

In previous articles on the subject of the Egyptian pyramids, we have hypothesized that combinatorics played a key role in the system of these structures. However, there was no evidence that the Egyptians themselves would have claimed the same. Certain clues can be found in ancient Egyptian texts, specifically in the sacred Book of Amduat. Let us look at these documents in more detail.

Combinatorics of Pyramids in the Book of Amduat

Annotation. According to our hypothesis, combinatorics played a key role in the system of the Egyptian pyramids at Giza. However, there was no evidence that the ancient Egyptians themselves made the same claim. Some clues were then found in ancient Egyptian texts, specifically in the Book of Amduat. We bring you a more detailed look.

Key words: pyramids, Egypt, Giza, 64, hexagram, trigram, Book of Changes, philosophy, history, mythology, The Eye of Horus, combinatorics, Cheops, Chephren, Menkaure, three and eight origins theory, Thoth, Bastet, Hathor, Sekhmet, Book of Amduat, Book of Gates, Fibonacci

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The central message of our previous texts about the Egyptian pyramids is that combinatorics played a significant role in the system of these structures (see four articles on the !Argument website). But why do we consider this area of mathematics to be the key to understanding them? We have come to the conclusion that the theorem “eight times eight is 64” applies to the pyramids of Giza, i.e. that the eight triads of one border pyramid (Cheops) were combined with the eight triads of the other border pyramid (Menkaure), and in the middle (Chephren) 64 combinations of hexagrams were created [1]. However, can we really say that in this case we are dealing with the statement “eight times eight, which creates 64 combinations”, or could there be an addition relationship here – i.e. the sign “plus” and not “times”? If we add up both eights, we would arrive at the number 16, not 64.

The claim about the combinatorics of pyramids is based on a philosophical view that our entire world is based on combinations. All existing phenomena can be described as the result of a combination of at least two elements – our personalities are the result of combinations of physical and psychological properties, given by the variation of genes from the father and mother. These genes are encoded by the DNA molecule, the structure is based on the combination of four bases (A, T, C, G), and the number of triplets in DNA is exactly 64 – that is, 4^3 . Similarly, it is possible to consider chemical elements and compounds that arise as specific combinations of atoms. The key role in the creation of organic compounds is played by the element carbon in the fourth group of the periodic table, i.e. in the middle position associated with the heart and love, and also with the role of a connector and combinator of elements from two neighboring triads (in the pyramid system, Chephren stands in this central position). If we look at a carbon atom, we see a diamond shape, an octahedron, which is actually also a pyramid – more precisely a double one, connected by bases, one with the tip pointing up and the other down.

The central role of combinatorics in chemistry and biology has long been understood by science, and now it remains to be seen whether the same applies to the physical level. This is exactly what the Swiss physicist Nassim Hameiri is currently striving for, he investigate the

fundamental point of reality, the so-called Haremein point (also called the Flower of Life in the ancient tradition of tantra, or in the Egyptian tradition the Eye of Horus), which manifests itself in exactly 64 combinations.

The whole existence can be described as a gigantic cosmic Game, built on combinations. Given the central role of combinatorics in our universe, it would be rather surprising if the Egyptian pyramids were not also based on it – especially since the ancient Egyptians have an incredibly deep and precise understanding of the nature of the world.

The previous texts were therefore based on the hypothesis of the combinatorics, but there was no convincing evidence that the Egyptians themselves would have claimed something similar. However, certain indications can be found in ancient Egyptian texts, such as the *Book of Amduat* or the *Book of Gates*. Let us look at the following Fig. 1, where we see a scene from the tenth hour of the sacred Book of Amduat [2].

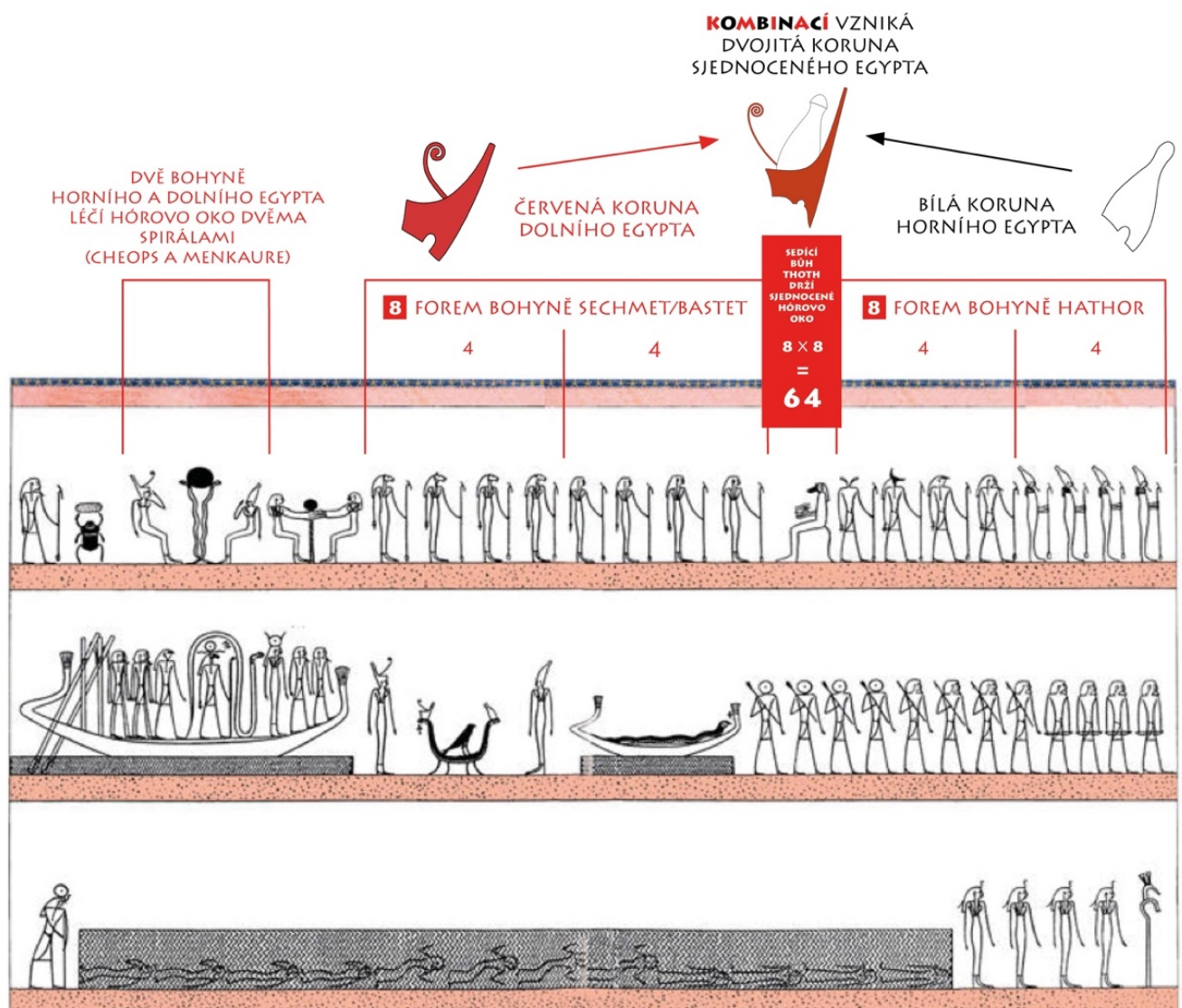


Fig. 1 Scene from the sacred Egyptian Book of Amduat. The image depicts the pilgrimage of the sun god Re through the underworld, specifically the tenth hour of the twelve-hour journey. (Explanations above: author)

The Twelve Hours of the Journey

The ancient Egyptian book Amduat, which first appeared in the New Kingdom (approximately 1550 to 1000 BC), describes the journey of the sun god Re through the twelve hours of the night in the underworld [3]. On his journey, the sun god overcomes numerous obstacles and undergoes battles in order to maintain the principle of justice and balance after twelve hours – the Egyptian concept of “maat” – and ensure the return of morning and a new day.

The scene in Fig. 1 depicts the tenth hour of this journey out of twelve. From above, we see three sections in this painting, the upper one representing the left bank of the sacred river, the middle one the river itself, and the lower one the right bank. The pyramids at Giza stand on the left bank of the Nile, so the upper section should belong to them.

In this upper register in the middle we see figure of the moon god Thoth, here in the form of a baboon – so it is also a mythical figure named Ba-Ba, who holds the Eye of Horus in his hands, composed of six parts (64 hexagrams). We already know from the previous texts (see Surprising Findings about the Pyramids of Giza (Part 3) that in China, which probably adopted a lot of knowledge from the Egyptians, there is the concept of the “ba-ba hexagram”, which is interpreted as the sentence “eight times eight equals 64”. The pronunciation of the number eight in Chinese sounds similar to “ba”, and two eights symbolize both legs of this mythical figure. At the same time, the pair of legs of the Ba-Ba figure is a symbol of branching, i.e. bifurcation. (Let us recall that the Eye of Horus, composed of 64 hexagrams, is created in a sequence of six branches, in the numerical sequence 2 – 4 – 8 – 16 – 32 – 64). Mythological connections indicate that this scene represents a combination of the two outer eights, which creates 64 variants in the middle. To the left of the god Thoth we see eight figures of the goddess Sekhmet, the first four figures with a lion's head and the second four with a human head. This corresponds to the pyramids at Giza, because the goddess Sekhmet/Bastet was recognized in the torso of the triadic statue found in the Valley Temple of Cheops [4]. To the right of the god Thoth, eight figures of the goddess wearing the white crown of Upper Egypt [5], thus belonging to Menkaure (the eight triadic statues in the Valley Temple of Menkaure depict the pharaoh Menkaure, the goddess Hathor and a child symbolizing Upper Egypt). The central position of the moon god Thoth – or otherwise known as the god of wisdom Ba-Ba – holding the eye of Horus in his arms, then indicates that this figure is connected with the central Chephren, who is the connector and combiner of both eights from the border pyramids.



Fig. 2 Two goddesses wearing the crowns of Upper and Lower Egypt heal the god Horus, on whose head we see the double crown of a unified Egypt – it is created as a combination of both crowns.

Healing the Eye of Horus

The moon god Thoth appears in Egyptian stories as a mythical figure of a teacher and healer who tries to heal the lunar Eye of Horus. This was divided and wounded by Seth, whose name is strikingly reminiscent of God’s adversary, Satan. According to Egyptian mythology, the process of healing the lunar Eye occurs in such a way that – figuratively speaking – Thoth adjusts the angles of the eternal direct sunlight of the Sun and applies them to the individual lunar phases in order to heal the cyclicity and instability of the Moon [6]. There are eight (yang) angles of sunlight, and there are also eight (yin) lunar phases (see Fig. 3) [7]. In each phase, we see only a part of the Moon. Healing by adjusting the angles of direct sunlight is thus intended to restore the original integrity of the Moon or lunar eye, which was “imprisoned” by Seth in an eternal cycle. The goal is to free oneself from this cycle and achieve unification by composing the Eye of Horus. Specifically, Thoth selects one of the eight yang trigrams of Menkaure and combines it with the other of the eight yin trigrams of Cheops, thus creating one of the 64 hexagrams. In this way, in the gradual composition, he achieves unification and healing of the lunar Eye of Horus. In this process, the assistants of the god Thoth, the two healers Hathor (the first eight figures) and Bastet/Sechmet (the second eight figures), play a significant role, making a total of 16 figures [8], which we see in this upper section of the image from the tenth hour of the Book of Amduat.

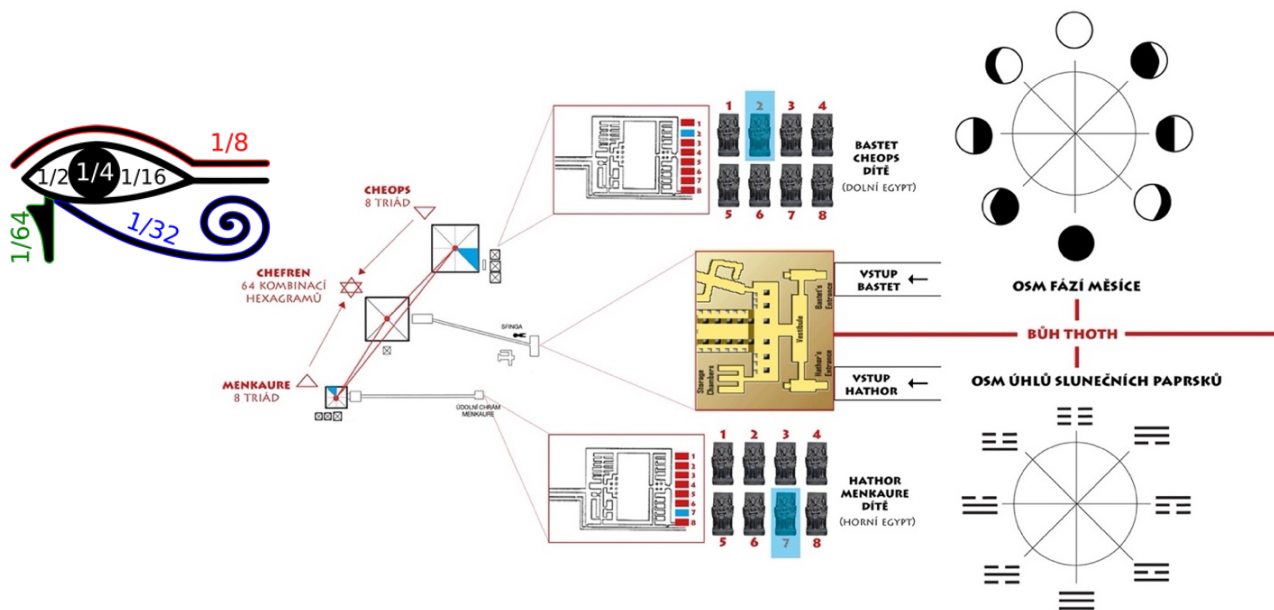


Fig. 3 The three main pyramids on the Giza plateau in Egypt. The moon god Thoth selects one triangle of Menkaure (one of the eight triadic statues composed of Pharaoh Menkaure, the goddess Hathor, and the child as the province of Upper Egypt), then the second triangle of Cheops (one of the eight triadic statues composed of Pharaoh Cheops, the goddess Bastet/Sechmet, and the child as the province of Lower Egypt). Then Thoth, in the middle Chephren, combines the two triads into a hexagram, i.e. into one of 64 possible combinations. Figuratively speaking, the mediator Thoth adjusts the angles of the direct sunrays and applies them to the individual phases of the moon in order to cure the instability and cyclicity of the moon and restore its wholeness. The goal is to unify the lunar Eye of God Horus in a gradual process [9].



Fig. 4 In 1908, archaeologist George Reisner found eight triadic statues (left) in the Valley Temple of Menkaure's pyramid, consisting of a trio of figures of Pharaoh Menkaure, the goddess Hathor and a child symbolizing the province of Upper Egypt. Similarly, there may have been eight triadic statues in the Valley Temple of Cheops, but it has not been preserved, and only the torso was found of the goddess Bastet, Pharaoh Cheops and the child as the province of Lower Egypt. The middle pharaoh Khafre (right) was the unifier of these triads from both border pyramids, see the sema-tawy symbol on the sides of his throne (bottom). This symbol represents a triad of lily plants on the right, a triad of papyrus plants on the left, and in the middle we see a central axis in the form of a trachea, symbolizing breath or energy, where the two triads merge together. (Photo from the Museum of Egyptian Culture in Cairo, author: Michal Černý)

Critical Objections

The goal of the whole process is therefore to unify the lunar Eye of Horus, imprisoned by Seth in the suffering of the eternal cycle. (The process of gradual unification of the Eye of Horus is clearly shown in the interactive flash applications GIZA.SWF and GIZA64.SWF, available for download at <http://giza64.euweb.cz>). Then, Horus task is to find the second solar eye, which he lost in the battle with Seth, and thus achieve a connection with a higher reality [10].

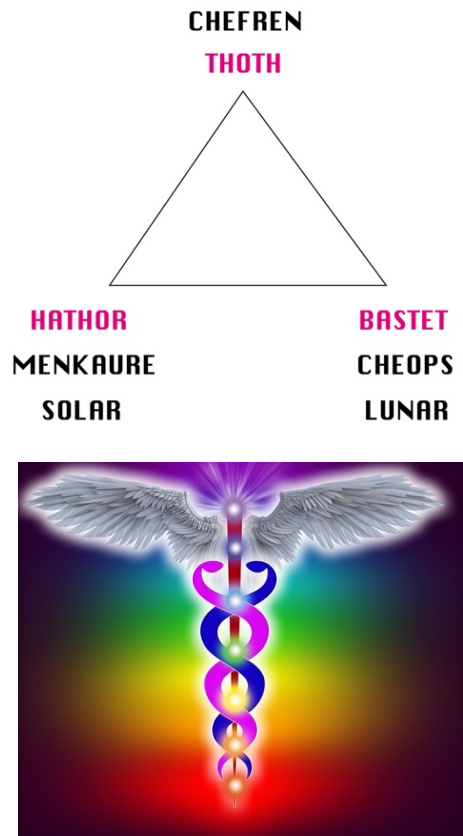


Fig. 5 The three pyramids could be compared to the rod of Aesculapian, still used as a symbol of medicine today. The main healer is the god Thoth in the middle (Chephren), whose assistants are the two healers Bastet and Hathor (Cheops and Menkaure), as two mutually balancing opposites – two sinusoids rotating around the central axis. The goal of this system, consisting of three parts, is to heal the injured eye of Horus.

One of the objections to this interpretation arising from the image of the *Book of Amduat* may be that we cannot be sure whether the tenth hour of this book belongs to the pyramids in Giza. No evidence has been found for this yet, and apparently no one explicitly claims it. However, it is possible to present several indications that point to this hypothesis. The twelve hours of the pilgrimage of the god Re describe the journey along the Nile to its delta, which flows into the Mediterranean Sea. In that case, it would be numerically correct that the tenth hour out of the twelve belongs to the pyramids in Giza, because they are geographically only a short distance from the end of this journey, i.e. the twelfth hour, which is connected to the mouth of the Nile. In addition, it is noteworthy that the healing of the Eye of Horus takes place in addition to the tenth hour also in the fourth hour of the *Book of Amduat*, which is connected to another important pyramid site, namely Saqqara, where the Pyramid of Djoser stands. Another clue is that the upper section of the painting describes the left bank of the Nile, where the pyramids of Giza are actually located. Finally, in parallel with the *Book of Amduat*, the sacred *Book of Gates* also tells about the twelve hours of the pilgrimage of the god Re. And it is in the tenth hour of this book that remarkable things happen: specifically here Thoth, in the role of mediator (in other versions of the story, the sun god Re), reconciles Horus and the evil Seth, about whom we already know that in an ancient battle he divided Horus eye into six parts, i.e. 64 hexagrams. This reconciliation also

symbolizes the unification of Upper and Lower Egypt, which is precisely what, in our opinion, is also the case in the pyramids of Giza.

China concept	yang	tao	yin	
Concepts of J. W. Park	hetero	neutro	homo	neutrino
family	man	child	woman	grandparents
Fibonacci	3	5	8	
Egypt	Upper Egypt	unifier	Lower Egypt	delta of Nile
Pyramids	Menkaure	Chephren	Cheops	Khentkaus (fourth pyramid) [11]
Sun/Moon	8 angles of sunrays	64 hexagram of Eye of Horus	8 Moon phases	
gods	Hathor	Thoth	Bastet/Sekhmet	
geometry	line	spiral	cycle	point
god/human	god	love	human	
kabbalah	three heavens sefirots	mirror axis	eight constructional sefirots	

Table 1. Classification of individual elements into the 3P and 8P systems, hetero-neutro-homo.

Pyramids on the Fibonacci Spiral

Scenes from the sacred *Book of Amduat* and the *Book of Gates* can thus be considered as an indication that the yin-yang combinatorics played a key role in the pyramid system, expressed by the sentence “eight times eight is 64.” This technological solution of the pyramids with the possibility of choosing from eight positions for Cheops and eight for Menkaure would allow the system to gradually change individual tones over time, to play individual musical notes from 64 possible ones. If this reasoning is correct, then the pyramids in Giza would be one gigantic musical instrument with a sound range of eight octaves, i.e. 64 tones.

However, let us return to the triad of these structures, and take a closer look at their arrangement and classification into the system of three and eight origins **[12]**. In previous texts, we stated that the three pyramids are not arranged in a straight line, but in a triangle – between Chephren and Menkaure we see a deviation of approximately six degrees from a straight line. This makes it possible to classify the individual pyramids into points of the triangle, according to the system of three and eight origins 3P and 8P. Specifically, we classified Menkaure as yang (hetero), Khafre as tao (neutro) and Cheops as yin (homo). Similarly, however, it is possible to look at the matter in such a way that the three pyramids stand on the so-called Fibonacci spiral, which is expressed by the golden ratio given by the number Phi (1.618). Let us recall that the next point on the Fibonacci series is created by the sum of the two previous points, in the sequence 0-1-1-2-3-5-8-13-21-34-55..., and so on. The three pyramids could be assigned to the sequence of points 3, 5, and 8 of this series—specifically, Menkaure: 3, Khafre: 5, and Cheops: 8—or to any other three consecutive numbers in this series. This division would explain the approximate proportions of the sizes

of all three structures, i.e. the two larger pyramids of Cheops and Khafre (points 8 and 5), and the third smaller one of Menkaure (point 3). In addition, this classification would explain the fact that the sum of the volumes of Menkaure and Khafre approximately equals to the volume of Cheops, since $3 + 5 = 8$ [13].

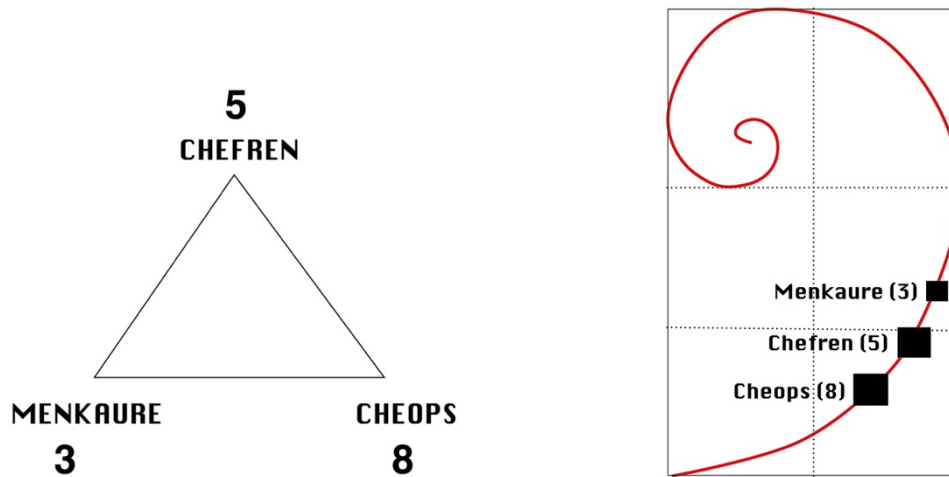


Fig. 6 On the left, the pyramids are included in the Fibonacci series, the sequence 8 (Cheops), 5 (Chephren) and 3 (Menkaure). The three and eight are dialectical opposites, similar to God (three) and man (eight), which is expressed precisely by the structure of three and eight origins. The five (Chephren) is the central, mirror axis, the divider between the three and the eight, and at the same time the key number for the formula expressing the Fibonacci series. On the right, we see the Fibonacci spiral, on which the largest Cheops stands, the middle Chephren and the smallest Menkaure. The volume of Menkaure plus the volume of Chephren together approximately equals the volume of Cheops, which in the Fibonacci series can be numerically explained by the sum of $3 + 5 = 8$.

It would also be possible to explain the six-degree deviation between Khafre and Menkaure. If we divide $8/5$, we get 1.6, and if we divide $5/3$, the result is 1.666 – the difference between the two ratios is therefore 0.0666. The stimulating question is whether there would be a skilled mathematician among the readers who could accurately mathematically justify this angular deviation on the Fibonacci spiral between the sections 8-5 and 5-3 (i.e. hypothetically between the sections Cheops-Khafre and Khafre-Menkaure). Let us assume that the three pyramids represent points 8, 5 and 3 on the Fibonacci spiral, and the deviation of Menkaure from Khafre is almost 6 degrees, more precisely around 5.9 degrees [14]. The author welcomes any contributions to the topic at the e-mail address below. Finally, let us add that the central pyramid of Chephren is associated in this classification with the number five, which in the Fibonacci series (and in the 3P and 8P systems) is the division and mirror axis between the three and the eight, and at the same time the key number for calculating the Fibonacci series. For example, the Kabbalistic sephirotic tree consists of three heaven sephirot and eight constructional sephirot, which corresponds to the system of three and eight origins. The three (Menkaure, yang) is associated with linearity, God and the Sun, while the eight (Cheops, yin) with man and the lunar cycle - the pyramids in Giza can also be considered a gateway to the union of God and man.

The author welcomes responses to the topic by e-mail: [michalcerny.media\(at\)seznam.cz](mailto:michalcerny.media(at)seznam.cz)

Literature and notes:

[1] see <http://giza64.euweb.cz>, website “Pyramids of Giza as a combinatorial system”

Note: The applications GIZA.SWF and GIZA64.SWF are stored on this website in the SWF flash format. Adobe has discontinued support for Flash player, so the program can be played in a free replacement, the RUFFLE tool: <https://ruffle.rs/#downloads> (Please use the desktop version of the player. The file must be named GIZA.SWF or GIZA64.SWF)

[2] The Book of the Hidden Chamber. Section 3. The Summary of the Amduat. The Twelve Hours: A Commentary

Available online: http://www.maat.sofiatopia.org/hidden_chamber03.htm#1.10

[3] Note: The names Menkaure and Khafre are connected with the sun god Re – Menkaure means “one of the souls of Re”, and Khafre “one who manifests as Re”. As the Litany of Re shows, this sun god appears in the form of 78 avatars, the knowledge of which was supposed to ensure the Egyptian a happy afterlife. The number 78 can be considered as 64 plus 8 plus 4 plus 2, i.e. 64 basic combinations, plus the eight members of the ogdoad deity, plus the four sons of Horus, plus the pair of Men and Mut. The number 78 also corresponds to the number of tarot cards.

[4] Matthias Seidel: Die königlichen Statuengruppen, volume 1: Die Denkmäler vom Alten Reich bis zum Ende der 18. Dynastie (= Hildesheimer ägyptologische Beiträge, vol. 42.). Gerstenberg, Hildesheim 1996, pp. 9–14.

Cit.: (About the torso of the statue of the goddess Sechmet/Bastet from the Valley Temple of Cheops): “The position of her right arm suggests that the bust once belonged to a statue group similar to the well-known triad of Mycerinus.”

Note: The goddesses Sechmet and Bastet are two aspects of one goddess. Their union can be considered paradoxical, because Sechmet represents the fighting and wounding aspect, which is in paradoxical connection with the healing and protective focus of the more subtle personality Bastet. Both united goddesses can be described as yin in the pyramid system, because they belong to Cheops. Their dual nature is logical, because in the case of cyclical yin, the opposites are more separated, compared to direct and linear yang. And what is the relationship of this dual goddess Bastet/Sechmet to Hathor? For logical reasons, also dialectical, because Hathor belongs to Menkaure (yang), while Bastet/Sechmet to Cheops (yin). In numerous myths, Hathor and Sekhmet transform into each other, similar to how yin transforms into yang and vice versa. Some stories describe Sekhmet getting drunk and falling asleep, and then waking up as Hathor.

[5] Note: In this painting from the *Book of Amduat*, we see eight figures to the right of the god Thoth – probably the four sons of Horus, plus four figures of the goddess Hathor wearing the white crown of Upper Egypt. The name Hathor means “Home of Horus”. Hathor’s symbol is a large square with a small square in its corner – four plus four, or eight.

This corresponds to her dual concept of mother and lover of the god Horus. Inside the large square is a falcon, the symbol of the god Horus. See this image:



[6] White, Douglass A.: The Holistic Change Maker (Book of Changes) (p. 3); Sacred Scarab Institute, 2022

Available online: <https://www.dpedtech.com.tw/media/9-The-Holistic-Change-Maker-Book-of-Changes-古埃及與易經.pdf>

[7] Note: There are eight phases of the moon, namely – 1. Nov, 2. Waxing crescent, 3. First quarter, 4. Waxing crescent, 5. Full moon, 6. Waning crescent, 7. Last quarter, 8. Waning crescent

[8] Note: We already know that in the valley temple of Menkaure we find eight triadic statues of the goddess Hathor, while in the valley temple of Cheops only a single torso of the goddess Bastet/Sechmet was found. Both goddesses Hathor and Sechmet form an interconnected dialectical pair – from mythology we know the concept of “seven Hathors” and at the same time “seven arrows of Sechmet”, which are also associated with the constellation Pleiades (Seven Sisters). These seven Hathors symbolize the seven places where Hathor was worshipped, namely Thebes, Heliopolis, Aphroditopolis, Sinai, Memphis, Herakleopolis and Kesh. The eighth place can be considered Dendera, as the central site of the Hathor cult, which brings us to the number of eight triadic statues in the Valley Temple of Menkaure.

[9] Černý, Michal: Pyramids in Giza as a Combinatorial System 2; In: Eniologie člověka No. 41, Sovenio, Břeclav, June 2024

Available online: <https://casopisargument.cz/55286> (under the title “Surprising findings about the pyramids in Giza, part 2”)

Note: Here is a table of the Eye of Horus composition in 64 steps, reconstructed by Douglass A. White from Egyptian papyrus records. Source: White, Douglass A.: The Holistic Change Maker (Book of Changes) (p. 18); Sacred Scarab Institute, 2022

Available online: <https://www.dpedtech.com.tw/media/9-The-Holistic-Change-Maker-Book-of-Changes-古埃及與易經.pdf>

[10] Note: This higher reality can be perceived through the middle third eye between the eyebrows, which in Indian yoga is associated with the ajna chakra. The entire process of

unifying the Eye of Horus can thus be paralleled with the practice of Indian yoga and pranayama, specifically with the practice of nadi shodhana pranayama. In this, the yogi alternately inhales and exhales through the left and right nostrils, thereby energetically balancing the lunar and solar channels (called ida and pingala in yoga, and the lunar Cheops and solar Menkaure in the pyramid system). The goal is to achieve spiritual ascension and a higher level of compassion, which yogis actually experience after this practice. The ring finger and thumb of the practicing yogi alternately close and open the left and right nostrils, and the index finger is placed on the third eye, i.e. on the ajna chakra. The goal is a spiritual ascent along the central axis (along the sushumna channel, leading through the center of the spine, in the pyramid system then the central Khafre) towards a higher level of unification and compassion. The function of the pyramids can thus be compared to this pranayama exercise – it is just the same path by different means, and the goal in both cases is a higher level of compassion, up to perfect final unification.

[11] Note: The little-known fourth pyramid of Khentkaus, also located in the Giza site, can be considered a neutrino element in the 3P and 8P systems. Khentkaus is a hidden, mysterious queen of Egypt, who, however, does not appear in any official lists of rulers – precisely because she is that hidden primordial cause. It is noteworthy that this pyramid has only two levels, with the smallest number of wholeness being three. Duality and incompleteness are one of the characteristics of the neutrino element. In the Khentkaus pyramid, one can see a parallel with the chemical element hydrogen, which is also the original cause in the periodic table of elements, consisting of only two elements (without a neutron), while all subsequently emerging elements consist of three (electron, neutron, proton). Similarly, in the family system, the hidden cause is the element neutrino (grandparents), followed by neutro (mother, father), and homo and hetero (sons and daughters). Similarly, the hidden civilization of Atlantis (neutrino) can be considered the original cause of the civilizations of Egypt (neutro), China and India (hetero and homo).

[12] Chap. “Filozofické a přírodovědné základy čínské medicíny” (Pages 13-110) In: Růžička, Radomír: Mikrosystémy akupunktury z hlediska současného poznání. Publ. Poznání, Olomouc, 2002

[13] Note: Volumes of all three pyramids: Cheops: 2.592 million m³, Chephren: 2.211 million m³, Menkaure: 0.235 million m³. The sum of the volumes of Menkaure and Chephren is 2.446 million m³, approximately the volume of Cheops (2.592 million m³).

[14] Jelitto, Hans: Planetary Correlation of the Pyramids at Giza and Teotihuacan (p. 1); Hamburg, 2022

Available online:

https://www.researchgate.net/publication/359688325_Planetary_Correlation_of_the_Pyramids_at_Giza_and_Teotihuacan_-_P5_Program_Description