Who controls the past controls the future.
Who controls the present controls the past.

George Orwell

History repeats itself;
that's one of the things that's wrong with history.

Clarence Darrow

Entities should not be multiplied beyond necessity.

Friar William Ockham
(allegedly 1285–1349)

Everything that is hard to attain is easily
assailed by the generality of men.

Ptolemy
(alleged 100-179 a.d.)
in *Tetrabiblos*

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, T. N. 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.

A. T. Fomenko, G. V. Nosovskiy

Chronology 5

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

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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 was 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this resulted in the inclusion of a great number of additional material in the current edition – including previously unpublished data.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 – one that apparently is supported by a truly immense body of evidence. Nevertheless, it is understandable that its elements may occasionally be in need of revision or elaboration.

Anatoly T. Fomenko

History: Fiction or Science?

CHRONOLOGY

3

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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 National Premium of the Russian Federation (in Mathematics) for a cycle of works on the Hamiltonian dynamical systems and manifolds' invariants theory. Author of 180 scientific publications, 26 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.

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Chapter 2 A preliminary analysis of the Almagest star catalogue

Chapter 3 Unsuccessful attempts of dating the Almagest. Reasons for failure. Our new approach and a brief account of our results

Part 2: THE DATING OF THE EGYPTIAN ZODIACS

by A. T. Fomenko, T. N. Fomenko, G. V. Nosovskiy

From the Publishers

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. Feel free to use them in 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.

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 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 to turn into an ominous simulacrum brooding over the snake pit of mediaeval politics. Twice so, in fact: the first seeing 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 elephants, turtles and whales 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.

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

Chronology 3

Third volume of *History: Fiction or Science* series

Astronomical methods in chronology
Ptolemy's Almagest
Tycho Brahe
Copernicus
Egyptian zodiacs

Foreword

This book is dedicated to the new trend in science associated with the development and use of independent natural scientific methods for the dating of the ancient and mediaeval historical events. It is the follow-up to the first two books in the series, Chron1 and Chron2 by Anatoly Fomenko. In the present volume (Chron3) we date archaeological artefacts and historical texts by their astronomical content.

The problem of independent dating as applied to historical chronology has got a long history. The idea of applying the methods of natural science for this purpose is also far from novel. However, A. T. Fomenko, accompanied by a group of mathematicians and physicists from the Moscow State University, was the first to construct a systematic chronology from scratch using nothing but natural scientific methods completely unrelated to the Scaligerian chronological scale. This was done in the early 1980's. In order to distinguish between our chronology (constructed with the aid of natural scientific methods and nothing but) and the consensual chronology of Scaliger and Petavius, we have called the former "New Chronology".

The first part of the present book is based on the work of A. T. Fomenko, V. V. Kalashnikov and G. V. Nosovskiy entitled "The Dating of the Almagest Star Catalogue", which came out in 1995 ([METH3]:1 and [METH3]:2), and was subsequently revised in 2000 ([METH3]:3). This book was revised yet again for the present edition, and substantially so, with important new material added.

The second part of the book deals with the new datings of the Egyptian horoscopes. We are referring to the monumental bas-reliefs discovered in the temples of the "ancient" Egypt, which depict zodiacal constellations and planets (horoscopes, in other words). They are all dated to deep antiquity today. However, modern astronomy permits a different and more precise dating. It turns out that each and every "ancient" Egyptian horoscope that we found yields a dating of XII-XIX century A.D., no less. For instance, the astronomical datings of the "ancient" Egyptian horoscopes from the temples of Dendera and Esna (Latopolis) unequivocally refer to the epoch of the XII-XV century. Apparently, some of the Egyptian constructions that are dated to deep antiquity today were in fact built in the late Middle Ages.

The book also contains a number of annexes.

Let us provide a brief synopsis of the present volume's contents.

The first part of the book deals with the famous problem of solving the star catalogue from Ptolemy's Almagest.

The Introduction contains a concise overview of the Almagest's contents, as well as certain information concerning the Almagest catalogue and a number of other star catalogues. We explain why the problem of dating old star catalogues is of interest to us, and cite information about mediaeval astronomers associated with the creation of star catalogues.

Chapter 1 is a collection of important facts related to astronomy, astrometry, the history of astronomi-

cal instruments and the methods of measuring star coordinates.

Chapter 2 contains a preliminary analysis of the Almagest star catalogue. We discuss a plethora of corresponding problems such as ambiguous star identification and certain anomalies pointed out by researchers earlier, such as the Peters sinusoid. We also discuss the issue of latitude and longitude precision in the Almagest catalogue.

In Chapter 3 we analyse possible datings of the Almagest star catalogues based on standard methods and ideas. We demonstrate that it is impossible to date a catalogue by more or less standard and elementary methods, pointing out the principal difficulties that require a substantially more refined method. We analyse a number of known works for this purpose, whose authors attempted to confirm the traditional dating of the Almagest catalogue by proper star motions, exposing the reasons why they failed.

At the end of Chapter 3 we describe the conception of our star catalogue dating method.

In Chapter 4 we identify fast stars as the stars mentioned in the Almagest catalogue. Obviously enough, such identification isn't always possible. Moreover, it depends on the alleged dating of Ptolemy's observations in general. The same fast star whose position on the celestial sphere changes over the years can be identified as several stars from the Almagest catalogue. This effect is important. A failure to comprehend it has already led several authors (such as Y. N. Yefremov and Y. A. Zavenyagin) to erroneous datings of the Almagest catalogue.

Chapter 5 contains mathematical results used in the statistical analysis of star catalogues. We classify various catalogue discrepancies and discuss various methods of discovering the latter and compensating the systematic compound.

Chapter 6 contains the results of our global statistical calculations involving the entire Almagest star catalogue as well as its parts. The discovered statistical characteristics of different parts of the Almagest has made it feasible to find the "well-measured" and "poorly measured" regions of the celestial sphere. We have discovered that the Almagest star atlas could be divided into uniformity regions whose stellar coordinate precision differed drastically from each other. This gives us a new understanding of the Almagest structure and allows us to develop a method of dating the catalogue.

In Chapter 7 the Almagest star catalogue is dated by two independent methods: statistical and geometric. Both give us the same result – apparently, Ptolemy's observations cannot predate 600 A.D. or postdate 1300 A.D., insofar as the Almagest star catalogue is concerned (or its oldest part at the very least). Other parts of the Almagest could be written much later, which must indeed be the case, as we demonstrate in the chapters to follow.

In Chapter 8 we explain the mysterious "Peters sinusoid" and also analyse the value of the angle between the equatorial and the ecliptic plane as cited in the Almagest.

In Chapter 9 we research and date other famous old catalogues by Tycho Brahe, Ulugbek, Hevelius and Al-Sufi. These catalogues illustrate the method we suggest; the results are discussed.

Chapter 10 was written by A. T. Fomenko and G. V. Nosovskiy. It considers the possibility of dating the Almagest by other astronomical observation data that it contains apart from the Almagest. The results are in complete concurrence with our dating of the Almagest star catalogue. We restore the "Ptolemaic chronology", or the chronological ideas adhered to by Ptolemy himself or the XVI-XVII century editors of his books. These ideas were subsequently forgotten due to the erroneous conversion of the Ptolemaic dates into their "A.D." equivalents inherent in Scaligerian chronology.

In Chapter 11, also written by A. T. Fomenko and G. V. Nosovskiy, we discuss many other problems associated with the dating of the Almagest in general.

The second part of the book was written by A. T. Fomenko, T. N. Fomenko and G. V. Nosovskiy; it describes the new method of dating the Egyptian zodiacs. The method is used to date the "ancient" Egyptian zodiacs from the temples of Dendera and Esna, as well as the horoscopes discovered inside Egyptian tombs. All the dates turn out mediaeval and pertain to the XII century A.D. the earliest.

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