1$.
$108(108)=23 ;(112)=1 ;(114)=2,1 ;(129)=1 ;(148)$ $=2 ;(170)=1 ;(175)=1 ;(178)=1,1 ;(190)=1 ;$ $(194)=3 ;(196)=2,3$.
$109(109)=7,1 ;(113)=1 ;(121)=2 ;(152)=1 ;(170)=$ 2,$1 ;(190)=1 ;(192)=1 ;(196)=1,1 ;(211)=1$.
$110(110)=35 ;(112)=5 ;(118)=1 ;(131)=1 ;(148)=1$.
$111(111)=14,1 ;(121)=2 ;(129)=1 ;(142)=1 ;(170)$ $=2 ;(171)=1 ;(178)=1 ;(192)=2$.
$112(112)=14 ;(115)=1 ;(145)=1 ;(147)=1,22,2,1$, $1 ;(170)=1,1 ;(175)=1,3 ;(178)=1,1 ;(182)=1 ;$ $(192)=1 ;(207)=1 ;(212)=1 ;(214)=1$.
$113(113)=9 ;(115)=2 ;(152)=1 ;(171)=1,2 ;(182)=1$;
$(190)=1 ;(192)=2 ;(194)=2 ;(213)=1 ;(218)=1$.
$114(114)=15 ;(116)=1 ;(120)=1 ;(171)=1 ;(193)=$ $1 ;(217)=1$.
$115(115)=16,1 ;(151)=1 ;(171)=1$.
$116(116)=31 ;(120)=1 ;(192)=1 ;(194)=1,1 ;(217)=1$.
$117(117)=22 ;(194)=2,1$.
$118(118)=23,1 ;(161)=1 ;(171)=1 ;(177)=1,1$,
$(195)=1,1 ;(204)=1 ;(217)=1$.
$119(119)=17 ;(131)=1$.
$120(120)=14,1,1,1,1,1 ;(128)=1 ;(148)=1 ;(151)=$ 4,$2 ;(176)=1 ;(194)=1$.
$121(121)=16 ;(152)=4 ;(178)=1 ;(180)=1 ;(217)=1 ;$
$(218)=1$.
$122(122)=20,1 ;(125)=1 ;(127)=1 ;(152)=2 ;(176)$ $=1 ;(180)=1$.
$123(123)=4 ;(127)=1 ;(135)=1 ;(152)=3,2$.
$124(124)=4 ;(125)=1 ;(126)=1 ;(128)=1 ;(134)=2$; $(154)=10$.
$125(125)=17,5,1 ;(154)=1,1 ;(182)=1$.
$126(126)=5,2 ;(142)=1 ;(155)=12,2 ;(178)=1$; $(180)=1 ;(182)=1 ;(184)=1 ;(190)=1$.
$127(127)=11,1 ;(135)=1 ;(154)=1 ;(156)=5,4,2$; $(175)=1,1 ;(178)=1 ;(182)=1 ;(185)=1$.
$128(128)=8 ;(158)=7 ;(175)=3,1 ;(180)=1$.
$129(129)=12,3 ;(135)=1 ;(171)=1 ;(175)=3,4 ;(178)$ $=1 ;(180)=4 ;(184)=1 ;(194)=1,2 ;(204)=2,1$.
$130(130)=11,2 ;(158)=1,1 ;(162)=8 ;(172)=2$;
$(175)=13 ;(178)=1,1 ;(185)=1$.
$131(131)=15,1 ;(162)=4 ;(172)=1 ;(175)=16 ;(178)$ $=1 ;(190)=1$.
$132(132)=9 ;(159)=1 ;(162)=4 ;(168)=1 ;(170)=1$; $(175)=6,1 ;(217)=1$.
$133(133)=3 ;(136)=2 ;(158)=1 ;(163)=12 ;(175)=$ $1,4,1,1 ;(182)=1$.
$134(134)=5,2,1 ;(164)=11,1 ;(171)=1 ;(175)=2,4$.
$135(135)=6,3 ;(145)=1 ;(164)=6,6 ;(176)=2$.
$136(136)=7 ;(169)=2 ;(171)=1 ;(175)=1,26,1,2,3$, $1 ;(192)=2$.
$141(141)=12,1,2$.
$142(142)=5 ;(145)=1 ;(176)=1 ;(179)=1$.
$143(143)=10 ;(171)=1 ;(195)=1$.
$144(144)=8 ;(146)=1,1 ;(150)=1$.
$145(145)=10 ;(152)=1 ;(175)=1 ;(180)=1 ;(182)=$
$1 ;(192)=1 ;(194)=2 ;(205)=1 ;(207)=1$.
$146(146)=6 ;(149)=1 ;(175)=1$.
$147(147)=14,1,1$.
$148(148)=16 ;(171)=1,1 ;(175)=1 ;(178)=1 ;(193)$ $=1 ;(195)=2 ;(200)=1$.
$149(149)=4 ;(168)=1 ;(170)=1,1 ;(190)=1 ;(196)=$
$1 ;(198)=1 ;(204)=1 ;(207)=1,1 ;(210)=1$.
$150(150)=24 ;(154)=1 ;(171)=2 ;(175)=1 ;(192)=1$.
$151(151)=11$.
$152(152)=2$.
$153(153)=5 ;(159)=1$.
$154(154)=7 ;(163)=1 ;(192)=1 ;(194)=1$.
$155(155)=12,2 ;(171)=1 ;(178)=1$.
$156(156)=12 ;(180)=1 ;(217)=1$.
$157(157)=4 ;(168)=1$.
$158(158)=10 ;(175)=1,2 ;(180)=1$.
$159(159)=15 ;(165)=1 ;(168)=1 ;(176)=2 ;(178)=1$.
$160(160)=14 ;(176)=2 ;(195)=1,1$.
$161(161)=12 ;(168)=1$.
$162(162)=12 ;(175)=9 ;(185)=1 ;(194)=1 ;(200)=1$.
$163(163)=11 ;(168)=1 ;(176)=1 ;(179)=1 ;(196)=1$.
$164(164)=16 ;(176)=1$.
$165(165)=11 ;(176)=1 ;(190)=1$.
$168(168)=304,1,2,4,2 ;(175)=2,7 ;(178)=1,4,2$;
$(182)=1 ;(189)=1,1 ;(192)=2 ;(194)=2,2,2 ;$
$(204)=2 ;(206)=1,1,1 ;(213)=1 ;(217)=1$.
$169(169)=146,1,2,8,1,1 ;(178)=1,3 ;(195)=1$.
$170(170)=805,116,33,8 ;(175)=44,25,2,13,6,6$;
$(182)=4 ;(185)=3,3,2,1 ;(190)=2 ;(192)=8 ;$
$(194)=4,4,2 ;(197)=6,3,2,3 ;(203)=1,7,8,1,3$, $2 ;(210)=2,1,3,4 ;(215)=1 ;(217)=9 ;(218)=5$.
$171(171)=1682,63,12,4,186 ;(186)=60 ;(177)=10$, $28,24,13,6,6 ;(184)=5,7,4,6 ;(190)=8,4,68,15$, $54,36,41,7,17,3,10 ;(203)=1,47,15 ; 9,7,12,1,4$; $(213)=2 ;(215)=1,3,37,36$.
$172(172)=660,18 ;(175)=24,13 ;(178)=4,5,3 ;(182)$ $=2 ;(185)=2 ;(188)=1 ;(191)=1,27,5,13,7,3$, $14,10,2,5 ;(204)=17,4,5,1,4 ;(210)=1,1 ;(213)$ $=7 ;(215)=3 ;(217)=8,4$.
$173(173)=140 ;(175)=1,1 ;(179)=2,2 ;(192)=2,1$, $6,2,5,3,2 ;(200)=3 ;(204)=6,4,4 ;(208)=2,2 ;$ $(213)=2,1$.
$174(174)=73,11,2 ;(178)=4 ;(185)=1 ;(192)=8,1$, $4,7,1 ;(198)=2 ;(204)=1,1,2,2,6,2 ;(211)=1 ;$ $(214)=1 ;(217)=1,3$.
$175(175)=754,142 ;(178)=60,18,26,5,16,4 ;(185)=$ $17,5,4,9 ;(190)=25,8,59,15,56,42,29,4,13,5,5 ;$ $(204)=33,15,8,3,10,2,1,1,2 ; 2,3,1 ;(217)=12,52$.
$176(176)=1029 ;(178)=71,9,23,8,20,5,2,13,2,3,6$, $1,7,2,22,5,13 ; 10,6,2,5,2,1 ;(204)=20,4,2,3$; $(212)=1 ;(214)=1 ;(217)=7,26$.
$177(177)=66,11,4,4 ;(182)=1,1 ;(185)=1 ;(187)=$ $1 ;(192)=3 ;(194)=3,2 ;(205)=2 ;(218)=1$.
$178(178)=923,13,25,6,13,6 ;(185)=10,6,3,10,1$, $19,2,13,2,8,8,7 ;(198)=3,3 ;(204)=13,4,1,2 ;$ $(209)=1,1 ;(212)=1,1,1 ;(217)=5,31$.
$179(179)=261 ;(181)=1,1 ;(185)=2 ;(188)=1,1,1$, $1,15,2,9,3,9 ;(198)=4 ;(200)=1 ;(203)=1,1,5 ;$ $(208)=1 ;(211)=2,1,2,1,1 ;(217)=4,25$.
$180(180)=97,3,4 ;(185)=8 ;(188)=1,1,3 ;(192)=4$;
$(194)=5,4,4 ;(198)=2 ;(204)=2,2,1 ;(208)=1 ;$
$(216)=1,4,3$.
$181(181)=38,4 ;(184)=1,1,1 ;(188)=2 ;(190)=2$;
$(192)=1,1,1,1,1 ;(198)=1 ;(204)=1,1 ;(207)=$ $1 ;(218)=4$.
$182(182)=68,2 ;(188)=3,1,1,1,1 ;(194)=3 ;(196)=$ 6,$1 ;(204)=2 ;(207)=1$.
$183(183)=6 ;(185)=2 ;(195)=1 ;(205)=1$.
$184(184)=26 ;(186)=1 ;(192)=4 ;(194)=2 ;(197)=$ $1 ;(205)=1 ;(217)=2,1$.
$185(185)=31 ;(188)=2,1,5 ;(192)=5 ;(194)=3,3,1$; $(204)=1 ;(212)=1 ;(217)=2,1$.
$186(186)=26,1 ;(204)=1 ;(214)=1 ;(218)=2$.
$187(187)=20 ;(192)=1,1,1,1,1 ;(200)=1 ;(204)=1$; $(207)=1 ;(213)=1 ;(217)=2$.
$188(188)=19 ;(190)=4,1 ;(195)=2 ;(198)=2 ;(204)$ $=2,1 ;(218)=2$.
$189(189)=17,3,1,1 ;(195)=1 ;(217)=1,1$.
$190(190)=111,1,11,2,6,7,3 ;(203)=1,3,4,1,4$; $(217)=5,16$.
$191(191)=13,6,2,4 ;(203)=1,2,1,1 ;(208)=1$.
$192(192)=736,170,210,57,17,10,10,3,5 ;(204)=15$, 20,$3 ;(208)=4,5,2,4,2,4,=2 ;(217)=10,9$.
$193(193)=455,117,40,10,5,2 ;(200)=2 ;(204)=4,8$; $(207)=1,2,2,3,1,1,4,1,2 ;(217)=6,1$.
$194(194)=790,57,21,5,12,4,4 ;(204)=11,13,3$;
$(208)=6,3,1,4,1,9,4 ;(217)=8,8$.
$195(195)=705,17,3,7,1,18 ;(204)=15,7,7,3,10,4$, 4,$4 ;(213)=2,1,1 ;(217)=8,5$.
$196(196)=836,1,6,3,3 ;(204)=23,19,8,16,9,6,7,8$, $2,11,8,3 ;(217)=8,4$.
$197(197)=41,6 ;(200)=2 ;(204)=8,3,2,4,2 ;(213)=$ 2,$2 ;(217)=5$.
$198(198)=29,1,2 ;(204)=17,4,7,4,9,3,4 ;(213)=2$, $2,1,(217)=5,2$.
$199(199)=20,3 ;(203)=6,6,5 ;(209)=1 ;(211)=2$;
$(213)=4,2,1 ;(217)=1,2$.
$200(200)=50 ;(204)=5,6,4 ;(208)=4 ;(213)=2$;
$(217)=4,2$.
$201(201)=7 ;(204)=1,1 ;(215)=1$.
$202(202)=12 ;(205)=1$.
$203(203)=8 ;(205)=1 ;(208)=1,1,1 ;(213)=2$;
$(218)=2$.
$204(204)=53,41,22,31,18,8,8,4,1,3,5,3$;
$(217)=14,5$.
$205(205)=237,19,9,17,8,10,12,4,7,8,2,1,5,4$.
$206(206)=163,4,4,5,4,2,1,4,1,1 ;(217)=6,4$.
$207(207)=72,4,3,4,2,1 ;(215)=2 ;(217)=5,1$.
$208(208)=59,2,22,5,2,1,2,4 ;(217)=5$.
$209(209)=45,5,7,1,3,1 ;(217)=6,2$.
$210(210)=33,1 ;(215)=2 ;(217)=9$.
$211(211)=42,5,1,2 ;(217)=1,1$.
$212(212)=29 ;(217)=1,2$.
$213(213)=70,2,3 ;(218)=2$.
$214(214)=43 ;(215)=4,1,1,2$.
$215(215)=20 ;(217)=1$.
$216(216)=19$.
$217(217)=117,10$.
$218(218)=299$.

# Per annum volume distribution in The History of the City of Rome in the Middle Ages by F. Gregorovius 

We shall now present the volume function $f$ that we have calculated for The History of the City of Rome in the Middle Ages, a fundamental work by F. Gregorovius ([196], Volumes 1-5). We divide the work [196] into fragments referring to particular time segments. These time intervals and dates are those given by F. Gregorovius himself. In cases where he knows the date of an event (in the Scaligerian chronology, naturally), he always provides it. If, however, he is not aware of a precise dating, he will quite frequently provide a rougher reference to a time interval within which the events he describes are located. We have simply calculated volumes based on these descriptions.

Following the dates provided by F. Gregorovius, we shall be referring each time to relevant pages from [196], and cite the volume of a given text fragment. In cases where this volume covers several years instead of falling on a single one, in other words, a certain prolonged time interval, we provide an average value of volume falling on one year out of the given interval. That is, we average the volume function by dividing the number of pages by the number of years described therein. We denote text fragment volume by vol ; length of time interval is indicated by $d$; and the average value of volume function by $f=v o l / d$.

Important note: At the end of each chapter, F. Gregorovius provides an extensive commentary to the events described there. We considered this text as being to the entire time interval described in a given chapter. In other words, we do not assign a comment to a spe-
cific event; we simply 'average' this information by distributing it uniformly over the entire epoch described in the chapter. In other words, we calculate the average volume of comments via dividing their summary volume by the length of the period they spoke to.

1) F. Gregorovius begins his description of the history of medieval Rome from the beginning of the IV century; therefore, when plotting the volume function, we begin the count of time from around 300 A.D. The first two chapters of Volume 1 of [196] are of an introductory character. F. Gregorovius provides a general overview of surviving data on the history of Rome of the IV-V century A.D., and very few specific dates. The narration is of a summarizing and slightly chaotic character, which F. Gregorovius explains by the rather general statement that the history of Rome in those times was fairly tenebrous. The only story F. Gregorovius pays a special attention to is that of the activity of Emperor Constantine I the Great who moved the capital of the Roman Empire to the city of Byzantium, later Constantinople, around year 330 A.D. A special note is made in re the construction of temples around the time of Constantine, or the propagation of Christianity allegedly supported by Constantine openly and legally. Thus, it is Emperor Constantine singled out by F. Gregorovius rather unequivocally as the protagonist of the two first chapters of the first volume of his œuvre. We are citing all the fragments of the first volume of [196] that refer to Constantine, having calculated their vol-
ume and dating them to the period of 330-337 A.D., or starting with the moment of the foundation of Constantinople and ending with the death of Constantine in 337 A.D. ([72], p. 238).

Thus, the time interval of 330-337 A.D. (events related to Constantine I) is described by F. Gregorovius in the following fragments:
a) Vol. 1, pp. 8-13, vol $=5$ pages;
b) Vol. 1, pp. 19-20, vol = 1 page;
c) Vol. 1, p. 57, vol = 1 page;
d) Vol. 1, pp. 73-79, vol $=6$ pages.

Thus, the total of $5+1+1+6=13$ pages is dedicated to the epoch of 330-337 A.D. The length of the relevant time interval is $d=8$ years; therefore, the average value of function $f$ in the segment 330-337 equals $f=13 / 8=1.6$.
2) As we have already pointed out, F. Gregorovius describes the rest of the epoch of 300-499 A.D. from a rather general stance, without any streamlined narration containing specific dates. Therefore, we have simply calculated the average volume falling on one year. We have certainly neither counted pages devoted to the activity of Constantine I, nor taken them in consideration when calculating the average. We proceeded to discover that the time interval 300-499 A.D. was described in Vol. 1, pp. 1-105, i.e. $v o l=105-13$ $=92$ pages. We subtracted 13 pages devoted to Constantine; as a result, the average is $f=92 / 200=0.5$.
3) The epoch of 403-407 A.D. is described in Vol. 1, pp. 106-113. Its largest part is the story of Emperor Honorius and Commander Stilicho. vol $=8$ pages, time interval $d=4$ years, the average $f=8 / 4=2$.
4) The epoch of 408-409 A.D. is described in Vol. 1, pp. 113-132. The most of it is the story of Alaric. vol $=19$ pages, time interval $d=2$ years, the average $f=$ $19 / 2=9.5$.
5) The epoch of 403-409 A.D. is described in Annexes to chapter 3, Vol. 1, pp. 133-136. vol $=4$ pages, $d=7$ years, $f=4 / 7=0.6$.
6) The epoch of 410 A.D. is described in Vol. 1, pp. 137-155. Seizure of Rome by Alaric, destruction of Rome, withdrawal of Alaric. vol $=19$ pages, $d=1$ year, $f=19 / 1=19$.
7) The epoch of 411-417 A.d. is described in Vol. 1, pp. 156-159. vol $=3.5$ pages, $d=7$ years, $f=3.5 / 7=0.5$.
8) The epoch of 418-423 A.D. is described in Vol. 1, pp. 159-164. vol $=4.5$ pages, $d=6$ years, $f=4.5 / 6=0.8$.
9) The epoch of 424-432 A.D. is described in Vol. 1, pp. 164-167. vol $=4$ pages, $d=9$ years, $f=4 / 9=0.4$.
10) The epoch of 433-439 A.D. is not described. Only the average volume is available from Annexes: $0.4+0.5=0.9$.
11) The epoch of 440-451 A.D. is described in Vol. 1, pp. 168-172. vol $=5$ pages, $d=12$ years, $f=5 / 12=0.4$.
12) The epoch of 452-453 a.D. is described in Vol. 1, pp. 172-176. vol $=4$ pages, $d=2$ years, $f=4 / 2=2$.
13) The epoch of 410-453 A.D. is described in Annexes to Chapter 5, Vol. 1, pp. 177-182. vol $=6$ pages, $d=14$ years, $f=6 / 14=0.4$.
14) The epoch of 454-460 A.D. is described in Vol. 1, pp. 183-204, incl. Annexes. $v o l=22$ pages, $d=$ 7 years, $f=22 / 7=3.1$.
15) The epoch of 461-472 A.D. is described in Vol. 1 , pp. 205-210. vol $=5$ pages, $d=12$ years, $f=5 / 12=0.4$.
16) The epoch of 472-476 A.D. is described in Vol. 1 , pp. 210-219. vol $=9$ pages, $d=5$ years, $f=9 / 5=1.8$.
17) The epoch of 461-476 A.D. is described in Vol. 1, pp. 221-227, Annexes. vol $=7.5$ pages, $d=16$ years, $f=7.5 / 16=0.5$.
18) The epoch of 477-499 A.D. is described in Vol. 1, pp. 231-260. vol $=30$ pages, $d=23$ years, $f=$ $30 / 23=1.3$.
19) The epoch of 500-513 A.D. is described in Vol. 1, pp. 261-282. vol $=22$ pages, $d=13$ years, $f=$ $22 / 13=1.7$.
20) The epoch of 514-526 A.D. is described in Vol. 1, pp. 282-293. vol $=12$ pages, $d=13$ years, $f=$ $12 / 13=0.9$.
21) The epoch of 500-526 A.D. is described in Vol. 1, pp. 294-306, Annexes. vol $=12$ pages, $d=27$ years, $f=12 / 27=0.4$.
22) The epoch of 527-529 A.D. is described in Vol. 1, pp. 307-314. vol $=8$ pages, $d=3$ years, $f=8 / 3=2.7$.
23) The epoch of $530-535$ A.D. is described in Vol. 1 , pp. 314-320. vol $=7$ pages, $d=6$ years, $f=7 / 6=1.2$.
24) The epoch of 536 A.D. is described in Vol. 1, pp. 321-329. vol $=9$ pages, $d=1$ year, $f=9 / 1=9$.
25) The epoch of 527-536 A.D. is described in Vol. 1, pp. 330-337, Annexes. vol $=8$ pages, $d=10$ years, $f=8 / 10=0.8$.
26) The epoch of 537 A.d. is described in Vol. 1, pp. 338-358. vol $=20$ pages, $d=1$ year, $f=20 / 1=20$.
27) The epoch of 538 a.d. is described in Vol. 1, pp. 358-363. vol $=5$ pages, $d=1$ year, $f=5 / 1=5$.
28) The epoch of 537-538 A.D. is described in Vol. 1, pp. 364-371, Annexes. vol $=6$ pages, $d=2$ years, $f=6 / 2=3$.
29) The epoch of 539-546 A.D. is described in Vol. 1, pp.372-395, incl. Annexes. vol $=17$ pages, $d=$ 8 years, $f=17 / 8=2.1$.
30) The epoch of 547-553 A.D. is described in Vol. 1, pp. 396-423, incl. Annexes. vol $=28$ pages, $d=$ 7 years, $f=28 / 7=4$.
31) The epoch of 554-566 A.D. is described in Vol. 1, pp. 424-435, incl. Annexes. $\mathrm{vol}=11$ pages, $d=$ 13 years, $f=11 / 13=0.8$.
32) The epoch of 567-568 A.d. is described in Vol. 1, pp. 435-439. vol $=4$ pages, $d=2$ years, $f=4 / 2=2$.
33) The epoch of 569-579 A.D. is described in Vol. 1, pp. 439-441. vol $=1.5$ pages, $d=11$ years, $f=$ $1.5 / 11=0.1$.
34) The epoch of 554-579 A.D. is described in Vol. 1, pp. 442-447, Annexes. vol $=5$ pages, $d=26$ years, $f=5 / 26=0.2$.
35) The epoch of 530-589 a.d. is described in Vol. 2, pp. 3-21. vol $=18$ pages, $d=60$ years, $f=18 / 60=0.3$.
36) The epoch of 590 a.d. is described in Vol. 2, pp. 21-27. vol $=6$ pages, $d=1$ year, $f=6 / 1=6$.
37) The epoch of 530-590 A.D. is described in Vol. 2, pp. 28-33, Annexes. vol $=6$ pages, $d=61$ years, $f=6 / 61=0.1$.
38) The epoch of 590 A.d. is described in Vol. 2, pp. 34-37. vol $=3.5$ pages, $d=1, f=3.5 / 1=3.5$.
39) The epoch of 591-599 A.D. is described in Vol. 2, pp. 37-45. vol $=7$ pages, $d=9$ years, $f=7 / 9=0.8$.
40) The epoch of 600-604 A.D. is described in Vol. 2, pp. 45-88. vol $=42$ pages, $d=4$ years, $f=42 / 4=10.5$.
41) The epoch of 605-607 A.D. is described in Vol. 2, pp. 89-90. vol $=1$ page, $d=3$ years, $f=1 / 3=0.3$.
42) The epoch of 608-610 A.D. is described in Vol. 2, pp. 90-94. vol $=5$ pages, $d=3$ years, $f=5 / 3=1.7$.
43) The epoch of 611-614 A.D. is not described. $f$ $=0.2$ is only available due to Annexes.
44) The epoch of 615-625 A.D. is described in Vol. 2, pp. 94-96. vol $=2$ pages, $d=11$ years, $f=2 / 11=0.2$.
45) The epoch of 626-629 A.D. is not described. $f=$ 0.2 is only available from Annexes.
46) The epoch of 630 A.D. is described in Vol. 2, pp. 96-101. vol $=3.5$ pages, $d=1$ year, $f=3.5 / 1=3.5$.
47) The epoch of 631-638 A.D. is described in Vol. 2, pp. 101-107. vol $=6$ pages, $d=8$ years, $f=6 / 8=0.8$.
48) The epoch of 605-638 A.D. is described in Vol. 2, pp. 108-114, Annexes. vol $=6$ pages, $d=34$ years, $f=6 / 34=0.2$.
49) The epoch of 639-651 A.D. is described in Vol. 2, pp. 115-123. vol $=8$ pages, $d=12$ years, $f=8 / 12=0.7$.
50) The epoch of 652-655 A.D. is described in Vol. 2, pp. 123-125. vol $=2$ pages, $d=4$ years, $f=2 / 4=0.5$.
51) The epoch of 656-662 A.D. is described in Vol. 2, pp. 125-126. vol $=1$ page, $d=7$ years, $f=1 / 7=0.2$.
52) The epoch of 663 A.D. is described in Vol. 2, pp. 126-134. vol $=8$ pages, $d=1$ year, $f=8 / 1=8$.
53) The epoch of 639-663 A.D. is described in Vol. 2, pp. 135-140, Annexes. vol $=5$ pages, $d=25$ years, $f=5 / 25=0.2$.
54) The epoch of 664-671 A.D. is not described.
55) The epoch of 672 A.D. is described in Vol. 2, p. 141. vol $=0.3$ page, $d=1$ year, $f=0.3 / 1=0.3$.
56) The epoch of 673-675 A.D. is not described. Only the average volume is available from Annexes: 0.2.
57) The epoch of 676 A.D. is described in Vol. 2, p. 141. vol $=0.3$ page, $d=1$ year, $f=0.3 / 1=0.3$.
58) The epoch of 677 A.D. is not described. Only the average volume is available from Annexes: 0.2 .
59) The epoch of 678-687 A.D. is described in Vol. 2, pp. 141-151. vol $=10$ pages, $d=10$ years, $f=$ $10 / 10=1$.
60) The epoch of 688 A.D. is not described. Only the average volume is available from Annexes: 0.2 .
61) The epoch of 689 A.D. is described in Vol. 2, pp. 160-163. vol $=3.5$ pages, $d=1$ year, $f=3.5 / 1=3.5$.
62) The epoch of 690-691 A.D. is not described. Only the average volume is available from Annexes: 0.2.
63) The epoch of 692-695 A.D. is described in Vol. 2, pp. 151-154. vol $=3$ pages, $d=4$ years, $f=3 / 4=0.8$.
64) The epoch of 672-695 A.D. is described in Vol. 2, pp. 155-159, Annexes. vol $=4$ pages, $d=24$ years, $f=4 / 24=0.2$.
65) The epoch of 696-700 A.D. is not described.
66) The epoch of 701-705 A.D. is described in Vol. 2, pp. 163-165. vol $=2.3$ pages, $d=5$ years, $f=$ $2.3 / 5=0.5$.
67) The epoch of 706 A.D. is not described. Only the average volume is available from Annexes: 0.4 .
68) The epoch of 707 A.D. is described in Vol. 2, pp. 165-169. vol $=3.3$ pages, $d=1$ year, $f=3.3 / 1=3.3$.
69) The epoch of 708-709 A.D. is described in Vol. 2, pp. 169. vol $=0.6$ page, $d=2$ years, $f=0.6 / 2=0.3$.
70) The epoch of 710-711 A.D. is described in Vol. 2, pp. 170-175. vol $=6$ pages, $d=2$ years, $f=6 / 2=3$.
71) The epoch of 712 A.d. is not described. Only the average volume is available from Annexes: 0.4.
72) The epoch of 713-714 A.D. is described in Vol. 2, pp. 176. vol $=1$ page, $d=2$ years, $f=1 / 2=0.5$.
73) The epoch of 701-714 A.D. is described in Vol. 2, pp. 177-182, Annexes. vol $=5.5$ pages, $d=15$ years, $f=5.5 / 15=0.4$.
74) The epoch of 715-725 A.D. is described in Vol. 2, pp. 185-192. vol $=7$ pages, $d=10$ years, $f=7 / 10=0.7$.
75) The epoch of 726-731 a.d. is described in Vol. 2, pp. 193-206. vol $=14$ pages, $d=6$ years, $f=14 / 6=2.3$.
76) The epoch of 732 A.D. is not described. Only the average volume is available from Annexes: 0.2.
77) The epoch of 733-741 A.d. is described in Vol. 2, pp. 207-213. vol $=6$ pages, $d=9$ years, $f=6 / 10=0.6$.
78) The epoch of 715-741 A.D. is described in Vol. 2, pp. 214-220, Annexes. vol $=6$ pages, $d=27$ years, $f=6 / 27=0.2$.
79) The epoch of 742 A.D. is described in Vol. 2, pp. 221-224. vol $=3.5$ pages, $d=1$ year, $f=3.5 / 1=3.5$.
80) The epoch of 743-746 A.D. is not described. Only the average volume is available from Annexes: 0.4 .
81) The epoch of 747-751 A.D. is described in Vol. 2, pp. 224-229. vol $=5$ pages, $d=5$ years, $f=5 / 5=1$.
82) The epoch of 752 A.D. is described in Vol. 2, pp. 229-233. vol $=4.5$ pages, $d=1$ year, $f=4.5 / 1=4.5$.
83) The epoch of 753 a.d. is described in Vol. 2, pp. 234-235. vol $=2$ pages, $d=1$ year, $f=2 / 1=2$.
84) The epoch of 754 A.D. is described in Vol. 2, pp. 236-241. vol $=5.3$ pages, $d=1$ year, $f=5.3 / 1=5.3$.
85) The epoch of 755-757 A.D. is described in Vol. 2, pp. 241-251. vol $=10$ pages, $d=3$ years, $f=10 / 3=3.3$.
86) The epoch of 757 a.d. is described in Vol. 2, pp. 261-263. vol $=3$ pages, $d=1$ year, $f=3 / 1=3$.
87) The epoch of 742-757 A.D. is described in Vol. 2, pp. 254-260, Annexes. vol $=6$ pages, $d=16$ years, $f=6 / 16=0.4$.
88) The epoch of 758-765 A.D. is described in Vol. 2, pp. 264-269. vol $=5$ pages, $d=8$ years, $f=$ $5 / 8=0.6$.
89) The epoch of 766 A.D. is not described. Only the average volume is available from Annexes: 0.5 .
90) The epoch of 767-768 A.D. is described in Vol. 2, pp. 270-276. vol $=6$ pages, $d=2$ years, $f=6 / 2=3$.
91) The epoch of 769 A.D. is described in Vol. 2, p. 277. vol $=1$ page, $d=1$ year, $f=1 / 1=1$. Year 769 A.D. is also described in Vol. 2, pp. 284-287. vol $=4$ pages, $d=1$ year, $f=4 / 1=4$. The total is: $f=5$.
92) The epoch of 757-769 A.D. is described in Vol. 2, pp. 278-283, Annexes. vol $=6$ pages, $d=13$ years, $f=6 / 13=0.5$.
93) The epoch of 770-772 A.D. is described in Vol. 2, pp. 287-295. vol $=8$ pages, $d=3$ years, $f=8 / 3=2.7$.
94) The epoch of 773-774 A.D. is described in Vol. 2, pp. 295-301. vol $=6$ pages, $d=2$ years, $f=6 / 2=3$.
95) The epoch of 775-789 A.D. is described in Vol. 2, pp. 301-315. vol $=14$ pages, $d=15$ years, $f=$ $14 / 15=0.9$.
96) The epoch of 770-789 A.D. is described in Vol. 2, pp. 316-325, Annexes. vol $=9$ pages, $d=20$ years, $f=9 / 20=0.5$.
97) The epoch of 790 A.D. is not described.
98) The epoch of 791-795 A.D. is described in Vol. 2, pp. 326-392. vol $=66$ pages, $d=5$ years, $f=66 / 5=13.2$.
99) The epoch of 796-800 A.D. is described in Vol. 2, pp. 393-434. vol $=41$ pages, $d=5$ years, $f=41 / 5=8.2$.
100) The epoch of 801-813 a.d. is described in Vol. $3, \mathrm{pp} .3-16 . \mathrm{vol}=13$ pages, $d=13$ years, $f=13 / 13=1$.
101) The epoch of 814-817 A.D. is described in Vol. 3, pp. 16-28. vol $=13$ pages, $d=4$ years, $f=13 / 4$ $=3.3$.
102) The epoch of 801-817 A.D. is described in Vol. 3, pp. 29-34, Annexes. vol $=5$ pages, $d=17$ years, $f=5 / 17=0.3$.

All that remains to be done is summing up the values of function $f$ on each of the time segments listed above. This shall give us the final graph of the volume function for the part of the work by F. Gregorovius describing the period of 517 years allegedly from 300 A.D. to 817 A.D.

Epoch of 300-330 A.D., $f=0,5$
Epoch of 331-337 A.D., $f=2,1$
Epoch of 338-402 A.D., $f=0,5$
Epoch of 403-407 A.D., $f=3,1$

Epoch of 408-409 A.D., $f=10,6$
Epoch of 410 A.D., $f=19,9$
Epoch of 411-417 a.d., $f=1,4$
Epoch of 418-423 A.D., $f=1,7$
Epoch of 424-432 A.D., $f=1,3$
Epoch of 433-439 a.d., $f=0,9$
Epoch of 440-451 A.D., $f=1,3$
Epoch of 452-453 A.D., $f=2,9$
Epoch of 454-460 A.D., $f=3,6$
Epoch of 461-472 A.D., $f=1,4$
Epoch of 473-476 a.D., $f=2,8$
Epoch of 477-499 A.D., $f=1,8$
Epoch of 500-513 A.D., $f=2,1$
Epoch of 514-526 A.D., $f=1,3$
Epoch of 527-529 A.D., $f=3,5$
Epoch of 530-535 A.D., $f=2,4$
Epoch of 536 A.D., $f=10,2$
Epoch of 537 A.D., $f=23,4$
Epoch of 538 A.D., $f=8,4$
Epoch of 539-546 A.D., $f=2,5$
Epoch of 547-553 a.d., $f=4,4$
Epoch of 554-566 A.D., $f=1,4$
Epoch of 567-568 A.D., $f=2,6$
Epoch of 569-579 A.D., $f=0,7$
Epoch of 580-589 A.D., $f=0,4$
Epoch of 590 A.D., $f=8,6$
Epoch of 591-599 A.D., $f=0,8$
Epoch of 600-604 A.D., $f=10,5$
Epoch of 605-607 A.D., $f=0,5$
Epoch of 608-610 A.D., $f=1,9$
Epoch of 611-614 A.D., $f=0,2$
Epoch of 615-625 A.D., $f=0,4$
Epoch of 626-629 A.D., $f=0,2$
Epoch of 630 A.D., $f=3,7$
Epoch of 631-638 a.D., $f=1$
Epoch of 639-651 A.D., $f=0,9$
Epoch of 652-655 A.D., $f=0,7$
Epoch of 656-662 A.D., $f=0,4$
Epoch of 663 A.D., $f=8,2$
Epoch of 664-671 a.D., $f=0$
Epoch of 672 a.D., $f=0,5$
Epoch of 673-675 A.D., $f=0,2$
Epoch of 676 A.D., $f=0,5$
Epoch of 677 A.D., $f=0,2$
Epoch of 678-687 A.D., $f=1,2$
Epoch of 688 A.D., $f=0,2$
Epoch of 689 A.D., $f=3,7$

Epoch of 690-691 A.D., $f=0,2$
Epoch of 692-695 A.D., $f=0,8$
Epoch of 696-700 A.D., $f=0$
Epoch of 701-705 A.D., $f=0,9$
Epoch of 706 a.D., $f=0,4$
Epoch of 707 a.d., $f=3,7$
Epoch of 708-709 a.d., $f=0,7$
Epoch of 710-711 A.D., $f=3,4$
Epoch of 712 A.D., $f=0,4$
Epoch of 713-714 a.D., $f=0,9$
Epoch of 715-725 A.D., $f=0,9$
Epoch of 726-731 A.D., $f=2,5$
Epoch of 732 A.D., $f=0,2$
Epoch of 733-741 A.D., $f=0,8$
Epoch of 742 A.D., $f=3,9$
Epoch of 743-746 A.D., $f=0,4$
Epoch of 747-751 A.D., $f=1$
Epoch of 752 a.D., $f=4,9$
Epoch of 753 A.D., $f=2,4$
Epoch of 754 A.D., $f=5,7$
Epoch of 755-756 A.D., $f=3,7$
Epoch of 757 a.D., $f=6,7$
Epoch of 758-765 A.D., $f=1,1$
Epoch of 766 A.D., $f=0,5$
Epoch of 767-768 a.D., $f=3,5$
Epoch of 769 a.d., $f=5,5$
Epoch of 770-772 A.D., $f=3,2$
Epoch of 773-774 A.D., $f=3,5$
Epoch of 775-789 A.D., $f=1,4$
Epoch of 790 A.D., $f=0$
Epoch of 791-795 A.D., $f=13,2$
Epoch of 796-800 A.D., $f=8,2$
Epoch of 801-813 A.D., $f=1,3$
Epoch of 814-817 A.D., $f=3,9$

We did not go any further, since the text by Titus Livy (whom we compare to Gregorovius) peters out at around the year 460 from $a b$ urbe condita, which corresponds to year 760 A.D. when the "ancient" history of Rome is identified with the mediaeval, which is the aftermath of the shift of approximately 1000 years. We continued to calculate volume functions for the books by F. Gregorovius until 817 A.D. only because we had at our disposal the volume functions for the book by Sergeyev describing "ancient Rome" and going somewhat further than Titus Livy.

# Per annum volume distribution in The Roman History from the Foundation of the City by Titus Livy 

We used the following edition of the work The Roman History from the Foundation of the City by Titus Livy: Volumes 1-6, Moscow, 1897-1899, 2nd Edition, translated by P. Adrianov ([482]).

In his work, Titus Livy counts the years "from the foundation of the City", or ab urbe condita. As to what "City" is referred to in this manner is an issue quite apart, and one that is of interest to us, q.v. Chroni, ch. 6:13.6, and also elsewhere.

1) The period of the years 1-36ab urbe condita is described by Titus Livy in bk. 1:6-bk. 1:15, pp. 1026 in the edition [482], 1,785 characters per page. We shall be using this information to re-calculate volumes for their comparison with other editions. The length of the period is 36 years; Livy provides no detailed annual subdivision. Therefore, for our calculation of the volume function we shall uniformly distribute the total volume of 16 pages over 36 years, which should yield 0.45 pages per year. For the sake of convenience in plotting volume graphs we shall increase the scale by a factor of 10 , or plot the value of $10 f=4.5$ instead of $f=0.45$. Thus, in the segment of the years $1-36$, the average value of $10 f$ for volume per year $=4.5$.
2) The year 37 is described in bk. 1:16, pp. 26-27, i.e. volume of the year $10 f=13$.
3) The year 38 is described in bk. 1:17, pp. 28-29, i.e. volume of the year $10 f=20$.
4) The years 39-82 - the reign of King Numa - a total of 43 years. Described in bk. 1:18-bk. 1:21, pp. $30-36$, or an average volume of $10 f$ per year $=1.4$.
5) The years 83-114 (or 113) - the reign of King Tullus Hostilius (a total of 32 years) - are described in
bk. 1:22 - bk. 1:31, pp. 36-53. Livy does not specify how the events of this period are distributed over the years; however, his story naturally breaks down into 7 separate legend plots.

Due to the absence of supporting information, we shall adhere to the following general principle. We shall uniformly distribute the entire time interval described here - years 83-114, a total of 32 years - between all of the seven plots, which shall yield nearly 4.5 years per plot. We shall further calculate the volume of each plot in the book, and divide the volume by 4.5 years, obtaining the average value $f$ of volume within each plot. We shall then list the 7 plots, stating the obtained average value $10 f$ of volume per year.
a) The death of King Numa. Interregnum. $10 f=$ 0.3.
b) A general profile of King Tullus. $10 f=0.3$.
c) Peace weakens the state. Reasons for a war sought for. $10 f=1$.
d) Cattle stolen. Negotiations and severance. Preparations for war. $10 f=1$.
e) The war against the Albans. $10 f=3$.
f) The war against the Sabines. $10 f=4$.
g) The end of the reign of King Tullus. Eruption of a volcano. $10 f=3$.
6) The years 114-138 - the reign of King Ancus Marcius (a total of 24 years) - described in bk. 1:32 -bk. 1:34, pp. 53-58. Again, Livy does not provide us with the details concerning the distribution of events over the years. The volume of this fragment is 4.9 pages, distributed over 24 years, i.e. $10 f=2.4$.
7) The year 139 is described on pp. 59-61. A new
character appears in Rome in the time of King Ancus Marcius - Tarquin the Elder (bk. 1:34, pp. 59-60). His wife Tanaquil, their intrigues. The volume of the plot $=2$ pages. Thereafter, the intrigues of the Tarquins during their seizure of power. Detailed description of the coup, the volume $=1.3$ pages $(\mathrm{pp} .60-61)$. All these events took place in the course of less than one year. Thus, the summarized volume of the year 139 is 3.3 pages. The value $10 f$ of the volume function (with scale modified by a factor of 10 , see above) $=33$.
8) The years 140-175 are described in bk. 1:35$1: 38+1: 39(?)$, the total volume $=4$ or 5 pages. This is where Livy's story is fairly intricate in structure, and hard to divide into separate plots; therefore, we simply calculate an average value of volume per year, obtaining $10 f=1.4$.
9) The year 176 is described in bk. 1:40-bk. 1:41, pp. 67-69, the total volume $=2.7$ pages. The assassination of King Tarquin by Servius in $176=38$ th year of the reign of Tarquin. Thus, the value $10 f$ of the volume function in $176=27$.
10) The years $176 / 177-219$ are described in bk. 1:42 - bk. 1:48. The reign of King Servius Tullius. This is where Livy's story explicitly breaks down into two plots. The first one - the reform of Servius Tullius, bk. 1:42 -bk. 1:46. The length of this time segment is 21 years; the volume of the relevant text, 6.7 pages. The average value of volume function per year is 3.2 . The second plot - the struggle of Servius Tullius against Tarquin the Proud. The Tarquins strive for power. Time seg-
ment of nearly 20 years is described in bk. 1:46-bk. $1: 47$ on 3.5 pages, average value per year $10 f=1.7$.
11) The year 220 is described in bk. 1:48, pp. 7981. The assassination of Servius. Volume $=1.5$ pages, i.e. the value of the volume function $=15$.
12) The years 221-243 are described in bk. 1:49-1:60, pp. 81-92, a total of 11 pages. Description of acts and wars of King Tarquin the Proud in the course of 2325 years. Average value of volume per year $10 f=5$.
13) Year 244 is described in bk. 1:57-1:60, pp. 9297, a total of 5 pages. The rape of Lucretia, the uprising in Rome. The value of volume function $10 f=50$. The next year, 245, is omitted by Livy. If the preceding 5 pages are distributed over the two years 244 and 245 , then the average value for these two years $10 f=$ 25. Nevertheless, following the formal procedure, we assign the value $10 f=50$ to year 244 , and the value $10 f$ $=0$ to year 245 .
14) As of year 246, the character of Livy's book changes dramatically. He starts to accurately mark each year, giving accounts of all events that happened over this time. He does sometimes span two or more years at once, though. In these cases we shall calculate the average value $10 f$ of volume as usual, by dividing the volume vol of a fragment by the number $d$ of years spanned. Henceforth, we shall state years, then divisions of Livy's books devoted to them, then the value of volume vol (measured in pages), then the length $d$ of the time interval described, then the average annual value $10 f$.

Years 246-247
Year 248
Year 249
Year 250
Year 251
Year 252
Year 253
Year 254
Year 255
Year 256
Year 257
Year 257
Year 258
Year 259
Year 260
bk. 2:1-14
bk. 2:15
bk. 2:16
bk. 2:16
bk. 2:16
bk. 2:17
bk. 2:18
bk. 2:19
bk. 2:19-20
bk. 2:21
bk. 2:21
bk. 2:21
bk. 2:21
bk. 2:21-27
bk. 2:28-33
pp. 98-120
pp. 120-121
p. 121
pp. 121-122
p. 122
pp. 122-123
pp. 123-125
p. 125
pp. 125-127
p. 127
p. 127
p. 127
pp. 127-128
pp. 128-137
pp. 137-146

| $\mathrm{vol}=22,3$ | $\mathrm{d}=2$ | $10 \mathrm{f}=112$ |
| :---: | :---: | :---: |
| $\mathrm{vol}=1$ | $\mathrm{d}=1$ | $10 \mathrm{f}=10$ |
| vol $=0,3$ | $\mathrm{d}=1$ | $10 \mathrm{f}=3$ |
| vol $=0,4$ | $\mathrm{d}=1$ | $10 \mathrm{f}=4$ |
| vol $=0,5$ | $\mathrm{d}=1$ | $10 \mathrm{f}=5$ |
| $\mathrm{vol}=1$ | $\mathrm{d}=1$ | $10 \mathrm{f}=10$ |
| vol $=1,5$ | $\mathrm{d}=1$ | $10 \mathrm{f}=15$ |
| vol=1 | $\mathrm{d}=1$ | $10 \mathrm{f}=10$ |
| vol=3 | $\mathrm{d}=1$ | $10 \mathrm{f}=30$ |
| vol $=0,1$ | $\mathrm{d}=1$ | $10 \mathrm{f}=1$ |
| vol $=0,1$ | $\mathrm{d}=1$ | $10 \mathrm{f}=1$ |
| vol=0,1 | $\mathrm{d}=1$ | $10 \mathrm{f}=1$ |
| $\mathrm{vol}=0,3$ | $\mathrm{d}=1$ | $10 \mathrm{f}=3$ |
| vol $=9,7$ | $\mathrm{d}=1$ | $10 \mathrm{f}=97$ |
| vol $=10,3$ | $\mathrm{d}=1$ | $10 \mathrm{f}=103$ |

Year 261
Year 262
Years 263-265
Year 266
Year 267
Years 268-269
Year 270
Year 271
Year 272
Year 273
Year 274
Year 275
Years 276-277
Year 278
Year 279
Year 280
Year 281
Years 282-284
Year 285
Year 286
Year 287
Year 288
Years 289-290
Year 291
Year 292
Year 293
Years 294-295
Year 296
Year 297
Year 298
Year 299
Year 300
Year 301
Years 302-303
Years 304-305
Year 306
Year 307
Year 308
Year 309
Year 310
Year 311
Year 312
Year 313
Years 314-315
Year 316
Year 317
Year 318
bk. 2:33
bk. 2:34
bk. 2:34-39
bk. 2:39-40
bk. 2:40
bk. 2:41-42
bk. 2:42
bk. 2:42
bk. 2:43
bk. 2:43
bk. 2:44-47
bk. 2:48-50
bk. 2:51
bk. 2:51-52
bk. 2:52-53
bk. 2:54
bk. 2:54-55
bk. 2:56-62
bk. 2:63-64
bk. 2:64-65
bk. 3:1
bk. 3:2
bk. 3:2-5
bk. 3:6-8
b. 3:8-10
bk. 3:10-14
bk. 3:15-24
bk. 3:25-29
bk. 3:30
bk. 3:31
bk. 3:31
bk. 3:31
bk. 3:32
bk. 3:32-35
bk. 3:36-64
bk. 3:65
bk. 3:65
bk. 3:66-72
bk. 4:1-6
bk. 4:7
b. 4:8-10
bk. 4:11
bk. 4:12
bk. 4:12-17
bk. 4:17-20
bk. 4:20
bk. 4:21
pp. 146-147
pp. 147-148
pp. 147-148
pp. 155-157
pp. 157-158
pp. 158-160
pp. 160-161
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pp. 162-163
pp. 163-170
pp. 170-176
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pp. 177-178
pp. 178-180
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pp. 180-183
pp. 183-191
pp. 191-192
pp. 192-194
pp. 195-196
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pp. 196-204
pp. 204-207
pp. 207-211
pp. 211-218
pp. 218-234
pp. 234-241
pp. 241-242
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pp. 242-243
pp. 243-244
pp. 244-248
pp. 248-292
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pp. 292-294
pp. 293-303
pp. 304-316
pp. 316-318
pp. 318-323
pp. 323-324
pp. 324-325
pp. 325-333
pp. 333-338
p. 338
pp. 338-339

| $\mathrm{vol}=1,2$ | $\mathrm{d}=1$ | $10 \mathrm{f}=12$ |
| :---: | :---: | :---: |
| vol=1 | $\mathrm{d}=1$ | $10 \mathrm{f}=10$ |
| $\mathrm{vol}=1$ | $\mathrm{d}=3$ | $10 \mathrm{f}=22$ |
| $\mathrm{vol}=2,7$ | $\mathrm{d}=1$ | $10 f=27$ |
| vol $=0,1$ | $\mathrm{d}=1$ | $10 \mathrm{f}=1$ |
| $\mathrm{vol}=2,2$ | $\mathrm{d}=2$ | $10 \mathrm{f}=11$ |
| $\mathrm{vol}=0,8$ | $\mathrm{d}=1$ | $10 \mathrm{f}=8$ |
| $\mathrm{vol}=0,7$ | $\mathrm{d}=1$ | $10 \mathrm{f}=7$ |
| $\mathrm{vol}=0,2$ | $\mathrm{d}=1$ | $10 \mathrm{f}=2$ |
| $\mathrm{vol}=1,5$ | $\mathrm{d}=1$ | $10 \mathrm{f}=15$ |
| $\mathrm{vol}=7,3$ | $\mathrm{d}=1$ | $10 \mathrm{f}=73$ |
| vol $=5,6$ | $\mathrm{d}=1$ | $10 f=56$ |
| $\mathrm{vol}=0,4$ | $\mathrm{d}=2$ | $10 \mathrm{f}=2$ |
| vol $=1,7$ | $\mathrm{d}=1$ | $10 f=17$ |
| vol $=1,5$ | $\mathrm{d}=1$ | $10 \mathrm{f}=15$ |
| $\mathrm{vol}=0,3$ | $\mathrm{d}=1$ | $10 \mathrm{f}=3$ |
| $\mathrm{vol}=2,5$ | $\mathrm{d}=1$ | $10 \mathrm{f}=25$ |
| $\mathrm{vol}=8$ | $\mathrm{d}=3$ | $10 \mathrm{f}=27$ |
| $\mathrm{vol}=1$ | $\mathrm{d}=1$ | $10 \mathrm{f}=10$ |
| vol $=2,4$ | $\mathrm{d}=1$ | $10 \mathrm{f}=24$ |
| $\mathrm{vol}=1,2$ | $\mathrm{d}=1$ | $10 \mathrm{f}=12$ |
| $\mathrm{vol}=0,2$ | $\mathrm{d}=1$ | $10 \mathrm{f}=2$ |
| vol=7 | $\mathrm{d}=2$ | $10 \mathrm{f}=35$ |
| $\mathrm{vol}=3,2$ | $\mathrm{d}=1$ | $10 \mathrm{f}=32$ |
| $\mathrm{vol}=4$ | $\mathrm{d}=1$ | $10 \mathrm{f}=40$ |
| $\mathrm{vol}=7,5$ | $\mathrm{d}=1$ | $10 \mathrm{f}=75$ |
| $\mathrm{vol}=15,8$ | $\mathrm{d}=2$ | $10 \mathrm{f}=79$ |
| $\mathrm{vol}=6,9$ | $\mathrm{d}=1$ | $10 f=69$ |
| vol=1 | $\mathrm{d}=1$ | $10 \mathrm{f}=10$ |
| $\mathrm{vol}=0,2$ | $\mathrm{d}=1$ | $10 \mathrm{f}=2$ |
| $\mathrm{vol}=0,7$ | $\mathrm{d}=1$ | $10 \mathrm{f}=7$ |
| $\mathrm{vol}=0,7$ | $\mathrm{d}=1$ | 10f $=7$ |
| $\mathrm{vol}=0,4$ | $\mathrm{d}=1$ | $10 \mathrm{f}=4$ |
| vol $=4,4$ | $\mathrm{d}=2$ | $10 \mathrm{f}=22$ |
| $\mathrm{vol}=44$ | $\mathrm{d}=2$ | $10 \mathrm{f}=220$ |
| $\mathrm{vol}=0,5$ | $d=1$ | $10 \mathrm{f}=5$ |
| vol=1 | $\mathrm{d}=1$ | $10 \mathrm{f}=10$ |
| $\mathrm{vol}=10$ | $\mathrm{d}=1$ | $10 \mathrm{f}=100$ |
| $\mathrm{vol}=11,7$ | $\mathrm{d}=1$ | $10 f=117$ |
| $\mathrm{vol}=2,4$ | $\mathrm{d}=1$ | $10 \mathrm{f}=24$ |
| $\mathrm{vol}=5,2$ | $\mathrm{d}=1$ | $10 \mathrm{f}=52$ |
| vol $=1,1$ | $\mathrm{d}=1$ | $10 \mathrm{f}=11$ |
| vol $=0,5$ | $\mathrm{d}=1$ | $10 f=5$ |
| $\mathrm{vol}=8$ | $\mathrm{d}=2$ | $10 \mathrm{f}=40$ |
| vol=5 | $\mathrm{d}=1$ | $10 f=50$ |
| $\mathrm{vol}=0,4$ | $\mathrm{d}=1$ | $10 \mathrm{f}=4$ |
| $\mathrm{vol}=0,8$ | $\mathrm{d}=1$ | $10 \mathrm{f}=8$ |

Year 319
Year 320
Year 321
Year 322
Years 323-324
Year 325
Year 326
Year 327
Year 328
Year 329
Year 330
Year 331
Year 332
Year 333
Year 334
Year 335
Year 336
Years 337-338
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Year 340
Year 341
Year 342
Year 343
Year 344
Year 345
Year 346
Year 347
Year 348
Year 349
Year 350
Year 351
Year 352
Year 353
Year 354
Years 355-356
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Year 358
Year 359
Year 360
Year 361
Year 362
Year 363
Year 364
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bk. 4:23-25
bk. 4:25
bk. 4:25-26
bk. 4:26-30
bk. 4:30
bk. 4:30
bk. 4:30
bk. 4:31-34
bk. 4:34
bk. 4:35-36
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bk. 4:42
bk. 4:43
bk. 4:43-44
bk. 4:45
bk. 4:45-47
bk. 4:47-48
bk. 4:49
bk. 4:49-50
bk. 4:51
bk. 4:52
bk. 4:52
bk. 4:53
bk. 4:54-56
bk. 4:56-57
bk. 4:58
bk. 4:58-60
bk. 4:61
bk. 4:61
bk. 5:1-7
bk. 5:8-9
bk. 5:10-12
bk. 5:12-13
bk. 5:13-16
bk. 5:16-17
bk. 5:18-23
bk. 5:24-26
bk. 5:26-29
bk. 5:29-30
bk. 5:31
bk. 5:32-36
bk. 5:37-55
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pp. 373-376
pp. 376-377
pp. 377-381
pp. 381-383
pp. 383-384
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pp. 387-388
pp. 388-389
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pp. 389-391
pp. 392-395
pp. 395-398
pp. 398-399
pp. 399-403
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pp. 403-404
pp. 405-418
pp. 418-421
pp. 421-427
pp. 427-429
pp. 429-433
pp. 433-436
pp. 436-446
pp. 446-450
pp. 450-456
pp. 456-459
pp. 459-460
pp. 460-468
pp. 468-499

| vol $=1,8$ | $\mathrm{d}=1$ | $10 \mathrm{f}=18$ |
| :---: | :---: | :---: |
| vol=3 | $\mathrm{d}=1$ | $10 \mathrm{f}=30$ |
| $\mathrm{vol}=0,4$ | $\mathrm{d}=1$ | $10 \mathrm{f}=4$ |
| vol $=1,5$ | $\mathrm{d}=1$ | $10 \mathrm{f}=15$ |
| $\mathrm{vol}=7$ | $\mathrm{d}=2$ | $10 \mathrm{f}=35$ |
| vol=0,1 | $\mathrm{d}=1$ | $10 \mathrm{f}=1$ |
| vol=1 | $\mathrm{d}=1$ | $10 \mathrm{f}=10$ |
| vol $=0,6$ | $\mathrm{d}=1$ | $10 \mathrm{f}=6$ |
| $\mathrm{vol}=6$ | $\mathrm{d}=1$ | $10 \mathrm{f}=60$ |
| $\mathrm{vol}=0,2$ | $\mathrm{d}=1$ | $10 \mathrm{f}=2$ |
| vol=2,2 | $\mathrm{d}=1$ | $10 \mathrm{f}=22$ |
| vol=7,5 | $\mathrm{d}=1$ | $10 \mathrm{f}=75$ |
| vol $=1,2$ | $\mathrm{d}=1$ | $10 \mathrm{f}=12$ |
| vol $=1,3$ | $\mathrm{d}=1$ | $10 \mathrm{f}=13$ |
| vol=3 | $\mathrm{d}=1$ | $10 \mathrm{f}=30$ |
| $\mathrm{vol}=0,8$ | $\mathrm{d}=1$ | $10 \mathrm{f}=8$ |
| vol=3,5 | $\mathrm{d}=1$ | $10 \mathrm{f}=35$ |
| $\mathrm{vol}=2,6$ | $\mathrm{d}=2$ | $10 \mathrm{f}=13$ |
| $\mathrm{vol}=0,8$ | $\mathrm{d}=1$ | $10 \mathrm{f}=8$ |
| vol=3,2 | $\mathrm{d}=1$ | $10 \mathrm{f}=32$ |
| vol $=1,3$ | $\mathrm{d}=1$ | $10 \mathrm{f}=13$ |
| $\mathrm{vol}=0,5$ | $\mathrm{d}=1$ | $10 \mathrm{f}=5$ |
| vol $=0,7$ | $\mathrm{d}=1$ | $10 \mathrm{f}=7$ |
| $\mathrm{vol}=2$ | $\mathrm{d}=1$ | $10 \mathrm{f}=20$ |
| vol=3,2 | $\mathrm{d}=1$ | $10 \mathrm{f}=32$ |
| vol=3,3 | $\mathrm{d}=1$ | $10 \mathrm{f}=33$ |
| vol $=0,8$ | $\mathrm{d}=1$ | $10 \mathrm{f}=8$ |
| $\mathrm{vol}=4$ | $\mathrm{d}=1$ | $10 \mathrm{f}=40$ |
| vol $=0,3$ | $\mathrm{d}=1$ | $10 \mathrm{f}=3$ |
| vol $=1,3$ | $\mathrm{d}=1$ | $10 \mathrm{f}=13$ |
| $\mathrm{vol}=12,8$ | $\mathrm{d}=1$ | $10 \mathrm{f}=128$ |
| vol $=3,2$ | $\mathrm{d}=1$ | $10 \mathrm{f}=32$ |
| vol=5,6 | $\mathrm{d}=1$ | $10 \mathrm{f}=56$ |
| vol $=2,4$ | $\mathrm{d}=1$ | $10 \mathrm{f}=24$ |
| $\mathrm{vol}=4$ | $\mathrm{d}=2$ | $10 \mathrm{f}=20$ |
| vol=3 | $\mathrm{d}=1$ | $10 \mathrm{f}=30$ |
| vol $=10,3$ | $\mathrm{d}=1$ | $10 \mathrm{f}=103$ |
| vol=3,7 | $\mathrm{d}=1$ | $10 \mathrm{f}=37$ |
| $\mathrm{vol}=6,1$ | $\mathrm{d}=1$ | $10 \mathrm{f}=61$ |
| vol=3 | $\mathrm{d}=1$ | $10 \mathrm{f}=30$ |
| vol $=1,2$ | $\mathrm{d}=1$ | $10 \mathrm{f}=12$ |
| $\mathrm{vol}=8$ | $\mathrm{d}=1$ | $10 \mathrm{f}=80$ |
| vol=31 | $\mathrm{d}=1$ | $10 \mathrm{f}=310$ |

$\operatorname{vol}=1,8 \quad \mathrm{~d}=1 \quad 10 \mathrm{f}=18$
$\mathrm{vol}=3$
$\mathrm{d}=1 \quad 10 \mathrm{f}=30$
$\mathrm{d}=1 \quad 10 \mathrm{f}=4$
$\mathrm{d}=1 \quad 10 \mathrm{f}=15$
$\mathrm{d}=2 \quad 1$ Of $=35$
$\mathrm{d}=1 \quad 10 \mathrm{f}=1$
$\mathrm{d}=1 \quad 10 \mathrm{f}=10$
$\mathrm{d}=1 \quad 10 \mathrm{f}=6$
$\mathrm{d}=1 \quad 10 \mathrm{f}=60$
$\mathrm{d}=1 \quad 10 \mathrm{f}=2$
$\mathrm{d}=1 \quad 10 \mathrm{f}=22$
$\mathrm{d}=1 \quad 10 \mathrm{f}=75$
$\mathrm{d}=1 \quad 10 \mathrm{f}=12$
$\mathrm{d}=1 \quad 10 \mathrm{f}=13$
$\mathrm{d}=1 \quad 10 \mathrm{f}=30$
$\mathrm{d}=1 \quad 10 \mathrm{f}=8$
$\mathrm{d}=1 \quad 10 \mathrm{f}=35$
$\mathrm{d}=2 \quad 10 \mathrm{f}=13$
$\mathrm{d}=1 \quad 10 \mathrm{f}=8$
$\mathrm{d}=1 \quad 10 \mathrm{f}=32$
$\mathrm{d}=1 \quad 10 \mathrm{f}=13$
$\mathrm{d}=1 \quad 10 \mathrm{f}=5$
$\mathrm{d}=1 \quad 10 \mathrm{f}=7$
$\mathrm{d}=1 \quad 10 \mathrm{f}=20$
$\mathrm{d}=1 \quad 10 \mathrm{f}=32$
$\mathrm{d}=1 \quad 10 \mathrm{f}=33$
$\mathrm{d}=1 \quad 10 \mathrm{f}=8$
$\mathrm{d}=1 \quad 10 \mathrm{f}=40$
$\mathrm{d}=1 \quad 10 \mathrm{f}=3$
$\mathrm{d}=1 \quad 10 \mathrm{f}=13$
$\mathrm{d}=1 \quad 10 \mathrm{f}=128$
$\mathrm{d}=1 \quad 10 \mathrm{f}=32$
$\mathrm{d}=1 \quad 10 \mathrm{f}=56$
$\mathrm{d}=1 \quad 10 \mathrm{f}=24$
$\mathrm{d}=2 \quad 10 \mathrm{f}=20$
$\mathrm{d}=1 \quad 10 \mathrm{f}=30$
$\mathrm{d}=1 \quad 10 \mathrm{f}=103$
$d=1 \quad 10 \mathrm{f}=37$
$d=1 \quad 10 f=61$
$\mathrm{d}=1 \quad 10 \mathrm{f}=30$
$\mathrm{d}=1 \quad 10 \mathrm{f}=12$
$\mathrm{d}=1 \quad 10 \mathrm{f}=310$

Note. This is where the format of the book changes: books 6-10, Vol. 2, of the edition of the Livy's book that we were using, were printed in another printing house - Herbeck. The format is different from that of the previous books, with 2,072 characters per page. Therefore, to transform the volume function to the format of our table, each volume should be multiplied by a coefficient of 1.2. The table shows the final result only. We have performed the levelling of scale for our table starting with year 365 .

Year 365
Year 366
Year 367
Year 368
Year 369
Year 370
Year 371
Year 372
Year 373
Year 374
Year 375
Year 376
Year 377
Years 378-383
Year 384
Year 385
Years 386-389
Year 390
Year 391
Year 392
Year 393
Year 394
Year 395
Year 396
Year 397
Years 398-399
Year 400
Year 401
Year 402
Year 403
Year 404
Year 405
Year 406
Year 407
Year 408
Year 409
Year 410
Year 411
Years 412-414
Year 415
Year 416
Year 417
Year 418
Year 419
Year 420
Years 421-422
Year 423
bk. 6:1-4
bk. 6:4-5
bk. 6:5-10
not described (?)
bk. 6:11-18
bk. 6:18-21
bk. 6:21
bk. 6:22
bk. 6:22-29
not described (?)
bk. 6:30
bk. 6:31-32
bk. 6:32
bk. 6:33-36
bk. 6:36
bk. 6:36-38
bk. 6:38-42; 7:1
bk. 7:2-3
bk. 7:3
bk. 7:4-8
bk. 7:9-11
bk. 7:11
bk. 7:12
bk. 7:12-15
bk. 7:16
bk. 7:17
bk. 7:18-19
bk. 7:19-21
bk. 7:21
bk. 7:22
bk. 7:23-24
bk. 7:25-26
bk. 7:26-27
bk. 7:27
bk. 7:27
bk. 7:28
bk. 7:28
bk. 7:28-38
bk. 7:38-42; 8:1-12
bk. 8:12
bk. 8:13-14
bk. 8:15
bk. 8:16
bk. 8:16
bk. 8:16-17
bk. 8:17
bk. 8:18
pp. 1-6
pp. 6-7
pp. 7-12
pp. 12-21
pp. 21-26
pp. 26-27
p. 27
pp. 27-36
pp. 36-37
pp. 37-38
pp. 38-39
pp. 39-43
p. 43
pp. 43-45
pp. 45-55
pp. 55-57
pp. 57-58
pp. 58-63
pp. 63-66
pp. 66-67
p. 67
pp. 67-72
pp. 72-74
pp. 74-75
pp. 75-77
pp. 77-79
pp. 79-80
pp. 80-81
pp. 81-83
pp. 83-86
pp. 86-87
p. 87
p. 87
pp. 87-88
p. 88
pp. 88-102
pp. 102-127
pp. 127-128
pp. 128-131
pp. 131-132
p. 132
pp. 132-133
pp. 133-134
p. 134
pp. 134-136

| $\mathrm{vol}=6$ | $\mathrm{d}=1$ | $12 \mathrm{f}=72$ |
| :---: | :---: | :---: |
| vol $=0,4$ | $\mathrm{d}=1$ | $12 \mathrm{f}=5$ |
| vol $=5,8$ | $\mathrm{d}=1$ | $12 \mathrm{f}=67$ |
| $\mathrm{vol}=0$ | $\mathrm{d}=1$ | $12 \mathrm{f}=0$ |
| vol $=8,6$ | $\mathrm{d}=1$ | $12 \mathrm{f}=103$ |
| vol $=4,7$ | $\mathrm{d}=1$ | $12 \mathrm{f}=56$ |
| $\mathrm{vol}=0,8$ | $\mathrm{d}=1$ | $12 \mathrm{f}=9,6$ |
| $\mathrm{vol}=0,5$ | $\mathrm{d}=1$ | $12 \mathrm{f}=6$ |
| $\mathrm{vol}=8,8$ | $\mathrm{d}=1$ | $12 \mathrm{f}=106$ |
| vol=0 | $\mathrm{d}=1$ | $12 \mathrm{f}=0$ |
| $\mathrm{vol}=0,8$ | $\mathrm{d}=1$ | $12 \mathrm{f}=9,6$ |
| vol $=1,1$ | $\mathrm{d}=1$ | $12 \mathrm{f}=13$ |
| $\mathrm{vol}=0,9$ | $\mathrm{d}=1$ | $12 \mathrm{f}=10.8$ |
| $\mathrm{vol}=4$ | $d=6$ | $12 \mathrm{f}=8$ |
| $\mathrm{vol}=0,3$ | $\mathrm{d}=1$ | $12 \mathrm{f}=4$ |
| vol $=2,3$ | $\mathrm{d}=1$ | $12 \mathrm{f}=28$ |
| $\mathrm{vol}=9$ | $\mathrm{d}=4$ | $12 \mathrm{f}=25$ |
| vol $=1,8$ | $\mathrm{d}=1$ | $12 \mathrm{f}=22$ |
| $\mathrm{vol}=0,9$ | $\mathrm{d}=1$ | $12 \mathrm{f}=10.8$ |
| $\mathrm{vol}=5$ | $\mathrm{d}=1$ | $12 \mathrm{f}=60$ |
| $\mathrm{vol}=2,4$ | $\mathrm{d}=1$ | $12 \mathrm{f}=29$ |
| $\mathrm{vol}=1,1$ | $\mathrm{d}=1$ | $12 \mathrm{f}=13$ |
| $\mathrm{vol}=0,5$ | $\mathrm{d}=1$ | $12 \mathrm{f}=6$ |
| vol $=4,8$ | $\mathrm{d}=1$ | $12 \mathrm{f}=54$ |
| $\mathrm{vol}=1,2$ | $\mathrm{d}=1$ | $12 \mathrm{f}=14$ |
| vol $=1,4$ | $\mathrm{d}=2$ | $12 \mathrm{f}=8$ |
| vol $=1,6$ | $\mathrm{d}=1$ | $12 \mathrm{f}=19$ |
| $\mathrm{vol}=2,3$ | $\mathrm{d}=1$ | $12 \mathrm{f}=28$ |
| vol $=0,6$ | $\mathrm{d}=1$ | $12 \mathrm{f}=7$ |
| vol $=1,1$ | $\mathrm{d}=1$ | $12 \mathrm{f}=13$ |
| $\mathrm{vol}=2,3$ | $\mathrm{d}=1$ | $12 \mathrm{f}=28$ |
| $\mathrm{vol}=2,9$ | $\mathrm{d}=1$ | $12 \mathrm{f}=35$ |
| vol $=0,5$ | $\mathrm{d}=1$ | $12 \mathrm{f}=6$ |
| vol $=0,2$ | $\mathrm{d}=1$ | $12 \mathrm{f}=2$ |
| vol $=0,6$ | $\mathrm{d}=1$ | $12 \mathrm{f}=7$ |
| vol $=0,6$ | $\mathrm{d}=1$ | $12 \mathrm{f}=7$ |
| $\mathrm{vol}=0,5$ | $\mathrm{d}=1$ | $12 \mathrm{f}=6$ |
| $\mathrm{vol}=13,7$ | $\mathrm{d}=1$ | $12 \mathrm{f}=164$ |
| $\mathrm{vol}=23,2$ | $\mathrm{d}=3$ | $12 \mathrm{f}=90$ |
| vol $=1,2$ | $\mathrm{d}=1$ | $12 \mathrm{f}=14$ |
| vol $=3,2$ | $\mathrm{d}=1$ | $12 \mathrm{f}=38$ |
| vol $=0,9$ | $\mathrm{d}=1$ | $12 \mathrm{f}=10.8$ |
| vol $=0,3$ | $\mathrm{d}=1$ | $12 \mathrm{f}=4$ |
| $\mathrm{vol}=0,8$ | $\mathrm{d}=1$ | $12 \mathrm{f}=10$ |
| $\mathrm{vol}=0,7$ | $\mathrm{d}=1$ | $12 \mathrm{f}=8$ |
| vol $=0,6$ | $\mathrm{d}=2$ | $12 \mathrm{f}=4$ |
| vol $=1,2$ | $\mathrm{d}=1$ | $12 \mathrm{f}=14$ |

Year 424
Year 425
Year 426
Year 427
Year 428
Year 429
Years 430-431
Years 432-437
Year 438
Years 439-446
Year 447
Years 448-449
Years 450-454
Year 455
Year 456
Year 457
Years 458-460
Year 461
bk. 8:19-20
bk. 8:20-21
bk. 8:22
bk. 8:22-25
bk. 8:25-29
bk. 8:29-37
bk. 8:37
bk. 8:38-40; 9:1-20
bk. 9:21
bk. 9:22-42
bk. 9:42
bk. 9:42-44
bk. 9:45-46; 10:1-9
bk. 10:9-11
bk. 10:11-13
bk. 10:14-15
bk. 10:16-37
bk. 10:38-47
pp. 136-137
pp. 137-140
p. 140
pp. 140-144
pp. 144-149
pp. 149-160
pp. 160-161
pp. 161-198
pp. 198-199
pp. 199-232
pp. 232-233
pp. 233-237
pp. 237-253
pp. 254-257
pp. 257-259
pp. 259-263
pp. 263-295
pp. 295-309

| vol $=1,9$ | $\mathrm{d}=1$ | $12 \mathrm{f}=23$ |
| :---: | :---: | :---: |
| $\mathrm{vol}=2$ | $\mathrm{d}=1$ | $12 \mathrm{f}=24$ |
| vol $=0,7$ | $\mathrm{d}=1$ | $12 \mathrm{f}=8$ |
| $\mathrm{vol}=4$ | $\mathrm{d}=1$ | $12 \mathrm{f}=48$ |
| vol $=4,4$ | $\mathrm{d}=1$ | $12 \mathrm{f}=53$ |
| $\mathrm{vol}=11,4$ | $\mathrm{d}=1$ | $12 \mathrm{f}=137$ |
| vol $=1,1$ | $\mathrm{d}=2$ | $12 \mathrm{f}=6$ |
| vol=36 | $\mathrm{d}=6$ | $12 \mathrm{f}=70$ |
| $\mathrm{vol}=0,7$ | $\mathrm{d}=1$ | $12 \mathrm{f}=8$ |
| $\mathrm{vol}=32,6$ | $\mathrm{d}=8$ | $12 \mathrm{f}=50$ |
| $\mathrm{vol}=1$ | $\mathrm{d}=1$ | $12 \mathrm{f}=12$ |
| vol $=4,4$ | $\mathrm{d}=2$ | $12 \mathrm{f}=26$ |
| vol $=15,2$ | $\mathrm{d}=5$ | $12 \mathrm{f}=36$ |
| vol=3,2 | $\mathrm{d}=1$ | $12 \mathrm{f}=38$ |
| vol $=2,8$ | $\mathrm{d}=1$ | $12 \mathrm{f}=34$ |
| vol=3,2 | $\mathrm{d}=1$ | $12 \mathrm{f}=38$ |
| vol=32,5 | $\mathrm{d}=3$ | $12 \mathrm{f}=130$ |
| vol $=13,6$ | $\mathrm{d}=1$ | $12 \mathrm{f}=163$ |

This is where Livy's text breaks up.
Thus, the volume function of Titus Livy looks like this:

in year 139
in the segment of years 140-175 in year 176
in the segment of years 177-219 in year 220
in the segment of years 221-245
in year 244
in year 245
in year 246
in year 247
$10 f=33$
$10 \mathrm{f}=1.4$
$10 \mathrm{f}=27$
$10 \mathrm{f}=1.7$
$10 \mathrm{f}=15$
$10 f=5$
$10 \mathrm{f}=50$
$10 f=0$
$10 \mathrm{f}=112$
$10 \mathrm{f}=112$

Henceforth, the first number in the table denotes the year $a b$ urbe condita, the second - the volume function value for the year in question:

| $248-10 ;$ | $249-3 ;$ | $250-4 ;$ | $251-5 ;$ | $252-10 ;$ | $253-15 ;$ | $254-10 ;$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $255-30 ;$ | $256-1 ;$ | $257-1 ;$ | $258-3 ;$ | $259-97 ;$ | $260-103 ;$ | $261-12 ;$ |
| $262-10 ;$ | $263-22 ;$ | $264-22 ;$ | $265-22 ;$ | $266-27 ;$ | $267-1 ;$ | $268-11 ;$ |
| $269-11 ;$ | $270-8 ;$ | $271-7 ;$ | $272-2 ;$ | $273-15 ;$ | $274-73 ;$ | $275-56 ;$ |
| $276-2 ;$ | $277-2 ;$ | $278-17 ;$ | $279-15 ;$ | $280-3 ;$ | $281-25 ;$ | $282-27 ;$ |
| $283-27 ;$ | $284-27 ;$ | $285-10 ;$ | $286-24 ;$ | $287-12 ;$ | $288-2 ;$ | $289-35 ;$ |
| $290-35 ;$ | $291-32 ;$ | $292-40 ;$ | $293-75 ;$ | $294-79 ;$ | $295-79 ;$ | $296-69 ;$ |
| $297-10 ;$ | $298-2 ;$ | $299-7 ;$ | $300-7 ;$ | $301-4 ;$ | $302-22 ;$ | $303-22 ;$ |
| $304-220 ;$ | $305-220 ;$ | $306-5 ;$ | $307-10 ;$ | $308-100 ;$ | $309-117 ;$ | $310-24 ;$ |
| $311-52 ;$ | $312-11 ;$ | $313-5 ;$ | $314-40 ;$ | $315-40 ;$ | $316-50 ;$ | $317-4 ;$ |
| $318-8 ;$ | $319-18 ;$ | $320-30 ;$ | $321-4 ;$ | $322-15 ;$ | $323-35 ;$ | $324-35 ;$ |


| $325-1 ;$ | $326-10 ;$ | $327-6 ;$ | $328-60 ;$ | $329-2 ;$ | $330-22 ;$ | $331-75 ;$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $332-12 ;$ | $333-13 ;$ | $334-30 ;$ | $335-8 ;$ | $336-35 ;$ | $337-13 ;$ | $338-13 ;$ |
| $339-8 ;$ | $340-32 ;$ | $341-13 ;$ | $342-5 ;$ | $343-7 ;$ | $344-20 ;$ | $345-32 ;$ |
| $346-33 ;$ | $347-8 ;$ | $348-40 ;$ | $349-3 ;$ | $350-13 ;$ | $351-128 ;$ | $352-32 ;$ |
| $353-56 ;$ | $354-24 ;$ | $355-20 ;$ | $356-20 ;$ | $357-30 ;$ | $358-103 ;$ | $359-37 ;$ |
| $360-61 ;$ | $361-30 ;$ | $362-12 ;$ | $363-80 ;$ | $364-310 ;$ | $365-72 ;$ | $366-5 ;$ |
| $367-67 ;$ | $369-103 ;$ | $370-56 ;$ | $371-9.6 ;$ | $372-6 ;$ | $373-106 ;$ | $375-9.6 ;$ |
| $376-13 ;$ | $377-11 ;$ | $378-8 ;$ | $379-8 ;$ | $380-8 ;$ | $381-8 ;$ | $382-8 ;$ |
| $383-8 ;$ | $384-4 ;$ | $385-28 ;$ | $386-25 ;$ | $387-25 ;$ | $388-25 ;$ | $389-25 ;$ |
| $390-22 ;$ | $391-11 ;$ | $392-60 ;$ | $393-29 ;$ | $394-13 ;$ | $395-6 ;$ | $396-54 ;$ |
| $397-14 ;$ | $398-8 ;$ | $399-8 ;$ | $400-19 ;$ | $401-28 ;$ | $402-7 ;$ | $403-13 ;$ |
| $404-28 ;$ | $405-35 ;$ | $406-6 ;$ | $407-2 ;$ | $408-7 ;$ | $409-7 ;$ | $410-6 ;$ |
| $411-164 ;$ | $412-90 ;$ | $413-90 ;$ | $414-90 ;$ | $415-14 ;$ | $416-38 ;$ | $417-11 ;$ |
| $418-4 ;$ | $419-10 ;$ | $420-8 ;$ | $421-4 ;$ | $422-4 ;$ | $423-14 ;$ | $424-23 ;$ |
| $425-24 ;$ | $426-8 ;$ | $427-48 ;$ | $428-53 ;$ | $429-137 ;$ | $430-6 ;$ | $431-6 ;$ |
| $432-70 ;$ | $433-70 ;$ | $434-70 ;$ | $435-70 ;$ | $436-70 ;$ | $437-70 ;$ | $438-8 ;$ |
| $439-50 ;$ | $440-50 ;$ | $441-50 ;$ | $442-50 ;$ | $443-50 ;$ | $444-50 ;$ | $445-50 ;$ |
| $446-50 ;$ | $447-12 ;$ | $448-26 ;$ | $449-26 ;$ | $450-36 ;$ | $451-36 ;$ | $452-36 ;$ |
| $453-36 ;$ | $454-36 ;$ | $455-38 ;$ | $456-34 ;$ | $457-38 ;$ | $458-130 ;$ | $459-130 ;$ |
| $460-130 ;$ | $461-163$. |  |  |  |  |  |

# Per annum volume distribution in the book by Baronius describing mediaeval Rome 

| See Baronius, C., The Ecclesial and Secular Annals | Year | Emperors | Popes | Volume |
| :---: | :---: | :---: | :---: | :---: |
| from the Birth of Christ and until the Year 1198. Mos- |  | Augustus |  |  |
| cow, Typography of P. P. Ryabushinsky, 1913. (Baro- | 1 | 42 |  | $=20$ |
| nius. Annales ecclesiastici a Christo nato ad annum | 2 | 43 |  | $=20$ |
| 1198.) | 3 | 44 |  | -20 |
| The first column of the table indicates the year A.D. | 4 | 45 |  | $=20$ |
| The second column indicates the names of the | 5 | 46 |  | $=20$ |
| Roman emperors and the years of their reigns ac- | 6 | 47 |  | $=20$ |
| cording to Baronius. E.g., the first line: column 1, "1"; | 7 | 48 |  | $=20$ |
| column 2, "Augustus 42." This means that the year 1 | 8 | 49 |  | $=1$ |
| A.D. corresponds to the 42 nd year of the reign of | 9 | 50 |  | $=1$ |
| Augustus. | 10 | 51 |  | $=1$ |
| Along with the emperors, Baronius mentions Ro- | 11 | 52 |  | $=1$ |
| man Pontiffs (Popes) with years of their reigns (pon- | 12 | 53 |  | $=4$ |
| tificates). This data is presented in the third column. | 13 | 54 |  | $=4$ |
| The fourth column, separated from the third one by | 14 | 55 |  | $=4$ |
| an equal mark, indicates the volume of the part of Ba - | 15 | 56 |  | $=4$ |
| ronius' book describing this year, measured in cen- |  | Augustus |  |  |
| timeters of "height" that this text fragment occupies in | 16 | 57 |  | $=11$ |
| the book. Sometimes Baronius happens to describe a |  | and Tiberius |  |  |
| certain period of several years at once, that is, without |  | 1 |  |  |
| clarifying the precise year of a certain event within this | 17 | ? |  | $=11$ |
| fragment. In this case, we uniformly distribute the vol- | 18 | 2 |  | $=11$ |
| ume of this text fragment among all the years it con- | 19 | 3 |  | $=11$ |
| sists of, or divide the summarized volume by the num- | 20 | 4 |  | $=9$ |
| ber of years described, and assign the result - the av- | 21 | 5 |  | $=9$ |
| erage value - to every single year within this interval. | 22 | 6 |  | $=9$ |
|  | 23 | 7 |  | - 9 |
|  | 24 | 8 |  | $=9$ |
|  | 25 | 9 |  | $=9$ |


| Year | Emperors | Popes | Volume | Year | Emperors | Popes | Volume |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 10 |  | $=9$ | 68 | 12 | 24 | $=140$ |
| 27 | 11 |  | $=9$ | 69 | 13 | 25 | $=75$ |
| 28 | 12 |  | $=9$ |  |  | Lenus |  |
| 29 | 13 |  | $=9$ | 70 | 14 | 1 | $=5,5$ |
| 30 | 14 |  | $=9$ |  | Galba |  |  |
| 31 | 15 |  | $=9$ | 71 | 1 | 2 | $=29$ |
| 32 | 16 |  | $=8,5$ |  | Vespasian |  |  |
| 33 | 17 |  | $=32$ | 72 | 1 | 3 | $=78$ |
| 34 | 18 |  | $=133$ | 73 | 2 | 4 | $=26$ |
| 35 | 19 |  | $=36$ | 74 | 3 | 5 | $=11$ |
| 36 | 20 |  | $=18$ | 75 | 4 | 6 | $=18$ |
| 37 | 21 |  | $=6$ | 76 | 5 | 7 | $=4$ |
| 38 | 22 |  | $=15$ | 77 | 6 | 8 | $=3$ |
|  |  | Caia |  | 78 | 7 | 9 | $=3$ |
| 39 |  | 1 | $=21,5$ | 79 | 8 | 10 | $=3$ |
| 40 |  | 2 | $=22,5$ | 80 | 9 | 11 | $=6$ |
| 41 |  | 3 | $=23,5$ | 81 | 10 |  | $=40$ |
| 42 |  | 4 | $=15,5$ |  | Titus | Cletus |  |
|  | Claudius |  |  |  | 1 | 1 |  |
| 43 | 1 |  | $=48$ | 82 | 2 | 2 | $=7,5$ |
| 44 | 2 |  | $=136$ | 83 | 3 | 3 | $=11$ |
|  |  | St. Peter |  |  | Domitian |  |  |
| 45 | 3 | 1 | $=73$ | 84 | 1 | 4 | $=4$ |
| 46 | 4 | 2 | $=10,5$ | 85 | 2 | 5 | $=4,5$ |
| 47 | 5 | 3 | $=27$ | 86 | 3 | 6 | $=0,8$ |
| 48 | 6 | 4 | $=15$ | 87 | 4 | 7 | $=0,8$ |
| 49 | 7 | 5 | $=2,5$ | 88 | 5 | 8 | $=0,8$ |
| 50 | 8 | 6 | $=2,5$ | 89 | 6 | 9 | $=3,7$ |
| 51 | 9 | 7 | $=89$ | 90 | 7 | 10 | $=3,7$ |
| 52 | 10 | 8 | $=70$ | 91 | 8 | 11 | $=9$ |
| 53 | 11 | 9 | $=11,5$ | 92 | 9 | 12 | $=11$ |
| 54 | 12 | 10 | $=8,5$ |  |  | Clement |  |
| 55 | 13 | 11 | $=12,5$ | 93 | 10 | 1 | $=10$ |
| 56 | 14 | 12 | $=12,5$ | 94 | 11 | 2 | $=11$ |
|  | Nero |  |  | 95 | 12 | 3 | $=5$ |
| 57 | 1 | 13 | $=48$ | 96 | 13 | 4 | $=3,5$ |
| 58 | 2 | 14 | $=43$ | 97 | 14 | 5 | $=5$ |
| 59 | 3 | 15 | $=93$ | 98 | 15 | 6 | $=32$ |
| 60 | 4 | 16 | $=43$ |  | Nerva |  |  |
| 61 | 5 | 17 | $=15$ | 99 | 1 | 7 | $=13$ |
| 62 | 6 | 18 | $=4,5$ | 100 | 2 | 8 | $=45$ |
| 63 | 7 | 19 | $=10,5$ |  | Trajan |  |  |
| 64 | 8 | 20 | $=5$ |  | 1 |  |  |
| 65 | 9 | 21 | $=15$ | 101 | 2 | 9 | $=13$ |
| 66 | 10 | 22 | $=39$ | 102 | 3 | ? | $=13$ |
| 67 | 11 | 23 | $=9,5$ |  |  |  |  |



| Year | Emperors | Popes | Volume | Year | Emperors | Popes | Volume |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 178 | 16 | 4 | $=12$ | 216 | 4 | 14 | $=18$ |
| 179 | 17 | 5 | $=54$ | 217 | 5 | 15 | $=25$ |
|  |  | Eleutherius |  | 218 | 6 | 16 | $=5$ |
|  |  | 1 |  |  | Macrinus |  |  |
| 180 | 18 | 2 | $=3$ | 219 | 1 | 17 | $=3$ |
| 181 | 19 | 3 | $=4$ |  | Heliohabal |  |  |
|  | Commodus |  |  | 220 | 1 | 18 | $=35$ |
| 182 | 1 | 4 | $=17$ |  |  | Callistes |  |
| 183 | 2 | 5 | $=8$ | 221 | 2 | 1 | $=3,3$ |
| 184 | 3 | 6 | $=7$ | 222 | ? | 2 | $=3,3$ |
| 185 | 4 | 7 | $=1$ | 223 | ? | 3 | $=3,3$ |
| 186 | 5 | 8 | $=1$ |  | Alexander |  |  |
| 187 | 6 | 9 | $=1$ | 224 | 1 | 4 | $=28$ |
| 188 | 7 | 10 | $=4$ | 225 | 2 | 5 | $=5$ |
| 189 | 8 | 11 | $=2,7$ | 226 | 3 | 6 | $=22$ |
| 190 | 9 | 12 | $=2,7$ |  |  | Urban |  |
| 191 | 10 | 13 | $=3,5$ | 227 | 4 | 1 | $=5$ |
| 192 | 11 | 14 | $=15$ | 228 | 5 | 2 | $=1$ |
| 193 | 12 | 15 | $=6,5$ | 229 | 6 | 3 | $=4$ |
|  |  | Victor |  | 230 | 7 | 4 | $=6,5$ |
| 194 | 13 | 1 | $=8$ | 231 | 8 | 5 | $=99$ |
|  | Severus |  |  | 232 | 9 | 6 | $=10,5$ |
| 195 | 1 | 2 | $=14$ | 233 | 10 | 7 | $=24$ |
| 196 | 2 | 3 | $=14,5$ |  |  | Pontianus |  |
| 197 | 3 | 4 | $=4$ |  |  | 1 |  |
| 198 | 4 | 5 | $=38$ | 234 | 11 | 2 | $=3$ |
| 199 | 5 | 6 | $=4$ | 235 | 12 | 3 | $=3$ |
| 200 | 6 | 7 | $=16$ | 236 | 13 | 4 | $=7$ |
| 201 | 7 | 8 | $=41$ |  | Maximinus |  |  |
| 202 | 8 | 9 | $=28$ | 237 | 1 | 5 | $=15$ |
| 203 | 9 | 10 | $=13,5$ |  |  | Anterus |  |
|  |  | Zephyrinus |  | 238 | 2 | 1 | $=5$ |
|  |  | 1 |  |  |  | Fabian |  |
| 204 | 10 | 2 | $=24$ | 239 | 3 | 1 | $=5$ |
| 205 | 11 | 3 | $=64$ | 240 | 4 | 2 | $=6,5$ |
| 206 | 12 | 4 | $=25$ |  | Gordian |  |  |
| 207 | 13 | 5 | $=2$ | 241 | 1 | 3 | $=5$ |
| 208 | 14 | 6 | $=2$ | 242 | 2 | 4 | $=2,5$ |
| 209 | 15 | 7 | $=2$ | 243 | 3 | 5 | $=3,5$ |
| 210 | 16 | 8 | $=2$ | 244 | 4 | 6 | $=3,5$ |
| 211 | 17 | 9 | $=5$ | 245 | 5 | 7 | $=8$ |
| 212 | ? | 10 | $=5$ |  | Philipp |  |  |
|  | Caracalla |  |  | 246 | 1 | 8 | $=4,5$ |
| 213 | 1 | 11 | $=34$ | 247 | 2 | 9 | $=4,5$ |
| 214 | 2 | 12 | $=9$ | 248 | 3 | 10 | $=8$ |
| 215 | 3 | 13 | $=5,5$ | 249 | 4 | 11 | $=20$ |


| Year | Emperors | Popes | Volume | Year | Emperors | Popes | Volume |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 250 | 5 | 12 | $=6,5$ |  | Tacitus + Probus |  |  |
| 251 | 6 | 13 | $=6,5$ | 278 | 1 | 4 | $=4,5$ |
| 252 | 7 | 14 | $=9,5$ |  | Probus |  |  |
|  | Decius |  |  | 279 | 1 | 5 | $=6$ |
| 253 | 1 | 15 | $=76$ | 280 | 2 | 6 | $=4$ |
|  |  | Cornilius |  | 281 | 3 | 7 | $=3$ |
| 254 | 2 | 1 | $=144$ | 282 | 4 | 8 | $=3$ |
|  | Gallus + Volusius |  |  | 283 | 5 | 9 | $=6$ |
|  | 1 |  |  |  | Carinus |  |  |
| 255 | 2 | 2 | $=40$ |  | + Numerian | Gaia |  |
|  | Valerian |  |  |  | 1 |  |  |
|  | 1 | Lucius |  | 284 | 2 | 1 | $=8$ |
| 256 | 23 | 1 | $=42$ |  | Diocletian |  |  |
| 257 | 34 | 2 | $=21$ |  | 1 |  |  |
|  |  | Stephan |  | 285 | 2 | 2 | $=4$ |
|  |  | 1 |  | 286 | 3 | 3 | $=7$ |
| 258 | 4 | 2 | $=35$ | 287 | 4 | 4 | $=1$ |
| 259 | 5 | 3 | $=83$ |  | Diocletian |  |  |
|  | Valerian |  |  |  | + Maximinus |  |  |
|  | + Galien |  |  | 288 | 5 | 5 | $=3,5$ |
| 260 | 6 | 4 | $=48$ | 289 | 6 | 6 | $=3,5$ |
|  |  | Dionysius |  |  | Diocletian |  |  |
| 261 | 7 | 1 | $=15$ | 290 | 7 | 7 | $=2,6$ |
| 262 | 8 | 2 | $=76$ | 291 | 8 | 8 | $=2,6$ |
|  | Galien |  |  | 292 | 9 | 9 | $=5$ |
| 263 | 9 | 3 | $=60$ | 293 | 10 | 10 | $=19,5$ |
| 264 | 10 | 4 | $=34$ | 294 | 11 | 11 | $=3$ |
| 265 | 11 | 5 | $=19$ | 295 | 12 | 12 | $=3$ |
| 266 | 12 | 6 | $=7$ | 296 | 13 | 13 | $=3$ |
| 267 | ? | 7 | $=7$ |  | Marcellinus |  |  |
| 268 | ? | 8 | $=7$ | 297 | 1 | 14 | $=16$ |
|  | Claudius |  |  | 298 | 2 | 15 | $=33$ |
| 269 | 1 | 9 | $=15$ | 299 | 3 | 16 | $=4$ |
| 270 | 2 | 10 | $=3$ | 300 | 4 | 17 | $=7$ |
| 271 | 3 | 11 | $=19$ | 301 | 5 | 18 | $=52$ |
|  | Aurelian |  |  | 302 | 6 | 19 | $=88$ |
|  | 1 |  |  | 303 | 7 | 20 | $=90$ |
| 272 | 2 | 12 | $=10$ |  | Galerius |  |  |
|  |  | Felix |  |  | + Constans | Marcellus |  |
| 273 | 3 | 1 | $=13$ | 304 | 1 | 1 | $=81$ |
| 274 | 4 | 2 | $=8,5$ | 305 | 2 | 2 | $=50$ |
| 275 | 5 | 3 | $=3$ | 306 | 3 | 3 | $=65$ |
|  |  | Eutychianus |  |  | Constantine |  |  |
|  |  | 1 |  |  | 1 |  |  |
| 276 | 6 | 2 | $=3$ | 307 | 2 | 4 | $=68$ |
| 277 | 7 | 3 | $=14,5$ | 308 | 3 | 5 | $=14$ |


| Year | Emperors | Popes | Volume | Year | Emperors | Popes | Volume |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 309 | 4 | 6 | $=33$ | 344 | 8 | 8 | $=21$ |
|  |  | Eusebius |  | 345 | 9 | 9 | $=14$ |
|  |  | 1 |  | 346 | 10 | 10 | $=18$ |
| 310 | 5 | 2 | $=35$ | 347 | 11 | 11 | $=66$ |
| 311 | 6 | 3 | $=39$ | 348 | 12 | 12 | $=52$ |
|  |  | Melhiades |  | 349 | 13 | 13 | $=21$ |
|  |  | 1 |  | 350 | 14 | 14 | $=49$ |
| 312 | 7 | 2 | $=66$ | 351 | 15 | 15 | $=61$ |
| 313 | 8 | 3 | $=64$ | 352 | 16 | 16 | $=11$ |
|  |  | Silvester |  |  |  | Liberius |  |
| 314 | 9 | 1 | $=51$ |  |  | 1 |  |
| 315 | 10 | 2 | $=28$ |  | Constantius |  |  |
| 316 | 11 | 3 | $=60$ | 353 | 17 | 2 | $=61$ |
| 317 | 12 | 4 | $=14$ | 354 | 18 | 3 | $=22$ |
| 318 | 13 | 5 | $=61$ | 355 | 19 | 4 | $=100$ |
| 319 | 14 | 6 | $=20$ | 356 | 20 | 5 | $=108$ |
| 320 | 15 | 7 | $=10$ | 357 | 21 | 6 | $=67$ |
| 321 | 16 | 8 | $=30$ | 358 | 22 | 7 | $=30$ |
| 322 | 17 | 9 | $=2,5$ | 359 | 23 | 8 | $=126$ |
| 323 | 18 | 10 | $=8$ | 360 | 24 | 9 | $=93$ |
| 324 | 19 | 11 | $=137$ | 361 | 25 | 10 | $=99$ |
| 325 | 20 | 12 | $=192$ |  | Julian |  |  |
| 326 | 21 | 13 | $=78$ | 362 | 1 | 11 | $=462$ |
| 327 | 22 | 14 | $=70$ | 363 | 2 | 12 | $=188$ |
| 328 | 23 | 15 | $=3$ |  | Jovian |  |  |
| 329 | 24 | 16 | $=15$ | 364 | 1 | 13 | $=35$ |
| 330 | 25 | 17 | $=29$ |  | Valentinian + Valens |  |  |
| 331 | 26 | 18 | $=22$ |  | 1 |  |  |
| 332 | 27 | 19 | $=11$ | 365 | 2 | 14 | $=38$ |
| 333 | 28 | 20 | $=8$ | 366 | 3 | 15 | $=42$ |
| 334 | 29 | 21 | $=8$ | 367 | 4 | 16 | $=72$ |
| 335 | 30 | 22 | $=58$ |  |  | Damasus |  |
|  |  | Marcus |  |  |  | 1 |  |
| 336 | 31 | 1 | $=86$ | 368 | 5 | 2 | $=27$ |
|  |  | Julius |  | 369 | 6 | 3 | $=42$ |
| 337 | 32 | 1 | $=91$ | 370 | 7 | 4 | $=205$ |
|  | Constantine |  |  | 371 | 8 | 5 | $=106$ |
|  | tans + Cons |  |  | 372 | 9 | 6 | $=172$ |
|  | 1 |  |  | 373 | 10 | 7 | $=49$ |
| 338 | 2 | 2 | $=43$ | 374 | 11 | 8 | $=29$ |
| 339 | 3 | 3 | $=18$ | 375 | 12 | 9 | $=65$ |
| 340 | 4 | 4 | $=72$ |  | Valens + Gratian |  |  |
| Constans + Constantius |  |  |  |  | 1 |  |  |
| 341 | 5 | 5 | $=40$ | 376 | 132 | 10 | $=21$ |
| 342 | 6 | 6 | $=42$ | 377 | 143 | 11 | $=50$ |
| 343 | 7 | 7 | $=7$ | 378 | 154 | 12 | $=112$ |


| Year |  | perors | Popes | Volume | Year | Emperors | Popes | Volume |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Theodosius + Gratian |  |  |  |  | 391 | 138 | 7 | $=82$ |
| 379 | 1 | 5 | 13 | $=64$ | 392 | 149 | 8 | $=75$ |
| 380 | 2 | 6 | 14 | $=54$ |  | Theodosius |  |  |
| 381 | 3 | 7 | 15 | $=155$ | 393 | 15 | 9 | $=47$ |
| 382 | 4 | 8 | 16 | $=66$ | 394 | 16 | 10 | $=122$ |
| 383 | 5 | 9 | 17 | $=90$ | 395 | 17 | 11 | $=114$ |
| Theodosius + Valentinian |  |  |  |  |  | Arcadius |  |  |
| 384 | 6 | 1 | 18 | $=51$ |  | + Honorius |  |  |
|  |  |  | Siricius |  |  | 1 |  |  |
| 385 | 7 | 2 | 1 | $=59$ | 396 | 2 | 12 | $=47$ |
| 386 | 8 | 3 | 2 | $=97$ | 397 | 3 | 13 | $=77$ |
| 387 | 9 | 4 | 3 | $=92$ |  | Anastasius |  |  |
| 388 | 10 | 5 | 4 | $=139$ | 398 | 4 | 1 | $=120$ |
| 389 | 11 | 6 | 5 | $=90$ | 399 | 5 | 2 | $=66$ |
| 390 | 12 | 7 | 6 | $=82$ | 400 | 6 | 3 | $=110$ |

# The "double entry" of the Biblical royal reigns of Israel and Judah 

The Kingdom of Judah (Theocratic), allegedly dating from 928-587 в.с. ([72], p. 192), and the Kingdom of the Israelites (Theomachy), allegedly dating from 922-724 в.c. ([72], p. 192), are described in the Old Testament, in books 1-2 Samuel $+1-2$ Kings and 12 Paralipomenon. The Bible contains both a direct enumeration of reign durations of the kings of Israel (and respectively Judah) and the years of their reign related to the sequence of the kings of Judah (and respectively Israel).

Thus, there appear two possibilities for calculating reign durations for all these kings. N.A.Morozov wrote the following on the subject:
"The book of the Theomachist and the Theocratic Kings fails to list them in a simple chronological sequence, resorting to an extremely complex one instead, which is, reminiscent of the so-called 'doubleentry' in modern accounting whereby every mistake reveals itself immediately and provides an opportunity to correct the same... With an explicit intention in mind, something very serious has been conceived and systematically performed. For every theocratic king, first, the time of his reign is stated directly in years or fragments of a year, and second, it is marked in which year of reign of a theomachist king nearest in time he began his reign, and in which year of reign of his successor he died. The same has been done, vice versa, for every theocratic king" ([544], Vol. 7, p. 310).

Comparative chronological tables are presented in ([544], Vol. 7, pp. 311-318). Research into the comparative Biblical chronology of the kingdoms of Israel and Judah has been undertaken by many scientists,
such as Munt, d'Oeilly, Clerk, Usher, Horn, and Halls ([544], Vol. 7, pp. 311-318). They were all bound to the limitations of the Scaligerian chronology, and were thus primarily interested in minute adjustments of certain reign durations.

For the purposes of verification, independent of [544] and the research enumerated, we have completely restored this "Biblical double-entry." The result is presented in fig. r6.4.1, fig. r6.4.2, fig. r6.4.3, fig. r6.4.4, fig. r6.4.5, fig. r6.4.6.

Double-entry, or the mutual re-calculation of the dynastic streams of Israel and Judah, in general conforms well to direct statements of the durations of these reigns in the Bible. However, one keeps running into dissent and controversy here, which is usually explained away by the fact that the Bible does not mark out the periods of the common reigns of two kings in any special way. Such common reigns did actually take place; it is the "double-entry" system which makes it possible to restore them. The system also makes it possible to discover periods of strife and interregnum, when there were no rulers. Without going into much detail, we shall merely cite the final results. Below, we shall see that the name of a king is followed by two numbers - the durations of his reign in direct and indirect counting. If a direct number cannot be checked on the Judah scale (that means there is no triple conformity stated in the Bible), we insert a question mark instead of a number.

Jeroboam (I) 22-?, Nadab 2-?, Vaasha 24 or 23, Elah 2 or 1,Zimri 7 days-?, Omri 12-7, Ahab 22-20, Ahaziah 2-1, Joram 12-8, Jehu 28-29, Jehoahaz 17-14, Joash


Fig. r6.4.1. Comparative locations of the Judean (theocracy), and the Israelite (theomachy) dynastic currents in the Bible. This is the so-called "double-entry chronology" of the Israelite and the Judean kings. Part one.


Fig. r6.4.2. Comparative locations of the Biblical Israelite and the Judean reigns. Part two.


Fig. r6.4.3. Comparative locations of the Biblical Israelite and the Judean reigns. Part three.


Fig. r6.4.4. Comparative locations of the Biblical Israelite and the Judean reigns. Part four.


Fig. r6.4.5. Comparative locations of the Biblical Israelite and the Judean reigns. Part five.


Fig. r6.4.6. Comparative locations of the Biblical Israelite and the Judean reigns. Part six.

16-18, Jeroboam (II) 41-52, Zechariah 6 months-?, Shallum 1 month-?, Menahem 10-11, Pekahiah 2-?, Pekah 20-?, Hoseah 1-3.

Now we shall provide references to all fragments of the Bible, which provided for the basis of the construction of the complete table of "dual entry" that we present on the structures above. We have not performed any special calculations, just very carefully plotted both dynastic streams along the time axis meticulously considering all Biblical data regarding their mutual position.

1) Rehoboam reigned for 17 years ( 1 Kings 14:21).
2) Jeroboam reigned for 22 years ( 1 Kings 14:20).
3) Abijah (Abijam) reigned for 3 years ( 1 Kings 15:2). He became king in the 18th year of Jeroboam I (1 Kings 15:1).
4) Nadab (Nabath) reigned for 2 years and became king in the 2nd year of Asa of Judah, i.e., immediately after JeroboamI in his dynastic current ( 1 Kings 14:20, 15:25).
5) Asa (Jesus?) reigned for 41 years and became king in the 20th year of Jeroboam I ( 1 Kings 15:9-10).
6) Baasha became king in the 3rd year of Asa (Jesus?) and reigned for 24 years (1 Kings 15:33). Thus, Baasha became king in the 3rd-4th year of Asa (Jesus?), when compared to Nadab. Otherwise, in his first year Baasha reigned jointly with Nadab.
7) Elah became king in the 26th year of Asa (Jesus?) and reigned for 2 years ( 1 Kings 16:8). Elah turns out to have reigned jointly with Baasha.
8) Zimri (Zimvri) became king in the 27 th year of Asa (Jesus?) and reigned for 7 days ( 1 Kings 16:9, 15). Thus, Zimri reigned in the time of Baasha and Elah - does this mean there was a third co-ruler?
9) Amariah became king in the 31st year of Asa (Jesus?) and reigned for 12 years ( 1 Kings 16:23). Thus, an interval of 3 years separates Amariah from Elah (and Baasha).
10) Ahab became king in the 38th year of Asa (Jesus?) and reigned for 22 years ( 1 Kings 16:29).
11) Josaphat became king in the 4th year of Ahab and reigned 25 years ( 1 Kings 22:41,42). Thus, an interval of 1 year occurs between Josaphat and Asa, and Josaphat becomes king in the 11th year of Amariah. Thus, Ahab and Amariah turn out to have been corulers with a 5 -year period of common reign.
12) Ahaziah (Ohoziah) became king in the 17th year of Josaphat and reigned for 2 years ( 1 Kings 22:51).
13) Joram of Israel (the Theomachist) became king in the 18th year of Josaphat and reigned for 12 years (2 Kings 3:1). Thus, Ahaziah turns out to have reigned together with Ahab for 1 year, and with Joram for 1 year. This fact conforms with another indication in the Bible that Joram became king immediately after Ahab (2 Kings 3:5-6). But there also exists another version: "Joram succeeded him as king in the second year of Jehoram son of Josaphat king of Judah" (2 Kings 1:17). We certainly fix both variants.
14) Joram of Judah (Theocracy) became king in the 5th year of Joram of Israel and reigned for 8 years ( 2 Kings 8:16-17). Thus, Joram turns out to have reigned together with Josaphat for 2 years.
15) Ahaziah (Ohoziah) of Judah (Theocracy) became king in the 12th year of Joram of Israel (the Theomachist) and reigned for 1 year (2 Kings 8:2526). In another version, he became king in the 11th year of Joram of Israel (2 Kings 9:29), and turns out to have died simultaneously with him (2 Kings 9:27). Therefore, he did actually reign for 1 year. In both variants, he reigned together with Joram of Judah (his father) all of the time.
16) Athaliah (Gotholiah), an usurper, became king immediately after the death of Ahaziah of Judah (thus, of Joram as well) and reigned for 6 years (2 Kings 11:1,3).
17) Jehu became king immediately after the death of Joram of Israel (1 Kings 9:27-28), and reigned for 28 years (2 Kings 10:36).
18) Joash of Judah became king in the 7th year of Jehu (therefore, immediately after Athaliah) and reigned for 40 years (2 Kings 12:1).
19) Joahaz of Israel became king in the 23rd year of Joash of Judah and reigned for 17 years ( 2 Kings 13:1). Thus, a gap of 2 years occurs between Jehu and Joahaz.
20) Jehoash of Israel became king in the 37th year of Joash of Judah and reigned for 16 years ( 2 Kings 13:10). Thus, Joash reigned together with Jehoahaz for 3 years.
21) Amaziah of Judah became king in the 2nd year of Jehoash of Israel and reigned for 29 years ( 2 Kings $14: 1,2)$. Thus, Amaziah reigned together with Joash of Judah for 1 year.
22) Azariah (Hozeah) of Judah became king after the death of Amaziah in the 14th or 15th year of Jeroboam II, if we assume him to have become king
immediately after the death of Amaziah (2 Kings 14:13-21). He reigned for 52 years ( 2 Kings 15:2). However, the 15th year of the reign of Azariah (Czar?) is referred to in this part of the Bible "following the death" of Amaziah in the 14th year of Jeroboam II. Therefore, such an indication cannot be considered unambiguous - the Bible does not state that Azariah (Czar?) became king immediately after the death of Amaziah (2 Kings 14:13-21). This creates opportunities for all kinds of different interpretations. However, most likely to eliminate doubt in this respect, a few verses later the Bible does explicitly define the time of reign of Azariah (Hozeah): "In the twenty-seventh year of Jeroboam king of Israel, Azariah son of Amaziah king of Judah commenced his reign. He was sixteen years old when he became king, and he reigned in Jerusalem for fifty-two years" (2 Kings 15:1-2). Regarding the two following shortterm kings of Israel, there is a certain confusion regarding the scale of Judah as well.
23) Zechariah became king in the 38th year of Azariah (Czar?) and reigned for 6 months ( 2 Kings 15:8).
24) Shallum (Shollom or Shallom) became king in the 39th year of Azariah (Czar?) and reigned for 1 month (2 Kings 15:13). Moreover, Shallum is said to have reigned immediately after Zechariah (2 Kings 15:10). The difficulty in dating this pair of kings (the two of whom reigned for 7 months only) is related to the insufficient clarity as to which position of Azariah on the time scale the indication of the years of their reigns is related to. As a matter of fact, the Bible provides two variants for Azariah, q.v. above, differing by 12-13 years. Namely, the pair ZechariahShallum "fluctuates" around this time interval. At the same time, the Bible says that "Jeroboam rested with his fathers, the kings of Israel. And Zechariah his son succeeded him as king" (2 Kings 14:29). This is a standard Biblical formula used to indicate, in other cases as well, an immediate succession of kings. Researchers usually call this obscure period, lasting for 23-24 years (see below), "interregnum." In view of the reign of Zechariah immediately following that of Jeroboam II, we place him in our table immediately after Jeroboam II, together with Shallum. The period of interregnum where the pair Zechariah-Shallum "fluctuates" be-
gins immediately after the death of Jeroboam II and ends with the coronation of Menahem.
25) Menahem became king in the 39th year of Azariah (Czar?) and reigned for 10 years ( 2 Kings 15:17). Thus, the interregnum lasted from the 14th or 15th year of Azariah (Czar?) until the 39th year of Azariah.
26) Pekahiah became king in the 50th year of Azariah (Czar?) and reigned for 2 years (2 Kings 15:23). Thus, one year is missing between Menahem and Pe kahiah.
27) Fakh (Pekah) became king in the 52nd year of Azariah (Czar?) and reigned for 20 years ( 2 Kings 15:27).
28) Jotham of Judah became king in the 2nd year of Fakh and reigned for 16 years (2 Kings 15:32-33). Thus, two years are missing between Hozeah and Jotham. Note: If we assume that the author of the book made a mistake and confused Pekahiah with Pekah, this gap disappears.
29) Ahaz of Judah became king in the 17th year of Fakh and reigned for 16 years (2 Kings 16:1-2). Thus, Ahaz and Jotham reigned jointly for one year.
30) Hoseah became king in the 20th year of Jotham and reigned for 9 years ( 2 Kings 15:30, 17:1). A complication arises in relation to the fact that Jotham reigned for 16 years only. However, if we consider the indication "in the 20th year of Jotham" merely as information that Hoseah became king 20 years after Jotham did, this complication disappears, and a gap, probably anarchy, appears between the reigns of Hoseah and Fakh. However, different researchers define the length of this strife in different ways ([544], Vol. 7 , p. 311-318). Sometimes a term of 9 years is assumed, since the Bible also says that Hoseah became king in the 12th year of Ahaz (2 Kings 17:1), which leads to a gap of 9 years. We discuss the questions arising in reference to the reign of Hoseah in the chapter dedicated to dynastic parallelisms. The Kingdom of Israel ends with Hoseah.

The Kingdom of Judah continues to exist: Manasseh, 55 years; Amon, 2 years; Josiah, 31 years; Jehoahaz, 3 months; Jehoiakim, 11 years; Jehoiachin, 3 months; Zedekiah, 11 years. Zedekiah is the last king of Judah.

# Armenian history. Emperors of the Holy Roman Empire of the alleged X-XIII century A.D., a.k.a. the Kings of Judah, a.k.a. the mediaeval Armenian Catholicoses 

## 1. <br> THREE PHANTOM REFLECTIONS OF THE SAME MEDIAEVAL DYNASTY

Let us take the well-known list of Armenian Catholicoses, or the supreme Patriarchs of the Armenian Church, spanning the period from the alleged year 30 A.D. to 1909 A.D. It was published in 1913 in Moscow by Ch. Barkhudaryan's printing house. The succession of the Armenian Catholicoses naturally continues into the XX century, but this epoch is of no interest to us.

Armenian history is considered to be rooted in deep antiquity, which is supposed to be supported by Armenian documents, the earliest of which are said to date back to the I century a.d. However, a closer look reveals the fact that Armenian history is in no way free from the problems we encountered when studying Roman, Greek, and Byzantine history. Armenian history gets substantially shorter, and this "condensation" conforms well with a similar condensation of other branches of "ancient history."

An appropriate general note: the Scaligerian version believes Roman history to be the most dependable and documented. Scaligerian history of other "ancient" European, Asian, and African states is substantially less lucid, and frequently relies on the Roman history. However, our research has already proved that Roman history is full of deep contradic-
tions, contains a large number of duplicates and can thus be truncated substantially.

Therefore we have reasons to expect this truncation effect to manifest itself more explicitly in the "weaker" chronologies of other countries, and we were convinced this was actually the case when we considered examples of Greek, Egyptian, and other branches of ancient history, q.v. above. Chinese history is a separate paradigm altogether, and a substantial part of Chrons deals with it.

Let us now proceed with the Armenian history.

## Statement 1

We have discovered an amazing dynastic parallelism, presented in fig. r6.5.1, between:
a) the dynasty of the Armenian Catholicoses, from the alleged year 922 A.D. until 1286 A.D., and
b) the Imperial Roman dynasty of the Holy Roman Empire, the alleged X-XIII century A.D.

Besides, as stated above, the same Roman-German dynasty of the alleged X-XIII century is most likely described in the Bible as the Kingdom of Judah. Thus, the same royal mediaeval dynasty of the X-XIII century A.D., or the Habsburg (Nov-Gorod?) dynasty of the XIV-XVI century, was reflected in different documents under the names of:

1) The Roman-German emperors of the alleged $X$ XIII century A.D.,


Fig. r6.5.1. Triple superposition of mediaeval Armenian Catholicoses over the mediaeval Holy Roman Empire of the alleged X-XIII century and the "ancient" Judean kings described in the Bible, with a rigid shift of roughly 1840 years.
2) The Armenian Catholicoses of the alleged $X$ XIII century A.D.,
3) The Biblical Kings of Judah of the alleged X-VI century в.c.

It is a curious fact that there is no time shift between the Roman-German emperors and the Armenian Catholicoses - the Scaligerian chronology locates them in the same historical epoch, the alleged X-XIII century A.D. - while the Biblical description of the same dynasty "slid down" by approximately 1,838 years, with the Graeco-Biblical shift.

## Statement 2

The beginning of the list of the Armenian Catholicoses from the alleged I century A.D. until the $X$ century A.D., is not independent either, since it contains a partial reproduction of the mediaeval history of the X-XIII century A.D., as well as that of the XIV-XVI century A.D., - that is, yet another duplicate, phantom reflection.

## Statement 3

The list of the Armenian Catholicoses allegedly of the I-XIII centuries A.D. is probably a phantom duplicate of the artificially extended Scaligerian history of Rome-Rhomaioi of the alleged I-XIII century A.D. In other words, it was made up after the Scaligerian school had constructed the erroneous chronological framework of Rome-Rhomaioi. Those who compiled the list of the Armenian Catholicoses (in the XVII-XVIII century) must have reproduced the erroneous extended version of the Rome-Rhomaioi history, artificially extended to span the long period of the alleged I-XIII century A.D.

Armenian history probably begins from a number of documents that relate the actual history of the mediaeval Empire of the XIV-XVI century, which certain documents called Roman. One shouldn't assume, however, that the Rome of the annals had always been identified with the city in Italy. According to the Scaligerian version, Armenia has for a long time been a part of the Roman Empire. Moreover, the word Armenia itself clearly is a distorted version of Romania or Rhomaioi, also indicating the Rhomaioi-Roman origin of the Armenian history of the X-XIII and the XIV-XVI century A.D. In the procrastinated Scaligerian history it is shifted into the "deep past," which is possibly explained by the following.

## Hypothesis

Genuine chronicles describing the history of the Eurasian empires of the X-XIII and the XIV-XVI century wound up on the territory of one of the imperial areas known later as Armenia. These metropolitan chronicles were adopted by local intellectuals as their own, truly local, history and erroneously laid in the foundation of the history of Armenia. Chronicles were re-written, edited, and included in the local history of Armenia by the Armenian historians of the XVII-XVIII century. In doing so, they called the great emperors "Armenian Catholicoses."

Traces of the metropolitan Imperial origin of the "Armenian Catholicoses" can be found in the very word "Catholicos" - a slightly distorted version of Kapholic or Catholic. "KaPHolic" is the word the Orthodox Church uses for referring to itself to this day. "CaTHolic" is what the Occidental Church is called nowadays. The letters $\theta$ (PH, phita) and $T$ were subject to flexion all the way; therefore, Kapholic and Ca tholic must have been the same word in the Middle Ages.

Thus, the term "Armenian Catholicoses" may have originally been a slight distortion of the term "Rhomaioi or the Roman Kapholics or Catholics," with the memory of the relation subsequently lost.

The events we're looking at may have occurred in a slightly different manner. The territory occupied by the contemporary Armenia was formerly a province within the Empire. Local chroniclers meticulously recorded the history of the huge Empire, mostly concerned with its distant emperors. One shouldn't assume the scribes were necessarily referring to the Italian Rome. Subsequent historians in their concern for the reconstruction of Armenian history, considered these chronicles to have referred to local events. The rulers described in the old chronicles were given the name of the "Armenian Catholicoses." Since then the chronicle has been believed to describe the ancient history of a small state on the territory of the contemporary Armenia.

The history of actual Armenia, or the history of the inhabitants of contemporary Armenia, is probably known to us starting with the XIV-XV century a.D. the earliest, all preceding history being a phantom reflection of that which was supposed to immortalize the gigantic Empire.


Fig. r6.5.2. A historical superposition of the mediaeval Armenian Catholicoses of the alleged I-XIII century A.D. over the phantom Scaligerian history of the mediaeval Rome of the alleged I-XIII century A.D. Part one.


Fig. r6.5.3. A historical superposition of the mediaeval Armenian Catholicoses of the alleged I-XIII century A.D. over the phantom Scaligerian history of the mediaeval Rome of the alleged I-XIII century A.D. Part two.


Fig. r6.5.4. A historical superposition of the mediaeval Armenian Catholicoses of the alleged I-XIII century A.D. over the phantom Scaligerian history of the mediaeval Rome of the alleged I-XIII century A.D. Part three.


The original of the Trojan war.


Fig, r6.5.5. A historical superposition of the mediaeval Armenian Catholicoses of the alleged I-XIII century A.D. over the phantom Scaligerian history of the mediaeval Rome of the alleged I-XIII century A.D. Part four.

## 2.

## THE PARALLELISM BETWEEN THE MEDIAEVAL ARMENIAN HISTORY AND THE PHANTOM ROMAN EMPIRE ACCORDING TO SCALIGER

Let us now go over the entire list of the Armenian Catholicoses, indicating their names, years and reign durations to demonstrate the parallelism between the Armenian and the Roman history of the alleged X-XIII century A.D. This parallelism is presented in fig. r6.5.2, fig. r6.5.3, fig. r6.5.4, and fig. r6.5.5, which display, along with the current of the Armenian Catholicoses, the dynastic stream of the phantom Roman-Rhomaioi history in the artificially extended Scaligerian chronology of the alleged I-XIII century A.D. As we understand, this pre-X century history actually consists of several phantom duplicates of the history of the XIXVII century. For the sake of not overcomplicating the picture, we shall merely point out the parallelism between the Armenian Catholicoses and the extended history of Rome-Rhomaioi. Then, having truncated the history of Rome, we shall automatically truncate and condense the Armenian history, shifting it into the epoch that begins from the XI century A.D., and is thus closer to us.

1a. The Armenian Catholicoses. The beginning of the list coincides with the beginning of A.D.

1) St. Thaddeus, beginning of reign is not exactly known, died in 50 A.D., reigned for about 50 years; therefore, his reign must have started around 1 A.D. It is a most curious fact that the list of the Armenian Catholicoses begins exactly with the beginning of the new era. This is hardly a mere coincidence, and we shall soon see for ourselves that this is truly a consequence of the chronological shift by approximately 1,000 years (the Roman shift). The list of the Catholicoses does not actually begin before the XII century A.D., which is also true for the list of Roman emperors.

■ 1b. The Roman history of the alleged I-III century A.D. The origins of the Second Roman Empire.

At the junction of the I century b.c. and the I century a.D., the Second Roman Empire begins its existence. The beginning of the new era is marked in the Scaligerian chronology by the Nativity of Jesus

Christ. Thus, the list of the Armenian Catholicoses begins virtually simultaneously with that of the Second Roman Empire.

2a. The Armenian Catholicoses of the alleged $50-230$ A.D.
2) St. Bartholomew, 50-68 A.D., reigned for 18 years.
3) St. Zakaria, 68-76, reigned for 8 years.
4) St. Zementus, 76-81, reigned for 4 years.
5) St. Atirnerseh, 81-97, reigned for 15 years.
6) St. Musche, 97-128, reigned for 30 years. Musche is most likely a slightly distorted version of the name Moisha, or Moses.
7) St. Schahen, 128-154, reigned for 25 years.
8) St. Schavarsch, 154-175, reigned for 20 years.
9) St. Leontius, 165-193, reigned for 17 years.
10) Lacuna, 193-230, lasts for 37 years. Names of Catholicoses lost for some reason. This is the end of the first part of the list of Catholicoses.

- 2b. The Roman history of the alleged I-III century A.D. The beginning of the Second Roman Empire and its end.
We approach the end of the Second Roman Empire, the alleged middle of the III century A.D. It is noteworthy that this is where the Scaligerian version of the Roman history from 217-250 A.D. placed one of the phantom duplicates of the Gothic-TrojanTarquinian war we spoke of above: the end of the Second Roman Empire, epoch of strife, anarchy, "soldier emperors," reign of Julia Maesa, the Gothic war of the alleged years 238-251 A.D. It is little wonder therefore, that the duplicate list of the Armenian Catholicoses reacts to this strife with a lacuna as well.

3a. The Armenian Catholicoses. Lacuna in the list.
11) St. Mehroujan, 230-260, reigned for 30 years.
12) Lacuna, 260-301, lasts for 41 years. Names of Catholicoses lost for some reason.

■ 3b. The Roman history allegedly of the III-IV century A.D. The beginning of the Third Roman Empire and strife.
It is noteworthy that this is where the Scaligerian version of the Roman history of the alleged years 275-284 A.D. placed another phantom duplicate of the Gothic-Trojan-Tarquinian war, see Chron1,

Chapter 5-6. This is the beginning of the Third Roman Empire, strife, and struggle for power between several emperors. The strife ends when, allegedly in 284 a.d., Diocletian the Divine comes to power. In the list of the Armenian Catholicoses we see a natural lacuna before Diocletian.

4a. The Armenian Catholicoses. St. Grigor I.
13) St. Grigor I Lousavorich, a.k.a. Grigor I the Enlightener, 301-325, reigned for 24 years. Grigor I opens the group of the Armenian Catholicoses who reigned from the alleged IV century, and had the title "The First" to their names. These are: Grigor I, Aristakes I, Vertanes I, Paren I, Houssik I, Nerses I, etc. Since the entire alleged IV century in the history of the Armenian Catholicoses is full of "The First" rulers, the IV century must have marked the beginning of some new chronicle. What could possibly be the matter here? Why were virtually all of the Armenian Catholicoses of the alleged IV century A.D. named "The Firs""? We obtain the answer by turning to the Scaligerian history of Rome of that epoch.

■ 4b. The Roman history of the alleged III-IV century A.D. Diocletian.
The Catholicos Grigor I, after a slight shift, is identified with the Roman Emperor Diocletian who had reigned for 21 years, allegedly from 284-305 A.D. Lengths of reigns - 24 and 21 - are fairly similar. Both Grigor I and Diocletian are enthroned after periods of civil war and strife. Diocletian's reign marks the beginning of Third Roman Empire. This is the new chronicle, which the list of the Armenian Catholicoses has quite justly marked by assigning the title "The First" to almost all of the Catholicoses who had reigned at that time.

5a. The Armenian Catholicoses. Aristakes I.
14) St.Aristakes I Parthian, 306-325-333, reigned for 27 years, out of which 8 final years as the sole ruler. At first, he had reigned together with Grigor I, in the position of co-adjutor from 306 till 325, then without co-rulers since 325 .

■ 5b. The Roman history of the alleged IV century A.D. Constantine I.

Aristakes I must be a duplicate reflection of Con-
stantine I Augustus, the famous emperor of the Third Roman Empire who had reigned for 31 years, allegedly from 306 till 337. The period and length of his reign ( 31 years) virtually coincide with that of Catholicos Aristakes I.

6a. The Armenian Catholicoses. Houssik $I=$ Jesus?
15) St.Vertanes I the Parthian 333-337, reigned for 4 years.
16) St.Houssik I the Parthian 341-347, reigned for 6 years. It is quite obvious that the name Houssik is a slightly distorted version of Jesus. Then other Catholicoses replace Houssik, but all of a sudden, in the alleged year 352, there appears another Houssik (this time a.k.a. Sahak of Manazkert) who reigns from 352 till 377, with interruptions. Furthermore, this "second Houssik" is not called "the Second". Therefore, this might as well be Houssik I we already know, otherwise authors would have assigned him the number "the Second". Subsequently, in the history of the Armenian Catholicoses we see a Houssik who had reigned between the alleged years 341-377, with interruptions.

Thus, the list of the Armenian Catholicoses features a Jesus, with the number "the First", in the first half of the IV century a.d. What happens in the Third Roman Empire at that time?

- 5b. The Roman history of the alleged IV century a.d. St. Basil the Great - a duplicate of Jesus Christ. In the history of the Third Roman Empire, in the alleged year 333 A.D., a famous religious figure was born, - St. Basil the Great, one of the phantom duplicates of Jesus Christ. See Chron2, Ch.1:5. He was not formally a Roman ruler, but according to the Scaligerian history, his political influence was enormous ([544]). The name Basil (Basileus) the Great simply means "The Great King". His birth, allegedly in 333 , virtually coincides with the "enthronement" of Houssik I, an Armenian Catholicos. St. Basil the Great is a phantom duplicate of Jesus from the XII century. St. Basil the Great allegedly died in 378 ([544]), and his Armenian duplicate Houssik I died in the alleged year 377. The dates virtually coincide. The Great King had lived for 45 years, while the Armenian Houssik had reigned for 36 years, with interruptions.

7a. The Armenian Catholicoses. Sahak $=I$ saak $=$ Jesus?
17) St. Daniel, 347, reigned for less than 1 year.
18) Paren I of Aschtischat, 348-352, reigned for 4 years.
19) Sahak I of Manazkert, a.k.a. Chonak, Houssik (!). Reigned with interruptions: in 352, from 359 till 363, and from 373 until 377. As we have already said, this is most likely Houssik I whose reign began in 341 and who is a duplicate of St. Basil the Great, who, in his turn, is a phantom reflection of Jesus Christ from the XII century a.d. See Chroni, Chapter 6. By the way, one can't fail to mention that the name Sahak is, most likely, just a variant for the name Isaak.
$\square 7 \mathrm{~b}$. The Roman history of the alleged IV century A.D. St. Basil the Great re-visited?

As we have already mentioned, St. Basil the Great (The Great King) had been active in the Third Roman Empire of that time, the alleged years 333378. This amazing identification of the Armenian Jesus with the Roman duplicate of Jesus is worth a deeper study. It would be extremely interesting to compare more detailed "biographies" of these two duplicates of the actual Jesus Christ from the XII century a.d.

8a. The Armenian Catholicoses. Nerses The Great.
20) St. Nerses I The Great, 353-373, temporarily removed from power of the alleged years 359-363, reigned either for 20 years (if we disregard the lacuna) or 16 years. He is a contemporary of Houssik described above called The Great, as one might expect looking at the history of the Third Roman Empire, the name of St. Basil the Great.
21) Houssik, 373-377. We have already discussed him.

■ 8b. The Roman history allegedly of the IV century a.d. Basileus the Great.

We're still in the epoch of St. Basil the Great, of the alleged years 333-378, who gave his name The Great to St. Nerses.

9a. The Armenian Catholicoses of the alleged years 381456 A.D.
22) Zaven Iof Manazkert,381-386, reigned for 5 years.
23) Lacuna, 386-387, lasts for 1 or 2 years. "The seat is vacant".
24) St. Sahak I The Great, 387-428, then expelled, and reigned again from 432 till 439 . Reigned for the total of either 52 years (if we disregard the lacuna) or 48 years.
25) Surmak I of Manazkert, Anti-Patriarch in 428, then discharged, and enthroned again reigning from 437 till 444 . Reigned either for 8 years (if we disregard the lacuna) or 7 years.
26) Birkisho the Syrian, 428-432, reigned for 4 years.
27) Schimuel the Syrian, Anti-Patriarch 432-437, reigned for 5 years.
28) St. Mesrop, 439-440, reigned for 1 year.
29) St. Hovsep I of Hoghotzim, 440-444-451-452, exiled in 451 , discharged in 452 , reigned either for 12 years or 8 years.
30) Melitus I, 452-456, reigned for 4 years.
-9b. The Roman history of the alleged V-VI century A.D. The period before the Gothic-Trojan war. We are not going to linger too long on the parallels revealing biographical similaities with the Roman rulers, pointing out only the most vivid and conspicuous superpositions. To observe one of those we shall regard the end of the $V$ - beginning of the VI century A.D. As we already know well, Roman history features the famous Gothic war of the alleged VI century, which is a phantom reflection of the Trojan-Tarquinian war of the XIII century A.D.
The names on the list of the Armenian Catholicoses are expected to reflect this circumstance. What are the most characteristic names and nicknames of the protagonists of the Trojan-GothicTarquinian war? A good Biblical example of such a name would be Moses. In the Gothic-Roman version there are such Gothic names as John and Narses, as well as the name TRN (Rus. TPH) and its variants TRNK (Rus. TPHK), etc. Besides, the Gothic war is a turning point in the Scaligerian phantom history of Rome, therefore, another group of rulers with the title "the First" is expected to appear on the Armenian list. We shall now watch these predictions of ours to confirm.

10a. The Armenian Catholicoses, of the alleged years 456-604 A.D. Goths, Moses, the exile of Guth.
31) Movses I of Manazkert, 456-461, reigned for 5 years.
32) St. Gut I of Araheze Kristapor I Arzruni, 461478 , reigned for 17 years. Banished in 471 . The same scenario recurs with the Goths in Rome, in the alleged VI century. Thus, it becomes clear why the name of this Catholicos is Gut, - i.e. Goth.
33) St. Hovhannes I Mandakouni, 478-490, reigned for 12 years. The seat relocates to Dvin in 484, during his time.
34) Babken I of Othmous, 490-515, reigned for 25 years.
35) Samuel I of Ardzke, 516-526, reigned for 10 years.
36) Mousche I of Ailaberk, 526-534, reigned for 8 years. The name Mousche is clearly related to the name Moishe, or the Biblical Moses.
37) Sahak II of Ouhki, 534-539, reigned for 5 years. His name obviously originates from the Biblical Isaac.
38) Kristapor I of Tiraritch, 539-545, reigned for 6 years. His name sounds very much like the familiar combination $T R R$ - a version of $T R N$ or $T R Q N$, or the name Tartar = Tatar.
39) Ghevont I of Erast, 545-548, reigned for 3 years.
40) Nerses I of Bagrevand, 548-557, reigned for 9 years.
41) Hovhannes II Gabeghian, 557-574, reigned for 17 years.
42) Movses II of Eghivart, 574-604, reigned for 30 years.

- 10b. The Roman history of the alleged VI century A.D. The famous Gothic-Trojan war.

We see the list of the Armenian Catholicoses lively responding to the phantom Gothic war of the alleged VI century. We see the Goths (the Armenian Gut), Movses mentioned twice, Hovhannes (John), the banishment of Gut (the exile of the Goths from Rome-Rhomaioi as a result of the war), Armenian "relocation of the seat", or the end of the Third Roman Empire. Also remarkable is the mention of the eunuch, or the military commander Narses (as in the Armenian Nerses) who contributed to the defeat of the Goths. Thus, the history of the Armenian Catholicoses from the 31st until the 42nd most likely reflects the Gothic-Trojan-Tarquinian war of the XIII century A.D. in its phantom variant of the VI century A.D.

11a. The Armenian Catholicoses, of the alleged years 607-967 A.D.
43) Vertanes Kertogh 604-607, reigned for 3 years.
44) Abraham I of Aghbatank, 607-615, reigned for 8 years.
45) Comitas I of Aghtzik, 615-628, reigned for 13 years.
46) Kristapor I Apahouni, 628-630, reigned for 2 years.
47) Yezer I of Parajenakert, 630-641, reigned for 11 years.
48) Nerses III of Ischkhan a.k.a. Schinogh, 641-652, reigned for 11 years, then was temporarily ousted, and reigned again from 658 till 661, for 3 years more.
49) Anastasius I of Akori, 661-667, reigned for 6 years.
50) Israel I of Othmous, 667-677, reigned for 10 years.
51) Sahak (Isaak?) III of Tzorapor, 677-701, reigned for 26 years.
52) Eghia I of Ardjesch, 703-717, reigned for 14 years.
53) Himastaser St.Hovhannes III of Otzoun, 717728, reigned for 11 years.
54) David I of Aramonk, 728-741, reigned for 13 years.
55) Tirdat I of Othmous, 741-764, reigned for 8 years.
56) Tirdat I of Dasnavork, 764-767, reigned for 3 years.
57) Sion I of Bavonk, 767-775, reigned for 8 years.
58) Yessai I of Egipatrouschc, 775-788, reigned for 13 years.
59) Stepanos I of Douinc, 788-790, reigned for 2 years.
60) Hovab I of Douinc, 790-791, reigned for 1 year.
61) Soghomon I of Garni, 791-792, reigned for 1 year.
62) Gueorg I of Oschakan, a.k.a. Oylorbuk, 792795, reigned for 3 years.
63) Hovsep II of Parpi, a.k.a. Karitch, 795-806, reigned for 11 years.
64) David II of Gagagh, 806-833, reigned for 27 years.
65) Hovhannes IV of Ova, 833-855, reigned for 22 years.
66) Zakaria I of Tzak, 855-877, reigned for 22 years.
67) Gueorg II of Garni, 878-898, reigned for 20 years.
68) St.Maschtotz I of Eghivart, 898-899, reigned for 1 year.
69) Hovhannes $V$ of Drashkonakert, 899-931, reigned for 32 years. The "relocation of the seat" in 928.
70) Stepanos II Rischtouni, 931-932, reigned for 1 year.
71) Theodoros I Rischtouni, 932-938, reigned for 6 years.
72) Yeghische I Rischtouni, 938-943, reigned for 5 years.
73) Anania I of Moks, 943-967, reigned for 24 years; during his reign, another "relocation of the seat" occurs in 943.

- 11b. The Roman history of the alleged $X$ century a.D. Two phantom duplicates of the Trojan war.

Pay attention to the last couple of Catholicoses in the list. Their reign falls on the phantom epoch of two more adjacent duplicates of the Gothic-TrojanTarquinian war, or the civil war in Rome-Rhomaioi of the alleged years 901-924, and the civil war that is presumed to have taken place in 931-954. See Chronl, Chapter 7, and fig. r6.5.2. The Armenian history immediately responds to these two duplicates - with the two "relocations of the seat" that are supposed to have occurred in the years 928 and 943 - with perfect timing, in other words!

Furthermore, in both Roman-Rhomaioi duplicates Theodora figures as one of the protagonists. In the first duplicate, she acts as Theodora I; in the second, as Theodora II, q.v. in Chron2, Chapter 2. This is exactly the point when Theodor I (as Theodoros $I$ ) appears on the Armenian list.

12a. The Armenian Catholicoses of the alleged 967-992 A.D.
74) Vahan I Suni, 967-969, reigned for 2 years.
75) Stepanos III of Sevan, 969-971, reigned for 2 years.
76) Khatchik I Arscharouni, 972-992, reigned for 20 years. Moved to Ani in the alleged year 991.

■ 12b. The Roman history of the alleged $X$ century A.D. This is where the Holy Roman Empire of the alleged X-XIII century begins.

We now find ourselves in an area full of extremely apparent dynastic parallelisms which were revealed by our statistical method, see Chroni, Chapter 5. In the history of Rome-Rhomaioi, we are now at the very roots of the Holy Roman Empire of the alleged X-XIII century A.D. The Armenian list immediately responds with a note of yet another "relocation of the seat" allegedly in 992. The parallelism is shown on fig. r6.5.2 and begins with the next Catholicos Sarkis I.

13a. The Armenian Catholicoses. Sarkis I.
77) Sarkis I of Sevan, 943-967, reigned for 27 years, In the first years of his reign, the "relocation of the seat" to Ani had occurred.

- 13b. Roman emperors, a.k.a. kings of Judah, of the alleged X-XIII century A.D. Henry $I=$ Rehoboam.
The duplicate, Emperor Henry I, reigned allegedly from 919, according to [415], and until 936, according to [76]. The reign duration thus equals 17 years. As we have earlier displayed, he is also described in the Bible as Rehoboam, the first King of Judah, who had also reigned for 17 years according to the Bible, and 17 years according to the tables of Bickerman [72], p. 192.
For the sake of convenience, we shall present the reign durations of the kings of Judah counting from the 1st year of King Rehoboam, or the moment of the foundation of the Kingdom of Judah. In accordance with the Scaligerian chronology, it happened in the alleged year 928 b.c. In accordance with the new chronology, however, the Kingdom of Judah most probably dates back to the XIII-XIV century a.d., q.v. above.
Thus, Rehoboam, the first King of Judah, reigned from year 0 and until the year 17 of the Kingdom of Judah.

14a. The Armenian Catholicoses. Petros I.
78) Petros I Guetadartz, 1019-1054, reigned for 35 years. In 1038, affirmed (confirmed?) on the see. During his time, a new "relocation of the seat" takes place - to Sebastia this time.
By the way, a part of his name reads Gueta or Goth, Goths. As soon as Goths appear on the Armenian list,
we immediately see a "relocation of the seat" - probably a reflection of the exile of Goths from RomeRhomaioi as a result of the Gothic-Trojan-Tarquinian war of the XIII century A.D. Armenian history certainly refers to the relocation of the seat during other epochs than those of the duplicates of the Gothic-Trojan-Tarquinian war.

- 14b. Roman emperors, a.k.a. kings of Judah, of the alleged X-XIII century a.d. Otto $I=$ Asa.
Duplicate - Emperor Otto I the Great, allegedly of 936-973, according to [76], had reigned for 37 years. He is also described in the Bible as Asa King of Judah, reigning from 20 to 61 of the Kingdom of Judah, or from 20 to 55 according to [72]. Thus, he had reigned for 41 years according to the Bible, or 35 years according to [72].

15a. The Armenian Catholicoses. Dioscoros.
79) Dioscoros of Sanai, Anti-Patriarch 1036-1038, had reigned for 1 or 2 years.

- 15b. Roman emperors, a.k.a. kings of Judah, of the alleged X-XIII century A.D. Lothair $=$ Abijah.
Duplicate - Emperor Lothair 947-950, according to [76], had reigned for 3 years. He is also described in the Bible as Abijah King of Judah from the years 17-20, according to [72], who had reigned for 3 years.

16a. The Armenian Catholicoses. Khatchik II.
80) Khatchik II of Ani, 1049-1060, had reigned for 6 or 11 years; 1049 till 1054, ruled together with Petros I. During his epoch, the relocation of the chair to Tavblour occurs - in 1057.

- 16b. Roman emperors, a.k.a. kings of Judah, of the alleged X-XIII century A.D. Otto III $=$ Joram + Ohoziah + Gotholiah.
Duplicate - Emperor Otto III 983-996, according to [64], or 983-1002, according to [76]. Had reigned for 13 years [64], according to one of the two versions giving us 13 or 19 . He is also described in the Bible as the sum of three kings of Judah, - Joram, Ohoziah, and Gotholiah, who had reigned for 13 years, according to [72], from the year 79 to 92 [72].

17a. The Armenian Catholicoses. Grigor II.
81) Vacancy (lacuna), 1060-1065. Lasts for 5 years.
82) Grigor II Vikaiasser, 1065-1105, had reigned for 40 years. In the beginning of his reign in 1065, a relocation of the seat to Tzamndav. His name, Vikaiasser, is the distorted 'Kaiser', which is natural - Kaiser Henry II is his duplicate, q.v. below. All the emperors of the Holy Roman Empire of German Nation were referred to as Kaisers.

- 17b. Roman emperors, a.k.a. kings of Judah, of the alleged X-XIII century A.D. Henry II + Conrad $=$ Joash.
The duplicate is the sum of the two emperors Henry II the Lame 1002-1024, according to [76], and Conrad 1024-1039, according to [76]. The reign duration of both equals 37 years. They are also described in the Bible as one king of Judah Joash, of the years 92-130, according to [72]. He had reigned for 38 years according to [72], or for 40 years according to the Bible.

18a. The Armenian Catholicoses. Georgh III.
83) Georgh III of Lori, 1069-1072, reigned for 3 years.

- 18b. Roman emperors, a.k.a. kings of Judah, of the alleged X-XIII century A.D. (?) = Athaliah.
No Roman duplicate could be found. In the Bible he is described as Athaliah King of Judah, of the years 95-101, who had reigned for 6 years according to the Bible.


## 19a. The Armenian Catholicoses. Barsegh I.

84) Sarkis of On, Anti-Patriarch 1076-1077, reigned for 1 year. Neither Roman nor Biblical duplicate discovered.
85) Theodoros Alahossik, Anti-Patriarch 1077-1090, reigned for 13 years. Neither Roman nor Biblical duplicate discovered.
86) Poghos of Varagh, Anti-Patriarch 1086-1087, reigned for 1 year.
Neither Roman nor Biblical duplicate discovered; probably because these three Catholicoses were considered Anti-Patriarchs, or usurpers. Besides, all three of them are "duplicated" by one legal Catholicos

Grigor II, who is already included in the parallel, see above.
87) Barsegh I of Ani, 1081-1113, reigned for 32 years; 1081 to 1105 , co-ruler of Grigor II.

■ 19b. Roman emperors, a.k.a. kings of Judah, of the alleged X-XIII century a.d. Henry III = Amaziah. Duplicate - Roman Emperor Henry III from 1028, according to [64], and until 1056, according to [76], reigned for 28 years. He is also reflected in the Bible as Amaziah King of Judah, dating from the years 130-159, according to [72]. The duration of his reign equalled 29 years, according to the Bible.

20a. The Armenian Catholicoses. Grigor III.
88) David Thornikian, Anti-Patriarch, reigned for 1 year in 1114. Neither Roman nor Biblical duplicate discovered, which is quite understandable: firstly, he was an Anti-Patriarch, or an usurper; secondly, he is "covered" by, or reigns together with, the legitimate monarch Grigor III who enters the parallel.
89) Grigor III Pahlavouni, 1113-1166, reigned for 53 years. During his time, the relocation of the seat to Hromkla. Isn't it Rome?

- 20b. Roman emperors, a.k.a. kings of Judah, of the alleged X-XIII century a.d. Henry IV = Hozeah (Azariah).
Duplicate - Emperor Henry IV from 1053, according to [64], who had reigned until 1106, according to [76], or for 53 years. A perfect coincidence of reign durations! He is also described in the Bible as Hozeah (Azariah) King of Judah, from the years 159-211 according to the Bible, who had reigned for 52 years, according to the Bible, or 43 years, according to [72].

21a. The Armenian Catholicoses. Nerses IV + Grigor IV.
90) St.Nerses IV Schnorhali, 1166-1173, reigned for 7 years.
91) Grigor IV Tegha, 1173-1193, reigned for 20 years. The sum of their reigns equals 27 years.

- 21b. Roman emperors, a.k.a. kings of Judah, of the alleged $X$-XIII century a.d. Henry $V=(?)$.
The Armenian pair is identified with their duplicate - Emperor Henry V, whose reign began in 1098, ac-
cording to [64], and ended in 1125, according to [76],-27 years! Precisely the summary reign duration of the Armenian pair.According to another version, Henry V had reigned from 1106. If so, then the Catholicos Nerses is a reflection of the first part of Henry's reign, and Grigor IV is that of the second.


## 22a. The Armenian Catholicoses. Grigor VI.

92) Grigor V Karavege, 1193-1194, reigned for 1 year. Neither Roman nor Biblical duplicate available.
93) Barsegh II of Ani, Anti-Patriarch, reigned for 1 year which is supposed to have been 1195. Neither Roman nor Biblical duplicate discovered. In both cases, this is probably explained by the fact that Grigor V had only reigned 1 year, while Barsegh II was an AntiPatriarch, or an usurper, and "covered" by Grigor VI who enters the parallel.
94) Grigor VI Apirat, 1194-1203, reigned for 9 years.

- 22b. Roman emperors, a.k.a. kings of Judah, of the alleged X-XIII century A.D. Lothair $=$ Jotham.
Duplicate - Emperor Lothair II 1125-1138, according to [76], reigned for 13 years. He is also described in the Bible as Jotham King of Judah from the years 211-227, according to [72], had reigned for 7 years according to [72] or 16 years according to the Bible.

23a. The Armenian Catholicoses. Hovhannes VI.
95) Hovhannes VI Medzabaro, 1203-1221, reigned for 18 years.

- 23b. Roman emperors, a.k.a. kings of Judah, of the alleged X-XIII century A.D. Conrad III = Ahaz. Duplicate - Emperor Conrad III 1138-1152, according to [76], reigned for 14 years. He is also described in the Bible as Ahaz King of Judah of years 227-243, according to [72], had reigned for 20 years, according to [72], or 16 years, according to the Bible.

24a. The Armenian Catholicoses. Constantine I.
96) Hananiah of Sebastia, Anti-Patriarch, had reigned for 1 year in 1204. Neither Roman nor Biblical duplicate available, since he was an Anti-Patriarch, or an usurper, and "covered" by Hovhannes VI already included in the parallel.
97) David III of Argagaghni, co-ruler who had reigned for 1 year in 1204. Neither Roman nor Biblical duplicate available, "covered" by Hovhannes VI for the same reason.
98) Constantine I of Bartzrberd, 1221-1267, reigned for 46 years.

- 24b. Roman emperors, a.k.a. kings of Judah, of the alleged X-XIII century A.D. Frederick $I I=M a-$ nasseh.
Duplicate - Emperor Frederick II from 1197 according to [64] till 1250 according to [72], reigned for 54 years. He is also described in the Bible as Manasseh, King of Judah, who had reigned for 55 years -285 to 340 , according to the Bible.
[196] points out the confusion between Frederick I and Frederick II in the mediaeval chronicles. The famous Frederick I was named Barbarossa, which is obviously very close to his Armenian nickname of Bartzrberd. Moreover, there are no other similar nicknames, neither in Roman nor in Armenian history.

25a. The Armenian Catholicoses. Hakob I.
99) Hakob I of Kla Gitnakan, 1267-1286, reigned for 19 years.

- 25b. Roman emperors, a.k.a. kings of Judah, of the alleged X-XIII century A.D. Charles of Anjou = Josiah.
Duplicate-Emperor Charles of Anjou from 1254, according to [415], until 1285, according to [196], reigned for 31 years. He is also described in the Bible as Josiah King of Judah who had reigned for 31 years -342 to 373 , according to the Bible. We find ourselves in the middle of the XIII century A.D., that is, in the epoch of the Gothic-TrojanTarquinian war.
One should mark the appearance of the combination Git, or Goth, in the Armenian name GitNakan. The rather noticeable echoes of the Gothic-Trojan-Tarquinian war will become more apparent over the time of the following several Armenian Catholicoses.

26a. The Armenian Catholicoses. Stepanos IV taken captive to Egypt.
100) Constantine II Pronagortz, 1286-1289, reigned for 3 years.
101) Stepanos IV of Rhomkla, 1290-1293, reigned for 2 or 3 years. In 1292, taken captive to Egypt! In 1293, the relocation of the seat to Sis.

- 26b. Roman emperors, a.k.a. kings of Judah, of the alleged X-XIII century a.d. Jehoahaz wages war against Pharaoh, becomes dethroned, and dies in captivity.
We are at the end of the parallel between the Armenian Catholicoses and the Germano-Roman emperors. The finale is marked by a spectacular event - the Armenian Stepanos IV turns out to have been taken captive to Egypt. This is the only mention of this kind in the entire rather lengthy list of the Armenian Catholicoses!
What we see in front of us provides substantial evidence for proving the existence of the parallel that we have just considered, simultaneously denoting its end.
We have indeed approached the end of the Kingdom of Judah when, in the epoch of the last kings of Judah, it was invaded by Neco the Egyptian Pharaoh and King Nebuchadnezzar. Jehoahaz King of Judah wages war against the Pharaoh Neco, albeit unsuccessfully, becomes dethroned and dies in captivity (2 Kings 23). Repercussions of this event have left their mark in the Armenian history of the XIII century A.D.
By the way, the nickname of Stepanos (Stephan) - "of Rhomkla" - sounds very much like the name Rome-Rhoma.

We approach the end of the parallel that we have discovered between the Armenian and the Rhomaioi-Roman-Biblical history of the alleged X-XIII century A.D. Let us recall that the actual epoch that these events belong to is most likely the XIV-XVI century a.d. See Chron6.

To complete the picture, we continue with the list of the Catholicoses until the end, though we were looking for no further duplicates therein as of the XIV century A.D. Most likely, it is only the chronological shift of one century that can manifest itself after that time. We shall leave the analysis to the reader.

27a. The Armenian Catholicoses. End of the parallel.
102) Grigor VII of Anavarza, 1293-1307, reigned for 14 years; in 1293, a relocation of the chair to Sis.
103) Constantine III of Caesarea, 1307-1322, reigned for 15 years.
104) Constantine IV of Lambron, 1322-1326, reigned for 4 years.
105) Hacob II of Tarsus, 1327-1341, then discharged, and reigned again from 1355 until 1359, 17 years altogether, or 32 years, if we disregard the lacuna.
106) Mekhitar I of Grner, 1341-1355, reigned for 14 years.
107) Mesrob I of Ardaze, 1359-1372, reigned for 13 years.
108) Constantine V of Sis, 1372-1374, reigned for 2 years.
109) Poghos I of Sis, 1374-13775, reigned for 3 years.
110) Theodoros II of Cilicia, 1377-1392, reigned for 15 years.
111) Gap (lacuna), 1392-1393, occupies 1 year.
112) Karapet I of Keghi Bobik, 1393-1408, reigned for 15 years.
113) Hacob III of Sis, 1408-1411, reigned for 3 years.
114) Grigor VIII Khantzogat, 1411-1416, reigned for 5 years.
115) Poghos II of Garni, 1416-1429, reigned for 13 years.
116) Constantine VI of Vahka, 1429-1439, reigned for 10 years.
117) Hovsep - tried to seize power about 1435.
118) Grigor IX Moussabegian, 1439-1441, reigned for 2 years.
119) Kirakos I of Virap, 1441-1443, reigned for 2 years. In 1441, a relocation of the seat to Etchmiadzin.
120) Grigor X Djelalbeguian, 1443-1466, reigned for 23 years.
121) Karapet of Tonat, Anti-Patriarch, 1446 , reigned for 1 year.
122) Aristakes II Athorakal, co-ruler from 1448 to 1466 , then reigns alone until 1470 ; thus, his reign duration equals 4 or 22 years.
123) Zakaria of Akhtamar, 1461-1462, reigned for 1 year.
124) Sarkis II, co-ruler from 1462 until 1470, then reigns alone until 1474; thus, his reign duration equals 4 or 12 years. In 1470-1474, he was called Sarkis II Atchatar.
125) Hovhannes VII Atchakir, co-ruler from 1470 until 1474, then reigns alone until 1484; thus, his reign duration equals 10 or 14 years.
126) Sarkis III Mussail, co-ruler from 1474 until 1484, then reigns alone from 1484 until 1515; thus, his reign duration equals 31 or 40 years.
127) Aristakes III, co-ruler reigned for 1 year in 1484.
128) Thaddeus I, co-ruler reigned for 1 year in 1499.
129) Yeghische II, co-ruler reigned for 1 year in 1504.
130) Hovhannes, co-ruler reigned for 1 year in 1505.
131) Zakaria II of Vagharschapat, co-ruler from 1507 until 1515 , then reigns alone until 1520 ; thus, his reign duration equals 5 or 13 years.
132) Sarkis IV of Georgia, co-ruler from 1515 until 1520 , then reigns alone until 1537 ; thus, his reign duration equals 17 or 22 years.
133) Grigor XI of Byzantium, 1537-1542, reigned for 5 years.
134) Stepanos V of Salmasd, 1542-1564, reigned for 22 years.
135) Michael I of Sebaste, co-ruler from 1542 until 1564 , then reigns alone until 1570 ; thus, his reign duration equals 6 or 28 years.
136) Barsegh, co-ruler, reigned for 1 year in 1549.
137) Stepanos VI, co-ruler, reigned for 1 year in 1567.
138) Grigor XII of Vagharschapat, co-ruler from 1552 until 1570, then reigns alone until 1587; thus, his reign duration equals 17 or 35 years.
139) Aristakes IV, co-ruler, reigned for 1 year in 1555.
140) Thaddeus II, co-ruler, reigned for 1 year in 1571.
141) Arakel, co-ruler, reigned for 1 year in 1575.
142) David IV of Vagharschapat, co-ruler from 1579 until 1587, then reigns alone until 1629; thus, his reign duration equals 42 or 50 years.
143) Melkhisedek I of Garni, co-ruler, reigned for 1 year in 1593.
144) Grigor XIII Sprapion co-ruler, reigned for 1 year in 1603.
145) Sahak (Isaak?) IV of Garni, co-ruler, reigned for 1 year in 1624.
146) Movses III of Tatev, 1629-1632, reigned for 3 years.
147) Philippos I of Aghbak, 1633-1655, reigned for 22 years.
148) Hacob VIII of Djoulfa, 1655-1680, reigned for 25 years.
149) Yeghiazar I, Anti-Patriarch in 1663 . Then, from 1682 until 1691 reigned for 9 years as Yeghiazar I of Aintab.
150) Gap (lacuna), 1680-1682, lasts for 2 years.
151) Nahapet I of Edessa 1691-1705, reigned for 14 years.
152) Gap (lacuna), 1705-1706, lasts for 1 year.
153) Alexander I of Djoulfa, 1706-1714, reigned for 8 years.
154) Astouadzatour I of Hamadan, 1715-1725, reigned for 10 years.
155) Karapet II of Zeytoun, 1726-1729, reigned for 3 years.
156) Abraham III of Crete, 1734-1737, reigned for 3 years.
157) Ghazar I of Tchahouk, 1737-1751, reigned for 14 years.
158) Hovhannes of Hakoulissa, Anti-Patriarch, reigned for 1 year in 1740.
159) Petros II of Khotour, locum tenens for Ghazar for 1 year (see above).
160) Minas I of Eghine, 1751-1753, reigned for 2 years.
161) Alexander II Karakaschian, 1753-1755, reigned for 2 years.
162) Sahak $V$ of Keghy Ahagin, 1755-1760, reigned for 5 years, but was not anointed.
163) Hacob $V$ of Schamakhi, 1759-1763, reigned for 4 years.
164) Simeon I of Erivan, 1763-1780, reigned for 17 years.
165) Gghoukas I Karine, 1780-1799, reigned for 19 years.
166) Hovsep Hargoutian, 1800-1801, reigned for 1 year, but was not anointed.
167) David V Gorganian, 1801-1804, reigned for 3 years.
168) Daniel I of Sourmari, 1801 , then did not reign until 1804, from 1804 until 1808 reigned again for 4 years.
169) Yeprem I of Tzoragueh, 1809-1831, reigned for 22 years.
170) Hovhannes VIII of Karbi 1831-1842, reigned for 11 years.
171) Nerses V of Ashtarak, 1843-1857, reigned 14 for years.
172) Mattheos I Tchouhadjian, 1858-1865, reigned for 7 years.
173) Gueorg V Kerestedjian, 1866-1882, reigned for 16 years.
174) Gap (lacuna), 1882-1885, lasts for for 3 years.
175) Macar I Ter-Petrossian, 1885-1891, reigned for 6 years.
176) Megerdich I Khrimian, 1892-1907, reigned for 15 years.
177) Mattheos II Izmirlian 1908-1909, reigned for 1 year.

# The identification of the "ancient" Kingdom of Judah with the Holy Roman Empire of the alleged X-XIII century A.D. The correlation between reign durations and biographical volumes 

This parallelism completes Table 9 from Chroni, Chapter 6, illustrating the dynastic parallelism between the two famous kingdoms. The parallelism is displayed in fig. 6.53 in Chronl, chapter 6.

## First Dynasty.

The "ancient" kings of Judah of the alleged years 928-587 в.с. Described in the Bible, 1-2 Samuel + 12 Kings, and 1-2 Paralipomenon. According to the Scaligerian chronology, the Kingdom of Judah dates back to 928 в.c. in its origins ([72]). Variants of reigns are taken from the Bible and [72]. With the parallelism we discovered, the Scaligerian 928 в.c. can be identified with 911 A.D.

Second Dynasty.
The dynastic current of the mediaeval Holy Roman Empire of the German Nation, of the alleged years 9111307 A.D. The majority of the Germano-Roman emperors are represented with the durations of their German reigns, that is, from the moment of their German coronation. Variants of reigns are taken from [76], [196], [64] and [415]. A rigid chronological shift of roughly 1838 years identifies the two dynasties with each other.

For every ruler, the following six numbers are given:
a) Biographical volumes of the kings of Judah, according to the Bible. We used the canonical edition of the Bible published by the Biblical Society. Volumes
were measured in lines, but for the purposes of computation convenience, the height of the relevant columns in the Bible was measured in centimeters. Therefore, the table shows volume in centimeters.
b) Reign durations of the kings of Judah, according to the Bible. See dynastic table 9 in Chron 1, Ch. 6.
c) German reign durations in the Holy Roman Empire in the alleged X-XIII century. This means that the emperors of this empire are mainly represented here by their German coronations. See dynastic table 9 in Chron1, Chapter 6.
d) The biographical volumes of the Germano-Roman emperors, according to E. F. Fyodorova ([875]). We indicate the numbers of pages and lines marking the start and the end of a "biography." In brackets we indicate the initial and the final line of the "biography" in question.
e) The biographical volumes of the Germano-Roman emperors, according to C. Bemont and G. Monod ([64]). We calculated the amount of lines contained in these volumes, indicating the numbers of pages and lines marking the start and the end of a "biography". In brackets we indicate the initial and the final line of the "biography" in question.
f) The biographical volumes of the Germano-Roman emperors, according to Kohlrausch ([415]). We calculated these volumes in lines as well. We indicate numbers of pages and lines marking the start and the end of a "biography". The opening and the closing lines of the "biography" in question are given in brackets.

1) Emperor Henry I, 919-936, a.k.a. Rehoboam King of Judah:
a) $34.5 \mathrm{~cm}=1$ Kings 12:1-24 and 14:21-31, $+53 \mathrm{~cm}=2$ Paralipomenon 10:1-19, 11:1-16. Total of 87.5 cm .
b) 17 years.
c) 17 years.
d) $59 \mathrm{~cm}=\mathrm{pp} .107(2)-110(10)([875])$.
e) 32 lines $=$ pp. 202(2)-202(34) $([64])$.
f) 386 lines $=$ pp. 198(21)-208(26) $([415])$.
2) Emperor Lothair I, 947-950, a.k.a. Abijah King of Judah:
a) $6 \mathrm{~cm}=1$ Kings $15: 1-8,+21 \mathrm{~cm}$ $=2$ Paralipomenon 13:1-22. Total of 28 cm .
b) 3 years.
c) 3 years.
d) $20 \mathrm{~cm}=\mathrm{pp} .110(10)-111(13)([875])$.
e) 3 lines $=\mathrm{pp} .205(14)-205(17)([64])$.
f) 4 lines $=$ pp. 211(2)-21(5) ([415]). Note that, although Lothair I himself is not mentioned here, it is still possible to single out an extract describing 947-950, that is, his epoch.
3) Emperor Otto I, 936-973, a.k.a. Asa King of Judah:
a) $14 \mathrm{~cm}=1$ Kings $15: 9-24,+48 \mathrm{~cm}=2$ Paralipomenon 14:1-15, 15:1-19, 16:1-14. Total of 62 cm .
b) 35 or 41 years.
c) 37 years.
d) $39 \mathrm{~cm}=\mathrm{pp} .111(13)-114(5)([875])$.
e) 130 lines $=p p .202(35)-204(24)+$
pp. 205(25)-207(5) ([64]).
f) 478 lines $=$ pp. 208(30)-221(13) $([415])$.
4) Emperor Otto II, 960-983, a.k.a. Jehoshaphat King of Judah:
a) $35 \mathrm{~cm}=1$ Kings 22:1-29, 22:41-50, $+101 \mathrm{~cm}=$ 2 Paralipomenon 17:1-19, 18:1-34, 20:1-37. Total of 136 cm .
b) 24 or 25 years.
c) 23 years.
d) $2 \mathrm{~cm}=\mathrm{pp} .114(5)-114(7)([875])$.
e) 16 lines $=$ pp. 207(6)-207(21) $([64])$.
f) 116 lines $=$ pp. 221 $(16)-224(17)([415])$.
5) The first period of the German reign of Emperor Otto III, 983-996, i.e., from becoming king in 983 until his Roman coronation in 996. This period of Otto III can be identified with that of Joram King of Judah:
a) Not described in 1 and 2 Kings, $+20 \mathrm{~cm}=$ 2 Paralipomenon 21:1-20. Total of 20 cm .
b) 8 or 6 years.
c) 13 years.
d) $1.5 \mathrm{~cm}=\mathrm{pp} .114(7.5)-114(9)([875])$.
e) 16 lines $=$ pp. 207(21)-207(37) $([64])$.
f) 84 lines $=\mathrm{pp} .224(21)-226(26)([415])$.
6) The second reign of Emperor Otto III starting with the year of his Roman coronation in 996 . This period of Otto III can be identified with that of Ahaziah (Ohoziah) King of Judah:
a) $3 \mathrm{~cm}=2$ Kings $9: 27-29,+11 \mathrm{~cm}=2$ Paralipomenon 22:1-9. Total of 14 cm .
b) 1 year.
c) 1 year.
d) $0.7 \mathrm{~cm}=\mathrm{pp} .114(9)-114(9.7)([875])$.
e) 21 lines $=$ pp. 208(9)-208(29) ([64]).
f) 16 lines $=$ pp. 226(27)-227(5) $([415])$.
7) The third period of Emperor Otto III as a Roman ruler of the Holy Empire of the alleged X-XIII century, starting with his Roman coronation in 996 and ending with his death in 1002, identified with Gotholiah King of Judah:
a) $21 \mathrm{~cm}=2$ Kings $11: 1-21,+26 \mathrm{~cm}=2$ Paralipomenon 22:10-12, 23:1-21. Total of 47 cm .
b) 6 years.
c) 6 years.
d) $27.5 \mathrm{~cm}=\mathrm{pp} .114(9.7)-116(5)([875])$.
e) 40 lines $=$ pp. 208(30)-209(29) $([64])$.
f) 103 lines $=\mathrm{pp} .227(6)-229(32)([415])$.
8) Emperor Henry II, 1002-1024 + Emperor Conrad II, 1024-1039; the Bible describes this pair as one Joash King of Judah:
a) $21 \mathrm{~cm}=2$ Kings $12: 1-21,+28.5 \mathrm{~cm}=2$ Paralipomenon 24:1-27. Total of 49.5 cm .
b) 38 or 40 years.
c) 37 years.
d) $37 \mathrm{~cm}=\mathrm{pp} .116(5)-118(7)([875])$.
e) 67 lines $=$ pp. 209 $(30)-211(16)([64])$.
f) 304 lines $=106$ lines for Henry II, pp. 229(36)$232(26)+198$ lines for Conrad II, pp. 233(8)-238(17) ([415]).
9) Emperor Henry III 1028-1056, a.k.a. Amaziah King of Judah:
a) $18 \mathrm{~cm}=2$ Kings $14: 1-20,+27 \mathrm{~cm}=2$ Paralipomenon 25:1-28. Total of 45 cm .
b) 29 years.
c) 28 years.
d) $29.5 \mathrm{~cm}=\mathrm{pp} .118(7)-120(3)([875])$.
e) 38 lines $=$ pp. $211(17)-212(14)([64])$.
f) 144 lines $=$ pp. $238(23)-242(13)([415])$.
10) Emperor Henry IV 1053-1106, a.k.a. Hozeah (Hoseah) King of Judah, a.k.a. Azariah (?):
a) $39 \mathrm{~cm}=2$ Kings 17:1-41 (Hoseah), $+23 \mathrm{~cm}=$ 2 Paralipomenon 26:1-23 (Hozeah). Total of 62 or 68 cm . As a matter of fact, this king might have possibly been described in 2 Kings as Azariah of Judah. In this case, 6 cm - i.e., 4 Reigns 15:1-7 (Azariah) can be added to the volume of the description of King Hozeah. Thus, we get a total of 62 or 68 cm .
b) 52 or 43 years.
c) 53 years.
d) $261 \mathrm{~cm}=\operatorname{pp} .120(3)-135(9)([875])$.
e) 118 lines $=$ pp. $220(13)-223(10)([64])$.
f) 748 lines $=p p .242(17)-262(3)([415])$.
11) Emperor Lothair II 1125-1138, a.k.a. Jotham King of Judah:
a) Not described in 2 Kings, $+6.5 \mathrm{~cm}=2$ Paralipomenon 27:1-9. Total of 6.5 cm .
b) 16 or 7 years.
c) 13 years.
d) $21 \mathrm{~cm}=\mathrm{pp} \cdot 139(6)-140(10)$ ([875]). Note that, although Lothair II himself is not mentioned here, it is still possible to single out an extract describing 1125-1130, i.e., part of his epoch.
e) 12 lines $=$ pp. 226(20) $-226(31)([64])$.
f) 78 lines $=$ pp. $269(28)-271(28)([415])$.
12) Emperor Conrad III 1138-1152, a.k.a. Ahaz King of Judah:
a) $20 \mathrm{~cm}=2$ Kings $16: 1-20,+27 \mathrm{~cm}=2$ Paralipomenon 28:1-27. Total of 47 cm .
b) 16 or 20 years.
c) 14 years.
d) $3 \mathrm{~cm}=$ pp. 140(10)-140(13) ([875]). Note that, although Conrad III himself is not mentioned here, it is still possible to single out an extract describing 1138-1152, which is his epoch.
e) 21 lines $=$ pp. 227(1)-227(21) ([64]).
f) 140 lines $=$ pp. 272(11)-275(35) $([415])$.
13) Emperor Henry VI 1169-1197, or his famous contemporary Frederick I Barbarossa 1152-1190, a.k.a. Hezekiah King of Judah:
a) $96 \mathrm{~cm}=2$ Kings $18: 1-37,19: 1-21,+126 \mathrm{~cm}=$ 2 Paralipomenon 29:1-36, 30:1-27, 31:1-21, 32:1-33. Total of 222 cm .
b) 29 years.
c) 28 or 54 years.
d) $73.5 \mathrm{~cm}=$ pp. $140(13)-145(3,5)([875])$.
e) 56 lines for Henry VI $=$ pp. 238(1)-240(23) ([64]) or 392 lines for Frederick $\mathrm{I}=$ pp. 227(22)-237(13) ([64]).
f) 86 lines for Henry VI $=$ pp. 294(18)-296(30) ([415]) or 698 lines for Frederick I Barbarossa $=$ pp. 275(36)-294(14) ([415]).
14) Emperor Frederick II 1196-1250, a.k.a. Manasseh King of Judah:
a) $23 \mathrm{~cm}=2$ Kings $21: 1-26,+24.5 \mathrm{~cm}=2$ Paralipomenon $33: 1-20$. Total of 47.5 cm .
b) 55 or 45 years.
c) 54 years.
d) $18 \mathrm{~cm}=$ pp. $145(3,5)-146(4)([875])$.
e) 268 lines $=$ pp. 243(7)-249(34) $([64])$.
f) 432 lines $=$ pp. 297 $(34)-309(7)([415])$.
15) Emperor Conrad IV 1250-1254, a.k.a. Amon King of Judah:
a) Not described in 2 Kings, $+4 \mathrm{~cm}=2$ Paralipomenon 33:21-25. Total of 4 cm .
b) 2 years.
c) 4 years.
d) $3.5 \mathrm{~cm}=$ pp. 146(4)-146(7.5) ([875]). Note that, although Conrad IV himself is not mentioned here, it is still possible to single out an
extract describing 1250-1254, which is precisely his epoch.
e) 4 lines $=$ pp. 249(35)-249(38) ([64]). This is where the documented history of the Holy Roman Empire of the alleged X-XIII century ends in the book [64].
f) 22 lines $=$ pp. 309(12)-309(34) $([415])$.
16) Ruler Charles of Anjou 1254-1285, a.k.a. Josiah King of Judah:
a) $59 \mathrm{~cm}=2$ Kings $22: 1-20,23: 1-30,+67 \mathrm{~cm}=$ 2 Paralipomenon 34:1-33, 35:1-27. Total of 126 cm .
b) 31 years.
c) 31 years.
d) $35 \mathrm{~cm}=\mathrm{pp} .146(7,5)-148(9)$ ([875]).
f) 35 lines $=$ pp. 311 $(14)-312(10)([415])$.
17) Strife here. No Germano-Roman emperor double. In the Bible, Jehoahaz King of Judah:
a) $6.5 \mathrm{~cm}=2$ Kings $23: 31-34,+3 \mathrm{~cm}=2$ Paralipomenon 36:1-4. Total of 9.5 cm .
b) 1 year.
c) 0 ?
d) 0 ?
f) 0 ?
18) Emperor Adolf of Nassau 1291-1298, a.k.a. Jehoiakim King of Judah:
a) $10 \mathrm{~cm}=2$ Kings $23: 35-37,24: 1-6,+3.5 \mathrm{~cm}=$ 2 Paralipomenon 36:5-8. Total of 13.5 cm .
b) 11 years.
c) 7 years.
d) $11,5 \mathrm{~cm}=\mathrm{pp} .148(9)-149(4,5)$ ([875]). Note that, although Adolf of Nassau himself is not mentioned here, it is still possible to single out an extract describing 1291-1298, which was his epoch.
f) 49 lines $=p p \cdot 367(12)-368(21)([415])$.
19) Strife here. No German-Roman emperor double. In the Bible, Jehoiachin King of Judah:
a) $10 \mathrm{~cm}=2$ Kings $24: 7-16,+2 \mathrm{~cm}=2$ Paralipomenon 36:9-10. Total of 12 cm .
b) 1 year.
c) 0 ?
d) 0 ?
f) 0 ?
20) Emperor Albrecht I 1298-1308, a.k.a. Zedekiah King of Judah:
a) $36 \mathrm{~cm}=2$ Kings $24: 17-20,25: 1-30,+14.5 \mathrm{~cm}$ $=2$ Paralipomenon 36:11-23. Total of 50.5 cm .
b) 11 years.
c) 10 years.
d) $8 \mathrm{~cm}=$ pp. 149(4,5)-149(12,5) ([875]). Note that, although Albrecht I himself is not mentioned here, it is still possible to single out an extract describing 1298-1308, which was his epoch.
f) 147 lines $=$ pp. 368(26)-372(21) $([415])$.

# The complete bibliography to the seven volumes 

## Separate books on the New Chronology

Prior to the publication of the seven-volume Chronology, we published a number of books on the same topic. If we are to disregard the paperbacks and the concise versions, as well as new re-editions, there are seven such books. Shortened versions of their names appear below:

1) Introduction
2) Methods I-2
3) Methods 3
4) The New Chronology of Russia, Britain and Rome
5) The Empire
6) The Biblical Russia
7) Reconstruction

Book one. Introduction.
[Intro]:1. Fomenko, A. T. New Experimental Statistical Methods of Dating Ancient Events and their Application to the Global Classical and Mediaeval Chronology. Preprint. Moscow, The State Television and Radio Broadcast Committee, 1981. Order \# 3672. Lit. 9/XI-81. No. BO7201, 100 p.
[Intro]:2. Fomenko, A. T. Some New Empirico-Statistical Methods of Dating and the Analysis of Present Global Chronology. London, The British Library, Department of Printed Books, 1981. Cup. 918/87. 100 p.
[1ntro]:3. Fomenko, A. T. A Criticism of the Traditional Chronology of the Classical Age and the Middle Ages (What Century Is It Now?). Essay. Moscow, Publishing House of the Moscow State University Department of Mechanical Mathematics, 1993. 204 p.
[Intro]:4. 2nd edition, revised and expanded. Fomenko,A. T., and G. V. Nosovskiy. A Criticism of the Traditional Chronology of the Classical Age and the Middle Ages (What Century Is It Now? ). Moscow, Kraft-Lean, 1999. 757 p. Kraft Publications released a concise version of this book in 2001.487 p.
[Intro]:5. Another revision. Fomenko, A. T., and G. V. Nosovskiy. What Century Is It Now? Moscow, AIF-Print Publications, 2002.511 p .

Воok two, part one: Methods-I.
[Meth1]:1. Fomenko, A. T. The Methods of Statistical Analysis of Narrative Texts and their Chronological Applications. (The identification and dating of dependent texts, statistical chronology of the antiquity, as well as the statistics of ancient astronomical accounts.) Moscow, The MSU Publishing House, 1990. 439 p .
[Methi]:2. 2nd revised edition came out in 1996 as The Methods Of Mathematical Analysis of Historical Texts. Chronological applications. Moscow, Nauka Publications, 1996. 475 p.
[Methi]:3. Several chapters of the book came out in 1996, revised and extended, as a separate book: Fomenko, A. T. The New Chronology of Greece. Antiquity in the Middle Ages, Vols. 1 and 2. Moscow, MSU Centre of Research and Pre-University Education, 1996. 914 p.
[Meth1]:4. The English translation of the book, extended and revised to a large extent, was released under the following title: Fomenko, A. T. Empirico-Statistical Analysis of Narrative Material and its Applications to Historical Dating. Vol. 1, The Development of the Statistical Tools. Vol. 2, The Analysis of Ancient and Mediaeval Records. The Netherlands, Kluwer Academic Publishers, 1994. Vol. 1: 211 p. Vol. 2: 462 p.
[Metн1]:5. A Serbian translation titled Фоменко А.T. Статистичка хронологија. Математички поглед на истoрију. У ком смо веку? was published in 1997. Belgrade, Margo-Art, 1997.450 p.
[Methi]:6. The book was published in a revised and substantially extended version in 1999 as Volume 1 in a series of two: Fomenko, A. T. The Methods of Statistical

Analysis of Historical Texts. Chronological Applications. Vol. 1. Moscow, Kraft and Lean, 1999. 801 p.
[Meth1]:7. A revised version of the book was published as two volumes (the first two in a series of three) in 1999 in the USA (in Russian) by the Edwin Mellen Press. Fomenko, A. T. New Methods of Statistical Analysis of Historical Texts. Applications to Chronology, Vols. 1 and 2. The publication is part of the series titled Scholarly Monographs in the Russian Language, Vols. 6-7. Lewiston, Queenston, Lampeter, The Edwin Mellen Press, 1999. Vol. 1: 588 p. Vol. 2: 564 p .

## Book two, part two: Methods-2.

[METH2]:1. Fomenko, A. T. Global Chronology. (A Research of the Classical and Mediaeval History. Mathematical Methods of Source Analysis. Global Chronology.) Moscow, MSU Publications, 1993.408 p .
[METH2]:2. A revised and substantially extended version of the book as the second volume in a series of two: Fomenko, A. T. The Methods of Statistical Analysis of Historical Texts. Chronological Applications, Vol. 2. Moscow, Kraft and Lean, 1999.907 p.
[Meth2]:3. A revised version of the book was published as the last volume in a series of three in the USA (in Russian) under the title: Fomenko A. T. Antiquity in the Middle Ages (Greek and Bible History), the trilogy bearing the general name: Fomenko A. T. New Methods of the Statistical Analysis of Historical Texts and their Chronological Application. The publication is part of the series titled Scholarly Monographs in the Russian Language. Lewiston, Queenston, Lampeter, The Edwin Mellen Press, 1999.578 p.

Book three: Methods-3.
[Meтн3]:1. Fomenko, A. T., V. V. Kalashnikov, and G. V. Nosovskiy. Geometrical and Statistical Methods of Analysis of Star Configurations. Dating Ptolemy's Almagest. USA: CRC Press, 1993. 300 p .
[Meth3]:2. The Russian version of the book was published in 1995 in Moscow by the Faktorial Publications under the title: Kalashnikov V. V., Nosovskiy G. V., Fomenko A. T. The Dating of the Almagest Star Catalogue. Statistical and Geometrical Analysis. 286 p.
[Meth3]:3. A substantially extended and revised version of the book: Kalashnikov, V. V., G. V. Nosovskiy, and A. T. Fomenko. The Astronomical Analysis of Chronology. The Almagest. Zodiacs. Moscow, The Delovoi Express Financial Publications, 2000. 895 p .
[Meтн3]:4. Fomenko, A. T., and G. V. Nosovskiy. The New Chronology of Egypt. The Astronomical Dating of Ancient Egyptian Monuments. Research of 2000-2002. Moscow, Veche Press, 2002. 463 p.

Book four: Russia, Britain and Rome.
[RBR]:1. Fomenko, A. T., and G. V. Nosovskiy. The New Chronology and Conception of the Ancient History of Russia, Britain, and Rome. Facts, Statistics, Hypotheses. Vol. 1, Russia. Vol. 2, Britain and Rome. Moscow, MSU Centre of Research and Pre-University Education. Two editions, 1995 and 1996. 672 p.
$[R B R]: 2$. A somewhat adapted and revised version of the book came out in 1997: Fomenko, A. T., and G. V. Nosovskiy. Russia and Rome. How correct is our understanding of Eurasian history? Vols. 1 and 2. Moscow, Olymp Publications, 1997. 2nd edition 1999. The next three volumes from this series of five were published in 2001. Vol. 1: 606 p. Vol. 2: 621 p. Vol. 3: 540 p. Vol. 4: 490 p. Vol. 5: 394 p.
[RBR]:3. A revised version of the first volume was published in 1997 as a separate book: Fomenko, A. T., and G. V. Nosovskiy. The New Chronology of Russia. Moscow, Faktorial Publications, 1997. Re-editions 1998 and 1999. 255 p.
[RBR]:4. A new, substantially extended and revised version of the first two-volume edition as a single volume: Fomenko, A. T., and G. V. Nosovskiy. The New Chronology of Russia, Britain and Rome. Moscow, Anvik, 1999.540 p.
[RBR]:5. A new revised version of this book came out as a single volume: Fomenko A. T., and G. V. Nosovskiy. The New Chronology of Russia, Britain and Rome. Moscow, The Delovoi Express Financial Publications, 2001. 1015 p.

## Book five: The Empire.

[Emp]:1. Fomenko, A. T., and G. V. Nosovskiy. The Empire (Russia, Turkey, China, Europe, Egypt. The New Mathematical Chronology of Antiquity). Moscow, Faktorial, 1996. Re-editions 1997, 1998, 1999, 2001 and 2002. 752 p.

## Book six: The Biblical Russia.

[BR]:1. Fomenko, A. T., and G. V. Nosovskiy. The Mathematical Chronology of the Biblical Events. Moscow, Nauka Publications, 1997. 407 p .
$[\mathrm{BR}]: 2$. A substantially revised and extended version: Fomenko, A. T., and G. V. Nosovskiy. The Biblical Russia. The Empire of Horde-Russia and the Bible. The New Mathematical Chronology of Antiquity. Vols. 1 and 2. Moscow, Faktorial, 1998. Vol. 1: 687 p. Vol. 2: 582 p.
[BR]:3. A somewhat condensed version, which nevertheless contained some important new material: Fomenko, A. T., and G. V. Nosovskiy. Horde-Russia on the Pages of the Biblical Books. Moscow, Anvik Publications, 1998. 430 p.
[BR]:4. Fomenko, A. T., and G. V. Nosovskiy. The Biblical Russia. Selected Chapters I (The Empire of Horde-Russia and the Bible. The New Mathematical Chronology of Antiquity. History of the Manuscripts and Editions of the Bible. The Events of the XI-XII Century A.D. in the New

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[BR]:5. Fomenko, A. T., and G. V. Nosovskiy. The Biblical Russia. Selected Chapters II (The Empire of Horde-Russia and the Bible. The New Mathematical Chronology of Antiquity: History of the XIV-XVI Century in the Last Books of the Kings. The History of the XV-XVI Century in the Last Chapters of the Books of the Kings. History of the XV-XVI Century in the Books of Esther and Judith. The Reformation Epoch of the XVI-XVII Century). Moscow, Faktorial Press, 2000.223 p.

## Book seven: Reconstruction.

[Rec]:1. Fomenko, A. T., and G. V. Nosovskiy. A Reconstruction of Global History (The New Chronology). Book 1. Moscow, The Delovoi Express Financial Publishers, 1999. 735 p.
[REc]:2. Fomenko, A. T., and G. V. Nosovskiy. A Reconstruction of Global History. The Research of 1999-2000 (The New Chronology). Moscow, The Delovoi Express Financial Publishers, 1999.615 p.
[Rec]:3. Fomenko, A. T., and G. V. Nosovskiy. A Reconstruction of Global History: Joan of Arc, Samson, and the History of Russia. Moscow, The Delovoi Express Financial Publishers, 2002.

We have to point out that the publication of our books on the New Chronology has influenced a number of authors and their works where the new chronological concepts are discussed or developed. Some of these are: L. I. Bocharov, N. N. Yefimov, I. M. Chachukh, and I. Y. Chernyshov ([93]), Jordan Tabov ([827], [828]), A. Goutz ([220]), M. M. Postnikov ([680]), V.A. Nikerov ([579:1]), Heribert Illig ([1208]), Christian Blöss and Hans-Ulrich Niemitz ([1038], [1039]), Gunnar Heinsohn ([1185]), Gunnar Heinsohn and Heribert Illig ([1186]), Uwe Topper ([1462], [1463]).

Our research attracted sufficient attention to chronological issues for the Muscovite publishing house Kraft to print a new edition of the fundamental work of N. A. Morozov titled Christ, first published in 1924-1932.

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Jesus Christ was born in 1152 A.D. and crucified in 1185 A.D.

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The dominating historical discourse in its current state was essentially crafted in the XVI century from a rather contradictory jumble of sources, such as innumerable copies of ancient Latin and Greek manuscripts whose originals have vanished in the Dark Ages and the allegedly irrefutable proof delivered by the late mediaeval astronomers, all cemented by the power of the ecclesial authorities. Nearly all of its components are blatantly untrue!

This is History in the Making




[^0]:    Alexander Zinoviev, Professor of the Moscow State University, logician, sociologist, writer, member of the Finnish, Bavarian and Italian Academy of Sciences, the Russian Academy of Polite Letters and several others. Laureate of the 1982 Alexis Tocqueville prize for sociology and the "Best Sociology Essay of 1979 " prize, as well as a large number of European and international prizes for literature. Honorary citizen of several French and Italian towns and cities. The works of A. A. Zinoviev are published in more than 20 languages and considered international bestsellers. He reads lectures on sociology in many European and American universities.

[^1]:    From the Opus Matematicum octolibrum by Ioanne Tesnierio. Coloniae Agrippinae, 1562, the Pulkovo Observatory archive.

