

Fig. 15.43. Planets in the P2 zodiac look like busts whose number corresponds to that of the planets perfectly. The symbols of Venus and Mercury can be identified instantly and reliably. One of the two female busts is accompanied by a rather explicit crescent, and can therefore be identified as the Moon, which makes the remaining female bust stand for Venus, and the two-faced male bust as Mercury. This is how Neugebauer, Parker and Pingry interpret these drawings, see [1291], page 98. The error of Brugsch, who had misidentified the two-faced male figure as Venus, becomes quite obvious from this zodiac. Based on the drawn copy from [1291], Tafel 41.

In the Athribis zodiacs of Flinders Petrie the bird figure representing Venus was identified as a result of computer calculations accounting for all the options. Therefore, the circles representing the zodiacs AV and AN in fig. 15.39 are shaded grey.

We already discussed the name of Venus in the demotic horoscope from the zodiac of Brugsch. Here we wholly rely on the translation of the demotic inscriptions made by Brugsch.

In another horoscope from the same zodiac (the "horoscope with boats") we can identify Venus instantly – it is the only female planetary figure that we see here (gig. 15.39 (BR)).

The drawing of Venus from the third and final

horoscope that we find in Brugsch's zodiac (the "horoscope without rods") is very odd indeed, qv in fig. 13.17 above. We only managed to identify Venus after having excluded all other planets. The only vacant symbol that we ended up with is the lioness with the tail of a crocodile, with a crocodile underneath, qv in fig. 15.39 (BR). However, the Crocodile might pertain to the symbolism of the Leo constellation, where we find Venus in this case. In the OU zodiac, where Venus is also in Leo, we see a very similar crocodile under the constellation figure, qv in fig. 15.39 (OU).

Let us also point out that the sign of the lioness (usually as a leonine head) often accompanies Venus in the Egyptian zodiacs. We shall witness this on nu-

merous occasions in our study of the secondary horoscope. However, this attribute is also frequently encountered in primary horoscopes. For instance, one of the two figures that represent Venus in the primary horoscopes on the zodiacs of Esna and Dendera has the head of a lioness, qv in fig. 15.39. The fact that the head in question is leonine and not canine, as N. A. Morozov had thought (apparently, due to the poor quality of the illustrations that he was using) is illustrated by fig. 14.7 above, for instance, where we see a multitude of Egyptian planetary symbols. Only one figure of those is a woman with a leonine head, the so-called "goddess Sekhmet", qv in fig. 14.7. Effigies of this "goddess" were often found in the "ancient" Egypt. One of such effigies is exhibited in the Hermitage (St. Petersburg) - a sitting granite humans-sized statue of Sekhmet. A photograph of this statue can be seen in fig. 15.44. One plainly sees that Venus (or Sekhmet) has the head of a lioness.

Another attribute of Venus, which it has "in common" with Mercury is a vertical serpent. We shall discuss this symbol in detail below, once we reach the section on the respective characteristics of Mercury, qv in CHRON3, Chapter 15:4.10.



Fig. 15.44. Ancient Egyptian statue of Venus as "the goddess Sekhmet" from the State Hermitage in St. Petersburg, Russia. The view of the entire statue is on the left, and its head is on the right. One can plainly see this to be a leonine head. The museum plaque bears the following legend: "Statue of the goddess Mut (Sokhmet). Egypt. Thebes". Photograph taken in 2000.

THE SYMBOLISM OF THE EGYPTIAN ZODIACS | 457

Let us conclude with the observation that Venus was also known under the names of Aphrodite, Isis and Astarthe ([532], page 121). In the Scandinavian mythology Venus corresponds to the goddess Freia ([393], page 42).

The weekday dedicated to Venus is Friday. The English name stems from "Freia's day", whereas the Latin *Dies Veneris* stands for "The Day of Venus" ([393], page 41).

4.9. Mercury in the primary horoscope

Drawings of Mercury from the primary horoscopes of different zodiacs can be seen in fig. 15.45. Each of the drawing's cells corresponds to a single zodiac, whose indication is given in the circle inside the cell. The circles of the zodiacs marked EM, EB and OU in fig. 15.45 are shaded grey, which means that Mercury was found as a result of computer calculations with all possible options sorted through. In all the other zodiacs we managed to identify Mercury instantly, before performing any astronomical calculations.

We do not cite the drawings of Mercury from the zodiacs of Petosiris in fig. 15.39. See the section concerned with the dating of these zodiacs below, as well as fig. 15.43.

Three various drawings of Mercury are given for Brugsch's zodiac in fig. 15.45 (BR) – one for each of the primary horoscopes contained in this zodiac – the "demotic" horoscope, the "horoscope without rods" and the "horoscope with boats". In the first one, the name of Mercury is written in demotic script between Scorpio and Libra. It was interpreted as "*Sebek*" by Brugsch, which stands for Mercury ([544], Volume 6, page 697).

In the two other horoscopes of Brugsch Mercury is drawn as human figures, qv in fig. 15.39 (BR).

As we have already mentioned above in re the error of H. Brugsch who confused Venus with Mercury in the zodiacs of Dendera, Mercury was often drawn as a two-faced male figure in the Egyptian zodiacs. This two-faced representation corresponds well to the astronomical nature of Mercury. In his analysis of the planets in the Round Zodiac of Dendera, qv in fig. 15.45 (DR), N. A. Morozov writes the following:

"In between the constellations of Pisces and Aquar-



Fig. 15.45. Mercury in the primary horoscope of various Egyptian zodiacs. Cells with grey circles (EM, EB and OU) refer to calculated identifications of the planet with all possible versions of identifying birds as planets taken into account. The zodiacs of Petosiris are not represented. In the DL zodiac we see two representations of Mercury in the primary horoscope at once, since it is a fast moving planet – one stands for the visible position of the planet, and the other – for the invisible. All the figures we see in the DL cell between the two symbols of Mercury were reduced in size for better representation. Fragments taken from [1100], [1062] and [544], Volume 6.

ius we see a wayfarer carrying a rod who looks like the two-faced god Janus with a star over his head. It is the planet Mercury that never leaves the solar vicinity and can only be observed for a few days, showing each of his two faces – the first in the West at dust and the second in the east at Dawn. Astronomical symbolism of the antiquity doesn't permit two interpretations ([544], Volume 6, page 659).

These words of N. A. Morozov are most demonstrably confirmed by the symbolism of zodiac P2 from the inner chamber of the tomb of Petosiris, whose drawn copy we already cited in fig. 15.43 above. In this Egyptian zodiac Mercury is drawn as a man with two faces, one of which is turned towards the Sun and left unshaded, whereas the second is turned away from the sun and shaded black. The astronomical meaning of these symbols is obvious. The face turned towards the Sun is illuminated by the solar rays, whereas the one that faces the other direction remains beyond their reach. Thus, one can say that Mercury shows us the two faces that it has as it can be observed from both sides of the sun, which corresponds with the above quotation from Morozov perfectly.

As for Morozov's guess concerning the fact that the Egyptian Mercury corresponded to the two-faced Roman god Janus (the "two-faced Ivan"), we already mentioned it as we analysed the Saturnine symbolism. We deem Morozov to be perfectly right here. Additional considerations that we have in this respect will be cited at the end of the present section.

Thus, we shall be adhering to the following rule in the course of our research.

If we see a two-faced male planetary figure in an Egyptian zodiac, we presume it to stand for Mercury.

One has to note that this rule isn't always of use. In some of the Egyptian zodiacs there are no twofaced planetary figures. In such cases Mercury could be drawn with a single face – usually human, but occasionally also a jackal's head. We already mentioned the fact that the Egyptian "god Anubis" with the head of a jackal can be identified as Mercury (or Hermes). See more on the similarity between the images of Mercury and Saturn in the ancient astral symbolism above.

Wednesday was the week day consecrated to Mercury ([155], page 66; see also [393], page 44).

4.10. The attributes of Mercury in the Egyptian zodiacs

In the course of our research we have discovered that Mercury often possesses the same attributes in different Egyptian zodiacs. They are useful for estimating Mercury's position in a zodiac in complex and ambiguous cases. Among such symbolic attributes we find the following:

1) Bicephalous or two-faced creatures facing opposite directions. Sometimes their bicephalous nature is replaced by a pair of arms spread wide. These symbols are manifest the most in the "Greater Zodiac" of Esna (EB). We see both a two-faced animal and a human figure with arms stretched sideways, with two identical little animals below drawn as facing each other, qv in fig. 15.45 (EB). Mercury itself is drawn here as two jackal-headed figures – one sitting and the other standing, qv in fig. 15.45 (EB). The sitting figure with the spread arms can be seen next to Mercury in the "coloured Theban zodiac" (OU). It is part of the hieroglyphic inscription near Mercury's head, qv in fig. 15.45 (EB).

2) A serpent-shaped rod in the hands of Mercury, or simply a vertical drawing of a snake nearby. May also serve as an attribute of Venus - on the zodiacs of Esna, for instance. Such snakes accompany Mercury the most often in secondary horoscopes of the Egyptian zodiacs, but we also occasionally encounter them in the primary horoscopes. For instance, next to the abovementioned sitting figure with arms stretched to the side in fig. 15.45 (EB) we see a vertically-aligned drawing of a snake. This snake may also be bicephalous, qv in the secondary summer solstice horoscope from the "Greater Zodiac" of Esna (EB), qv below. Let us point out that horizontal drawings of snakes, bicephalous ones included, turn up in everywhere in the Egyptian zodiacs and don't serve as symbols of Mercury. Some of them indicate equinox points, as we shall see below.

Also, even vertical drawings of snakes don't necessarily have to stand for Mercury in the Egyptian drawings. For instance, a cobra on a pedestal with a raised head might stand for an equinox point, qv below. In some cases vertically-aligned snakes are seen in the vicinity of other planetary symbols – Venus, for instance; see also our discussion of secondary horoscopes in the EM zodiac below. However, such cases are rather rare; on the contrary, we see such snakes near Mercury very often. Sometimes they can be used to identify the position of Mercury in an Egyptian zodiac. Whether or not this theory is veracious can be estimated from calculations.

3) The feather on the head of a figure can often serve as an attribute of Mercury (however, this doesn't necessarily have to be the case). It can stand for Mercury in secondary horoscopes – the summer solstice horoscope in Gemini, for example, as we shall see below. The abovementioned sitting figure with stretched arms that we see in Mercury's entourage has got a feather instead of a head, qv in fig. 15.45 (EB).



Fig. 15.46. Planetary figure of Mercury in the P2 zodiac from the inner chamber of the Egyptian tomb of Petosiris. The drawn copy is on the left, and the photograph is on the right. Mercury looks like a two-faced man. One of his faces is turned towards the sun and therefore drawn white, whereas the other is facing the opposite direction and drawn darkened, or shadowed. Taken from [1291], Tafel 40 & 41.

4.11. Mercury drawn in two positions simultaneously

One of Mercury's primary characteristics is its rapid movement across the celestial sphere. Mercury moves faster than any other planet except for the Moon. Therefore, Mercury's position could vary to a great extent within the confines of the primary horoscope's date. This would lead to Mercury becoming indicated twice on certain Egyptian zodiacs. We see this to be the case in the Long Zodiac of Dendera, for instance, for which we saw Mercury in both positions – visible as well as invisible.

One has to say that the date of an Egyptian zodiac as transcribed in a primary horoscope could be stretched into a sequence of several days, owing to the fact that the "ancient" Egyptian creators of one zodiac or another may have had objectives other than indicating the hour or even the day of the event that the zodiac in question commemorates with exactitude. It is possible that they only knew the week where the event that they're interested in had happened. One still finds traces of the ancient timekeeping method that was based upon weeks counted from Easter in the Orthodox ecclesiastical calendar.

The fact that Mercury is drawn twice in the Long Zodiac of Dendera (once in its visible position, and once invisible, "hiding" behind the Sun) was pointed out by N. A. Morozov, who wrote that "the only figure left here [in the Round Zodiac – Auth.] for Mercury is the two-faced Janus between Pisces and Aquarius, which is why I believe this figure on the rectangular zodiac [the Long Zodiac – Auth.] to be a second representation of his, one that hides behind the Sun" ([544], Volume 6, page 654). N. A. Morozov is perfectly correct to point out the second representation of Mercury in the Long Zodiac. Unfortunately, he failed to recognize its first representation in the zodiac, having mistaken it for "a comet in the evening sky" ([544], Volume 6, page 677). As we already pointed out above, Morozov would mention comets every time he failed to identify a planetary figure. We haven't found a single comet in any Egyptian zodiac; even if they were drawn , it must have been on very rare occurrences.

In fig. 15.45 (DL) we cite a fragment of the Long Zodiac of Dendera where one sees two drawings of Mercury. One of them looks like two men, one following another. The one on the left is holding a planetary rod in his hand. Another is holding a snake, and there are two feathers on his head. The visibility of Mercury is symbolised by the star over the head of the man with the rod. Another representation of Mercury can be found on the other side of the figure of Taurus with the Sun over its back (this figure is somewhat smaller in fig. 15.45 (DL)). There is no star over the head of Mercury here, since the planet was invisible in this position, obscured by the Sun. As we shall see below, the entire picture of Mercury passing by the Sun corresponds ideally to the real situation as observed on the celestial sphere. In general, the visibility of planets would be reflected in the Egyptian zodiacs in the most meticulous manner possible. This must be the reason why Mercury, whose position for the zodiacal date changed from visible to invisible, was drawn in the Long Zodiac twice. See the section on the dating of the Long Zodiac of Dendera below.

Mercury is also drawn twice in the "horoscope with boats" from Brugsch's zodiac, where it is represented by two similar male planetary figures in boats that we see on either side of Saturn's figure, qv in fig. 15.45 (BR). Apparently, the underlying concept implied the demonstration of Mercury's visible position as well as the invisible. This happened when a fast Mercury turned up on the other side of the slowlymoving Saturn, which is what the second figure of Mercury on the zodiac must stand for.

4.12 Mercury as the symbol of the "two-faced god" Janus (Ivan)

Let us voice some of our considerations in re Morozov's suggestion that Mercury corresponded to the two-faced god Janus in Roman mythology, or "Ivan the god", since the name Janus (or Ian/Jan) is the same as Ivan, serving the western Slavs as the indication of the latter, for instance.

We have already pointed out Hermes being the Greek name of Mercury ([532], page 151). According to linguists, it stems from the Greek word *Herma* which translates as "a pile of rocks" or "a menhir" ([532], page 151). It is also presumed that "the hermae were roadmarks ... guardians of roads, borders and gates (hence the "private, hidden" connotation of Hermetic – Propylaea etc), qv in [532], page 151. Thus, the Greek name of Mercury (Hermes) could be interpreted along the lines of "Guardian of the gates". On the other hand, the Roman Janus is presumed to be the "god of gates" – specialists even claim his name to originate from the word "gate". Thus, the "Mythological dictionary" tells us the following about Janus:

"Janus (derived from *ianua*, "door" or "gate") – the god of doors, exits and entrances in Roman mythology (his epithets are "the opener" and "the closer") ..." ([532], page 679).

We thus see that the Hermes and Janus as Mercury's names all referred to the same entity; the cults of both "ancient deities" were rather close, and could have merged and transformed into one another.

Janus is known to have been drawn with two faces: "Janus was drawn with keys, 365 fingers to correspond to the number of days in the year that he opened, and with two faces looking in opposite direction (hence his name "double", or Geminus" ([532], page 679). Ancient mythology doesn't make it quite clear just why he would have two faces. "His twofaced nature was explained by the fact that doors lead into a house as well as out ... as well as the fact that he possesses the knowledge of the past and the future" ([532], page 679). The explanation might seem somewhat far-fetched; however, Mercury (or Hermes) had even more reasons to be represented as a two-faced deity, since he presumably "had equal access to both worlds, the world of the living and the world of the dead; he served as an intermediate between the two, also serving the gods and the people in this capacity ([532], page 151). Quite obviously, from the symbolical point of view, the two-faced nature of Mercury (or Hermes) will correspond perfectly to his nature of an intermediate. This makes us all the more certain that the Roman Janus is the same entity as Hermes or Mercury.

As we already pointed out, according to our reconstruction, the myths of the "ancient Roman god" Janus (Ivan) are most likely to be an allegorical rendition of the biography of Ivan Danilovich Kalita (Kaliph), the Great Empire's founder who had lived in the XIV century A.D. Bear in mind that Janus (Ivan Kalita) was considered the first and the main deity as well as the "arranger of global order". The Dictionary of Mythology tells us that "Janus was summoned first whenever the gods were called upon. He was considered the first king of Latius (Latius/Ratius/Ras/Russia - Auth.) ... He received Saturn and shared power with him ... his priest was the "priest of holy ceremonies", or rex sacrorum, who could act as a substitute of the king and stood at the very top of the Roman ecclesial hierarchy ... In a song of the Salians Janus was called "lord of the lords" and "the good creator" ... his symbolism would later become interpreted as that of the ... primordial chaos which gave birth to the ordered Cosmos (or the Great Empire with its clockwork machinery of state that spanned vast territories, bringing an end to the chaos of disjointed states, which had existed previously - Auth.), having thus ... transformed into a deity and become a god as well as the sentinel of peace and order" ([532], page 649).

The two-faced or double nature of Janus (Hermes) could, in particular, symbolize the fact that the Great Empire was founded by two brothers – George of Moscow, or Genghis-Khan, and Ivan Kalita, or Batu-Khan, qv in CHRON4. Let us also point out the apparent similarity between Her-Mes and George of Moscow (*Georgiy Moskovskiy*) that complements the identical nature of the names Janus and Ivan. The similarity is in good correspondence with our hypothesis, although obviously cannot serve as any proof of anything at all per se.

Mercury was once considered "the most important deity" in the British Isles. This is what the *History of the Brits* by Galfridus Monmutensis is telling us (a

source dated to the XII century A.D. by modern historians, qv in [393], page 44; however, the rectified chronology claims it most likely to have been written in the epoch of the XV-XVII century. After that it had gone through the hands of the Scaligerite editors of the XVII-XVIII century, likewise all the other old texts. This is what we read in the chronicle of Galfridus:

"We revere the gods of our fathers – Saturn, Jupiter and other rulers of the world, but especially Mercury whom we call Woden in our language. Our predecessors have consecrated the fourth day of the week to him [Wednesday, since the first day of the week was Sunday – Auth.], which we still call Wednesday, or Woden's Day" ([155], page 66; see also [393], page 44).

Thus, it turns out that Mercury stands for Woden (Wotan), the primary deity of the ancient Germans, and therefore also Odin, his Scandinavian equivalent:

"Odin is the main deity in Scandinavian mythology that corresponds to Woden (Wotan) of the Continental Germans ... Woden is parallel to the Roman Mercury and shares the day of the week with him (Wednesday) ... in Scandinavian mythology Odin heads the pantheon, the first and main Ace ... he lives in Asgard [As-Gard, or the Horde of the Aces – Auth.] - a celestial dwelling with silver-plated domes [the palaces of the Czars, or Khans, were really plated with gold, but Scandinavian bards were apparently unable to conceive of it - Auth.] ... In the Deeds of the Danish by Grammaticus the Saxon ... Odin and the other gods are depicted as ancient kings [which is correct -Auth.] ... The Anglo-Saxon kings trace their ancestral lineage to Woden. The Danish royal court (according to Beowulf, the Anglo-Saxon epos) is descended from Skjald, the son of Odin. According to the Walsung Saga, Odin is the first patriarch of the legendary royal family of the Walsungs, which Sigurd, or Siegfried, the famous hero of the German epos, also belongs to" ([532], page 410-411).

According to our reconstruction, the person in question is most likely to be the Great Prince Georgiy Danilovich of Moscow, the founder of the Great = "Mongolian" Empire, likewise his brother Ivan Kalita. The Great Prince George appears in history and ancient myths alike under many different names such as:

Genghis-Khan, or, possibly, the "Khan of the Seas", since *denghiz* is the Turkish word for "sea",



Fig. 15.47. The Sun in the primary horoscope of various Egyptian zodiacs. Cells with grey circles refer to calculated identifications of the Sun with all possible versions of identification taken into account. Fragments taken from [1100], [1291] and [1062].

Hermes, or, possibly, George of Moscow,

Odin, which translates as "the single" (*odin* stands for "one" or "only" in Russian) – which must have merely been a reference to his functioning as an autocrat,

Woden (possibly, *wodniy* – "aquatic", or "related to water").

Over the course of time, the mythologized image of George the Muscovite became twined with that of his brother Ivan Kalita who had brought the endeavour initiated by the former to completion and created the Great Empire, qv in CHRON5. Their double image must have laid the foundations for the cult of Janus (Mercury/Hermes), the "two-faced god".

There is a curious detail that we would like to conclude with. Ivan Kalita's nickname (that stands in lieu of a surname here) is the word used for a burse, or a wallet. It is presumed that this name comes from the size of his wealth ([85], Volume 19, page 437). However, this is in ideal correspondence with how the "ancient" Romans usually portrayed Mercury: "As the god of wealth and income, Mercury would usually be drawn with a bourse" ([532], page 361).

4.13. The Sun in the primary horoscope

In fig. 15.47 one sees how the Sun is depicted in the primary horoscope in various Egyptian zodiacs. The grey circles, as above, indicate the zodiacs for which we'd had several identification options for the Sun in the primary horoscope. In these cases, the finite version as seen in fig. 15.47 was arrived at as a result of astronomical calculations and tests of their compliance with the secondary horoscopes. We shall be telling more about this in the sections related to the dating of the individual horoscopes.

As one can see from fig. 15.47, the Sun would most often be drawn as a circle in the Egyptian zodiacs. Sometimes one could see a narrow line of a crescent near one of its edges, which must stand for the new moon that is usually observed near the Sun. Indeed, the size of the lunar crescent is defined by the visible part of the lunar half illuminated by the Sun as observed from the Earth. For instance, when the distance between the Sun and the Moon on the celestial sphere is the greatest - that is, when the Earth is in the middle of that distance, these celestial bodies would oppose each other as seen by a telluric observer, with the entire illuminated lunar half visible. This is when full moons occur. On the contrary, when the Sun and the Moon get close to each other on the celestial sphere and the Moon gets in between the Sun and Earth, its illuminated half that always faces the Sun cannot be seen from the Earth. This is when the lunar crescent "fades away" and the night becomes moonless. The next day one sees a narrow crescent of the new moon. Since the Moon doesn't get too far away from the Sun over a single day, this crescent is always near the sun. Therefore, drawing a narrow crescent near the edge of the Sun makes sense from the astronomical point of view.

The narrow crescent is added to the Solar circle in the zodiacs DL (the Long Zodiac of Dendera), EM (The Lesser Zodiac of Esna), and P2 (the inner chamber of Petosiris), qv in fig. 15.47.

In some of the Egyptian zodiacs the Sun is repre-

sented in a rather implicit manner. In the demotic subscript horoscope from Brugsch's zodiac (BR), the Sun isn't drawn, nor is its name written anywhere, qv in figs. 12.17 and 13.14 above. Nevertheless, its position in Scorpio is indicated quite unmistakably - the symbol of Scorpio is shaded as a sign of it containing the Sun. This was noticed by N. A. Morozov, who had studied the demotic subscript horoscope in the BR zodiac meticulously. According to what he writes in [544], Volume 6, page 696, "the figure of Scorpio is the only one of the 12 zodiacal figures to be shaded, which symbolizes its disappearance from sight due to sunshine; this takes place in November, whereas the figure of Taurus that opposes it is shaded black to symbolize the fact that it reigns all night long, or culminates at midnight". See also fig. 15.47 (BR).

Let us explain that under the culmination of a constellation we understand its maximal elevation over the horizon as observed on the celestial sphere. Obviously, the constellation that culminates at midnight is the one that's located on the opposite of the Sun on the ecliptic, qv in fig. 15.48. Furthermore, being located on the opposite of the Sun on the ecliptic at dusk, this constellation begins to rise right across the sky in the east. When the night ends and the Sun rises in the east, this constellation disappears under the horizon in the west. Thus, the constellation in question rises in the evening and sets in the morning, and can be observed in the sky all night long. All the other zodiacal constellations can only be seen during a part of the night; they either rise after sunset, or set before sunrise. Thus, the constellation that culminates at mid-



Fig. 15.48. The constellation that rises the highest above the horizon at midnight is the one that is located on the opposite side of the ecliptic from the Sun. In other words, the constellation that opposes the Sun culminates at midnight. Therefore, the solar position for a given day can be indicated in the zo-diac without the use of the actual solar figure – simply by highlighting the culminating constellation. This method was used in some Egyptian zodiacs, namely, zodiacs OU and BR.

night really "reigns" all night long. There is an indication of this in Brugsch's zodiac, as Morozov duly points out, namely, the fact that the constellation of Taurus is shaded black.

In the two other horoscopes from Brugsch's zodiac (let us remind the reader that there are three primary horoscopes in this zodiac, qv above) the Sun is drawn as a bird, qv in fig. 15.47 (BR). Below, in our analysis of secondary horoscopes, we shall see that the Sun would indeed often be depicted as a bird in those. In the summer solstice horoscope that we already mentioned above, for instance,



Fig. 15.49. The "Coloured Theban Zodiac" OU. A hieroglyphic inscription next to the head of Virgo. Birds in the upper part of the inscription are most likely a reference to the Sun, which had been in Virgo on the day of the horoscope, according to calculations (see the section on the dating of the OU zodiac). Illustration fragment from [1100], Plate 82.

the Sun would often be drawn as a bird sitting on a pole, qv in fig. 14.6 above.

In the Long Zodiac of Dendera the sun in the secondary horoscopes is drawn as a bird several time. The bird that symbolises the Sun "flies" from one constellation to another.

The representation of the Sun in the "coloured Theban" zodiac OU is of the utmost interest indeed. There is no symbol of the Sun here, and so we have to find it using indirect indications - this is an easy enough task. Note that the constellation of Taurus is explicitly marked as culminating - the symbol stands on a dais of sorts, which is raised high in the air by a human figure, qv in fig. 15.47 (OU). This means that the Sun was located in the part of the ecliptic that opposes Taurus. These constellations are Scorpio and Libra, and also possibly the adjacent parts of the neighbouring constellations, Sagittarius and Virgo. Calculations demonstrate that the Sun that day was in Virgo, near the cusp with Libra, qv below, in the section on the dating of the OU zodiac. We should note that it was near the figure of Virgo that we see a hieroglyphic inscription that looks like two birds facing each other with three hieroglyphs below, qv in fig. 15.49. It is possible that the inscription refers to the

position of the Sun in this constellation, since the Sun could be drawn as a bird by the Egyptian artists.

In general, locating the Sun and the Moon in the Egyptian zodiacs isn't a complex task. However, due to the fact that the symbols used therein for both are very similar to each other, one would often have to consider several options of identifying the Moon and the Sun. Sometimes the number of options would grow due to the fact that the Sun in the secondary spring equinox horoscope would be indicated by the same symbols as the ones found in the primary horoscope. In these cases, we are incapable of singling out the solar symbol pertinent to the primary horoscope, and we have to consider all the other options. This is the case with both zodiacs of Dendera, for instance, qv below.

The day consecrated to the Sun is Sunday. This used to be the first day in a week in the old astronomical count. The Latin name of Sunday (*Dies Solis*) stands for "Day of the Sun" ([393], page 41).

4.14. The astronomical symbolism of the Egyptian "eye" symbol

In the Round Zodiac of Dendera we see the Egyptian "eye" symbol in the solar circle between Pisces and Aries. It looks like a gallinaceous eye, but might mean something different since we haven't found a single drawing of a cock that we could identify as such without ambiguity. The fact that the abovementioned circle from the Round Zodiac is solar and not lunar was discovered as a result of astronomical calculations. In particular, we have considered the versions that suggest its lunar nature. None of them withheld the test for compliance with either planetary visibility attributes or secondary horoscopes, and were therefore rejected.

One of the reasons why the circle with an eye from the Round Zodiac cannot be identified as the Moon is as follows. Let us consider the fragment of the Round Zodiac that we see in fig. 15.50. Both of the planets that one finds near the sun, Venus and Mercury, are all in Aries, Pisces or Aquarius in the Round Zodiac. Venus is represented by the two female wayfaring figures between Pisces and Aries, whereas Mercury is a two-faced male figure with a rod between Pisces and Aquarius, which implies that the Sun should be nearby, since neither of these two planets ever travels too far away from the Sun.

Moreover, there are only two circles nearby that can stand for either the Sun or the Moon, both of them near the symbol of Pisces. One of them (a circle with an eye) is located between Pisces and Aries, near Venus. The other one, with the figure of a young woman inside, is in Pisces (the side of Aquarius, near Mercury, qv in fig. 15.50).

Therefore, since the Sun should be somewhere in this vicinity, it means that if the circle with the eye stood for the Moon, the other circle (with the young woman) should invariably represent the Sun in the primary horoscope, which would otherwise be left with no valid symbols for it. However, this fails to concur with the visibility indications for Venus and Mercury. The matter at hand is as follows.

The visibility indication used in the Round Zodiac is a star over the head of a planetary figure, qv below. Mercury, which we see very close to the circle with the young woman, has a star over its head, which means that the planet in question was visible that day. However, in that case Venus should be visible as well, since it is drawn considerably further away from the circle with the young woman, qv in fig. 15.50. The further



Fig. 15.50. The Round Zodiac of Dendera (DR). Two circles near Pisces are shaded grey; one (with an eye inside) is located between Pisces and Aries, and the other (with a young woman) is in between Pisces and Aquarius. According to our research, both these circles represent the Sun – once in the primary horoscope, where the Sun had been near the star known as "the eye of the Ram" (the Alpha of Aries), and once more in the secondary horoscope of spring equinox. The solution that we came up with tells us that the young woman inside the circle is Venus, which was the closest planet to the Sun on the day of spring equinox (see the section on the dating of the Round Zodiac). Based on the drawn copy of the Round Zodiac of Dendera from [1062], page 71.



Fig. 15.51. Zodiac P1 from the outer chamber of the Petosiris tomb in Egypt. Drawn copy from [1291], Tafel 39.

the planet is from the Sun, the better its visibility. However, there is no star over the head of Venus in the Round Zodiac. This also implies its invisibility due to proximity to the Sun, qv below and also in [544], Volume 6. We are simply left with no other choice here; the other circle (the one that contains the eye) has to be identified as the Sun, which makes everything look sensible. Venus, being close to the Sun, is depicted with no star over its head due to being invisible, whereas Mercury is further away from the Sun and has therefore got a star over its head.

Quite naturally, these ruminations are of a preliminary nature. The final conclusion in re the visibility of planets can only be made as a result of astronomical calculations, when their position in relation to the Sun shall be identified with precision. Apart from that, astronomical calculations must confirm the very fact that the Egyptian zodiacs contain symbols of planetary visibility. So far this is but a hypothesis of N. A. Morozov that he voiced in [544], Volume 6.

We have done all of it, and the preliminary considerations that we voiced above were confirmed perfectly. Apart from that, it turns out that the interpretations of the Round Zodiac where the eye stands for the Moon, are also invalid insofar as secondary horoscopes are concerned. We therefore had to reject this version and identify the circle with the eye as the Sun. This gave us a solution for the Round Zodiac that proves to be ideal in its every parameter. A propos, the second circle (with the young woman) also turned out to be a solar symbol and not a lunar one as N. A. Morozov had thought. It belongs in a secondary horoscope, though, and not the primary. See more on this below, in the section about the dating of the Round Zodiac.

One has to say that in various works on the dating of the Round Zodiac the circle between Pisces and Aries with an eye inside it would be identified differently. N. A. Morozov ([544], Volume 6) as well as N. S. Kellin and D. V. Denisenko ([376]) presumed it to refer to the Sun. N. A. Morozov accounted for planetary visibility indicators in his analysis, whereas T. N. Fomenko identifies the "Egyptian eye" from the Round Zodiac as the Moon in [912:3], without considering the planetary visibility indicators at all. The other circle in Pisces (with a young woman inside it) is correctly identified as the Sun in this work.

The Egyptologist S. Cauville considers the circle

with an eye from the Round Zodiac to be a symbol of a lunar eclipse, thus linking the Egyptian "eye" symbol with the Moon (see [1062], page 38). Planetary visibility indicators are left beyond consideration in [1062]; the work also identifies Venus falsely, qv above. We already expounded this issue at length, though – the dating that she suggests cannot be considered satisfactory to any degree at all from the astronomical point of view; there are too many far-fetched considerations in this "solution" that invalidate it completely.

Let us point out that the Egyptian "eye" symbol in Egyptology (also known as "the eye of Udiet", qv in [370], [page 17]) was considered to be a symbol of Osiris, among other things ([2], page 2). Osiris, in turn, had associations with both the Moon ([544], Volume 6, page 787) and the Sun (Ra-Osiris, see [532], page 419) in astronomical tradition and symbolism. In the *Concise Dictionary of Egyptian Archaeology* by M. Brodrick and A. Morton ([1051:1]) we can read the following in re this symbol: "The holy eye, or the eye of Ra, or the celestial eye, refer to the Sun ... however, one usually draws two eyes called the eyes of Horus (left and right). Sometimes the right one is used to indicate the Sun whereas the left one stands for the Moon, but they can also be used in a different meaning ... the Egyptian name of this eye is Uzat or Utchat ([1051:1], page 54).

However, one could also suggest another interpretation of the Egyptian "eye" symbol – at least, in the cases when it appeared as a planetary attribute in an Egyptian zodiac. Let us point out the fact that in all of the Egyptian zodiacs known to us the "eye" symbol only stands for a planet twice – once in the Round Zodiac of Dendera, and once more in the P1 zodiac from the outer chamber of Petosiris, both times *near the sign of Aries*. Thus, in the Round Zodiac the "Egyptian eye" is located in the circle between Pisces and Aries, and in the P1 zodiac we see it over the head of the young woman that represents the Moon between the signs of Aries and Taurus, qv in fig. 15.51.

However, the star called "Eye", or "Ram's Eye", that was quite famous in ancient astronomy, was located in Aries! It is the Alpha of Aries, the brightest star in a constellation. It is therefore possible that the drawing of an eye in the Egyptian zodiacs isn't so much related to the planet itself (the Sun or the Moon) as the fact that the planet was near the "Ram's Eye" on the date ciphered in the horoscope.

Another circumstance that we must point out in this respect is the Latin word "ram", which means the same in English and implies a certain similarity between the terms "ram's eye" and "the eye of Ra". Furthermore, it is known that Aries, or Ram, was often accompanied by the god Amon (or Amen) in Egyptian symbolism (see [1118:1]), whose name one "more often encounters "in conjunction with that of Ra than separately" ([1051:1], page 7). However, this simply means that "Ram's Eye" and "The Eye of Ra" (or Amon-Ra) are different versions of the same name. Another thing that we need to mention in this respect is the fact that another Egyptian name of this symbol is Utchat ([1051:1], page 54), which sounds conspicuously similar to the Church Slavonic word ovcha, also meaning "ram".

In zodiac P1 the "eye" symbol is atop the head of the young woman that represents the Moon; this circumstance is conveyed explicitly by the crescent that we see under her portrait in fig. 15.51 (see also fig. 15.47 (P1)).

Thus, the "eye of Ra" from the Egyptian zodiac was most likely to stand for the Sun or the Moon in the vicinity of the star called "Ram's Eye" (the Alpha of Aries).

4.15. The Moon in the primary horoscope

In fig. 15.52 one sees drawings of the Moon from the primary horoscope of an Egyptian zodiac. The grey circles, as usual, contain indications of the zodiacs for which we considered several possible identification options in the primary horoscope. The final solution represented in fig. 15.52 was chosen as a result of astronomical calculations testing the correspondence to secondary zodiacs. See more on how this was done below, in the sections on the dating of individual zodiacs.

The easiest identification case is when the Moon is represented in the drawing by a clearly visible crescent, as is the case in the zodiacs of Athribis, for instance (AV and AN) or the "Coloured Theban" zodiac (OU), qv in fig. 15.52 (AV, AN and OU). There are no doubts that this crescent explicitly stands for the Moon. It is somewhat more difficult to identify the Moon in those of the Egyptian zodiacs where its symbolism is identical, or almost identical, to that of the Sun. In the Lesser Zodiac of Esna (EM), for instance, both the Sun and the Moon are drawn in the exact same manner – a circle with a crescent at one of its edges. As we already mentioned above, the solar circle might have contained a narrow crescent near the edge to symbolise the fact that a narrow lunar crescent is always close to the Sun. However, the Moon could also be represented by this symbol, in which case we have to consider both versions equal. The final choice between them is made depending on how the identifications correlate to the secondary horoscopes of the zodiac in question.

Let us now discuss the symbol used for the Moon in the Zodiacs of Dendera. We have discussed it in detail above – let us merely provide the readers with a brief reminder.

It has to be said that the lunar symbol in the Zodiacs of Dendera was only estimated with exactitude as a result of extensive calculations which involved all figures that could possibly represent the Moon. However, after we have verified the solutions by secondary horoscopes, which are especially rich in astronomical content on the zodiacs of Dendera, it turned out that it is just a single satisfactory identification of the Moon.

The symbol of the Moon as discovered by the authors in the Dendera zodiacs proved rather unexpected, since it was always considered part of the constellation figure for Libra. It appears that none of our predecessors deemed it to represent either the Moon or any other planet. As we are beginning to understand now, the reason is that none of our predecessors who have studied the zodiacs of Dendera could conceive of the fact that apart from the primary horoscope, one also finds a number of secondary ones therein - also considering the fact that in one of the secondary horoscopes of the Dendera zodiacs (that of the spring equinox) the Sun is drawn in the exact same manner as it is in the primary horoscope, qv in fig. 15.50. This would confuse the researchers who had thought there was but a single horoscope in each zodiac and therefore always mistook one of these suns for the Moon, whereas the real Moon symbol would be declared to stand for "the goddess of Justice",



Fig. 15.52. The Moon in the primary horoscope of various Egyptian zodiacs. Cells with grey circles refer to calculated identifications of the Moon with all possible versions of identification taken into account. Fragments taken from [1100], [1291] and [1062].

"Hercules" etc, and considered part of the constellation figure representing Libra.

At the beginning of our study of the Dendera zodiacs we were also certain that the circle in Libra was part of the Libra constellation figure. However, calculations demonstrated this to be incorrect.

It turns out that N. A. Morozov had erred when he wrote that "one finds a circle enclosing the goddess of Justice over the constellation of Libra" ([544], Volume 6, page 658). Morozov neither explains why this should be a "goddess", nor the reason this "goddess" should be one of "justice" – one might guess that the balance scale symbolising Libra and also justice led Morozov to this conclusion. This hypothesis may well exist – however, it requires research and verification. Let us point out that we find no "goddess of Justice" in Libra on any other Egyptian zodiac.

Also, as we already mentioned above, it is most odd that this alleged "goddess of Justice" should be drawn naked, and with a finger in her mouth on top of that – as an infant, in other words, qv in fig. 15.52 (DR and DL). However, there is no known goddess of Justice considered to be an infant in any mythology.

Let us further point out that a similar naked figure with a finger in its mouth can be seen on the Long Zodiac of Dendera, standing for the *new moon* this time, which is pointed out by N. A. Morozov himself. He writes that "... the girl in front has the Moon over her head. The young age is conveyed by the lack of breasts and the hand held in the mouth" ([544], Volume 6, page 658). Indeed, we see a lunar circle with a distinct crescent inside it. We already cited the lunar figure from the Long Zodiac above in fig. 14.3.

The infantine symbol is most natural for the Moon, unlike the "goddess of Justice". The moon can be "newborn" at times, and we still refer to it as the "new moon", "young moon" etc, which isn't the case with any other planet or star.

To conclude the lunar topic for the constellation of Libra in the Dendera Zodiacs, let us point out the fact that Morozov's reference to the circle on the balance scale of Libra being a frequent occurrence in other ancient zodiac and therefore "unable to serve as a horoscope indication" ([544], Volume 6, page 697), allegedly being a mere part of the Libra constellation symbol instead, is hardly to be believed for the following reasons.

Firstly, the Passover full moon often takes place in Libra – as we shall see, it would occasionally be indicated as such in the old Egyptian zodiacs. This could result in an additional circle drawn in Libra, one that didn't refer to the primary horoscope. However, the example of the Dendera Zodiacs demonstrates that the circle in Libra can also serve as a part of the primary horoscope.

Secondly, even if a certain zodiac contains a circle in Libra that serves as a simple embellishment and doesn't stand for any planet, it doesn't imply the same to be the case with all the other zodiacs. Let us clarify. It is possible that some of the symbols on the most famous Egyptian zodiacs that were the most successful from the artistic point of view and served as examples for the subsequent generations of artists could indeed become "collated" with the constellation symbols over the course of time, forming a unified hieroglyphic symbol. The lunar circle, for instance, which fits the constellation symbol of Libra in the Round Zodiac of Dendera particularly well, could have transformed into a symbol that only pertained to Libra eventually, with no more references made to the Moon. This is possible. However, when we deal with the dating of an actual zodiac, it would be wrong to make the a priori assumption that the zodiac in question has "embellishments" of this kind. Whether or not this is the case can only be demonstrated by calculations that account for all possible identification options of a given zodiac.

The day of the week consecrated to the Moon is Monday, or the second day counting from Sunday. Its Latin name is *Dies Lunae*, which stands for "the day of the Moon" ([393], page 41).

5. PLANETARY SYMBOLS IN SECONDARY HOROSCOPES

"Ancient" Egyptian planetary symbols from the secondary horoscopes are usually significantly different from the way the very same planets are drawn in the primary horoscope. This is perfectly understandable, since otherwise we'd have a perfect hodgepodge of symbols in the zodiacs that would make us unable to decipher the date that the zodiac in question was compiled for. It is obvious that the "ancient" Egyptian astronomers and artists would try their best to evade such confusion when they compiled the zodiacs, and succeed for the most part. As a rule, the planets from the secondary horoscopes are drawn in such a way that one cannot confuse them for the ones related to the primary horoscope.

Let us remind the reader that all the secondary horoscopes of the Egyptian zodiacs are related to the solstice and equinox points. The implication is that they should invariably be located within the confines of the same set of four zodiacal constellations where the Sun is found on the days of solstices and equinoxes. The equinox and solstice points in this case are the solar positions on the Zodiac for such days. Also bear in mind that these points shift across the ecliptic (or the Zodiac) over the course of time. This process is a very slow one, and it takes these points several centuries to move from one constellation to another. It is therefore little wonder that in every Egyptian zodiac that we studied the autumn equinox point is always located in Virgo, the winter solstice point in Sagittarius, the spring equinox point in Pisces and the summer solstice point, the last one in an Egyptian year, is always in Gemini.

This constant relation between each of the four secondary horoscopes and a single zodiacal constellation would define the way the horoscopes are drawn in Egyptian zodiacs to a great extent. For example, the planetary figures would often be drawn as a whole with the respective constellation figures, initially seeming to be secondary and insubstantial details of the latter. Such details could get easily confused with parts of actual constellation figures.

This would indeed prove the case with all of the numerous researchers who studied the Egyptian zodiacs, none of which managed to notice the presence of secondary horoscopes in any of the zodiacs, their symbolism being different from that of the primary horoscope and following rules of its own. This could result from the fact that every horoscope would usually be studied individually, while the symbolism of the secondary horoscopes requires a comparative analysis of several zodiacs for interpretation. Only then does one see that some of the initially incomprehensible "ancient" Egyptian symbols are anything but chaotic in the way they are distributed across the zodiacs. We conducted further analysis in this field and came up with the unambiguous corollary that one finds secondary horoscopes for equinox and solstice points in Egyptian zodiacs, apart from the primary horoscope. This is the case with nearly every single horoscope from Egypt, and not just one or two of the more "exotic" ones.

We shall refrain from compiling detailed planetary symbolism tables for the secondary horoscopes the way we did above for the case of the primary horoscopes. This task is far from easy – first and foremost, due to a much greater diversity in the secondary horoscope symbols as compared to those of the primary horoscopes. It is also rather difficult to discuss many of these planetary symbols out of the context of the constellation symbols since, as we have just mentioned, they were drawn as parts of the latter. Therefore we shall just begin our discussion of planetary symbols from the secondary zodiacs in the present section, and keep coming back to it in the future – in particular, in the section concerned with the Egyptian symbols used for the solstice and equinox points. Apart from that, we shall provide detailed accounts of the planets from the secondary zodiacs in the sections concerned with the decipherment and dating of actual zodiacs.

For the time being, we shall merely provide the reader with several examples in order to illustrate the way the planetary symbols are drawn in secondary horoscopes in general. One of such examples is the winter solstice horoscope in the Round Zodiac of Dendera. The symbolism of this zodiac has already been discussed at length in literature, qv in [544], Volume 6; also [1062], [1062:1] and [913:3] and the references from the works in question. Our interpretation of these symbols is quite novel, though.

5.1. The first example: the planets from the secondary horoscope of autumn equinox in zodiac DL

In fig. 15.53 one sees a part of the Long Zodiac of Dendera (DL) surrounding the figure of the Virgo constellation. The autumn equinox horoscope would be drawn in Virgo by the Egyptian artists and astronomers. We find such a horoscope in the Long Zodiac as well.

In order to decipher the astronomical meaning of the Egyptian symbols that one sees in fig. 15.53, let us first recollect the fact that in the Long Zodiac of Dendera each constellation is represented as three "ten-grade" figures simultaneously, qv in CHRON3, Chapter 15:2.1. One of these figures is the actual constellation figure, whereas the two others look like young women, which are identical throughout the entire zodiac. All of the figures as a whole stand for the three ten-degree thirds of the constellation in question. N. A. Morozov was the first to use the term "ten-degree figures" in [544], Volume 6, due to the fact that a third of a zodiacal constellation takes up roughly ten degrees of the ecliptic on the average.

The figure used for representing the Virgo constellation in the Long Zodiac looks like a young woman with an ear of wheat in her hand, qv in fig. 15.53. Let us reiterate that this is the most usual way of drawing this constellation – not just in the Egyptian zodiacs, but also the mediaeval European ones. Both of the



Fig. 15.53. Drawings of the planets (the Sun, the Moon and Venus) in the secondary horoscope of autumn equinox of the Long Zodiac (DL). Here we see the symbols of planets that were close to the Sun on the day of the autumn equinox integrated into the second ten-degree figure of Virgo. It is the ten-degree figure of a young woman with the head of a beast (lioness?) and a crescent on her head, following Virgo immediately. The lioness is an Egyptian symbol of Venus. The crescent is a lunar symbol here. The Sun on the day of the autumn equinox is represented as a bird over the shoulder of this tendegree figure of a young woman. The solar bird also has a leonine head, according to the drawn copy. Fragment of a drawn copy taken from [1100], A. Vol. IV, Pl. 20.

ten-degree figures of young women follow her, qv in fig. 15.53. Thus, the figure of Virgo also represents the constellation's first third, followed by the second and the third indicated by the "ten-degree figures" drawn as young women. The following figures pertain to Libra already.

The entire secondary horoscope of the autumn equinox is concentrated around the second ten-degree figure of Virgo. In fig. 15.53 it is the young woman that follows the actual constellation figure immediately. One can instantly notice a certain odd quality about this particular young woman's figure that makes it different from the ones drawn elsewhere in the Zodiac, which all look the same. The reason is that its figure includes the planetary symbols from the secondary autumn equinox horoscope, or the planets that could be observed near the Sun on the autumn equinox day of the year that the zodiac was compiled for.

The sun itself is drawn at the autumn equinox point as a bird over the shoulder of the young woman standing for a third of a constellation. Furthermore, we find Venus and the Moon in this secondary horoscope.

Let us begin with Venus. As we already mentioned

above in re the symbolism of Venus (see the section on Venus in the primary horoscope), one of the Egyptian symbols used for Venus was a lioness. Venus would often be drawn as a woman with a leonine head in Egyptian zodiacs, qv in fig. 15.39 above. If we take a closer look at the constellation of Virgo in the Long Zodiac, we see that the second ten-degree figure in Virgo has the head of a beast in lieu of a human one, and it resembles a lion a lot (see fig. 15.53). The solar symbol (the bird over the shoulder of the young woman) appears to be drawn with a leonine hear as well, qv in fig. 15.53.

We must point out that this happens to be one of the two unique cases among all the 24 ten-degree female figures found in the Long Zodiac. As a rule, all these figures are drawn with human heads and female faces. We shall jump ahead and mention the second such exception, which is the female ten-degree figure with the head of a falcon that we see between Scorpio and Libra. As we shall witness below, this figure also contains a part of some horoscope – the winter solstice horoscope this time. We shall give a detailed account of it in the following sections.

But let's return to the figure that marks the second third of Virgo. As we see, it is drawn in the Zodiac in almost the same manner as we often find Venus drawn in the primary zodiacs – as a young woman with a leonine head. Mark the fact that this young woman has no planetary rod – otherwise it would be a "fully-fledged" figure of Venus fit for the primary horoscope. This could lead to confusion in the present case – however, the Egyptian artists leave us no leeway for confusion.

What we encounter is a typical example of a planet from a secondary horoscope of an Egyptian zodiac. Such figures often resemble the representations of the same planets in the primary horoscopes, but, in general, they differ from each other to a sufficient extent. Furthermore, the planetary figures from the secondary horoscopes are usually "integrated" into the constellation figure, or whatever symbols one finds nearby. In the present case, the figure representing the second third of Virgo was chosen as the "carrier", which resulted in said figure's transformation into a complex "astronomical hieroglyph" of sorts.

Now let's move on to the Moon. The very same female figure that stands for the second ten-degree figure of Virgo has a crescent on its head. Once again, this is the only such case for all 24 ten-degree figures of the Long Zodiac – none of the other 23 have a crescent or anything of the kind over their heads. This very crescent represents the Moon in the secondary autumn equinox horoscope and either stands for the Moon on the day of the Equinox, or, possibly, at the moment when the new moon is born, right after the equinox. Let us explain that since the Moon is drawn right next to the Sun here, it could have remained beyond visibility on the day of the autumn equinox. However, it would soon "be born" and appear in the sky as the thin crescent of a new moon near Virgo, which is precisely what we see in this zodiac.

To conclude with our analysis of the example, let us mention the fact that, generally speaking, there is another interpretation option applicable to the horoscope in question. Let us take another look at fig. 15.53. Above we consider the animal head of the female ten-degree figure to be leonine, which should stand for Venus. However, this isn't quite apparent from the drawn copy of the DL zodiac that we use herein. It is also possible that the head in question is bovine, which will lead to a different interpretation of the zodiac, since a bull's head with a crescent stands for the planet Saturn, in the DL zodiac and elsewhere, qv in fig. 15.31 above.

Therefore, it is theoretically possible to interpret this secondary horoscope differently, as Saturn and the Sun both being in Virgo on the day of the autumn equinox. In this interpretation, the crescent over the head of the ten-degree female figure will symbolise Saturn and not the Moon. Venus, which is always found near the Sun in the secondary horoscopes due to its proximity thereto, won't remain sans identification in this case, either – it could be symbolized by the leonine head of the bird that represents the Sun, qv in fig. 15.31.

However, such an interpretation is impossible in the present case, since it contradicts the position of Saturn in the primary horoscope of the DL zodiac. The matter is that Saturn moves very slowly, and couldn't have drifted too far away from its position in the primary horoscope over the course of a single year. Therefore, the position of Saturn in any secondary horoscope must be roughly the same as it is in the primary. However, in the DL zodiac Saturn is drawn at a great distance from Virgo, being near Aquarius and Capricorn. Therefore, a secondary horoscope with Saturn in Virgo shall yield no astronomical solutions that would concur with the primary horoscope.

In other words, the location of Saturn in Virgo in the Long Zodiac is ambiguous from the astronomical point of view; therefore, the second interpretation version of the secondary autumn equinox horoscope can be rejected instantly.

5.2. The second example: planets from the secondary horoscope of winter solstice in the DR zodiac

In fig. 15.54 one sees a drawn copy of a part of the Round Zodiac of Dendera (DR) in the vicinity of Sagittarius. One also sees the constellations that follow Sagittarius, namely, Scorpio and Libra. Let us remind the reader that the secondary horoscopes found in Sagittarius refer to the winter solstice. In the Round Zodiac of Dendera this particular secondary horoscope is extremely detailed.

The actual figure of the Sagittarius constellation that contains the winter solstice point incorporates the symbols of Mercury and Venus. They are represented by the two-faced head of Sagittarius. One of its faces is human (Mercury), and the other leonine (Venus), qv below, in Chapter 15:8.2 of CHRON3.

Apart from that, a part of the Sagittarian horse's tail is facing upwards and there's a goose standing on its end, qv in fig. 15.54. The figure of a goose symbolises Mars in the Egyptian zodiacs; therefore, the secondary horoscope is bound to contain the planet in question.

The very fact that the figure of Sagittarius incorporates planetary symbols is also emphasized by the use of a certain additional "transposition" symbol – the boat under the front legs of the Sagittarian horse, qv in fig. 15.54. Below we shall mention the fact that a boat, or some other symbol one sees under the feet of a given figure, refers to the fact that the figure in question is "transposed" to the location in question from its place in the primary horoscope. Zodiacs of the round type would use the symbols of boats for this purpose, since the use of other figures would lead to congestion and confusion. In particular, whenever we encounter such symbols under planetary figures, it



Fig. 15.54. Secondary horoscope of winter solstice in the Round Zodiac of Dendera (DR). The planets of this secondary horoscope are highlighted. The figure of Sagittarius integrates the symbol of Mercury (the head with two faces). Apart from that, we see a goose above the equine half of the Sagittarian figure right over its tail. It symbolises Mars, which should therefore be present in this horoscope. The figure on the chair that holds a planetary rod and has got a large circle over its head is sitting in a boat. The latter is a transposition symbol, qv in Chron3, Chapter 15:6). Thus, we cannot mistake it for the planet of a primary horoscope, despite the obvious planetary rod. The circle over its head may identify it as a solar symbol. Another planet of a secondary horoscope is the tiny figure sitting on a chair over Libra. It is holding a whip in its hands, and there is a figure of an animal underneath the chair - one that looks like a lion or a leopard. Should it prove to be a leonine figure, it shall be identified as a symbol of Venus, qv in CHRON3, Chapter 15:4.8. Thus, we see three planets in the horoscope, one of which might be the Sun, which shall leave us just two of them. Mars should be one of the latter, and the other is likely to be Venus. The drawn copy from [1062], pages 9 and 71, is on the left, and a close-in of a photograph of the DR zodiac is on the right. Photograph taken from [1101], page 255.

means that they don't belong to the primary horoscope. In the present case, the boat we find underneath the Sagittarian symbol tells us that we shouldn't interpret the two faces of Mercury integrated in the constellation figure as the indication of Mercury being in Sagittarius for the primary horoscope. The boat emphasises the fact that the position of Mercury here has got nothing in common with its position in the primary horoscope. First and foremost, the boat figure informs us of the fact that one should look for the secondary horoscope symbols here.

We see three more figures right over Sagittarius. One of them has a planetary rod, but cannot be ascribed to the primary zodiac, since we see it in a boat, which means that it's transposed there from its position in the primary zodiac. The rods of the two other figures aren't of a planetary nature, and resemble a baculus and a whip. Therefore, we cannot ascribe these figures to the primary horoscope, since all of them are explicitly drawn with planetary rods in the Round zodiac.

Since all of the figures in question are concentrated in the vicinity of Sagittarius, or the region of the secondary winter solstice horoscope, they must stand for this horoscope's planets. Let us provide a list (see fig. 15.54).

1) The man carrying a baculus that stands for some "male" planet (any planet but Venus, that is).

2) The figure of a person sitting on a stool, with a circle over its head and a planetary rod in its hand. The stool stands in a boat. The large circle over the figure's head could lead us to identifying said figure as the Sun. However, it could be that the Sun is represented by the circle and nothing else, whereas the sitting figure stands for one of the planets. The boat underneath the figure emphasises the fact that the symbol in question pertains to the secondary horoscope. Thus, what we see here is either the Sun from the secondary zodiac of winter solstice, the Sun and some other planet nearby. It can be any planet at all, since the figure is sitting with its legs drawn together. See Chapter 15:3 of CHRON3 in re the differences between male and female figures as drawn in the Egyptian zodiacs.

Let us point out that in most other Egyptian zodiacs the artists would draw the Sun in the winter solstice horoscope as a mere "solar hat" over the head of Sagittarius/Mercury, or a hat with a circle inside or atop it. They didn't normally draw the Sun as a separate figure here.

3) The little figure on a stool above the constellation of Libra. There is some animal under the stool. It looks like a dog in the drawn copy, but, according to the photograph, it is most likely to be a lion or a leopard, qv in fig. 15.54. The figure may be a female one – however, since it's drawn sitting with its legs together, one cannot tell for certain. If the animal under the stool is a lioness, and the figure itself female, it should be Venus. Let us remind the reader that a lioness is one of the attributes of Venus in the Egyptian zodiacs, qv in the section on Venus and its symbolism in the primary horoscopes above.

Thus, we see three planets in the horoscope in question apart from the ones integrated into the figure of Sagittarius. However, one of them might stand for the Sun, which was in this position on the day of the winter solstice. There were two or three more planets here, one of them being Mars and another, Venus.

5.3. Third example: planets from the secondary horoscope of summer solstice in the AN zodiac

In fig. 15.55 we see a part of the lower Athribis zodiac AN near the constellations of Libra, Virgo, Cancer, Gemini and Taurus. The figures of all these constellations are easy enough to recognize in the picture – they form the top row of figures, in a way. We see the planetary birds underneath, in fig. 15.55, and another row of symbols below them. We are looking at the secondary horoscope of the summer solstice.

Let us point out that the secondary horoscope of the autumn equinox that should be located somewhere around the constellation of Virgo is missing from the zodiac in question. The symbolism of the entire lower row of figures in fig. 15.55 is explicit enough to tell us that we see the symbols of summer solstice and nothing but – there are no symbols anywhere in the vicinity that would stand for the autumn equinox, for instance. Egyptian zodiacs of average complexity, like the zodiacs of Athribis, could contain just some of the secondary horoscopes and not all of them – just two or three instead of four, for example.

If we take a closer look at the lower row of figures in fig. 15.55, we shall first and foremost see a calf that lays in the boat with a star between its horns. Secondly, we also see the drawing of a man here, whose arm is raised high into the air with five birds with human heads drawn nearby – two of them by one side of the man, and three by the other.

A calf in a boat is a usual Egyptian symbol of summer solstice. We find it on a great many zodiacs. The complete version of this symbol is more complex and can also include a female figure with a bow which is shooting an arrow over the calf's head, qv in the zodiacs DR and EM, for instance. Here we see a simpler version of the symbol. See the section on the symbols of solstices and equinoxes in the Egyptian zodiacs for more details.

The man with his arm raised high into the air is also a very popular symbol of summer solstice that one finds in the Egyptian zodiacs. We have mentioned this symbol above, and will keep coming back to it. Apart from the zodiacs of Athribis, we can see it in the zodiacs DL and EM, for example. Likewise the abovementioned calf, this symbol is only seen in the vicinity of Gemini and the summer equinox point. As we already mentioned, this figure is most likely to symbolise the Sun reaching its top position in the sky.

Thus, we see two Egyptian summer solstice symbols here at once. We see them in the part of the zodiac adjacent to Gemini, which is where the summer solstice point is always located in Egyptian zodiacs.

Let us now find the planetary symbols from the secondary horoscope. It is easy enough to do – bear in mind that planets are drawn as birds in the Athribis zodiacs. Indeed, we see a total of five birds here, all of which possess human heads, qv in fig. 15.55. These must be the secondary horoscope planets that we are looking for. Two of them are by one side of the Sun, and three more on the other. If we are to assume that the drawing reflects the respective positions of the Sun and the planets in question for the day of summer solstice, it makes the conditions for the zodiac's astronomical solution even stricter. It is understand-



Fig. 15.55. Fragment of the Lower Zodiac from Athribis (AN) that shows the constellations of Libra, Virgo, Cancer, Gemini and Taurus. The figures of these constellations form the top row of the picture. Underneath them we find symbols of the secondary summer solstice horoscope. Fragment of a drawn copy from [1340:1]. Taken from [544], Volume 6, page 730.

able that the possibility of a random erroneous solution to pass through this narrow a doorway becomes all but null.

One could naturally make said "doorway" somewhat wider. For instance, it is possible that Venus and/or Mercury are drawn as a pair of birds each. This will be a rather far-fetched presumption, since Venus and Mercury are drawn as solitary figures in the main horoscopes of both zodiacs from Athribis, AN and AV with no exceptions - we see no evidence to the contrary anywhere. However, the presumption is not to be rejected offhandedly, which leaves us with more interpretation option for the secondary horoscope in question. However, we shall jump ahead somewhat and state that the astronomical solution that we got for the Athribis zodiacs is ideal and corresponds with the primary horoscope perfectly, with no allowances and theorizing whatsoever. We must also mention the fact that, according to our general approach, secondary horoscopes aren't used for the search of astronomical solutions at all and are only used at the stage of verifying the solutions that we came up with using the primary horoscope.

6. BOATS, SNAKES AND OTHER TRANSPOSITION SYMBOLS UNDERNEATH THE FIGURES

A careful study of the Egyptian zodiacs brings us to the following important observation. Some of the figures have no "supporting accessories" underneath them whatsoever – they are simply drawn as objects in the sky (bear in mind that any Egyptian zodiac is a symbolical star chart). Other figures from the very same zodiacs are explicitly drawn as standing on something – either boats, snakes (which are often curved in such a way that they resemble boats) or other objects. One and the same symbol can be drawn without a supporting base in one position on the zodiac, and seen "riding" some object elsewhere (or floating upon said object).

In fig. 15.56 we see a fragment of a drawn copy of the Long Zodiac of Dendera (DL). Among the planetary rod-bearing figures, we see the two that look perfectly the same – male figures with the heads of falcons and planetary rods in their hands. All the indications tell us that we see the same planet. One of such figures can be seen to the left of Aquarius, whilst the other is at a considerable distance from the first figure on the right. There are many other figures between these two, qv in fig. 15.56. Therefore, despite their being absolutely identical to one another, one can hardly consider them to stand for the same planet in the same position. Had this been the case, the figures would be drawn much closer to each other, and located on the same side of Aquarius. They must stand for something else, and we should be able to see the differences in the symbolism used for both - otherwise, the zodiac would be illegible in principle, which definitely wasn't the objective pursued by the Egyptian artists. However, both figures look exactly the same, qv in fig. 15.56.

The matter is that one of them doesn't appear to be standing upon anything special, whereas the other is standing atop the figure of a goose, as if it were using it for a flotation device, qv in fig. 15.56.

One can cite many similar examples. Virtually in every old Egyptian zodiac we see certain objects (not just the planetary symbols) stand on top of other objects, most often boats or snakes, or various animal figures, qv above. Let us cite a fragment of another zodiac – the "Lesser Zodiac of Esna", qv in fig. 15.57. We see a number of figures standing in boats or atop snakes. Another such example that pertains to the zodiacs of Athribis can be seen in fig. 15.58.

The comparative analysis of the Egyptian zodiacal symbolism that we have performed demonstrates all of these boats, snakes, geese and other "daises", or "carriers", possess a very explicit astronomical meaning. They are the "transposition signs" used by the Egyptian artists to indicate that the figure in question isn't standing in its rightful place, being transferred to some other position instead.

The transposition symbols were used very widely in the compilation of the Egyptian zodiacs, and an artful use of them allowed the ancient Egyptian artists and astronomers "cram" several horoscopes into a single zodiac at once – one primary horoscope and up to four secondary ones, and in some cases even several primary horoscopes, which we find to be the case in Brugsch's zodiac (BR). It would suffice to mark the planets of the secondary horoscopes using transposition symbols to avoid confusion with the pri-



Fig. 15.56. Fragment of the Long Zodiac (DL). Here we see two perfectly identical planetary figures (looking like a man with the head of a falcon) on the left and right of the Aquarius sign (man pouring water from two pitchers). In other words, the two are separated by too great a distance, and therefore cannot possibly refer to the same planet in the same position. The only difference between them is that one of the figures is drawn walking, and the other one is riding a goose. The goose under the feet of the second figure is a "transposition symbol" which means that the planet in question is drawn in a different place than it occupies in the primary zodiac. It passed the location in question on a different day – not the one transcribed in the primary zodiac. These methods allowed Egyptian artists to draw several horoscopes that referred to various points in time and astronomical situations in the same zodiac without any confusion symbol-wise. Fragment taken from [1100], A. Vol. IV, Pl. 20.



Fig. 15.57. Fragment of the EM zodiac from the Lesser Temple of Esna. Here we see many figures "floating" in the sky on snakes or in boats. Taken from [1100], A. Vol. I, Pl. 87.

mary horoscope's planets. Thus, the method in question would allow them to use the same symbol for the primary and the secondary horoscope and be able to distinguish between the two. As for the confusion between the secondary horoscope's planets, it would be minimal due to the fact that each secondary horoscope is rigidly affixed to one and the same position on the ecliptic, namely, the respective solstice or equinox point. Therefore it is usually easy enough to determine the identity of a secondary horoscope planet.

Apart from that, the "transposition" method would allow the Egyptian artists to distribute zodiacal fig-

ures across the entire field of the drawing – for instance, to transpose some of the figures from their rightful positions which are too cluttered-up by other figures. All it took was a transposition symbol and drawing the figure in such a way that its proper position would be obvious. This is the method used for the spring equinox symbol in the EM zodiac. We shall discuss this in detail below, in the section on the dating of the EM zodiac.

It has to be said that the meaning of the boat symbols in the Egyptian zodiacs as symbols modifying the meaning of the figures found in boats was pointed out