#### Phaistos disc. A look from the 21st century.

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The Phaistos disk is an artifact found in one of the rooms of the Palace in Crete in 1907. There is a lot of information about it, although it is contradictory, because the unusual shape of the object, the quality of its processing, signs and the way they are written lead to many versions. The main point that interests scientists and Amateurs is the so - called decryption. That is, reading the characters on the disk. Today, most researchers recognize the disc's syllabic writing, its Cretan origin, consider the receipt of signs by impressions to be special stamps, and the language is unknown or close to linear A or B writing

### The origin of the signs from Egypt

We made a selection of disc signs with parallel images from Egypt. The frescoes and reliefs used in the region of the capital of the Middle Kingdom - Thebes. The temples from which the copies were taken: Ramesseum, Memorial Temple of Seti 1, the memorial temple of Hatshepsut, the temple of Thutmose III, the ancient temples of Dendera.

Particularly expressive signs by which you can determine the time and place of manufacture of the disc are as follows: the so-called goddess Taurt; a house, also called a hive in publications; ship.

According to some European scholars, a fat woman is the Egyptian hippo goddess Ta-urt, or, in Greek, Toeris. The goddess, in our opinion, is none other than the wife of the ruler of the country, Punt King Parehu named Ati, with a fresco in the

Hatshepsut Temple. The very fat woman who is located after her husband, and behind her daughter, with signs of the same disease - steatopygia (Table 3). The house, in our opinion, is precisely the building, and it is very characteristic for some regions of Africa. There is a similar dwelling on the relief from the same temple of the Pharaoh's woman in Luxor (Figure 1: 1). The ship is used several times in the disk and resembles well-known images of Egyptian ships in various temples, including in the buildings of the Middle Kingdom.

These remarks suggest that the disk was made in Egypt during the reign of Hatshepsut-Thutmose. In other words, the masters working on the artifact knew the decoration of these temples well. We give about 19 characters from the disk with parallel images from Egyptian temples (Tables 1-3). Other images can also be found on walls in Egypt. We have found, but do not give for the sake of space, the so-called cat-cat, bird, and a number of other signs, Parallels to which can be easily found in the Egyptian hieroglyphics. It may have been made by an Egyptian who participated in the Punt expedition, or by a foreign resident who was familiar with this form of object.

## Part 2. Technologies: manual rendering with color processing.

The main question is: how did you manage to get such a perfect product? You can't call it art, but rather, let's say, an expressive piece of pottery. The first thing that attracts attention is the many elegant, easily recognizable objects, such as the face of a cat, bird, human figures, etc. These images are repeated many times.

Apparently, this is what led the first researchers to believe that the signs were made by seals. It seems to us that this is an erroneous opinion. Here are just a few objections from different areas:

- 1. Making prints of this size micro-prints, even now, is not easy. A high-precision machine is required. We assume that this was impossible in the 2nd Millennium BC.
- 2. No such artifact has been found in the vast expanse of Eurasia of the ancient world. There was simply no way to create a microprint and repeat the disk.

- 3. The images created by the print are exactly the same. What do our signs look like when you put them next to each other? (Table 4).
- 4). You can see that each sign differs from its neighbor in a number of parameters: the width and depth of the contour line, different angles of inclination of straight lines to each other, and other obvious discrepancies.

Our observations show that each icon is made by the hand of a master, potter or ceramist according to the original sketch. Hence the minor flaws, such as hand trembling, and inaccuracy of human vision, the lines are stronger or weaker, but noticeable when carefully studying each sign. How the disk was made can be restored by examining the disk characters in detail (Table 5): Lines were drawn with a sharp object, traces of which are visible in the drawing in the form of rollers on the dividing line. Then the rows of points were executed. This resulted in three-dimensional deep lines dividing the disk segments. The outline of the sign was outlined in white paint. The quality of the work seems incredible, but only for those who are not familiar with the history and culture of Ancient Egypt. To create signs, ceramists used technologies of working with clay and stone, found in a number of artifacts of Neolithic cultures, the highest achievements of sculptors are widely known from collections of statues and reliefs of the Ancient Kingdom in museums in Europe and America.

The tools were miniature, similar to those used in surgery today. Some operating instruments from Ancient Egypt can also be seen in museums. Summing up some results, we conclude that the disk was made by experienced craftsmen familiar with thousands of years of high-level traditions, most likely from Egypt. If we take into account the similarity of at least half of the signs of the disk with images on the walls of the temples of the Nile civilization.

# Part 3. Two levels of meaning for pictographic characters.

When you carefully examine the signs, a repeating pattern appears: each image turns out to consist of numerous images, both large ones that take up half of the main image, and very small ones. The latter can only be seen using a magnifying glass.

Small "additions" of this kind are usually located in the corners of the sign and

colored lilac. These are often heads where noses (and / or beaks) and eyes are easily identified. Often in the recess of the contour of the main figure.

On each sign of the Phaistos disk there are from two to three to eight to ten such signs, the size of which decreases as you move away from the center of the main sign. The second level sign has small images of the "third level" - their eye or ear. When viewed through a magnifying glass, the image turns out to be the head of another creature. In search of an explanation for this phenomenon, we studied the frescoes and reliefs of Egyptian temples and found the presence of this phenomenon on individual hieroglyphs (Table 8). Perhaps we should be careful to point out the continuity of a certain visual tradition. Note that the disk uses five different colors: white - to emphasize the outline of signs; gold or copper-to highlight some images that are drawn on the main sign near its edge; lilac is most often seen in the recesses of the main contour of signs, where they emphasize small icons. On the field of the disk itself, you can distinguish areas covered with dark brown and light brown. There are two possible explanations for this multi-level system of signs: decorative and semantic. The first option refers to the approach to signs as works of craft (art), that is, additional images serve as a kind of decoration for the main image. Or it is a kind of demonstration of the skill of the performer of the order. The second explanation leads to speculation about the meaning of the signs themselves. So, in General, it is accepted that the characters on the Phaistos disk are about forty - four or forty-five. These are familiar household items such as animals, birds, a vessel, a knife, an axe, and others. Common images used in other pictographic writing systems. Then there are forty-five characters on the disk, and according to the famous scientists who worked with it, whose opinion continues to dominate in modern times,

We are presented with another opportunity. Perhaps the additions that are clearly visible on the signs are not made for decoration, but rather Supplement or even change the meaning of the main sign. Then it turns out that there are as many different drawing signs on the Phaistos disk as there are — about two hundred and forty-two (242). And we can already talk about the logographic letter used in the Fest

writing is syllabic.

disk. This idea was expressed by individual researchers in the 20th century, but it was not accepted by the scientific community. We return to this point of view once again. Each disk sign is a separate image, word, phrase, or idea. Pictograms, at the simplest level, usually mean what they represent. If a leg is drawn, it is assumed that the drawing (writing) had to draw a leg. But if you look more broadly, it is easy to understand that the foot in the text may have had the meaning of "go", and maybe some other meanings, depending on the context. Or depending on the applied next to or on itself

**Part 4. The predecessors of the disc - the game Mekhen.** The purpose of the disk is the oracle (and / or) a fortunetelling sacred object.

The origin and purpose of his journey through the underworld of the Duat was a game most popular in the Ancient Kingdom. We played it on a table with a snake engraved or encrusted on it. The head was in the center, and the body was divided into cells along the entire length. There were stone snake tables used for the game, some of which have survived to this day (Table 8). In the Middle Kingdom, traces of the game are lost. Perhaps other activities have become popular. And the disc shape as an exception was used by unknown masters to create our mysterious subject. It must be remembered that the games in Ancient Egypt were inextricably linked with communication with the afterlife, with spirits and gods. Each tomb has similar frescoes and reliefs: the deceased plays with himself, often in the game Senet. Then it would be logical to assume that the round disk was used to create a magical or cult item of close purpose. It is known that the Egyptians are considered, if not the creators of the first magic systems, then among those who widely practiced magic, believed in all kinds of astrological predictions, communicated with the spirits of their ancestors, and endowed their many gods with the most incredible attributes. This knowledge gave us the opportunity to assume that the Phaistos disk is a kind of Oracle, a divinatory magical object by which the future could be determined. Or receive any other information about the future, present, or past. A few thoughts on why we don't think the idea that a coherent text is written on the disk is correct:

- 1.Texts of everyday, historical, and other types are written on suitable media for this format. For the time we are talking about, rectangular tablets were used.
- 2. Texts written on round media are not known. There are two or three items of later date, including Etruscan ones made of metal, where the text is present: a fortune-telling map of the haruspices in the form of a liver with several icons, for example. There were Cretan inscriptions made in a circle, but they are very small-a few icons: a ring from Mavro Spelio, a clay bowl from Knossos with an inscription on the bottom in linear letter A. All the mentioned items cannot be compared.

To read picrographic information, you do not need to know the language of the writer, each viewer interprets the fragment according to their level of understanding and education. We are likely to make the following observations. The disk was most likely in an Egyptian temple for some time, where it was dealt with by priestsfortune-tellers. They used it, most likely, predicting by signs of the first and second level. For a simpler version of the prediction, it was enough to rely on large signs, without taking into account small additions on these signs. Note: what you will read below is the author's fantasy. This is a hypothetical interpretation of several pictographic inscriptions. The process of divination, in our opinion, could occur as follows: The questioner focused on the question A die was thrown that had icons from one to six, or any other way of getting a number. If, for example, the number three fell out, then, starting from the bottom cell "Sector 1", from which the divination began (table 10), three segments were counted. "Sector 3" was the answer to the question. But in this case, only six segments were needed, since there are points from one to six on the bone. Here you can recall the famous philosophical and historical divination according to the ancient Chinese "Book of changes". The system for getting the answer number is completely different, and we refer to Chinese wisdom for a different reason. When the requester receives the basic number of a response that they do not understand or need to get an extended interpretation, the" book of changes "provides them with additional information. So in our case: if the answer after one roll is insufficient, you can throw the dice again to get a hint. We selected segments from the fest disk at random, starting with twoSnake head: two icons (table

9: 2), waves-fish: relaxed rest by the water. Three signs (Table 11:1), walking man, large fish, cat's head: moving to a rural area, with Pets and fishing. Four signs (Table 11: 2), fish, Crocus, walking man, cypress: moving to the blessed land, where flowers and trees, lots of food. And so on.

Conclusion: to sum up, we note that in our opinion, the Phaistos disk was made in the time following the expedition to the country of Punt, organized by Queen Hatshepsut. That is, in the Middle Kingdom, which coincides with the conclusions of other researchers of the artifact. The country of manufacture was most likely Egypt, which can be assumed, given the similarity of the disk signs and Egyptian hieroglyphs, as well as the presence of an outstanding sculptural and ceramic tradition in the country of the pharaohs. The manufacturing technology was the same for the disk, as for other clay products of the time, and there is no reason to consider the issue of seals (stamps) as a special form of processing this unique subject. Purpose of the disk: with caution, we assume that it was an object that serves to receive predictions. The signs most likely represent pictographic records, so the question of the language of the disc does not arise. For the same reason, it does not seem significant to consider the problem of the direction in which characters are read: in logograms, the order of the icons may not matter.

#### Tables: 1 - 11

The brown icons on the left are symbols from the restored Phaistos disc. Next to them, to the right, are hieroglyphs from frescoes and reliefs of Egyptian temples.