Part 2

THE DATING OF THE EGYPTIAN ZODIACS

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A foreword to Part 2

The dating of the Egyptian zodiacs is a problem that was studied by many scientists of the XIX-XX century. A large contribution into the solution of this problem was made by N. A. Morozov ([544], Volume 4). However, his analysis of the Egyptian zodiacs is far from final, and the datings he came up with aren't quite satisfactory from the astronomical point of view. This was pointed out in the work of N. S. Kellin and D. V. Denisenko ([376]), who have managed to get a better solution for the Round Zodiac of Dendera than N. A. Morozov. However, they admit it themselves that their solutions are also far from ideal ([376]).

The first one to suggest a strict approach to the selection of astronomical solutions for the Egyptian zodiacs was T. N. Fomenko in [912:3]. This work demonstrated in particular that the Egyptian zodiacs allow for ideally strict solutions in case of certain interpretations of their astronomical content, and perfectly allowable ones at that. However, these interpretations as suggested by [912:3] weren't the only possible ones. Apart from that, many of the graphical details found in the Egyptian zodiacs hadn't yet been deciphered at the time. This goes to say that at this stage of research the problems of ambiguity and incompleteness of the Egyptian zodiacs' astronomical interpretation remained unsolved. Another poignant issue was presented by the fact that the astro-

nomical datings of the Egyptian zodiacs are very unstable in face of variations in source data – in other words, minute and acceptable changes in the interpretation of a zodiac could lead to a significantly different astronomical dating thereof.

All of the above means that the astronomical datings of the Egyptian zodiacs obtained by 2001 could not be regarded as final.

This is why A. T. Fomenko and G. V. Nosovskiy launched a new research in 2000-2001 which included the development of special astronomical software that would make is feasible to run over all possible variants of the zodiacs' astronomical interpretation ([METH3]:4). Practically all of the graphical details found in the Egyptian zodiacs were studied in the process - even the ones that were considered completely unrelated to astronomy previously. It turned out that each of those figures has explicit astronomical meaning. This resulted in the important and unexpected discovery of the fact, that unlike many of the ancient zodiacs, the Egyptian ones contain a great many additional astronomical data apart from the main horoscope. It is important that these data weren't included into the Egyptian horoscopes randomly - they follow a single rigid structure in every case.

What we have therefore discovered is the general

structure of the Egyptian zodiac as a description of a calendar year spanning the primary date represented by a special cipher of sorts.

As a result, the total amount of useful astronomical information contained in a single Egyptian zodiac usually suffices in order to decipher the date it stands for; apart from that, it contains an exhaustive astronomical explanation of its cipher. In other words,

our new approach isn't based upon the decipherment of the Egyptian zodiac, but rather allows to accomplish said goal via astronomical calculations, likewise the date of the zodiac.

The datings of the Egyptian zodiacs that we come up with as a result are of a stable nature, and only allow for a single solution in case of the majority of zodiacs.

From the preface to

The New Chronology of Egypt. The Astronomical Datings of Ancient Egyptian Monuments. Research of 2000-2002

by A. T. Fomenko and G. V. Nosovskiy (Moscow, Veche, 2002)

This book is dedicated to the interpretations of datings contained in the ancient Egyptian zodiacs. We set several precise chronological landmarks of Egyptian history here, which was made feasible by our recently-developed method of the complete deciphering of the Egyptian zodiacs.

In our research of the Egyptian zodiacs we have used many important ideas of our predecessors N. A. Morozov ([544], Volume 6), N. S. Kellin and D. V. Denisenko ([376]) as well as T. N. Fomenko ([912:3]). In general, our research can be considered to continue and develop theirs. Many of the doubtless and fundamental facts estimated by these authors in re the astronomical symbols used in Egyptian zodiacs were adhered to and received independent confirmation. Apart from that, we have discovered that there is another layer of astronomical symbols present in the Egyptian zodiacs whose meaning remained beyond our comprehension earlier. This discovery, which came as considerable surprise even to ourselves, brought us to an altogether new level insofar as the opportunities of dating the Egyptian zodiacs are concerned.

Owing to these unique opportunities and extensive astronomical computations we could estimate about ten datings as the only ones possible; all of

them were presented in the ancient Egyptian zodiacs with the use of an old "astral calendar". All of the dates fall over the same post-XI centurty epoch.

The previously known interpretations of the Egyptian zodiacs (first and foremost the ones belonging to N. A. Morozov, N. S. Kellin - D. V. Denisenko and T. N. Fomenko were of a partial nature. These authors managed to obtain astronomical identifications of many zodiacal symbols, but not all of them, which is quite understandable since one had to sort out a great many interpretation options, and this is hardly possible to do manually. The interpretation we got in 2001 is the first one which is complete and accounts for all the graphical details of every zodiac; it also turns out that an astronomical solution is available in every case, which is an extremely important fact. The existence of such complete interpretation which can always be dated is very far from obvious a priori. Apart from that, the astronomical solutions that we came up with for the overwhelming majority of the zodiacs turn out to be the only ones. Our analysis is final in this respect.

It turns out that the complete interpretation of the primary horoscopes found in Egyptian zodiacs includes the partial interpretations offered by N. A.

Morozov and T. N. Fomenko; however, there is a certain difference between them details-wise which brings clarity into multiple choice situations such as the interpretation of the symbols used for the sun and the moon that are rather easily confused with one another. Our predecessors would argue in favour of their choice after studying the content of the Egyptian symbols since they had no opportunity of sorting through all possible interpretation options yet, unlike the authors of the present book. Their interpretations weren't final in some cases, which would therefore make the datings they discovered less strict; therefore, the final datings that we came up with differ from the previous datings offered by Morozov, Kellin-Denisenko and T. N. Fomenko. However, all of the precise datings remained mediaeval, which is a rather important fact. It turns out that there isn't a single astronomical solution for the Egyptian zodiacs that would date to an epoch preceding the XII century A.D.

We also feel obliged to point out that the final datings that we managed to calculate for the Dendera zodiacs have already been mentioned in the work of T. N. Fomenko. Namely, she already considered the dating of the 22-27 April 1168 for the Long Zodiac of Dendera in the preliminary stage of her analysis, which coincides with the dating discovered by ourselves. This dating was rejected by T. N. Fomenko due to different identifications of the sun in the interpretation chosen by N. A. Morozov and the one that turned out final according to our method ([912:3], page 721). The same work by T. N. Fomenko ([912:3] specified the date of the 30-31 March 1185 as a possible solution for the Round Zodiac in one of the early analysis stages, which only differs from the final solution dating that we came up with by a mere 10 days. This dating was also rejected by T. N. Fomenko due to minute discrepancies between her interpretation and the final interpretation of the Round Zodiac offered by our method. As is the case with the Long Zodiac of Dendera, these discrepancies concerned the symbols used for the sun and the moon which are easy to confuse for one another.

Let us reiterate that after we had finished our computer calculations it turned out that the previous partial interpretations were confirmed for the most part. They comprise the fundament of the final interpretation, which confirms the general correctness of the previous research. It has to be said that all of the authors who studied the Egyptian zodiacs that we refer to above always emphasised that their datings were based on the interpretation options that struck them as the most likely and not an exhaustive study of all possible variants.

Let us now list our datings of the ancient Egyptian zodiacs based on our final interpretation.

- 1) The Round Zodiac of Dendera: morning of the 20th March 1185 A.D.
- 2) The Long Zodiac of Dendera: 22-26 April 1168 A.D.
- 3) The Zodiac from the Greater Temple of Esna: 31 March - 3 April 1394 A.D.
- 4) The Zodiac from the Lesser Temple of Esna: 6-8 May 1404 A.D.

The Athribis zodiacs of Flinders Petrie:

- 5) The Upper Zodiac of Athribis: 15-16 May 1230
- 6) The Lower Zodiac of Athribis: 9-10 February 1268 A.D.
- 7) The Theban Zodiac of Heinrich Brugsch which, as it turned out, contains a total of three zodiacs, each one of which gives an independent dating.
- 7a) The horoscope of demotic additions 18 November 1861 A.D. (old style).
- 7b) The horoscope "without rods" 6-7 October 1841 A.D. (old style).
- 7c) The "boat horoscope" 15 February 1853 A.D. (old style).

Thus, the "ancient" Egyptian wooden coffin whose lid was adorned with this spectacular zodiac was manufactured in the middle of the XIX century.

8) The coloured zodiac of Thebes found in the Egyptian "Valley of the Kings" and represented in the Napoleonic Egyptian album ([1100]) - 5-8 September 1182 A.D.

The datings we come up with allow us to make the perfectly valid claim that the "ancient" history of Egypt and its Pharaohs doesn't date back to several millennia before the new era, but rather to the XI-XV century A.D. - a "mere" 400-1000 years ago, in other words. As for the grandiose temples of the ancient Egypt, the Zodiac dates in these temples indicate the epoch of late XII - early XV century A.D.

The dates on the wooden Egyptian coffins (or sarcophagi) are of the utmost interest indeed. These wooden coffins, painted in different colours and covered in hieroglyphs, can be seen in many art albums on Ancient Egypt. They are considered to be "extremely ancient". However, it turns out that their real age can be estimated precisely in certain cases due to the fact that the lids of these sarcophagi were often adorned with zodiacs containing ciphered dates. Deciphered, one of them (the zodiac of Brugsch) yielded the middle of the XIX century as a result. In other words, the "ancient" Egyptians (or, possibly, the Mamelukes) were making such coffins and used them for burials as recently as 150 years ago. Nowadays they are up on exhibition in many museums as the alleged relics of "ancient" history.

For some strange reason, we are given no explanation of the fact that the smoothly-planed and accurately sawed planks these Egyptian coffins are supposed to have been manufactured in absence of iron tools, likewise the boats of the Pharaohs. The implication is that the "ancient" Egyptians had planes. However, we are being told that the "ancient" Egyptians only had copper at their disposal, which isn't the material one can use for making a plane. What are we left with, then? Another "mystery of the Ancient Egypt"? Such mysteries are abundant in Egyptian history. Now we have a means of eliminating them having the knowledge that the "ancient" Egypt, as well as other "ancient" civilizations are only several centuries old in reality, which is why we often put the word "ancient" in quotation marks.

As we have demonstrated in our previous books on the subject, the consensual version of ancient Egyptian chronology is most likely to be erroneous, which brings us to the question of when this false version first came to existence, as well as the entire erroneous version of Egyptian history that it is based upon.

It turns out that its roots don't reach further back than the end of the XVIII century which is when the Europeans got their first opportunity of travelling to Egypt after several centuries of isolation. The Napoleonic army disembarked on the Egyptian shore in 1799; this was followed by the defeat of the Mamelukes in the famous Battle of the Pyramids. This is when the Europeans made their first acquaintance of the Egyptian antiquities, and the European scientists drew up a more or less detailed picture of ancient Egyptian history.

Shortly afterwards the "Napoleonic" album with drawings of the Egyptian monuments was published in France ([1100]). It included detailed drawings of several Egyptian zodiacs, among other things. This album was the first illustration of what relics were found in Egypt, since the Europeans only had a vague idea of the land itself as well as its history prior to that. In order to provide the reader with a demonstrative example of just how meagre the European knowledge of Egyptian history had been as recently as the XVII century we provide the entire section on Egyptian history taken from a voluminous and fundamental chronograph dating to the end of the XVII century in [METH3]:4, Chapter 9. This section in its entirety takes up a mere two pages and contains nothing remotely resembling the modern version of Egyptian history which came to existence somewhat later (see ibid).

In school we are told the impressive tale of how Champollion who accompanied the Napoleonic troops to Egypt managed to decipher the mysterious hieroglyphs which had remained beyond everyone's comprehension for several centuries. It turns out that "the last stage the Egyptian language reached in its development had been the Coptic language of the Christian population of Egypt . . . it was supplanted by the Arabic around the XVII century" ([85], Volume 15, page 464). In other words, the "ancient" Egyptian language in the final stage of its development had been the spoken language of the Egyptian Christians up until the XVII century A.D., no less! It becomes clear why Champollion would have to study the Coptic language in order to decipher the hieroglyphs ([85], Volume 47, page 510).

It is presumed that the labours of Champollion and his contemporaries, the founders of Egyptology, enabled the Europeans to glance into the very depths of the Egyptian history of the Pharaohs, which they were a priori ready to consider "exceptionally ancient".

Even though the deepest antiquity of the Egypt ruled by the Pharaohs was considered obvious, exact datings had remained unknown, and there was much diversity in opinions on how certain events of Egyptian history were to be dated. For instance, there were supporters of the "long" and the "short" version of Egyptian chronology amongst the Egyptologists; the discrepancy between the two versions amounted to

several thousand years ([METH1]). The datings suggested by the specialist for the dating of Egyptian monuments could differ by several millennia or even several dozen millennia. Thus, for instance, the "Egyptologist" dating of the famous Dendera zodiacs which we shall be considering in the present book, had altered by a whole 15.000 years ([544], Volume 6, page 651).

Egyptologists were making claims about the "indubitable antiquity" of Egyptian history from the very beginning, and they are still very much at it. However, there is no real evidence to support this allegedly "self-implied" antiquity. The "reasons" they suggest as validation of this theory don't hold up to serious criticisms and are based on absolute certainty that the history of the Pharaohs pertains to an antediluvian age and had ended before the beginning of the new era (see [METH1]).

We shall refrain from reiterating our criticisms of the consensual Egyptian chronology and the radiocarbon datings of the Egyptian specimens in particular, since a detailed rendition of those can be found in Chron1 and Chron2 by A. T. Fomenko.

Let us briefly formulate the hypothesis that is related in detail in Chron5.

We are of the opinion that the ancient Egypt in the times of the Pharaohs had been the royal burial ground of the Great Empire in the Middle Ages. This Empire had spanned all of Eurasia and a large part of Africa in the epoch of the XIV-XVI century A.D. Egypt had been a small part of this Empire, although it may have been the birthplace of its royal dynasty. The necropolis of the royal family was located in Egypt, and the population of this country was employed as workers and keepers of this cemetery. The kings, or the Pharaohs, did not live in Egypt and were brought here post-mortem. We consider this to be the explanation of the odd fact that almost all of the "ancient" Egyptian inscriptions contain nothing but descriptions of funeral rites.

Therefore, according to our reconstruction, the ancient Egypt had been the cemetery for the kings of the Great mediaeval Empire, and its inhabitants had to guard the peace of their deceased rulers, which had been their primary task. This was naturally done at the expense of the vast Imperial resources and not locally.

In Chron5 we also consider the issue of the construction of the pyramids. Egyptologists present us with rather spectacular yet absolutely ephemeral pictures of how the pyramids and other colossal stone constructions of the ancient Egypt were built. We are told about the great masses of "ancient Egyptian slaves" who were supposed to cut gigantic blocks of stone weighing some 200-500 tonnes from mountain quarries using copper saws, no less. These monstrous blocks would then be towed across the sand and transported over the Nile in some mysterious manner. Finally, they would be used as bricks for the construction of the pyramids.

None of the above is likely to have taken place. The construction of the pyramids must have been a much more interesting and realistic endeavour as opposed to the rather odd version related above.

According to the new point of view, the technologies of the XIV-XVI century were used in the Ancient Egypt, and rather complex ones, at that. Many of them were lost for many centuries after the decline of the Empire in the XVII century, such as the geopolymer concrete (see [REC]:2). The secret of this concrete was re-discovered several decades ago by Joseph Davidovich, the French chemist. It is widely used in construction nowadays, qv in [1086] -[1093].

Let us conclude with the sentiment that one needn't think that the Egyptian history ceases to be "ancient" in the light of the New Chronology, since the latter shifts the history of all other countries forwards as well, and considerably so. Egyptian history turns out to be the most ancient of all as a result; however, the very definition of the "antiquity" changes due to its former misinterpretation resulting from the use of the Scaligerian chronology.

According to the New Chronology, the oldest events whose traces remain in written history date to the X-XIII century of the new era. The subsequent events of the XIV-XV century are ancient enough, and we only have rather vague information about that epoch.

The ancient epoch ends with the introduction of Christianity in the XV century, which also differs from the historical version of Scaliger a great deal since it had really been a reform of the existing Christian church; however, this reform was significant

enough for the subsequent version of Christianity to have received the definition of a new religion.

This epoch was followed by the Ottoman conquest of the XV-XVI century, when the colonization of America took place, for instance. The decline of the Great Empire took place after this, in the beginning of the XVII century. The historical period to follow can be considered recent history. See CHRON6 and Chron7 for more details.

Let us reiterate that in this chronological framework ancient Egyptian history of the X-XVI century remains one of the oldest; however, there is nothing peculiar about the fact that some of the "oldest" Egyptian customs had existed until the middle of the XIX century.

We would like to express our profound gratitude to Professor V. Kravtsevich (Alberta University, Canada) and Professor Y. V. Tatarinov (Moscow State University) for their assistance with the search of materials. We would also like to thank Professor V. Kravtsevich for our interesting and useful conversations.

> A. T. Fomenko G. V. Nosovskiy

The Egyptian zodiacs

1. THE EGYPTIAN ZODIACS AND THE LIKELIHOOD OF THEIR RELIABLE ASTRONOMICAL DATING

An Egyptian zodiac is a drawing with a symbolical representation of the celestial sphere. Such a zodiac is done in a distinctive "ancient" Egyptian style and possesses a number of special characteristics that will be discussed below. The very name "zodiac" reflects the fact that the primary attention on these Egyptian drawings is focussed on the zodiacal part of the sky, or the belt of the twelve zodiacal constellations (Aries, Taurus, Gemini etc).

Let us remind the reader that all the planets as well as the Moon move along the zodiacal belt, and that the Sun is always located within the belt. It is naturally impossible to observe the Sun and the stars simultaneously, since the latter cannot be seen during the day. Nevertheless, the position of the sun among the stars is easy to guess at dust or at dawn, when one sees the bright stars at sunrise.

Thus, the Zodiacal belt is the stellar track set by the motion of all the planets, likewise the Sun and the Moon, as seen from the Earth. This fact is of exceptional importance in our case. It was known rather well to the ancient astronomers who had used it for the creation of a rather special kind of "celestial astral clock", where the Zodiacal belt played the role of the dial, and planets served as hands. This very "astral clock" was used for recording dates in Egyptian zodiacs.

It was done in the following manner: the positions of planets as well as the Sun and the Moon would be symbolically drawn on the zodiacs, fixing the positions of planets in relation to the constellations. Bear in mind that this disposition is in fact a horoscope, which is an "astral" representation of a dating. It turns out that if an Egyptian zodiac should contain symbols or planetary names, they serve to record a date transcribed as a horoscope.

Planetary positions on the celestial sphere change rather rapidly; therefore, a horoscope is very soon replaced by another one. Recurrences do take place, but intervals between them usually equal centuries or even millennia.

Modern calculation facilities allow to convert a horoscope into a date on the modern chronological scale with sufficient ease. However, the answer might prove rather ambiguous due to the fact that, very occasionally, a horoscope might recur; however, for most of them such recurrences are a scarce enough event in order to give us the opportunity to date them reliably on the interval of the last 2 or 3 millennia.

We shall give you a detailed account of how the Egyptian zodiacs are dated below. So far let us merely reiterate that Egyptian zodiacs are in no way a mere embellishment; they represent a certain date transcribed as certain symbols. Nowadays deciphering the astronomical symbols of Egyptian zodiacs makes it feasible for us to learn the real time of their compilation, which, in turn, makes it possible to answer the question of when the "ancient" Egyptians could

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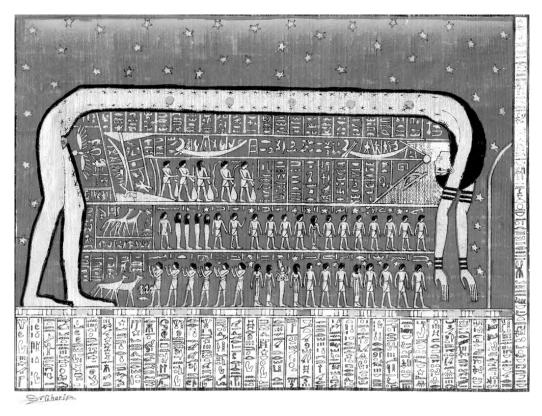


Fig. 12.1. A papyrus with a copy of an ancient Egyptian zodiac purchased in Egypt in the year 2000. Below we see the signature of the modern artist who had made the copy of the zodiac. The original is most likely to be located in one of the tombs from the royal necropolis in Luxor. This zodiac is very popular, and many of its versions, coloured in every which way, are sold in Egyptian papyrus shops. One can also find it on postcards, qv in [623:1]. We instantly see a feature that characterises Egyptian zodiacs – the curved figure of the goddess Nuit ([2], page 10; also [370], pages 14-15).

really have lived and built their "ancient" temples. In other words, the astronomical dating of the Egyptian zodiacs allows the assessment of reliable and scientifically validated reference points in the chronology of ancient Egypt.

We shall jump ahead and mention that all these reference points prove to be mediaeval. Most of these "ancient" Egyptian zodiacal datings postdate the XII century A.D. This concurs well with the new chronology, according to which the earliest dates of written history of humankind date from the epoch of the XI century A.D. the earliest.

Apparently, the zodiacal transcription of dates used to be very popular in Egypt. Even in our day, "ancient" zodiacs are very popular there, and any tourist who might visit Egypt will be offered countless pa-

pyri of modern manufacture in memorabilia shops, with multicolour copies of "ancient" Egyptian artwork that will invariably have several zodiacs in their midst. One of such zodiacs (purchased in Luxor in 2000) can be seen in fig. 12.1.

The most well-established Egyptian papyrus shops will be overjoyed to make an "ancient" Egyptian zodiac for a client with the horoscope of the latter's birthday, for instance, or any other arbitrary date. Nowadays this requires no sky observations – all one needs is a computer and some astronomical software that will instantly draw the star chart for any given day; then the data in question are transferred to the papyrus as "ancient" Egyptian symbols, and the horoscope is ready.

It is possible that some of the "ancient" Egyptian

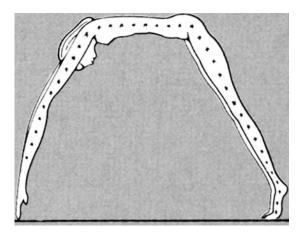


Fig. 12.2. Nuit, the "ancient" Egyptian goddess of the sky. She symbolises the celestial sphere in the zodiacs. We almost always find Nuit drawn as part of the rectangular Egyptian zodiacs, whereas in the round ones she is either drawn separately, near the zodiac, or altogether omitted. Taken from [2], page 10.

zodiacs were manufactured in the XIX or XVIII century and not the antiquity. Zodiacs may have still been part of a living tradition among certain strata of Egyptian society at the time, especially considering as to how they bore direct relation to funeral rites, as we shall see below, and funeral rites are known for their particular longevity. Apart from that, zodiacs could be produced in the XIX century as forgeries for rich European buyers, which is a possibility that one should not neglect. Therefore once we set about dating some mind-bogglingly "ancient" Egyptian zodiac copied from a "doubtlessly exceptionally old" Egyptian sepulchre, we should be prepared to come up with any date - for instance, it may contain a ciphered XIX century dating. This is very much a possibility since the modern archaeological methods of dating "ancient" Egyptian artefacts are unfounded - and, most likely, blatantly incorrect. Egyptian tombs dated to times immemorial might be very recent in some of the cases and even date to the XIX century. We shall run into several such occasions below.

The astronomical meaning of the symbols used in Egyptian zodiacs isn't always obvious. In some cases it only surfaces after a careful study. However, as a rule, Egyptian zodiacs can instantly be told apart from other "ancient" Egyptian artwork by the following distinctive characteristic. In nearly every case they contain the symbol of the celestial sphere drawn as a woman with her arms lifted above her head. This woman often has an unnaturally extended body that spans the zodiac. It is presumed that she represents the Egyptian goddess Nuit, or the "celestial goddess -([2], page 10; also [370], pages 14-15). See fig. 12.2.

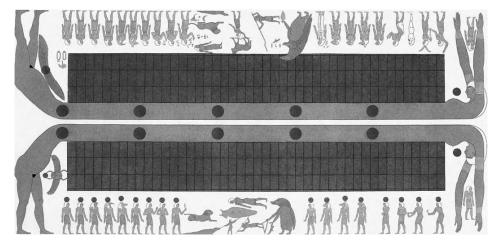


Fig. 12.3. The Theban zodiac "OU" discovered in the Luxor Valley of the Kings, also known as "the royal tomb valley of Bibanel-Muluk" ([2], page 76). This zodiac was found by the Europeans in the early XIX century, during the Napoleonic Egyptian expedition. The coloured version of this zodiac can be found in the Napoleonic album on Egypt ([1100]), accompanied by the following inscription in French: "Tableau astronomique peint au plafond du 1" tombeau des Rois à l'Ouest" ("Astronomical picture painted on the ceiling of the first tomb of the Oriental Kings"). Taken from [1100], Plate 82.

One can see a picture of Nuit from the papyrus zodiac cited above in fig. 12.1.

Let us cite a few more examples of Egyptian zodiacs. We shall provide a more detailed study of all Egyptian zodiacs below, as well as the symbols upon them. So far we would like to give the reader a general idea of how an Egyptian zodiac might look.

In fig. 12.3 one sees an ancient drawing of the zodiac found in one of the royal sepulchres from the "Theban" necropolis in Luxor. The drawing dates back to the epoch of Napoleon's Egyptian expedition. In general, this zodiac is done in the same style as the papyrus zodiac that one sees above; however, we see the figure of Nuit divided in two. As we shall see from a series of examples, this means that the zodiacal belt is split in two halves. One sees two respective rows of figures upon the zodiac, one under the other, qv in fig. 12.3. Our calculations demonstrate the date ciphered in this zodiac to be the 5-8 September 1182 A.D.

In fig. 12.4 we see a fragment of a ceiling relief carved in stone, depicting a zodiac with the size of 2.55×2.53 metres from the Egyptian temple of Dendera. This is one of the most famous Egyptian zodiacs also known as the "Round Zodiac of Dendera" due to its shape and in order to differentiate between it and the "Long" or "Rectangular" Zodiac of Dendera, which was found in the same temple. The round zodiac of Dendera was discovered by the Europeans in 1799 during the Napoleonic expedition ([1062], page 5) and later taken away to Paris ([1062], page 5; also [544], Volume 6, page 651). The original of this zodiac is kept in the Louvre nowadays ([1062], page 6), and there's a copy in the actual temple. A drawn copy of the entire Round Zodiac as well as the surrounding artwork can be seen in fig. 12.5. A photograph of the zodiac's central part can be seen in fig. 12.6, and that of Nuit the goddess from the same zodiac - in fig. 12.7.

In fig. 12.8 one sees a drawing of the Round Zodiac from the Napoleonic Egyptian album. The copy is a very accurate one; however, the artwork is modified to some extent - the original looks a great deal rougher. A modern drawn copy of the Round Zodiac can be seen in fig. 12.9. In order to give the reader a better idea of what it really looks like, we also cite a magnified fragment of the Napoleonic draft of the Round Zodiac in fig. 12.10.



Fig. 12.4. The Round Zodiac DR from the temple of Dendera a ceiling relief carved in stone, 2.55 by 2.53 metres in size ([1177], page 121). It was taken away to France during the Napoleonic expedition, and is kept in the Louvre nowadays. What one sees in the actual temple of Dendera is a copy. Photograph made in the Louvre, 2000.

Once again we encounter Nuit as the symbol of the celestial sphere, with both a front and a side view available (see figs. 12.5 and 12.8). However, in this case Nuit isn't part of the Zodiacal composition, but rather depicted separately nearby.

One can easily recognize the symbols of all twelve zodiacal constellations upon the Round Zodiac of Dendera (see fig. 12.9). All the zodiacal constellations are drawn in the exact same way as one sees them in the mediaeval European books on astronomy (Leo as a lion, Sagittarius as a centaur holding a bow, Capricorn as a fable-like animal with the head of a goat and the tail of a fish etc). N. A. Morozov, who had given this zodiac a scrupulous study, wrote the following: "I would like to draw the reader's attention to the fact that ... the Zodiacal constellations ... are drawn perfectly well and comprise the ecliptic belt the way it is situated above the horizon – it is not concentric ... to the equinoctial, but rather raised high above it in its summer constellation part with Cancer and Gemini, and below in the opposite part with the winter constellations of Sagittarius and Capricorn. The zodiac resembles the kind one sees on the astronomical maps of Beyer and even in XIX century works on astronomy" ([544], Volume 6, page 658). As we can see, the author of the Round Zodiac had a good knowledge of astronomy, since the zodiac itself is filled with as-

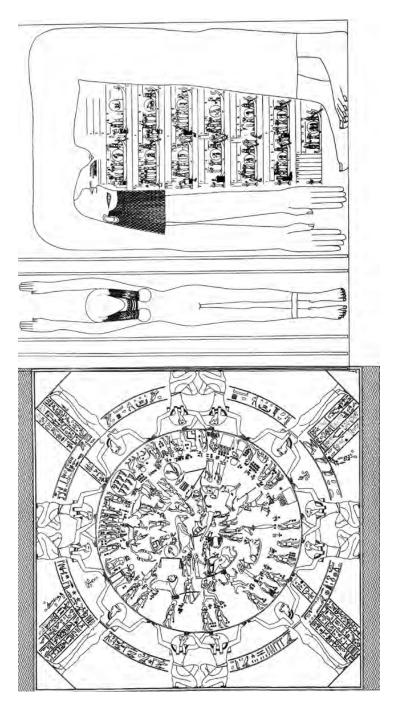


Fig. 12.5. Drawn copy of the Round Zodiac from Dendera (DR), as well as the artwork found alongside the zodiac in the temple. Here we see two symbols of the celestial dome at once represented by the two drawings of the goddess Nuit, which appears to be hanging right over the observer on the right-hand side of the zodiac. The curve of her body cannot be seen in this projection, but must be implied. Nearby we see a "side view" of her figure – just the same as it is in the previous zodiacs. Taken from [1062], page 71.