

# A new approach to the decipherment of the Egyptian zodiacs

## 1.

### THE SHORTCOMINGS OF THE EARLIER DECIPHERMENTS OF THE EGYPTIAN ZODIACS

The independent astronomical dating of the Egyptian zodiacs has so far been following the following scheme:

The first stage involved a study of the symbols used in a given zodiac in order to decipher it and to pick out the horoscope. Even if various interpretation options were considered, researchers would still settle for a single one at the end, the one they would consider the best. This would usually be the option chosen as the initial data used for astronomical dating.

The resulting interpretation would then serve as basis for astronomical calculations. If the calculations yielded a single solution for the entire historical interval, the dating of the zodiac would be considered quite unambiguous. If not, one would presume the existence of several possible dating options. In the latter case, the choice of the final dating would usually be based upon considerations that had absolutely nothing in common with astronomical calculations.

Therefore, the researcher's primary objective would be to make the "best possible" selection of horoscope symbols from the Egyptian zodiac, and to decipher this horoscope correctly, which implies find-

ing the signs for all seven planets, including the Sun and the Moon, and estimating the exact disposition of planetary signs in relation to constellation signs on the zodiac in question, which would yield the desired horoscope. Let us remind the reader that the Sun and the Moon were ranked among planets in ancient astronomy ([393], page 40).

The final astronomical dating of the zodiac depended on the solution of this problem in principle. After the discovery of all the planets, other symbols inherent in the Egyptian zodiac would usually be left unnoticed and at best referred to in a few short lines that would usually ascribe some vague pseudo-religious meaning to them, or declare them to stand for "comets". This is also what N. A. Morozov had done – possibly following some earlier Egyptologist "research". Later authors who based their research on Morozov's works didn't mention these "non-horoscope" symbols found on Egyptian zodiacs. They would usually merely quote Morozov's opinion in re this or the other "extraneous" symbol.

The concept of this approach is simple and understandable in general. Indeed, if all the planets are already located on the zodiac, the horoscope is exhausted, and one would think that no extra astronomical data are required for the zodiac in question – at the very least, there should be no "odd planets".

We shall demonstrate this to be incorrect. The astronomical content of the Egyptian zodiacs is of a lot more complex nature than it appears to be – in particular, one finds a great deal more astronomical symbols that it has been assumed previously. Our study demonstrates that apart from the primary horoscope, whose search and interpretation had been the only goals inherent in previous research, Egyptian zodiacs tend to contain several “secondary” horoscopes of a partial nature, which are incomplete and refer to fixed dates of the same year as the primary horoscope.

This fact has so far remained beyond the attention scope of researchers, which would urge them to think of far-fetched explanations for the meanings of the “extraneous” (according to their opinion) planetary symbols on Egyptian zodiacs. However, these symbols are really the furthest thing from “extraneous”.

It turns out that many of the symbols found on the Egyptian zodiacs that have so far been considered “non-astronomical” possess explicit astronomical meaning nevertheless. In many cases this provides us with a substantial amount of data to complement the primary horoscope of the Egyptian zodiac. Combined, they usually suffice for eliminating all the unwanted solutions that we might come up with in the process of dating the horoscope in question astronomically. Note that unwarranted solutions might result from multiple recurrences of a given planetary combination as well as errors in horoscope decipherment. Without additional astronomical information we are sometimes incapable of distinguishing between the extraneous solutions and the real dating (if we’re guided by nothing but astronomical considerations, that is).

It is important that the presence of extra astronomical data in Egyptian zodiacs (which can be considered “reference data”, after a manner) presents us with new opportunities that our predecessors didn’t have, since they actually rejected a substantial part of astronomical symbols found in the Egyptian zodiacs. Out of all the new opportunities that we have now, the one that has to be mentioned first and foremost is *the opportunity to account for all possible horoscope interpretation options at once*. We are thus liberated from the necessity to ponder (and often in the most dubious manner indeed) why one of the zodiacal interpretations should be better or worse than the other.

Let us expound this further. Why would extra astronomical data contained in the zodiacs allow us to consider a variety of interpretation options simultaneously, and why has it been impossible so far? And just why would that be impossible? The answer is that ambiguity and a multitude of horoscope interpretation options would inevitably lead to several astronomical solutions found on the historical interval. Should we possess no extra information, we shall simply lack the possibility to choose the single correct solution out of several variants. If we do have such information, it can be used for the purpose of eliminating the random solutions of the primary horoscope. Indeed, let us do the following – we shall make astronomical calculations for all possible interpretations of the zodiac first, which shall leave us with a certain range of possible solutions, or datings, and probably a rather broad one at that. We shall then discard all the datings that fail to correspond to the extra information found in the zodiac. As we shall see below, this usually leaves us with a *single* solution – that is, the only possible dating for the Egyptian zodiac in question found on the entire historical interval. It is only in cases when this extra information comes in insufficient amounts or when the zodiac is in a very poor condition when there are several solutions; however, there are very few such cases.

Below we shall discuss our new approach to the dating of Egyptian zodiacs in more detail. In the present section we provide several examples to illustrate how these “extraneous” symbols that didn’t pertain to the main horoscope were referred to previously – it is, after all, obvious that when the researchers would come across these symbols, they would have to explain their presence on the zodiacs in some manner. This would leave to omissions or distortions whose nature only becomes clear to us today.

Let us point out that N. A. Morozov’s opinion on the “extra-horoscope” symbols on the Egyptian zodiacs hasn’t drawn any criticisms in publications on non-Scaligerian chronology as to yet. However, it becomes clear now that he made several serious errors here. It shouldn’t compromise the quality of the Egyptian zodiacs’ analysis carried out by N. A. Morozov. He had voiced many important and deep ideas on the interpretation of Egyptian astronomical symbols. Most of such ideas turned out to be correct and



Fig. 14.1. Jupiter is represented by two figures in the Round Zodiac of Dendera (DR), according to the interpretation of N. A. Morozov. They are the two wayfarers with rods next to Cancer. These figures, as well as the constellation symbols, are highlighted: the figures are covered by dots, and the symbols of constellations are shaded grey. One sees the constellations of Virgo, Leo, Cancer and Gemini. It is obvious that if one of the rod-bearing figures becomes lost, it will instantly affect the position of Jupiter in relation to the constellations. The planet will be shifted into Leo or Virgo – or, possibly, even Gemini. Therefore, N. A. Morozov’s presumption that what we have in front of us is a double representation of Jupiter made “for the sake of security” appears most suspicious indeed. In Chapter 17 of CHRON3 we shall demonstrate that the wayfarer on the side of Virgo isn’t Jupiter, but rather Mercury in a secondary horoscope. The one we find on the side of Gemini is indeed Jupiter in the primary horoscope, just as Morozov had supposed. Both figures have hieroglyphic inscriptions over their heads; those contain the names of the planets. Sebek, for instance (or SBK) was the name used for referring to Mercury. See CHRON3, Chapter 17 for more details. Taken from [1062], Chapter 71.

shall be used in our research. Nevertheless, many of the symbols present in the Egyptian zodiacs were neglected by N. A. Morozov, who had adhered to the erroneous opinion that these symbols bear no relevance to the actual horoscopes and cannot affect the results of astronomical dating. This may be explained by the fact that Morozov was under the influence of the general interpretation scheme used for Egyptian zodiacs that had already been developed in his epoch. His approach would therefore inherit some of the shortcomings inherent in the scheme.

Before we get to actual examples, we must make

the following general observation concerning prior interpretations of the Egyptian zodiacs, including those made by Morozov. It turns out that in almost every case when the “gods” or the “goddesses” that one presumably finds in Egyptian zodiacs are mentioned, we observe a lack of comprehension in what concerns the Egyptian astronomical symbols. The reason is that the researchers would periodically run into “extraneous” symbols in their analysis of the Egyptian zodiacs as carried out in accordance with the classical approach – “extraneous” since they weren’t required for the horoscope, that is. However, they would still be found in zodiacs and needed to be explained in some way. One of the easiest solutions is to declare that these symbols represent “ancient Egyptian deities” and to close the subject without unnecessary complications.

Another way of writing off the extra planetary symbols is to declare that the latter represent comets and not planets – another mobile luminary that resembles a planet in this respect since it also moves amidst the stars. Therefore, a comet “manifest as a planet” upon an Egyptian zodiac is a plausible phenomenon. On the other hand, apart from a very few exceptions, comets are quite beyond astronomical calculations, and it is therefore impossible to prove the presence or absence of a comet upon the celestial sphere in a given year - to calculate the advent of new comets unknown as to yet, for instance, or, alternatively, the ones that already disintegrated, but could be observed previously. It is thus obvious that, for want of a better solution, a “redundant” planetary symbol could always be written off as a comet. N. A. Morozov would use this method rather often.

However, below we shall demonstrate that there are no comets on any Egyptian zodiacs known to us – represented with the same symbols as the planets, at least.

Let us consider several actual examples of such “extraneous” symbols as found in the Egyptian zodiacs and explained in the works of N. A. Morozov.

We shall consider the interpretation of the Round Zodiac of Dendera found in Volume 6 of [544]. There are so many secondary symbols in this zodiac that N. A. Morozov was forced to make the assumption that “each of the planets, excepting Mercury, twofaced by nature, is represented by two figures in its re-

spective constellation” ([544], Volume 6, pages 659 and 666).

Further text by N. A. Morozov demonstrates that its author was perfectly aware of just how far-fetched this assumption of his about duplicated planets on the Round Zodiac had really been, and so he provides several different explanation of this odd duplication in a rather embarrassed manner – a propos, we find nothing of the kind on any other Egyptian zodiac. As a matter of fact, Morozov himself refutes all these explanations of his one by one.

“Wherefore two figures? Possibly, so that the Zodiac would not become illegible should one of the figures be harmed” is what Morozov tells us. However, this is a poor explanation, since according to Morozov himself, the figures used for the same planet are often located at a considerable distance from each other – the “doubles” of Jupiter, for instance, are an entire constellation apart (see fig. 14.1). Thus, should something happen to one of the figures, the other one “alone” shall merely misidentify the planetary position. What “additional security” can we possibly talk about here, pray? Had this “reserve duplication” indeed been the case, the “doubles” would be close to each other – in the same constellation at the very least. However, this is not the case with the Round Zodiac. Therefore, N. A. Morozov instantly suggests another explanation – “this could result from rear figures referring to the planetary positions for the beginning of the sculpture’s creation, and the ones in front – to the respective positions for the time when the sculpture would be finished”. However, this explanation also doesn’t appear too plausible, which is immediately pointed out by N. A. Morozov himself: “However, the suggestion that the artist wanted to demonstrate how they shifted over the time of modelling doesn’t make much sense, since this shift would be too great for Jupiter and Saturn, and too small for Venus and Mars for an equal number of days”.

Morozov is forced to conclude with the rather vague idea that “it [or the separation of the “duplicated” planets – Auth.] may be ascribed to the time when the construction of the entire building had begun and ended, several years at the very least” ([544], Volume 6, page 666). Needless to say, N. A. Morozov doesn’t offer any calculations to validate this “finite explanation” that he offers us, which we

could rightly expect from his part, had he really been right in this case.

A propos, as we shall discuss in detail below, and as N. A. Morozov himself explained rather comprehensively in [544], Volume 6, double symbols could, and often did, stand for just two planets – Venus and Mercury, due to the fact that these planets are interior and can only be seen from Earth at dusk and at dawn, in their matutinal and vespertine incarnation. In Mercury’s case, this “ambiguity” would often become translated as two faces on Mercury’s figure. As for Venus, it is also often represented as two figures, one near the other, which is the case with the Round Zodiac where we see it drawn as two female figures in long dresses, one following the other (see fig. 14.2).

However, these “double symbols” aren’t really applicable to any other planets except for Venus and Mercury, and would thus be a most peculiar thing in their case, especially with these symbols being at a considerable distance from each other. It is natural that when researchers came across these “duplicated” planetary symbols on Egyptian zodiacs, they would do all they could in order to get rid of them, failing to realize that these “extraneous” planets represent important additional information important for dat-



Fig. 14.2. Venus in the Round Zodiac of Dendera (DR) is drawn as two female figures with rods, apparently travelling together. On the left one sees a modern photograph with the same fragment of the Round Zodiac on it. Mark the figure of two little beasts with their backs grown together and the tail of the figure hanging down towards Aries and Venus. Morozov was of the opinion that the symbol represents the dusk and the dawn; we consider him to have been correct ([544], Volume 6, page 659). We see a similar figure next to Venus and Mercury in the Round Zodiac of Dendera. Taken from [370], page 165 (photograph) and [1062], page 71 (drawn copy).

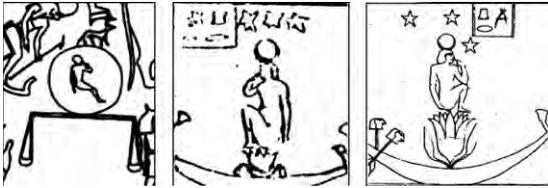


Fig. 14.3. Astronomical symbolism of the zodiacs found in Dendera. On the left one sees the symbol of Libra from the Round Zodiac of Dendera (DR). In the middle we find the lunar symbol from the Long Zodiac according to the drawing from Bode's *Uranography*, and on the right there is the same symbol from the drawn copy of the Long Zodiac (DL) as given in the Napoleonic album ([1100]). One can plainly see that the naked figure sucking on a finger is one and the same in all three drawings. The finger in mouth symbolises the infantine age of the Moon. Taken from [1062], page 71 (left drawing), [544], Volume 6 (inset following page 672 – drawing in the middle), and [1100], A. Vol. IV, Pl. 20 (drawing on the right).

ing purposes. These attempts to exclude these planets were of an erroneous character, and would naturally result as imprecise interpretations, as is the case with Morozov's explanation quoted above when the alleged double figures of Jupiter actually ended up in different constellations.

Another vivid example is how N. A. Morozov interpreted the sign that looked like a circle with a human figure in the middle as seen in the constellation of Libra on the Round Zodiac.

Before relating this in more detail, let us explain that the Sun and the Moon were drawn on Egyptian zodiacs as circles; occasionally these circles would contain some symbol. Indeed, the Sun and the Moon are the only luminaries than one sees as circles and not dots. We already mentioned the fact that both the Sun and the Moon would be referred to as planets in mediaeval astronomy, although they aren't anymore ([393], page 40). It shall nevertheless be convenient for us to use the term "planets" the way ancient astronomers did. This term is misleading, yet it facilitates the narrative in our case, since it corresponds to the astronomical concepts that the Egyptian zodiacs are based upon.

The above should seemingly imply that two circles (one for the Sun and the other for the Moon) are the absolute maximum for an Egyptian zodiac – however, we find many of the latter to contain more than

two. For instance, we see three circles in the row of zodiacal constellations on the Round Zodiac of Dendera – two in Pisces and one in Libra, *qv* in fig. 12.9 above. The Long Zodiac sports four such "solar/lunar" circles, or two times more than the norm.

This circumstance made N. A. Morozov resort to making rather far-fetched explanations of the Egyptian zodiacs. For instance, in order to eliminate the circle in Libra on the Round Zodiac of Dendera that he had considered an arbitrary addition, Morozov had to interpret it as the representation of an "ancient Egyptian goddess", which was done rather clumsily, and also inconsequentially.

Let us linger on this for a short while, since we shall be referring to this instant in our analysis of the symbols contained in the Egyptian zodiacs. In his analysis of the Round Zodiac of Dendera N. A. Morozov wrote that "over the figure of Libra we see a circle with the goddess of Justice inside" ([544], Volume 6, page 658). Morozov must have thought that since the "extraneous" circle was located in Libra, it would make sense to refer to the figure contained therein as to the "goddess of Justice", since the scale symbolizes justice.

It is however rather odd that this alleged "goddess of Justice" should be drawn naked, and holding a finger in her mouth at that, *qv* in fig. 14.3. Furthermore, an attentive study of the Dendera zodiacs demonstrates that a perfectly similar figure (naked and holding a finger in its mouth) can also be seen on the Long Zodiac of Dendera, where it explicitly and unequivocally symbolises the *young moon* and not a "goddess of Justice" of any kind. Morozov himself points this out. We see the lunar circle upon the figure's head, with a distinctly visible crescent in it. This lunar figure from the Long Zodiac can be seen in the same fig. 14.3, both of its versions simultaneously – one comes from Bode's drawing as used by N. A. Morozov, and the other was made by Napoleon's artists and was taken from [1100]. It is plainly visible that the figure of Moon from the Long Zodiac is completely identical to the "goddess of Justice" from the Round Zodiac.

A naked figure holding a finger in its mouth appears to be a perfectly natural symbol, since this very finger referred to childhood in ancient Egypt ([1051:1], page 74). The figure's infancy is also em-

phasized by its nudity, since the Moon is either “young” or “old”, “newborn” or “dying”. We don’t use these terms for any other stars or planets; none of them can be “young”, unlike the Moon. N. A. Morozov is perfectly correct to point out the following in his discussion of the Long Zodiac: “... the girl in front has the Moon on her head. The figure’s childhood is also emphasized by the absence of a bust and the hand held in the mouth” ([544], Volume 6, page 658). However, N. A. Morozov modestly refrained from mentioning the age of a similar girl holding her hand in her mouth as seen on the Round Zodiac – possibly to avoid emphasizing just how far-fetched his presumption concerning the “goddess of Justice” in Libra on the Round Zodiac really was.

One can naturally counter with the presumption that the “ancient” Egyptians may have used the same symbol for both the moon and some mysterious goddess that bore no relation to astronomy in both zodiacs. This is possible – however, a presumption as ambiguous requires proof, since both zodiacs are located in the same Egyptian temple and are thus most likely to use a common set of symbols.

At any rate, it is obvious that the version with the Moon in Libra on the Round Zodiac needs to be considered and studied amongst other possible interpretation options at the very least – however, Morozov fails to do this, and it is easy to understand why – because he had already found another symbol for the Moon, and a very appropriate one at that; as for the possibility of there being two moons on the same zodiac, he had not allowed for it, which was a mistake.

Another example. In his interpretation of the symbols found on the Long Zodiac of Dendera, N. A. Morozov writes the following, in particular: “then we see some person dressed as a high priest and carrying a serpent preceded by another man *holding the rod of a vagrant luminary, or the symbol of a comet* in the evening sky” ([544], Volume 6, page 677). In fig. 14.4 one can see the fragment of the Long Zodiac that Morozov is referring to herein – the male figure on the left with a planetary rod in its hand and a star above its head. Such figures always stand for planets in Egyptian zodiacs, and this circumstance was frequently pointed out by Morozov himself (see [544], Volume 6, page 956, for instance). However, the problem here is that this figure is an “extraneous” planet,

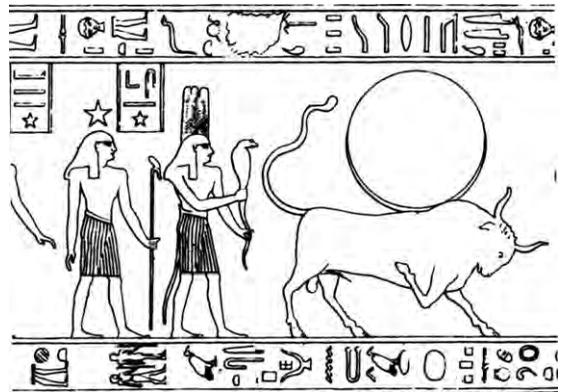


Fig. 14.4. The Long Zodiac of Dendera (DL). A fragment of the drawn copy from the Napoleonic album on Egypt. The man on the left is carrying a planetary rod and has got a star over his head. Such figures represent planets in Egyptian zodiacs. However, all of the planets from the Long Zodiac have already been found by N. A. Morozov, who had suggested to consider this “extraneous” planetary figure a comet, despite its being a typical planetary symbol from an Egyptian zodiac. Taken from [1100], A. Vol. IV, Pl. 20.

since N. A. Morozov already managed to find all seven planets in other places of the same zodiac. Therefore, Morozov’s approach leaves him with no other option but to consider this figure a comet despite its planetary symbolism. However, this presumption of Morozov’s isn’t backed up by anything at all, albeit it is possible in principle. However, below we shall expose this presumption as erroneous, proving that the figure in question represents a planet the way it should.

This is far from the only “comet” that was “successfully discovered” in the Long Zodiac by N. A. Morozov. He found yet another comet there – once again, when he had inadvertently come across a symbol unrelated to the horoscope. The very same page where we encounter the reference to a comet contains the following passage a few dozen lines below: “Gemini are followed by the girl marking the first ten grades of Cancer. Then we see the young man inside a boat carrying a rod that is already familiar to us – some comet” ([544], Volume 6, page 677, fig. 14.5). Thus, the “redundant” astronomical symbol of the Egyptian zodiac becomes a “comet” once again, without any evidence whatsoever to back it up. Below we shall demonstrate the symbol to stand for the summer solstice.

By the way, a rougher version of the same sign was

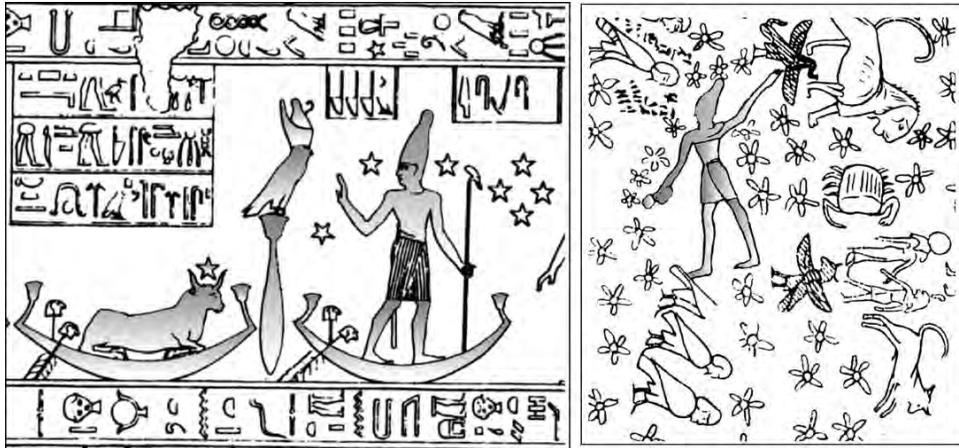


Fig. 14.5. Fragments of the Long Zodiac from Dendera (DL) on the left, and the Lower Zodiac from Athribis (AN) on the right. In both of them we see the figure of the man with his hand raised into the air in Gemini; it symbolises the summer solstice point that is located in this constellation. The bird on top of a pole (left) is also a summer solstice symbol, referring to the highest position reached by the Sun in the sky. The drawing is made according to drawn copies from [1100], A. Vol. IV, Pl. 20, as well as [544], Volume 6, page 730. Symbols that bear no relation to the primary horoscope are shaded in grey.

encountered by Morozov on the Athribis zodiacs as well; however, on that occasion he decided it should represent the constellation of Orion and not a comet, writing that “the constellation of Orion ... is depicted as a man who raises his right arm, inviting the souls to ascend into heavens” ([544], Volume 6, page 729). In fig. 14.5 one can see fragments of the Long Zodiac and the Lower Zodiac of Athribis referred to herein. This is yet another error of N. A. Morozov explained by his inability to comprehend the extra-horoscope symbols inherent in Egyptian zodiacs. The symbol in question is found in many Egyptian zodiacs and represents the point of summer solstice.

By the way, we see another symbol of the summer solstice on the Long Zodiac next to the man with his arm raised – a bird on a perch. This symbol also hadn’t been recognized by Morozov, who didn’t even mention it here (fig. 14.5). Nevertheless, we find the very same symbol on the Round Zodiac of Dendera, where it looks just the same and occupies the same astronomical position at the point of summer equinox (fig. 14.6). This time Morozov doesn’t leave the perched bird unmentioned, saying that “the bird is followed by a sceptre with a falcon upon it wearing the headdress of a high priest, signifying the high rank of the leader of this procession” ([544], Volume 6,

page 669). Obviously enough, N. A. Morozov has once again misinterpreted the summer equinox symbol as a mysterious “sceptre” of some sort, one that presumably takes part in some “procession”, and quite autonomously, at that (see fig. 14.6).

The figure with the rod that heads this procession is also presumably unable to be a part of the horoscope, since N. A. Morozov already managed to identify all the planets successfully. The only way out that Morozov finds is to resort to the same old trick – consider the “extraneous” planetary figure a comet. According to him, “all of this signifies that in 568 A.D. [the year N. A. Morozov dated the Round Zodiac to – Auth.] a great meaning was attributed to some comet” ([544], Volume 6, page 670). Morozov even managed to find a fitting comet from the “ancient” Chinese astronomical chronicles allegedly dating to 568 A.D. ([544], Volume 6, page 670). This shouldn’t surprise us – if we’re to believe the “ancient” Chinese records concerning comets, we must also believe that the “ancient” Chinese chroniclers observed a comet nearly every year, although comets visible to the naked eye are a very scarce phenomenon indeed. To put it bluntly, one can find a “fitting comet” for almost every year in the “ancient” Chinese lists; the matter is that these actual lists are a recent forgery (see our analy-

sis of the Chinese comet lists in CHRON5, as well as the book *Empire* ([EMP]).

Once again we see that N. A. Morozov cannot provide any adequate explanation for the non-horoscope astronomical symbols that he finds in Egyptian zodiacs.

We shall cease with listing the examples of how Morozov tried to “explain” the existence of certain enigmatic signs in Egyptian zodiacs which could not be understood with his approach. Let us reiterate that this approach was not an invention of N. A. Morozov – he had borrowed it from earlier works of the XIX century Egyptologists and astronomers.

It goes without saying that N. A. Morozov had performed a great and very useful body of work in order to bring this approach to perfection, having introduced many corrections and valuable novel concepts.

However, N. A. Morozov did not revise the classical approach to the interpretation of Egyptian zodiacs in general. Likewise his predecessors, he had been of the opinion that an Egyptian zodiac can only contain one horoscope – possibly, with some mystical symbolism added thereto that would be in do direct relation to astronomical dating. This isn’t so, and this had been the error of the classical approach overlooked by Morozov.

Still, the level of calculating opportunities available to Morozov in his day and age had apparently been insufficient for compensating for some principal shortcomings of the classical method since it would require calculations exceeding the opportunity limits of those years. Such calculations require modern computers.

The following needs to be said about comets – as we have seen, N. A. Morozov would often appeal to them in order to explain the presence of “excessive” planetary symbols in Egyptian zodiacs ([544], Volume 6, pages 652 and 677).

An observable comet is a very rare event. People in “ancient” Egypt died every day, the way they do nowadays; there were very few of those who died in the year when a bright comet visible to the naked eye would appear in the sky. Therefore, the presence of a comet in a funeral zodiac should be regarded as an outstanding event; therefore, the probability that we shall encounter a zodiac with a comet among the two or three dozens of ancient Egyptian zodiacs that have

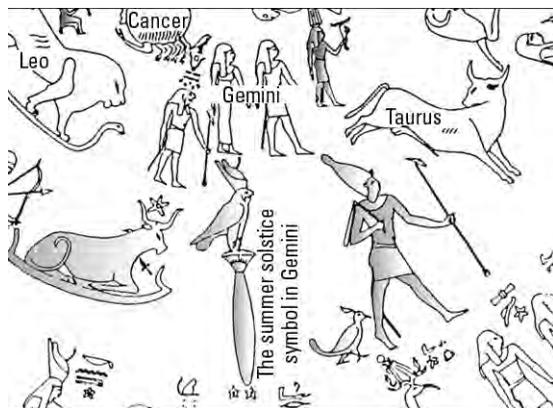


Fig. 14.6. A fragment of the Round Zodiac from Dendera (DR) with the summer solstice symbol that looks like a bird on a pole in the constellation of Gemini ([544], Volume 6, page 669). The figure with the rod on the right is a planet that doesn’t relate to the primary horoscope, which was mistaken for an unidentified comet by N. A. Morozov. Symbols shaded grey aren’t part of the primary horoscope. Drawing made in accordance with the drawn copy from [1062], page 71.

survived until the present day is very low. Yet Morozov would occasionally discover a whole two comets on the same zodiac, in its different parts ([544], Volume 6, page 677). As we have mentioned, this resulted from his incomplete understanding of the astronomical symbolism of Egyptian zodiacs.

Let us conclude with the following note.

The present section was primarily referring to the works of N. A. Morozov. The works of other authors on the topic of interpreting the Egyptian zodiacs based on Morozov’s book ([544], Volume 6) were not discussed due to the fact that the researchers who carried on with Morozov’s research in the field of dating the Egyptian zodiacs also adhered to the classical interpretation of their astronomical meaning (see [912:3] and [376]).

The main goal in this approach is the location of the horoscope in the zodiac; the rest of the zodiac’s content would be discarded as useless. In other words, the researchers were making the a priori presumption that the Egyptian zodiac can be rendered to its horoscope with enough precision to include all the data necessary for the purposes of astronomical dating.

This turned out to be incorrect. Additional symbols found in Egyptian zodiacs aren’t “extraneous ob-



Fig. 14.7. Table of “Egyptian deities” from the book entitled *The Entire Egypt*. The absolute majority of these so-called “deities” have an exact astronomical meaning – at the very least, those equipped with planetary rods. This is how planets were drawn in Egyptian zodiacs. Taken from [2], pages 10-11.

stacles” vested in very vague astrological meaning, but rather important astronomical information supplementing the primary horoscope.

However, this is far from all. We found out that a single Egyptian zodiac can contain several full horoscopes referring to several dates – those of the birth and death of the deceased, for example. Let us remind the reader that the Egyptian zodiacs were predominantly sepulchral in character. The respective examples shall be provided below.

We have not discussed the works on the astronomical dating of zodiacs written by Egyptologists. Let us mention them briefly.

In the preceding chapters we mentioned that the main shortcoming of these works is that they’re a priori based on the Scaligerian chronology and wholly dependent thereupon; their authors don’t so much as attempt an independent astronomical dating of the Egyptian zodiacs. Furthermore, the works of the Egyptologists that followed Morozov’s research be-

tray a great reluctance from the part of their authors to delve into the subject of dating the Egyptian zodiacs astronomically. The actual topic is only mentioned in a few passages, and very superfluously so, as something of secondary importance as compared to the “historical” datings of the very same zodiacs. Above we already studied the examples of astronomical interpretation and dating culled from the works of famous Egyptologists ([1291] and [1062:1]).

We have also witnessed that whenever Egyptologists discuss the astronomical symbols contained in the Egyptian zodiacs, most of their attention is focussed on their alleged mystical or pseudo-religious allusions as opposed to their actual astronomical meaning ([1291]). This is hardly surprising. References to astronomy are to direct and hence potentially dangerous for the “ancient” Egyptian chronology, since they might yield actual datings of zodiacs as a result, and such datings might prove completely at odds with the Scaligerian chronology of Egypt. The fact that this is indeed the case became obvious after the publication of N. A. Morozov’s works.

One might say that Egyptologists are unlikely to read Morozov’s books. This might be so; yet it is hardly a coincidence that they became particularly evasive in what concerns the astronomical topic of the Egyptian zodiacs. This used to be different before Morozov’s publications – the problem of dating the Egyptian zodiacs astronomically would be discussed by the Egyptologists actively. However, after Morozov’s research all their references to the Zodiacs come down to hazy pondering of their mystical and religious meaning, whose alleged profundity only became revealed to the specialists after many years of meditation and meticulous scientific research.

This might be true to some extent. After all, ancient symbols often have a plethora of meanings. However, all such pseudo-religious or mystical interpretations are of zero utility to chronology since they cannot lead to any tangible results by definition.

Let us cite the figure table of the so-called “Egyptian deities” from the modern edition entitled *The Entire Egypt* ([2], fig. 14.7). Most figures of these “deities” were taken from ancient Egyptian zodiacs and other astronomical texts from the “ancient” Egypt. As we shall see below, almost all of them possess exact astronomical meaning – the ones equipped

with planetary rods, at least. This is how planets were represented in Egyptian zodiacs, and this fact is known to the Egyptologists perfectly well ([1062:1]).

However, the compilers of the popular edition ([2]) didn’t utter a single word about astronomy citing this most remarkable table of “Egyptian deities” which is made up of astronomical symbols predominantly – possibly under the assumption that the subject were too dangerous for the average reader, who might become interested, after all, and develop the “heretical” urge to unravel the astronomical contents of the “ancient” Egyptian texts unaided, or even attempt to date them independently, which would be the most perilous indeed.

Egyptologists have been perfectly aware of the possible consequences ever since the publication of Morozov’s works. This may be the exact reason why they are extremely cautious and timid when they refer to the Ancient Egypt in the context of astronomy, changing the subject to that of “ancient” Egyptian mysticism at the first opportunity – and, as a matter of fact, the concept of this very “mysticism” as related by the Egyptologists is highly dubious, but perfectly safe for the Scaligerian version of Egyptian history.

The rendition of the Egyptologists is as follows: the content of Egyptian zodiacs had allegedly been very far from actual astronomy, and the “ancient” Egyptians would only think of the sky, the stars and the planets in the poetic sense when they were drawing their remarkable zodiacs, using them as a pretext to draw even more of their deities.

Our opinion is that such “explanations” explicitly distract the reader from a topic as interesting as it is dangerous for the Scaligerian chronology of Egypt.

## 2.

### A NEW APPROACH TO THE INTERPRETATION OF EGYPTIAN ZODIACS. PRIMARY AND SECONDARY HOROSCOPES

In the present section we shall give a brief outline of the new approach to the interpretation and dating of the Egyptian zodiacs.

At the beginning of our research, before we began the work with actual zodiacs, we conducted a meticulous comparative analysis of all the symbols contained in Egyptian zodiacs and available to us with the

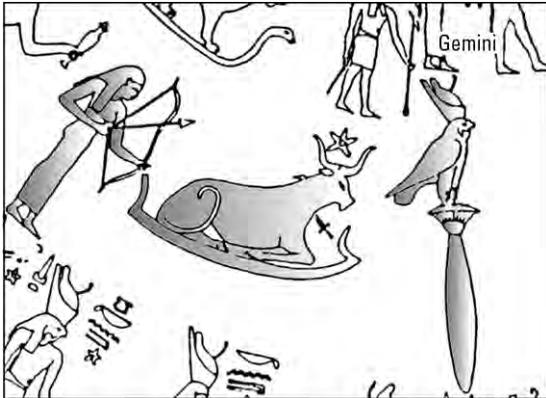


Fig. 14.8. Fragment of the Round Zodiac of Dendera (DR). The symbols shaded in grey are as follows: 1) pole (with a bird), and 2) incumbent bull (and a woman). These symbols are located right over the sign of Gemini, the “pole with a bird” being exactly above the constellation symbol. This drawing is based on the drawn copy from [1062], pages 9 and 71.

purpose of deciphering them to as full an extent as possible.

Let us emphasize that this analysis was based on all of the Egyptian zodiacs known to us – not to one or two, or even several “related” ones. It turns out (although this was far from obvious initially) that the astronomical symbols used in the overwhelming ma-

jority of Egyptian zodiacs are the same. This is a very important circumstance that eventually allows a more complete understanding of the nature of Egyptian zodiacs than one could ever get from the works that preceded ours. We need to point out that the authors that have worked with Egyptian zodiacs previously would usually just study them separately; they only made a few attempts of comparing symbols from different zodiacs to each other in their research.

It is only after we perform such an analysis that we can proceed with the decipherment and dating of individual zodiacs.

Let us linger on it for a while.

Whenever we get acquainted with various types of old Egyptian zodiacs, we come up with the natural question of whether the symbols found in *all* of these zodiacs can be deciphered in order for all the figures from all the zodiacs to mean the same thing in every case? It would naturally require correspondence to some sort of astronomically valid picture that could really be observed on the celestial sphere during the historical epoch. Our answer to this question is in the positive; it is indeed possible to accomplish this in a single possible manner and to get unequivocal datings as a result.

We must emphasize that this answer is far from being self-implied. In theory, it is possible that the an-

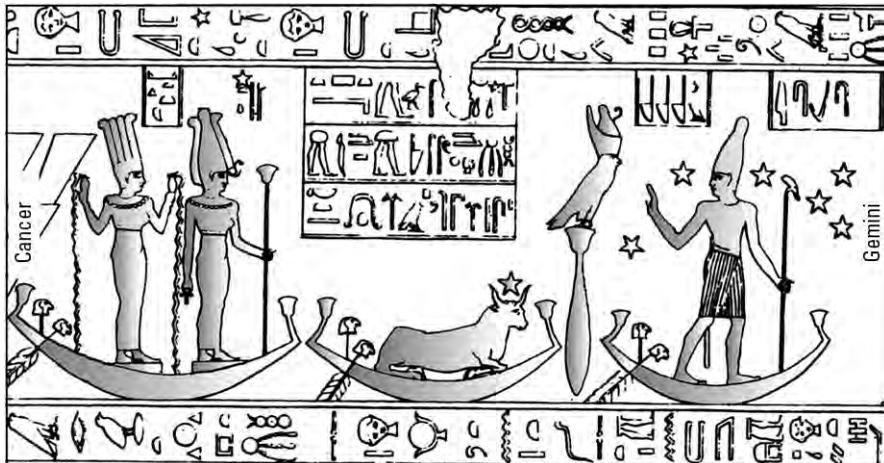


Fig. 14.9. A fragment of the Long Zodiac (DL). The symbols we see shaded in grey are as follows: 1) “man with his arm in the air”, 2) “pole with a bird” and 3) “incumbent bull (and women)”. Here we see two women instead of one next to the bull – they’re standing in a separate boat. This entire symbol group is located between the signs of Gemini and Cancer (directions are indicated in the drawing). The drawing is made according to the drawn copy from [1100], A. Vol. IV, Pl. 20.

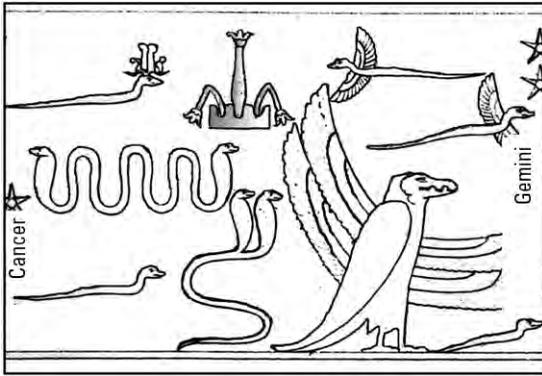


Fig. 14.10. Fragment of the EB zodiac from the Greater Temple of Esna. The “pole” symbol (with two broken poles on its sides) is shaded in grey. It is located between the signs of Gemini and Cancer, likewise in the Long Zodiac of Dendera. We see constellational directions indicated on the left and the right of the drawing. The drawing is based on the drawn copy from [1100], A. Vol. I, Pl. 79.

cient Egyptian artists were using astronomical symbols chaotically, ascribing different meanings to the same symbols used in different zodiacs. However, had this really been the case, our approach would simply yield no result at all – we would be most likely to come up with no solution and no interpretation in this case, or, alternatively, with planetary combina-

tions that would be impossible from the point of view of astronomy – at the very least, a star chart that wouldn’t refer to any moment on the historical interval. However, none of the above is the case. It turns out that Egyptian zodiacs can indeed be deciphered with the use of a single set of astronomical symbols. All of the interpretations have astronomical meaning and yield dates that fall into the historical interval.

The logical consequence is that the idea about Egyptian zodiacs being mere astronomical fantasies of the ancient artists is perfectly wrong. Had this been the case, it would be virtually impossible to decipher all of the Egyptian zodiacs using a single table of astronomical symbols in such a way that each time they would yield a sensible star chart that could really be observed during the historical epoch. The impossibility of such a situation results from the fact that the astronomical content of Egyptian zodiacs is rather rich, which makes the “fantasy” theory completely absurd.

We have discovered the Egyptian zodiacs to be perfectly professional astronomical texts transcribed as symbolic drawings. Astronomical symbols in Egyptian zodiacs would always follow a rigid order, with every symbol always meaning the same thing in the same context (although different symbols could naturally represent the same phenomenon).



Fig. 14.11. The Lower Zodiac from Athribis (AN, a fragment). The following symbols are shaded grey: “man with hand in the air” and “incumbent bull”. The imaginary line that the man with his hand in the air is standing on runs right across the sign of Gemini – he is standing in Gemini, that is. Based on the drawing from [544], Volume 6, page 730.

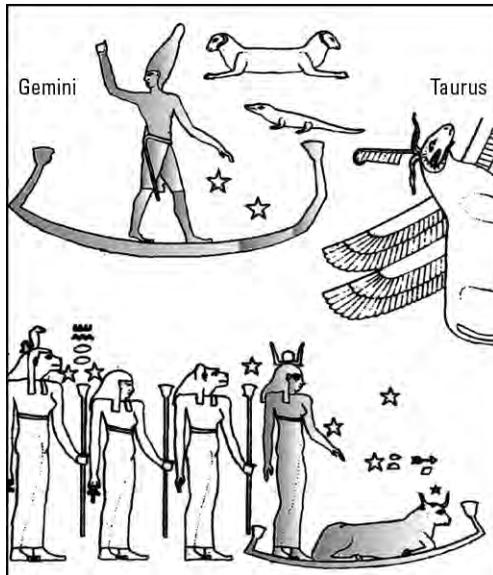


Fig. 14.12. Fragment of the EM zodiac from the Lesser Temple of Esna. The following symbols are shaded: “man with hand in the air” and “incumbent bull (with a woman)”. The woman is standing in the same boat as the bull. She appears to have fired a shot at the latter from her bow, likewise in the Round Zodiac (DR). Although we don’t see any bow in the woman’s hands, there is a small arrow over the head of the bull. This entire group of symbols is located in between the signs of Gemini and Taurus. The zodiacal sign directions are indicated on the right and on the left, at the top of the drawing. Based on the drawn copy from [1100], A. Vol. I, Pl. 87.

Let us reiterate that all previous research in general, and the works of N. A. Morozov in particular, allowed for different interpretations of one and the same symbol (or even entire groups of symbols) in different zodiacs. Some of the examples were cited above (see also [544], Volume 6, and [912:3]). This isn’t allowed in our approach.

We shall now provide the reader with a brief account of what conclusions exactly we arrived at concerning the astronomical symbolism of the Egyptian zodiacs; explanations of the astronomical symbols can be found below.

Let us begin with the remark that in many cases we run across the same, or similar, symbols on different Egyptian zodiacs. In some cases they are duplicated very faithfully – or they can vary very slightly. Furthermore, if we are to take a closer look, it turns out that

it isn’t just solitary symbols that recur, but whole combinations of such symbols, as well as individual symbols that one always finds in the same fixed locations of the ecliptic – that is, we see them in one and the same constellation on all Egyptian zodiacs. Naturally, this does not refer to planetary symbols, since planetary positions on the ecliptic change constantly, moving from one zodiacal constellation to another. It is therefore obvious that we are dealing with symbols that have got nothing to do with planets, yet pertain to the astronomical paradigm, since they are affixed to a certain position amidst the stars.

The important implication is that we can thus understand the symbolism of the Egyptian zodiacs better, planetary and otherwise.

An example. Consider the following group of symbols:

1) “A rod (with a bird on top of it)”; see figs. 14.8 and 14.9. In some cases the rod can have no bird on its top and two similarly-shaped rods by its sides, *qv* in fig. 14.10.

2) “Man with a raised arm”, *qv* in figs. 14.9, 14.11 and 14.12. If there is a planetary staff in the other hand of this man, he shall invariably be pictured as standing in a boat.

3) “Incumbent calf (and a woman)”; *qv* in figs. 14.9, 14.11 and 14.12. The calf is often accompanied by a woman – not always, though (see figs. 14.8, 14.9 and 14.12). Sometimes we see her shoot at the calf from a bow (fig. 14.8). On some of the zodiacs we see both of them in boats (figs. 14.9 and 14.12). They may be in the same boat or in different boats; on the Round Zodiac of Dendera it is just the calf that we see in the boat, with the woman depicted without a boat (fig. 14.8).

If we take a closer look, we shall see that on all the Egyptian zodiacs the symbols of this group would only be depicted in Gemini or in the immediate vicinity of the constellation – all or some of them. We do not come across these symbols anywhere else in the Egyptian zodiacs. They appear to be “tied” to Gemini, for some reason.

We have thus discovered a link between the constellation of Gemini and a certain group of symbols present on the Egyptian zodiac. What’s the implication? Why should Gemini in particular deserve extra symbolism in Egyptian zodiacs?

The very shape of the abovementioned symbols

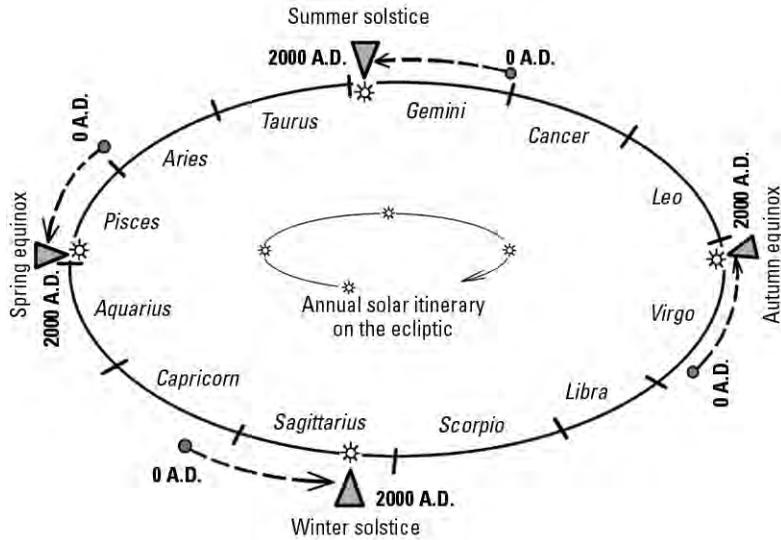


Fig. 14.13. Zodiacal circle (also known as the ecliptic) with solstice and equinox points. These points divide the ecliptic into four parts which are almost equal to one another. All of them shift across the zodiac with the speed of circa 1 degree in 70 years. They shifted by 30 degrees over 2000 years, or the length of a single zodiacal constellation (on the average). We see the shift trajectories from the beginning of the new era and until the present moment.

leads us to the answer (see figs. 14.8, 14.9, 14.10, 14.11 and 14.12). Apparently, such symbols as “bird on a rod”, or a “vertical rod with two extra rods leaning against its sides” or “man with a raised arm” can refer to the peak of the solar trajectory above the horizon. Below we shall witness that the bird sign would often be used for referring to the “extra-horoscope” Sun in Egyptian zodiacs (the horoscope sign for the Sun would always be represented by a circle). Therefore, this symbol with a bird on a rod is most spectacular indeed; it leaves almost no room for doubt about the fact that it symbolises summer solstice, which would make its location in Gemini mandatory – that is where we find the solstice point, after all.

Let us remind the reader that the summer solstice point is the position of the Sun upon the ecliptic (among zodiacal constellations, in other words) for the day when its position above the horizon is the highest. This day (called the Solstice day) is the same for the entire Northern Hemisphere. Nowadays it usually falls over the 21-22 June (Gregorian calendar), when the Sun approaches the very edge of the Gemini constellation, where it borders with Taurus ([393], pages 23 and 26. See also figs. 14.13 and 14.14).

This hasn’t always been the case. According to astronomy, multi-centenarian equinox precession makes the solar solstice point alter its position year after year with the rather low velocity of one degree every 72 years; this gives us a sum of roughly 30 degrees in 2000 years. The direction of the shift lies in the realm of smaller ecliptic longitude values. Other three solstice and equinox points are shifted at the same rate, *qv* in fig. 14.13.

Let us now recollect that the Gemini constellation occupies a roughly 30-degree arc of the Zodiacal belt, which means that the sun has always reached its solstice point in Gemini over the last 2000 years, moving from the boundary between Gemini and Cancer, where it had been reaching the solstice point before the new era, and towards the opposite end of the constellation, or the border with Taurus, where we find it at summer solstice nowadays.

We must point out that over the last 2000 years the summer solstice has always been in March, the spring equinox has taken place in June, the autumn one in September, December being the month of the winter solstice, although this is of little importance to us here (see figs. 14.13 and 13.15 above). This distribu-

### The annual motion of the Sun across the modern constellations according to the Gregorian calendar

Zodiacal constellation	Constellation symbols	Days when this constellation houses the Sun
Sagittarius		18 December – 19 January
Capricorn		19 January – 16 February
Aquarius		16 February – 12 March
Pisces		12 March – 18 April
Aries		18 April – 14 May
Taurus		14 May – 21 June
Gemini		21 June – 20 July
Cancer		20 July – 11 August
Leo		11 August – 17 September
Virgo		17 September – 31 October
Libra		31 October – 22 November
Scorpio		22 November – 30 November

Between the 30 November and the 18 December the Sun remains in the constellation of Ophiuchus, which isn't included in the number of zodiacal constellations.

Fig. 14.14. The modern annual motion of the Sun across the constellations. The dates when the Sun passes the zodiacal constellations are given according to the new style, or the Gregorian calendar. In the Gregorian calendar, spring equinox takes place on 20-21 March, summer solstice – on 21-22 June, autumn equinox – on 22-23 September, and solstice – on 21-22 December. We shall come up with the same data for the epochs in the past, if we are to convert all the datings in the table into the Julian calendar system (subtracting 13 days), and account for the fact that they shift forwards in time by the speed of 1 day in 157 years in the Julian calendar (the shift is two times faster in the Gregorian calendar). In turn, the solstice and equinox days shift backwards at the rate of 1 day in 128 years in the Julian calendar (they remain more or less stable in the Gregorian), *qv* in [393], pages 22-26. Ancient symbols of Sagittarius, Aries and Scorpio that one sees in the second column were taken from a star chart of Albrecht Dürer found in a 1551 edition of the *Almagest*, *qv* in [METH3]:3, page 113.

tion of the equinox and solstice points became rigidly fixed in the Gregorian calendar after the reform of 1582 ([393], pages 22-23). In the Julian calendar, the equinox and solstice points gradually shift across different calendar dates over the centuries.

Since we shall often be using the “old-style” Julian calendar in the present book due to its convenience for astronomical calculations, which has differed from the consensual “new-style” Gregorian calendar ever since the October of 1582, it would be expedient for us to explain the astronomical difference between the two calendars.

There are two natural ways of estimating the length

of the solar year, the simplest and most obvious one being equalling it to the time of the telluric rotation around the Sun. From the point of view of an observer located on the surface of the Earth, this is the time required for the Sun to finish its journey across the ecliptic and return to its old place among the stars. Such a “solar year” is called a “stellar year” in astronomy ([393]). The Julian (“old-style”) year is roughly two times more precise in corresponding to the stellar solar year than the Gregorian (“new-style”).

However, one might also suggest another way of estimating the length of a solar year, depending on the cyclic repetitions of the four seasons, which are known to be in rigid dependency on the dates of equinoxes and solstices. Therefore, each of the four seasons recurs over roughly the same period that it takes for the vernal equinox to recur, for instance. This time interval is the second version of estimating the length of the solar year and is called a “tropical year” in astronomy. The tropical solar year differs from the stellar, or the period of telluric rotation around the sun, the discrepancy between the two equalling circa 20 minutes and stemming from the fact that the climatic season recurrence period, or the tropical year, is dependent on the fluctuation period of the telluric axis to a greater extent than on the time it takes the Earth to complete its cycle around the Sun, since the advent of winter, autumn, spring or summer is primarily dependent on the bias of the telluric axis in relation to the plane of the telluric orbit, or, in other words, the height of the Sun above the horizon for a given season.

The average year length in the Julian calendar is in between the stellar and the tropical solar year. In the Gregorian calendar, the average year length is maximally close to the tropical year. As a result, the discrepancy between the average Gregorian year and the period of the Earth's cycle around the Sun exceeds that of the Julian by a factor of two.

A propos, this is where the popular opinion about the Julian calendar allegedly following a “wrong” astronomical year length comes from, one that was presumably corrected in the Gregorian calendar – all of this is blatant advertising which has got nothing in common with reality. The real length of a year in the Julian calendar is balanced well enough between the two solar years – the stellar and the tropical, differing

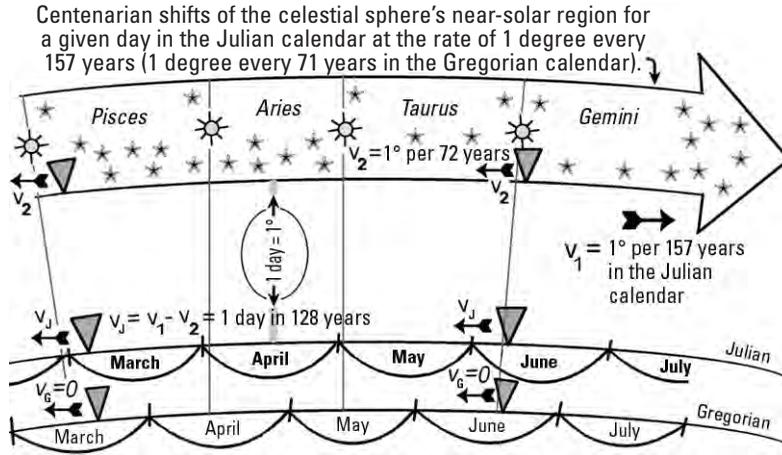


Fig. 14.15. Shifts of the spring equinox day in the Julian and Gregorian calendars as a sum of two shifts: 1) the shift of the spring equinox point on the celestial sphere, and 2) the centenarian shift of the near-solar region for one and the same calendar day. NB: In the Julian calendar, the near-solar region shifts at the average rate of 1 degree in every 157 years. This gives us some 10 degrees over 1500 years. In the Gregorian calendar, the shift is twice as fast – 1 degree in 71 years. The reason is that the duration of the average Julian year (365.25 days) is roughly in between the duration of the tropical year (365.2421988 days,  $q_v$  in [393], page 29) and that of the stellar year, or the time it takes the Earth to complete its cycle around the Sun (365.256360 days,  $q_v$  in [393], page 29). Therefore, the average Gregorian year, which was approximated to roughly equal the tropical, proved to be a great deal further away from the stellar year than an average Julian year.

by circa 9 minutes from the former and 12 minutes from the latter. In the Gregorian calendar this average year length all but coincides with the tropical, differing from the length of the stellar year by some 20 minutes. Thus, from the astronomical point of view, these two calendars are more or less “equal in rights”. However, the Julian calendar, which contains no “leaps” in its dates, is more convenient for calculations. As for the real reasons for replacing the “old” style with the “new”, it has to be said that they were rather distant from astronomy and indeed science in general. See [BR]:1 and [BR]:2 for details; also the second volume of *Russia and Rome*, as well as CHRON6.

Let us explain that the primary inconvenience of the Gregorian calendar (the “new style”) for backwards calculations lies in the fact that it contains a 10-day leap in 1582; also, the length of a century in the Gregorian calendar is measured by a fractional number of days, unlike the Julian. This complicates calculations as well. Since the Julian calendar had officially remained the civil calendar in Russia up until 1917, we do not occupy ourselves with converting the calculated Julian dates into the “new style”, even for the

epochs postdating 1582 A.D. The readers are capable of doing this independently, should they so desire. Thus, all the calculated dates that we cite in this book are given according to the Julian calendar; this observation is only valid for dates beginning with 1582 A.D.

The correlation between the equinox and solstice points on the celestial sphere and the corresponding dates in the calendar, as well as centenarian shifts of the near-solar part of the star chart in the Julian and Gregorian calendars can be seen in fig. 14.15. In this illustration one sees the vernal equinox point and the summer solstice point; the other two are tied to them rigidly and shift in the exact same manner; in particular, one can calculate the fact that the summer equinox point has remained in Gemini for the last 2.000 years using figs. 14.14 and 14.15.

Let us return to Gemini in Egyptian zodiacs. We have seen that this constellation contains the summer solstice point, which is apparently also represented in Gemini as the abovementioned group of symbols that one encounters in Egyptian zodiacs, and quite clearly and unmistakably so.

Another example. On the EB zodiac from the

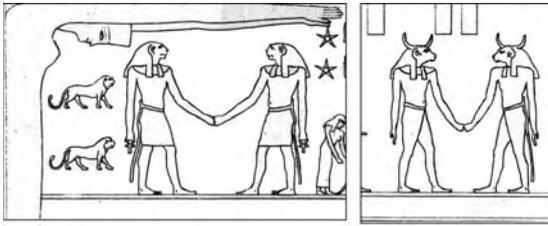


Fig. 14.16. The EB zodiac (from the ceiling of the Greater Temple of Esna). We see two very similar symbols of “meeting and handshake”. In the EB zodiac we find them in the opposite points of the ecliptic, and obviously serve to mark the points of spring and autumn equinox. Namely, the left sign is located between the symbols of Leo and Virgo, while the right one is between Pisces and Aries. For the last two millennia the equinox points have remained in the respective constellations of Virgo and Pisces. On equinox days day becomes equal to night in duration, as though it were “meeting” the latter. This is precisely what the “meeting and handshake” symbol means in the EB zodiac. Fragments of a drawn copy from [1100], A. Vol. I, Pl. 79.

Greater Temple of Esna we can see two all but identical signs among all the other symbols. Each of them represents a pair of human figures with animal snouts instead of faces standing in front of each other and shaking hands – a meeting of sorts, *qv* in fig. 14.16. What exactly could this mean? In order to understand this better, let us study the exact location where these two “meeting signs” or “handshake signs” are encountered on the EB zodiac. It turns out that one of them is located between the signs of Virgo and Leo, and the other – in between Pisces and Aquarius, which makes them occupy the opposing ends of the ecliptic, since the constellations of Pisces and Virgo oppose each other on the celestial sphere.

What could the “meeting” and “handshake” possibly refer to in these points? The answer is a simple and obvious one. This is precisely where we encounter the vernal and autumnal equinox points. When the Sun passes through them on its annual stellar itinerary, the length of daytime and night-time become equal, or “meet”, and subsequently “part”, their respective duration becoming different once again. Such “meetings” of day and night take place exactly twice a year – once during the spring equinox when the Sun is in Pisces (we are referring to the last two millennia). On the EB zodiac from Esna this event is marked by the

sign of “meeting and handshake” which is duplicated in Virgo for the autumn equinox.

This is the order in which the abovementioned equinox points are represented in the calendar that we’re accustomed to – one that begins with January; it is also valid for a calendar beginning in March. However, the year began from September in the Egyptian zodiacs; therefore, the autumn equinox shall precede the vernal one upon them.

It is thus plainly visible that, apart from the date that the primary horoscope was dedicated to, it would also contain the date of the summer solstice, for instance, as well as the two equinoxes. Could it be that one can find the winter solstice in those zodiacs as well? It has been in Sagittarius for the last two thousand years, *qv* in fig. 14.13. In other words, the sun is passing through the constellation of Sagittarius when it rises above the horizon the lowest. Let us regard the very same EB Zodiac of Esna. What do we see? The Sagittarius constellation is inverted, with his head directed downwards, *qv* in fig. 14.17. All other constellations one finds on the zodiac are presented in the normal manner, Sagittarius being the only exception – one can therefore point out to the sun “hanging upside down” when it reaches its lowest peaking rate in Sagittarius.

As we shall see below, it wasn’t necessary to invert the sign of Sagittarius on the EB zodiac, since this sign already represents the characteristics of a specially emphasised solar position, which can only be the point of the winter solstice in Sagittarius. One way of emphasising such points employed by the Egyptian zodiacs is the specific extra symbolism referring to the Sun and the planets closest thereto. We shall discuss this in detail below; for the meantime, let us merely point out that the compiler of the EB zodiac inverted the sign of Sagittarius in order to emphasize the presence of the winter solstice point there once again.

One therefore gets the suspicion that all four points of the solar circle were represented on Egyptian zodiacs for some reason – both solstices and equinoxes. Is this the case indeed? If the answer is in the positive, one shall have no more doubts about the fact that the abovementioned group of symbols that “accompanies” Gemini, for instance, really refers to the summer solstice, as well as the existence of a special set of symbols for each of these four points.

We have conducted a meticulous study of every Egyptian zodiac that we'd had at our disposal from this particular viewpoint and confirmed the fact that they really appear to contain special indications used for solstices and equinoxes (we shall discuss the actual symbols below).

The general picture that one comes up with is as follows. Nearly all of the old Egyptian zodiacs (the more detailed ones, at the very least) contain references to the four primary points of the solar cycle, which, as we know from astronomy, separate the zodiacal belt (or the ecliptic) into four parts that are all but equal to one another (see fig. 14.13). Over the last 1.500-2.000 years these points have been located in the following constellations:

Spring equinox – Pisces;

Summer solstice – Gemini;

Autumn equinox – Virgo;

Winter solstice – Sagittarius ([393], pages 22-26).

From the point of view of astronomical dating it is significant that these four points weren't marked on Egyptian zodiacs randomly, but rather were given additional planetary symbols – namely, those representing the planets that were near the Sun that day. Laws of astronomy make Venus and Mercury invariably present in the list of such planets, since they never draw too far away from the Sun. However, in certain list other planets' chance proximity to the sun also became reflected in these lists, which made them rather rich, constituting a horoscope – never a full one, though. Still, in addition to the primary full horoscope, it can affect the dating substantially.

Let us not that the most useful planet in such “partial” horoscopes is usually Mars due to the fact that its ecliptic speed is high enough, and his position in relation to the equinox or solstice point can be drastically different from that in the primary horoscope, which doubles the Martian input in the source data used for astronomical dating.

One might wonder about the means the Egyptian astronomers and artists used in order to avoid confusion between the planets of the primary horoscope, and the symbols of the very same planets given for the solstice/equinox points? We shall provide an answer to this question below, as well as several actual examples of how it was done. The only thing we must point out so far is that the compilers of the Egyptian



Fig. 14.17. Fragment of the EB zodiac from the Greater Temple of Esna. The constellation of Sagittarius is drawn inverted in order to signify that the Sun reaches its lowest zenith in Sagittarius, on the day of winter solstice. We find it in the lowest possible position – “hanging upside down”, as it were. Based on the drawn copy from [1100], A. Vol. I, Pl. 79.

zodiacs were indeed very meticulous about distinguishing between the symbols used for the primary and secondary horoscopes, making certain nothing would affect the main date ciphered in the zodiac.

The reader might also ask why none of this had been noticed earlier – by N. A. Morozov, for instance? The main reason for this must be that it was only the advent of computers that gave us a real opportunity to calculate horoscope for many possible versions of deciphering a zodiac. It is extremely hard to understand these symbols contemplatively.

It is also possible that N. A. Morozov simply lacked the time for a more profound understanding of the Egyptian zodiacs and their astronomical symbolism. He may have been set back by his erroneous chronology and the resulting predisposition to date the Egyptian zodiacs to the epoch of the VI-XI century A.D., leaving later epoch out of consideration, while they contain the veracious datings. As for the research conducted by the Egyptologists, we already explained above that they realised the resultant dates fail to confirm Scaligerian chronology of Egypt and may only refute it, and stopped showing any interest for independent astronomical dating of the Egyptian zodiacs, as well as serious analysis of their astronomical symbolism.

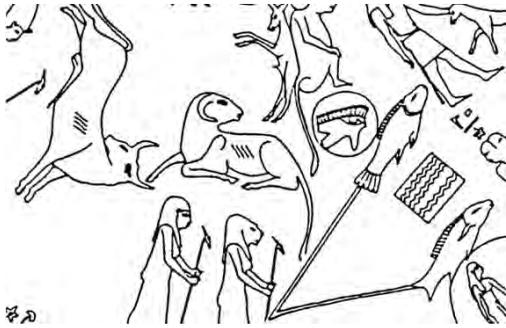


Fig. 14.18. The Round Zodiac of Dendera (DR). The tablet in Pisces that serves as a spring equinox symbol. Drawn copy from [1062], pages 9 and 71 (a fragment).

One must however notice that certain individual elements of secondary horoscopes would occasionally come into Morozov's sight, yet he would always fail to realize their importance; the general picture in this area remained vague for him as a result. Basically, Morozov made a serious interpretation error here, which eventually led him away from understanding a significant part of the astronomical symbols used in Egyptian zodiacs.

Thus, for instance, N. A. Morozov is perfectly right no pay attention to the spring equinox symbol in Pisces on the Round Zodiac of Dendera. However, he refrained from any further steps in this direction for

some reason, without elaborating on his observation. He merely mentions the vernal equinox sign to point out the discrepancy between the Round Zodiac and the early A.D. epoch insisted upon by the Egyptologists. Let us explain that due to precession vernal equinox only shifted to Pisces in the II century A.D. and had remained in Aries prior to that – ergo, a pre-II century dating contradicts the indication given by the Round Zodiac that the spring equinox is in Pisces. Morozov makes the following justified remark in this respect: “there is a sign between the two fishes on the Piscean symbol indicating that the spring equinox had been in that sign already” ([544], Volume 6, page 658. See fig. 14.18).

We see that the actual sign of the vernal equinox as used on the Round Zodiac was discovered by Morozov correctly. Why, then, does he explain another perfectly similar symbol found on the very same zodiac in a perfectly different manner? It is obvious that it should stand for the other equinox – autumnal, located in Virgo.

Morozov was obviously confused by the fact that the other symbol is at a certain distance from Virgo on the Round Zodiac and serves as a pedestal for the figure of Leo, qv in fig. 14.19. However, it is not the zodiacal figure of Leo. We see a different sign used for that zodiacal constellation, as the illustration demonstrates. The figure of Leo resting upon the equinox



Fig. 14.19. The Round Zodiac of Dendera (DR). The autumn equinox tablet underneath the front paws of the leonine figure (second on the left in the highlighted “group of Virgo”). Virgo itself is represented by the figure of a woman holding an ear of wheat in her hand. The zodiacal constellation symbols are shaded grey. Based on the drawn copy from [1062], pages 9 and 71.

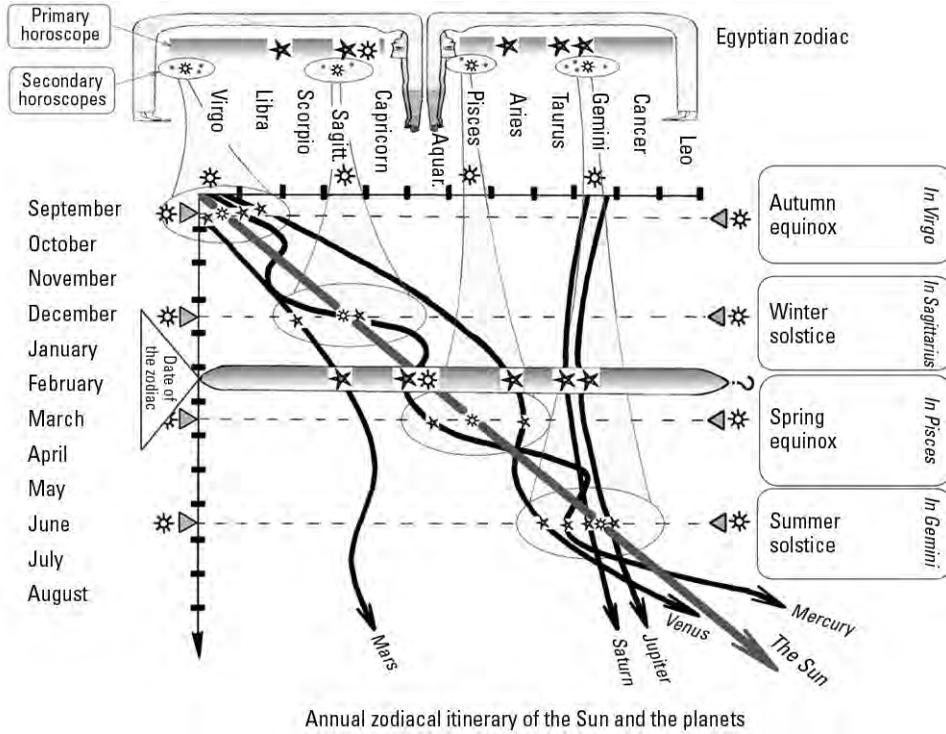


Fig. 14.20. Astronomical meaning of the Egyptian zodiac that serves as both of the following: 1) A description of planetary positions, including those of the Sun and the Moon, for the date of the zodiac. This is the primary horoscope of an Egyptian zodiac. 2) A brief description of the planets closest to the Sun on the days of the four primary solar cycle points. The latter represent the secondary horoscopes of an Egyptian zodiac. The Moon is omitted in order to keep from overcomplicating the drawing.

sign is located outside the belt of zodiacal constellations, as it is easy to see – the zodiacal belt is marked grey in fig. 14.19.

One way or another, Morozov gave the second equinox sign from the Round zodiac a wrong explanation, suggesting it to stand for a certain “road-mark with an inscription (referring to crossing the equator)” ([544], Volume 6, page 652).

Below we shall demonstrate that the symbol itself, as well as the “extra-Zodiacal Leo” resting upon it as seen on the Round Zodiac are related to the constellation of Virgo, whose sign in the zodiacal ring is located near the group of figures that includes this Leo in particular, as one can clearly see in fig. 14.19 where this entire group is specially marked. One sees that it locates exactly underneath Virgo; the symbol that the lion rests upon is part of this group and also pertains to the constellation of Virgo.

Furthermore, the entire symbolic “procession” that we find on the Round Zodiac that includes Leo resting on the equinox symbol turns out to be a secondary autumn equinox horoscope, as we shall demonstrate above – not the “retinue of a comet”, according to Morozov’s false assumption ([544], Volume 6, page 652). This secondary horoscope isn’t hard to decipher, qv below; it is in direct relation to the astronomical dating of the Round Zodiac.

Let us sum up. It turns out that the astronomical content of the Egyptian zodiacs isn’t limited to a single horoscope, or the planetary positions for the day of the “primary dating”. Nearly every Egyptian zodiac contains additional astronomical information of some sort; in particular, some of them contain brief astronomical descriptions of the solstice and equinox days of the year that the main date of the zodiac falls upon. We shall be referring to them as to sec-

ondary horoscopes of the equinox and solstice points.

For example, the “secondary horoscope of summer solstice” gives us the positions of planets that were close to the Sun on the day of summer solstice, usually the planets that ended up in the same constellation as the summer solstice point or nearby, that is, in Gemini and in the neighbouring constellations of Taurus and Cancer. Apart from that, Egyptian zodiacs contain other additional astronomical information that we shall be mentioning below.

In other words, it turns out that, in general, an Egyptian zodiac is an astronomical description of the entire year that contains the main date coded in the zodiac. This date’s horoscope, which we shall refer to as a given zodiac’s main horoscope, is the most important part of the zodiac, but not the only one.

### 3. AN EGYPTIAN ZODIAC AS A DESCRIPTION OF THE ENTIRE CALENDAR YEAR THAT CONTAINS THE MAIN HOROSCOPE’S DATE

The construction of an Egyptian zodiac as that of a calendar year’s astronomical description is represented as a diagram in fig. 14.20. We see how the planets follow the Sun along the belt of the zodiacal constellations, with a certain year taken as an example. It doesn’t matter which year we take exactly; the planetary motion might differ, but the qualitative character of the general picture shall remain the same. Obviously, the motions in questions are referred to as seen from the Earth. To the left of the diagram, in fig. 14.20, one sees an Egyptian zodiac. As we can see from the drawing, it contains several planetary disposition for a given year – a full one and up to four partial ones, namely:

1) The disposition of all the planets, the Sun and the Moon for a given day – the zodiac date. This is the main horoscope of an Egyptian zodiac.

2) Brief descriptions of the positions occupied by the Sun and the planets in its immediate vicinity for the solstice and equinox dates. These are the partial horoscopes of an Egyptian zodiac.

Also, the Egyptian calendar year began in September, with the Sun passing the constellations of Leo and Virgo ([544], Volume 6, page 641).

### 4. UNLIKE PREVIOUS RESEARCHERS, WHO STOPPED AT A SINGLE INTERPRETATION VERSION THEY DEEMED BEST, WE CONSIDER EVERY POSSIBLE DECIPHERMENT OPTION FOR THE EGYPTIAN ZODIACS

The secondary horoscope symbols that we have discovered drastically change the situation with the astronomical dating of the Egyptian zodiacs. The quantity of dating criteria becomes sufficient for the dating of a zodiac in a given interpretation as well as validating the correctness of the interpretation itself. This became a possibility due to the fact that the abundance of astronomical data contained in secondary horoscope eliminates the possibility of a random solution. That is to say, a stellar configuration described in a horoscope is highly unlikely to have been generated randomly - even if we are to search for such dispositions on the interval of several millennia. Thus, an incorrect interpretation will make it impossible to find a solution in the historical interval – for the zodiacs whose astronomical content is sufficient, that is.

It has to be said that all four secondary horoscopes of a given Egyptian zodiac don’t need to be really detailed, and this is usually the case indeed. Even in case of the large temple zodiacs of the “ancient” Egypt which usually tend to contain a large amount of different figures and signs, some of the secondary horoscopes prove too abstract and give no tangible results – for instance, they can be rendered useless by the fact that too few planets were near the Sun on a given day.

However, even one or two secondary horoscopes with enough detail suffice to exclude the extraneous astronomical solutions, even if we are to seek them for all possible interpretations of the main horoscope. Wrong interpretations shall be eliminated automatically as having no solutions which would satisfy to the full set of a zodiac’s astronomical criteria. To rephrase what we have already been saying above, calculations render misinterpretation impossible.

We shall describe this procedure in detail below, using all the Egyptian zodiacs known to us as an example. All we need to emphasise herein is the fact that we finally have the opportunity of using all pos-

sible interpretations of a given zodiac for a given astronomical dating, including the erroneous versions, since the calculations itself tell us which of the interpretations is correct, if any. Should there be none, we won't come up with any exact solutions; that will leave us with the two possibilities, the first one being that the interpretation hadn't been found and needs to be searched for, and the second that the zodiac in question is of a figmental nature.

What we must point out immediately is the fact that not a single ancient Egyptian zodiac proved a fantasy creation from the point of view of astronomy. All of them are real astronomical texts, and complex ones as that. Creating them as a result of fantasising is very much like writing a novel pressing a typewriter's keys in a random manner.

Thus, it turns out that most Egyptian zodiacs contain enough "astronomical hieroglyphs" to secure a single astronomical solution for them, as well as validating the interpretation of these "hieroglyphs" by calculations and not expostulations, often of a very ambiguous nature.

Above we already mentioned that all the previous researchers involved in deciphering and dating the zodiacs from Egypt invariably failed to pay attention to

either the secondary horoscopes or the solstice/equinox symbols present there. These symbols were discussed, but their real meaning remained beyond comprehension. Usually, these symbols were regarded as bearing no relation to astronomy whatsoever.

As it becomes clear to us nowadays, this is exactly why the datings of the Egyptian zodiacs suggested previously would often contain discrepancies. The reason for this is the incomplete decipherment of the Egyptian zodiacs and their astronomical content, which made it impossible to separate the real dating from extraneous ones, or random solutions one invariably encounters in calculations when there isn't enough data for a single unequivocal answer.

Let us point out that earlier datings of the ancient Egyptian zodiacs have been altered as a result of our research for the most part; their overwhelming majority turned out to be late mediaeval. Previous datings, mediaeval ones as well, needed to be corrected due to their inability to satisfy to the set of astronomical criteria applicable to an ancient Egyptian zodiac. Some of the corrections make the datings more recent, others – less so; however, most of the final dates ended up in the epoch of the XI-XIX century A.D.