

The Functional Analysis of Clay Figurines of the Neolithic Period

Vida Goudarzi

Department of Archaeology, Izeh Branch, Islamic Azad University, Izeh, Iran

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Abstract

In general, the figurines belonging to the Neolithic (the New Stone Age) have rarely been under functional analysis. Nevertheless, three studies undertaken on the figurines unearthed from some places in the Middle East have presented some classifications for them, and attempted to study different results in terms of their application (Voight, M., 1983, pp.186-192). The first one is the published master's thesis in archaeology written by Broman (1958). In this thesis, just big collections of clay figurines in Jarmo were put under investigation. The second one, done by Yoko (1962), was an endeavor to explore the Egyptian and Cretan figurines (Crete Island). The third one, a master's thesis conducted by Nikerson, was conducted to investigate the figurines discovered from Alamut City in Melian, Iran. The methods adopted by these authors were utterly different. Broman presented the stimulating and original beliefs which are based on his own direct perception and experiment using modeling figurines. Yoko undertook his studies focusing on the ethnology of figurines, and in the end, itemized the characteristics associated with each category. Nikerson investigated evidence related to the way the figurines, found in Melian, were damaged or worn, and delved into their archeological forms and content. Scrutinizing and merging the abovementioned ideas, the present study was designed to examine and analyze the application of clay figurines of the Neolithic era and the way they were used.

Keywords: functional analysis, figurine, clay, Neolithic

1. Introduction

In order to provide a definition for the Neolithic, the following definitions should be brought up: (Homa yun, Gh., 1974, pp.Bq-145)

A. the Neolithic is defined as a period in prehistory and as the final period in the triple classification of the Stone Era. The beginning of this Era was the tenth millennium B.C.

B: Generally speaking, in the Neolithic, there was a general exodus from caves towards the plains where man could survive. In this period, agriculture was developed and expanded. Man witnessed the growth of plants for centuries, and saw that the seed that fell on the ground grew to fruits and green plants after a while. Man made an attempt to do it himself. He scattered seeds over the ground and witnessed the growth of plants. Little by little, he got dependent on the land in which he cultivated plants, and this dependency led to his settlement in one place. When he got settled, he felt propelled to build a hut for himself. Gradually, he expanded his farm. The primary farmers did collective farming. This period marked the beginning of wickerwork which was an art made of the soft pieces of plants. By coincidence, the endurance of this art led to a massive change in human life, i.e., pottery making. A wet basket was next to the fire, and the wet soil sticking to the basket came off near the fire by chance and hardened. Gradually, man learned to cover the basket with clay and put it in the sun or in the fire, then he saw this process made the clay come off. This marked the beginning of making the handmade dishes. Since then, man kept his extra products in large earthenware vats for winter. In winter, the farmer had already harvested his products and was idle, therefore, he painted the pottery he had made.

Regarding man's beliefs in this period, it should be stated that man were authoritative, and this is where religion manifested itself. Man perceived dualism in Nature, and believed in two divine and devilish forces or good and evil powers. He understood the sun increased his products and storms destroyed them; as a result, he built a clay statuette for each and worshiped them. Good gods were worshiped because of their benefits and evil gods were worshipped by people since they were afraid of them and wanted to repel their evil.

Since then, he could distinguish good and evil forces, and gradually felt a sense of dualism in himself. He saw his body and believed in his soul. All these started from his dreams. It is worth noting that after the agricultural era, the urbanization commenced. The advent and development of the Neolithic Era accompanied the following stages:

- 1- Planting
- 2- settlement

- 3- architecture
- 4- wickerwork
- 5- pottery making
- 6- painted pottery
- 7- Ranching
- 8- textiles
- 9- Burial customs

C: The fourth era of geology, which is related to the current time and witnessed great frosts, was called the Pleistocene. In this long period, every several thousand years, the coldness of the earth intensified alternatively, and arctic ices spread to the north and center of Europe and America. The final part of this period started from 40000 BC and continued to 10000 BC. In this period, man of the prehistory got prepared for collective life and rural settlement. This epoch was called the Paleolithic era since primitive tools and weapons made by uneven or broken stones were discovered, indicating that these tools were the primary issue of human in that era. But above all, some paintings and carvings done by the same people on walls and ceiling were also discovered. These symbols indicate that these sites were their residency or places of worship. The economics of these communities was based on cutting, fishing, and gathering roots, and mainly on plants; and they largely lived on hawking.

Since almost 10000 BC, a new era, called the Neolithic, began with the construction of the required tools using polished stones by man.

In this era, man realized agriculture and ranching, and as a result, adopted rural life, built houses next to each other to live en masse, and identified some places and warehouses to store the products that obtained from growing crops. Even it was found that about 7000 BC, in Jericho, stone walls and fortresses, which are the oldest known man-made fortifications, were built to defend their dwellings.

In the Neolithic, in addition to making tools and weapons, such as arrowhead, blades, axes, and polished ramrod, the industry of colored or painted pottery done by hand, including pots, dishes, bowls, and vessels, as well as small figurines and rectangular seals decorated in relief with soft clay were also common.

2. The Advent of the Neolithic Period in Different Regions

Pottery works of the Neolithic were unearthed from places between Mesopotamia and southwestern in Iran in the ninth millennium BC, from Egypt in the fifth millennium BC, and from Europe in the late fifth millennium BC. In China, the Neolithic era began in the fourth millennium BC by pottery making using soft clay with geometric designs on simple and smooth red and black background. Chinese architecture of that time comprised of the enclosure of villages or encampments by clay walls and the construction of round or rectangular houses.

Artifacts discovered in the Near East, Mesopotamia, and the southwestern and central part of Iran, such as Rase Shomreh, Hassouna, Half Hill, Arpachieh, Susa, and Silk Hill, show that Neolithic civilization in the areas located in the northern part of the Persian Gulf to Syria (the area known as the Fertile Crescent) was in its heyday with regard to pottery making, sculpture, urbanization, and textiles at the beginning of the sixth millennium BC. In this area, the Neolithic period started earlier and period ended before the beginning of the fourth millennium BC, i.e., much earlier than that in other areas, and the civilization ushered in a whole new era, called the Chalcolithic era, and in fact, it was the early stage of the Bronze Age. In the Near East, the Neolithic Era ended about 4300 BC with the establishment of Ubaid civilization (Southern Mesopotamia whose capital was Avar City). In the Nile Valley, the Neolithic Era ended in the early fourth millennium BC, and was replaced with a more advanced civilization, called "BADRA", with agriculture, urban architecture, metalwork, pottery, sculpture, textile industry, matting, and pictography.

The Neolithic: animism and a tendency towards geometric shapes:

Naturalistic methods reigned till the end of the Paleolithic period, i.e., over a period of several thousand years, and there was no prominent change from the Old Stone Age to Neolithic Era. It was at that time that naturalism with its vast practice was substituted by a limited geometric abstraction style in which the basic method of artists was to ignore the empirical facts.

Since then, there were the conventional symbols and pattern-shaped signs, such as hieroglyphic signs, in which the emphasis was laid more on the issue rather than its reconstruction.

Hence, in this era, instead of dealing with the realization of real life experience, artworks were an attempt to gain access to the inner essence and concept of objects, and to create symbols rather than the exact same objects. The Old Stone Age is indicative of a stage in which there was no worship. Man was fraught with the fear of death and starvation, and endeavored to defend himself against the enemies' attack, material requirements, suffering and death by acts of

magic. Man did not relate the good and evil happened to him to powers beyond the events. This viewpoint continued until he realized how to raise plants and animals, and then he felt that his destination was guided and controlled by rational forces which deserved to determine human fate. As a result of such beliefs, the need to build idols, talismans, sacred symbols, solar calendar, and burial offerings arose. So, a distinction between sacred and secular art, between the art of religious manifestation and the art of this world's decoration, was drawn.

On the one hand, we discovered the remains of idols and art pertaining to graves and burials, and on the other hand, we found potteries in decorative forms related to this earthly world. The prayers and funerals make it absolutely obvious that man in the Neolithic era perceived the soul as a separate substance from the physical body. The magical ideology is unitary-oriented, and sees reality in the form of a simple, monolithic, and inseparable construction; however, animism is in favor of dualism, and comprehends knowledge and beliefs as an intuitive system, magic is feeling-oriented, while animism believes in souls and has the propensity for abstraction.

In this era, the sensory elements were replaced by the spiritual and non-sensory elements generated from the artists' imagination.

The overall analysis revealed that this shift of practices in art in the Neolithic Era is due to two factors: First, man drew away from having entertaining economics and being the mere consumers as hunters and gatherers of food towards developing profitable economics, agriculture, and ranching.

Second, instead of understanding the unity of the world via magic, man had recourse to the wisdom of animism /dualism. (Moay A., pp.2-7)

3. The Application of Figurines in the Neolithic Period

In terms of ethnography, the Neolithic figurines belong to one of the following categories:

1. The religious figurines or statuettes of supernatural creatures that were mainly used as symbols or objects of worship.
2. The magic carriers or figurines made by hand, and in many cases, utilized as a key element in religious rituals with the purpose of improving a situation or reversing the upshot of some actions (for example, ensuring man/female fertility and child health, harming others, and being protected from natural disasters, etc.).
3. Educational and training figurines, for example figurines for the purpose of teaching values and customs of sexual relations
4. Figurines as children's toys
5. Figurines of the effigies of deceased people

Using the documents obtained from Mesopotamia, the figurines that can be attributed to the first two applications have been proved in cuneiform texts. The use of religious themes or the effigies of gods in the form of human bodies is well-known in Iraq and Iran. Although the most important images of gods (those that are kept in temples) were made of wood decorated with gold and other precious materials, inexpensive versions were made of clay in order to be used in private houses of worship.

The use of figurines in religious ceremonies aimed at being protected against disasters caused by ghosts and witches. These figurines were made of clay and were in the shape of human bodies or animals such as dogs, lizards, frogs, and donkeys. During religious ceremonies, figurines were arranged in various ways, and they were buried under the house floor, under the city gates, or in open areas. They were destroyed via being broken or burnt, and eventually were thrown into the river or were put in the graves. Apart from these ceremonies, some certain instructions and recitals were uttered as well. The texts which contain detailed instructions on how to use figurines in religious ceremonies dated back to the first millennium BC.

Making small clay toys has not been verified using historical documents, but it has been proved via the today's observations in Iraq and Iran. Regarding the excavations done in the ancient Lagash of Avzchnlagz, a series of studies have been conducted on the construction techniques and morphology of all types of clay objects that are dried in the sun in contemporary villages near Lagash. The researcher found that kids (girls or boys) made small clay toys for their personal use. Among these toys, some images of women, men, vehicles (boats, tractors, wagons), and animals such as lions, dogs, hogs, sheep, goats, and camels) were observed.

In some cases, figurines reflected a combination of people in daily activities (such as pulling a donkey or sailing boats). Another variant of these figurines is those used in the rituals held for girls' and boys' reaching puberty, or in other ceremonies such as weddings, the birth of the first child, and the admission ceremony to secret society. The probable application of educational figurines in the ancient East has already been studied by Yoko. He proved that some figurines found in Jarmu (as well as sites belonging to the Neolithic Era in Egypt, Greece, and Crete) were used in a ceremony for

introducing individuals and making them acquaintance with a place or a ritual. The best series of documentaries on the figurines used in induction ceremonies have been obtained from the East Africa. These figurines were made of clay and were images of people, animals, and imaginary creatures, and were often made in the form of coarse and clumsy shapes.

Generally, figurines are classified into three categories:

1. Human
2. Animal
3. Supernatural creatures including gods, phantoms, demons, and ghosts

In the ethnological division of the magical figurines, supernatural creatures are mostly used, and there are two categories for toys (human and animal). In studies conducted on different cultures, toys, which were given to children for religious education, and ghosts were found; however, there are no recorded archaeological samples available.

Ultimately, with regard to figurines, the key features are those that reflect their application and consumption. This is based on the following assumptions:

- 1- Major figurine making industries are diverse and include more than one functional category
- 2- There is a relationship between the shape of the figurine and its application.
- 3- The difference in applications may be reflected in different behavioral patterns, at least it can be detected in terms of archeology.
- 4- Among the most important behavioral variables are those that are associated with their use and consumption, and include the following factors:
 - A) The number and diversity of the figurines used in a single activity
 - B) The length of time that the figurine was used
 - C) The frequency and duration of replacement or manipulation in the course of its use
 - D) Sites where the figurine was used or stored
 - E) The types of damage imposed on the figurine during its use or consumption
 - F) The places used to consume the figurine
 - G) The presence or absence of other activities in the places where the figurines were kept or stored.

Finally, the behavior associated with the applications of figurines can be construed based on the following features:

- 1 - The type and degree of erosion
- 2 - The place of erosion
- 3 - The patterns of fractures and cracks
- 4 - The traces of burning
- 5 - The patterns of consumption
- 6 - The implicit data

More studies are required to be undertaken on the relationship between the morphology and application of figurines. Due to the scarcity of morphological characteristics which are diagnostic or limited to the members of a particular functional category, the mere use of morphology as guidance for studying applications would necessarily lead to conclusions with high quality. Even if the categories of characteristics are used in the analysis, the number of cases in which the morphology allows the assignment of a pattern to a specific fictional category with a certain degree of confidence is low. Accepting the fact that the characteristics which reflect the application and consumption are crucial for the general assignment of major archaeological patterns to functional categories do not lessen the importance of the systems classified and analyzed based on the forms. Ideally, defining categories based on the structure and morphology is deemed as the first step in any functional analysis of figurines. However, it may be impossible, especially when the sample is small.

The actual style can only be recognized from a single piece. In fact if it belongs to a distinct morphological category, the characteristics of this category cannot be expressed; therefore, the first steps in the analysis may be as follows:

- 1- Grouping patterns based on units that can be used for their analysis and comparison.
- 2- Determining the relationship between morphological units and functional categories. It is reasonable to assume that in a given community, the artifacts with same shapes have the same application as well. However, the ethnographic evidence indicates that some communities utilize the identical and similar patterns for completely different purposes. For instance, some communities in North America (Pumoha), Africa, and India use a similar type of figurines as a magical carrier, and another group used it as a toy.

On the other hand, people usually use a variety of patterns for the same purpose. In some cases, such diversity is characteristic of the members of a functional category. Artifacts which include a collection of induction figurines are

outstandingly different in terms of their shapes. In other cases, changes in a functional category are associated with a variety of social contexts in which the figurines are used, for example, the communities of ancient Mesopotamia use rather elaborate religious designs in educational structures, and utilize simpler and smaller patterns in local structures or family units. The production factors may lead to differences in morphology. Given these ethnographic data, the second step in the functional analysis of figurines include the experiments of the samples for the distinctive patterns of erosion, destruction, and distribution. This can be done by separating, collecting, and accumulating the morphological units in functional-consumption units that can be assigned to functional categories.

Those figurines that have numerous applications are difficult to interpret. Errors occur when the application is concluded based on the highest amount of erosion or damage. Problems also arise when the samples of figurines are small, and do not reveal any fixed erosion patterns or consumption.

In the end, by setting a series of rules, we analyze clay figurines in order to identify their application. Figurines can be divided into two or perhaps three morphological models:

1. Abstract human figurines
2. Animal figurines
3. Realistic human figurines

Many of these clay figurines can be used as symbols of agreements such as treaties or transfers of assets (including the inheritance). In the end, it suffices to utilize the interpretation proposed by Yoko who believes it is likely that various types of certain Sumerian figurines may be a symbol of particular gods associated with a specific rural or village.

(i.e., the pattern of historical times); however, the overall diversity of such patterns shows such hypothesis to be quite speculative and hypothetical. Despite this fact, bear in mind that definitely, it is a matter of categorizing objects with various purposes and applications altogether just because they were made of clay. The almost certain presence of toys and pieces of entertainment should not obscure the possibility that some figurines may actually reflect a religious figurine or may be used for evil repellence and anti-evil purposes.

4. Conclusion

With regard to fundamental changes in human life in the Neolithic Era from an economy based on hunting and gathering food to an economy based on ranching and agriculture, the productivity of the major themes of agricultural art, and the discovery of abundant human and animal figurines reveal the human desire for the preservation of his generation and breeding. Belief in the immortality of souls after death, which drew human mind towards supernatural issues more than before, exerted a direct influence on art styles in this period, and led to the creation of anti-naturalism and symbolic art, and in some cases, quite abstract artistic works. In this period, in many cases, figurines were broken in the course of its construction, and were found in places which had no connection with the waste of people in residential areas. Figurines were destroyed not only by breaking but also by burning, and then were buried in inaccessible places such as in caves, in depth of waters, or within walls. In some cases, human and animal figurines, other animals' bones, and other artifacts were found together, and there is a possibility that it is due to the repeated burial of objects or the use of all of them in one religious ceremony. The common sizes of figurines were between 2 to 8 cm, and these sizes were definitely related to their application: the point is that these samples were made for magical purposes, worship, or education, and people were required to keep the figurines, or carry them in a special ceremony, that is why they were made in small dimensions. The construction of figurines with these dimensions required great skill, which indicates that the purpose of the person who made these figurines was not to build a votive idol or effigy but to make figurines to make man's wish come true. According to Broman, animal figurines were kept until man's wishes related to that animal came true, and after he perceived his figurine fulfilled his wish, he threw it away, used it with other devices at home, or gave it to children as a toy. Besides, the majority of figurines can be deemed as spells and ritual objects that would safeguard the health of herd or a particular animal. The figurines of prey animals were probably made by people who were hunting, and the figurine of domestic animals were made by shepherds.

Regarding culture, these works are the only clues to the lives of local residents because they manifest information beyond earthly life. In Morales Broman's view, figurines reveal the level of human intelligence and wisdom.

Generally speaking, burning, breaking, crushing, and pressing, and burying figurines under floors and within walls, the unique volume processing, and the preference of the overall identity of figurines to their details reveal the magical facet of figurines. (Voight, M., 1983, p. 190)

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