# 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 B.C.); however, it is indeed most probable that said tool got there during 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 XVII-XIX 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 had been 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 chronologer 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

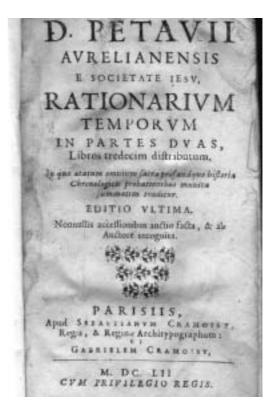


Fig. 1.2. The title page of *Rationarium Temporum* by D. Petavius, published in 1652. Taken from [1338]. Mark that the Latin letters *U* and *V* were often subject to flexion in XVI-XVIII century texts.

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

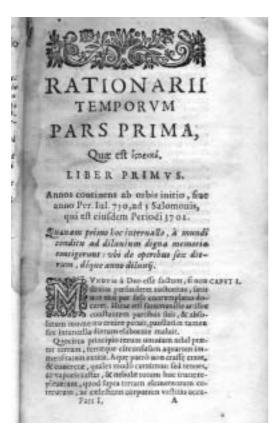


Fig. 1.3. The title of the first volume of Rationarium Temporum by D. Petavius, published in 1652. Taken from [1338].

Middle Ages the Scaliger-Petavius version. We shall simply refer to it as "Scaligerian Chronology". As 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 been based 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).

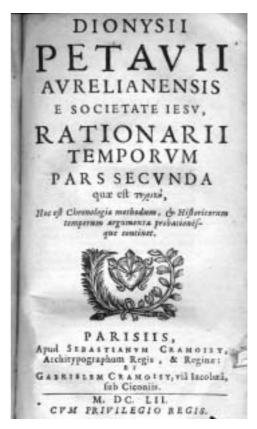


Fig. 1.4. The title of the second volume of Rationarium Temporum by D. Petavius, published in 1652. Taken from [1338].

It is worth noting that Eusebius of Caesarea is painted in 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). 1455." ([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 that were cast into the "dark ages" by the latter 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 B.C. – the Byzantine dating, also known as "The Constantinople version";

5493 B.C. – Alexandrian, the Annian era, also 5472 B.C. or 5624 B.C.;

4004 B.C. – according to Usher, a Hebraic dating; 5872 B.C. – the so-called "dating of the seventy interpreters";

4700 B.C. - Samarian;

3761 в.с. – Judaic;

3491 B.C. – according to Hieronymus;

5199 B.C. – according to Eusebius of Caesarea;

5500 B.C. – according to Hippolytus and Sextus Julius Africanus;

5515 B.C., also 5507 B.C. – according to Theophilus; 5551 B.C. – 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 being scholastic, and had been given 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 facto transformed this chronology into a "scientific"



Fig. 1.7. Painting by Cesare Nebbia and Giovanni Guerra allegedly dated 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.

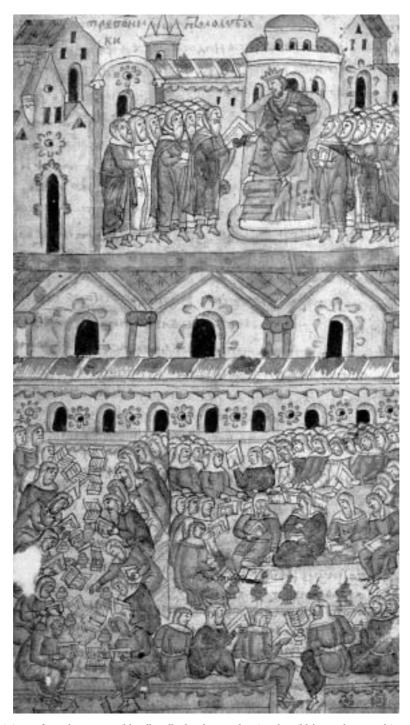


Fig. 1.8. Ancient miniature from the Ostrog Bible, allegedly dated 1581, showing the Bible's translators and interpreters, commonly referred to nowadays as "the 70 interpreters." It is assumed that they were responsible for dating Genesis to 5872 B.C. Taken from [623], page 165. Also see [745], Volume 9, page 17.

one. This "scientific" veneer proved sufficient for the chronologists of the XVII-XVIII century to have invested unquestioning belief 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 had 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 had come to the conclusion that the world had been created 3,941 years prior to 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 had been created in the early morning hours on 23 October 4004 B.C. ([616], page 8). Many eminent Western European chronologists of the XVI-XVII century have belonged to the clergy. 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 writings ([82], page 320, comment 5).

Their absolute trust in the infallibility of what the ecclesial chronology told them, determined their entire Weltanschauung. Hence 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 rechristened "scientific".

The fact that the clerical chronologists of the Occidental church have 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, had 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, that 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 had 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 grew to the extent of inducing respect a priori by its sheer scale, so the chronologists of the XIX century saw their objective in making minor corrections and not much else.

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

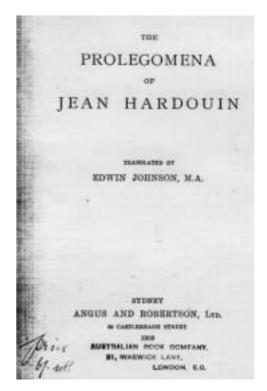


Fig. 1.10. The title page from J. Hardouin's book in Edwin Johnson's English translation, 1909.



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

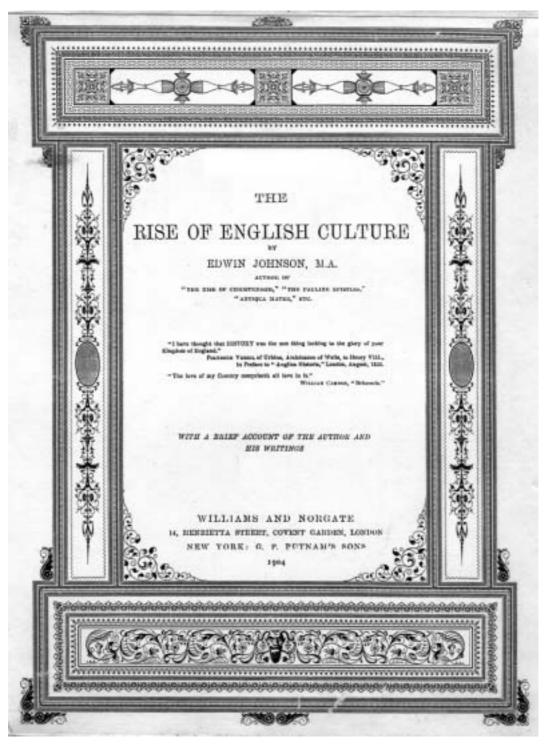


Fig. 1.12. The title page from one of E. Johnson's books, 1904.



Fig. 1.13. A portrait of Sir Isaac Newton. Taken from [336], Volume 6, inset between pages 646-647.

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 Scaliger's 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 contemporary 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 have continued well into the XIV century" ([72], page 69).

# 3. 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 had 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 on fig. 1.9, and that of its translation by Edwin

Johnson on 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 over his 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 the 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 by 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... had developed differential and integral calculus (independently from G. Leibnitz). He had 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, as well as building the reflecting telescope, formulating the principal laws of classical mechanics, discovering the Gravity Law, formulating 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 controversy in the past. The main chronological works of Newton's are the following ([1298]):

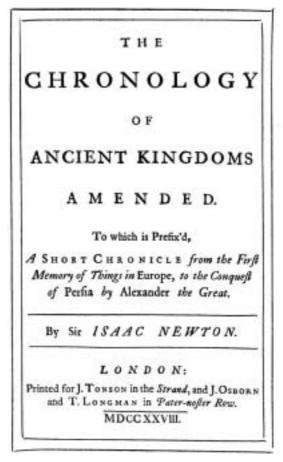


Fig. 1.14. The title page from the book by Sir Isaac Newton called The Chronology of Ancient Kingdoms amended. To which is Prefix'd, A Short Chronicle from the First Memory of Things in Europe, to the Conquest of Persia by Alexander the Great (London, J. Tonson, 1728). Taken from [1298].

- 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 was 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 B.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 had 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 presumption of 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 being 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 had 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 106-107).

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 B.C. ([1298]). Hence, the shift of dates forwarded 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 B.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 B.C. – 617 B.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 B.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 with the condition that no third party should learn of it. The same happened with Abbé Conti (Abbot Conti), who had started to lend the manuscript to interested scientists upon his return to Paris.

As a result, M. Freret had translated the manuscript into French and added his own historical overview to it. This translation had soon reached the

Paris bookseller G. Gavellier, who had written Newton a letter in May 1724 eager to publish his writing. Not having received an 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 had 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 had 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 publishing 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 had seen 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 had written is there to confirm our statement - the one Freret refuted immediately upon publication." Most probably, Arago decided not to get involved in the issue, and had 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 one to have dared 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. Mo-



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.

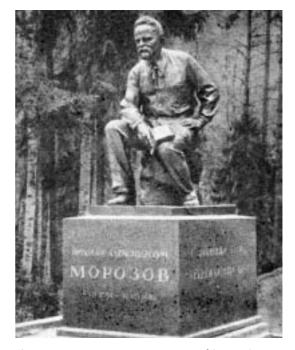


Fig. 1.18. Monument to N. A. Morozov on his grave in Borok, in the Yaroslavl Region. Taken from [583], p. 27.



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.



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

rozov's great-grandfather was a relation of Peter the 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 1924-1932, 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



Fig. 1.23. The cover of the first volume of N. A. Morozov's œuvre titled Christ, 1927.

considered unrelated in our time. The publication of 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 ne-



Fig. 1.24. The title page of the first volume of N. A. Morozov's Christ, 1927, the State Publishing House, Moscow-Leningrad.

cessity of revising the datings of mediaeval events as 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 Scaliger's 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 mediaeval epoch, leaving them in the "antediluvian" historical period, which we see as 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 questionnable 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 chronology globally attributed to ancient times. 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 discrepancies between 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 B.C. – A. F.] is nevertheless supposed to have been a friend of Numa Pompilius" ([538], page 876).

Historians are of the opinion that Numa had 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)

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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 Scaliger's chronology separates these events by 500 years. Taken from [1485], ill. 201.





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.

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.

What we see is a deviation of about eight decades. 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 was 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, q.v. 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 chronology 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 B.C., is 500 years. This means that either:

- the foundation of Rome took place 500 years later than 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 for 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 Scaliger's chronology, naturally.

The historian B. Niese has the following to say about it:

"Rome, as well as many other Italian cities, was con-

sidered 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, the one that 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 after 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 using 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 could have been 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 alleged that Titus Livy was born around 59 B.C., and described a 700-year period of Roman history. 35 books survived out of his 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 one, 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 "Royal 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 did not make it till 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 had 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 all over the texts of Livy, in the names of the consuls, their frequent omission, amongst other things, and a *complete laissez-faire at-titude to the choice of names?...* How do we make it cor-

respond 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 had already been aware of how flimsy this foundation of his chronology was." ([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 turns out to be 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.

### 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, during 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 B.C.), whilst Cheops belonged to the IV (2600-2480 B.C.)" ([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 B.C.) to the beginning of the Ethiopian reign in Egypt (about 715 B.C.)" ([163], page 514, comment 150).

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

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 Scaliger's version. The temporal distances 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 at fitting his *History* into the Scaligerian chronology. We quote some 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 give the date in such terms – A. F.], since he had died in 570 B.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). The 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 among 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 even it contains a great many deep contradictions which still 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 reign of Menes, the first Egyptian Pharaoh, as having commenced in the following years:

Boeckh dates this event to 5702 B.C., Unger – to 5613 B.C., Brugsch – to 4455 B.C., Lauth – to 4157 B.C., Lepsius – to 5702 B.C., Bunsen - to 3623 B.C.

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 in an extremely unsatisfactory condition 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 B.C.," "roughly 3000

B.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 B.C.,

Mariette – as 5004 B.C.,

Chabas – as 4000 B.C.,

Meyer – as 3180 B.C.,

Andrzejewski – as 2850 B.C.,

Wilkinson – as 2320 B.C.,

Palmer – as 2224 B.C., etc.

The difference 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 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 researches... alack and alas, the results of their research have been popularized in too much haste... Thus, many erroneous views entered the circulation, which resulted in the inevitable sobering when Egyptology became a lot less in 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 the 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, apparently, 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. THE PROBLEM IN DATING THE "ANCIENT" SOURCES 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, had 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; the interested 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 in the *History* 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 had 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 "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 500-1500 years after the death of their authors" ([571], page 69).

According to the Scaligerian history ([120]), the entire "Classical ancient" literature only surfaced during the Renaissance. In most cases, a 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 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 be the copies allegedly made in the IX-X century A.D. However, one instantly finds out that the archetype of the incomplete collection "had perished a long time ago" ([949]). The XIV-XV century witness 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 dated 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 archetype 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)

A propos, 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



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).

([760], 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 as post-XI century 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 Alb(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 3-4). 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 not to evolve till 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 the 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 had reached our times... the oldest manuscript we know of is a copy made in 888... there is a large number of manuscripts that belong to 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 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 on 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 - not until 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,



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.

"Kepler, who 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 discovery 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).