

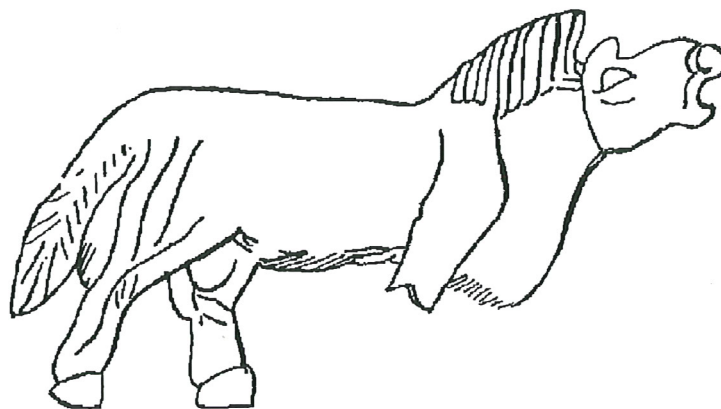


# **ARCHAEOZOOLOGY OF THE NEAR EAST IV B**

Proceedings of the fourth international symposium on the  
archaeozoology of southwestern Asia and adjacent areas

edited by

**M. Mashkour, A.M. Choyke, H. Buitenhuis and F. Poplin**



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# **ZOOMORPHOLOGICAL STATUETTES FROM ENEOLITHIC LAYERS AT ILGYNLY-DEPE AND ALTYN DEPE IN SOUTH TURKMENIYA\***

Alex K. Kasparov<sup>1</sup>

## **Abstract**

The method of species identification of terra-cotta statuettes of the animals is described in the article. Statuettes came from Eneolithic settlements in South Turkmenistan. The system of measurements and calculation of special indexes is also described. The absolute majority of statuettes represent the figurines of bulls. Moreover, considerable numbers of statuettes of billy-goats and rams, and only a few statuettes of onagers and dogs were identified.

## **Résumé**

La méthode de détermination spécifique des animaux sur les figurines en terre cuite provenant des occupations énéolithiques du sud du Turkménistan est présentée dans cet article. Le système de mensuration et le calcul des indices sont décrits. La majorité des figurines sont attribuables à des taureaux. De plus, une quantité non négligeable de chèvres sauvages, de mouflons sont identifiables parmi ces terres cuites, ainsi que quelques figurines d'hémionides et de chiens.

**Key Words:** Turkmenia, Eneolithic, Animal Figurines

**Mots Clés:** Turkménistan, Énéolithique, Figurines animales

## **Introduction**

A significant number of archaeological finds at Eneolithic and Bronze Age sites in the Near East and Middle Asia consists of the statuettes of animals, made from fired and unfired clay. As a rule, in archaeological practice, such finds are introduced in the inventory lists and then published under the general name "animal figurines" without more detailed descriptions. This is because these roughly made, fragile statuettes have lost the majority of their characteristic attributes (such as, for example, ears or horns) after deposition in the cultural layers of settlement. At first sight it is impossible to definitely identify them. Only occasionally figurines have such obvious proportions or well preserved details that it is possible to reliably distinguish which animal is represented. In the Middle Bronze Age, the statuettes become more expressive and frequently produced a quite high level of art. During many seasons of excavations a great number of such animal statuettes were found in the Kopet-Dag foothills in south Central Asia.

The degree of care taken in their manufacture is rather variable: from not clear, approximately zoomorphological figurines to skillfully modeled ones, where identification is clear. These latter, however, comprise a minority. Most finds consist of examples, which have approximately identical structures and are hard to identify by kind.

The purpose of the present research was to define where the represented figurines belong in terms of either animal species as well as to find such attributes or to produce such criteria which make it possible to identify the maximum quantity of statuettes which have been found despite the degree of damage. It is necessary to emphasize that description of the style of sculptures, the form of modeling,

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and the distribution of them over the settlement etc. was not included as the task of the author. Such research belongs wholly to the area of archaeology.

## The material

In all, 70 statuettes were investigated from the Ilgynly-Depe settlement, found during eight years of excavation, 13 statuettes from the Altyn-Depe settlement, found over two years and 13 statuettes from Karaš-Depe. In all cases they dated to the Namazga III period (second half of IV millennium BC). Statuettes from the layers of Namazga V (last quarter of III millennium BC) from Altyn-Depe were drawn on for comparison. All sites are located in the Kopet-Dag foothills, in South Turkmeniya. Ilgynly-Depe and Altyn-Depe are situated 200 kms south-east from Ashkhabad and Kara-Depe lies 90 kms to the east-south-east close to the village of Artyk.

The material, dated to Namazga V, mentioned above, has already been described from an archaeological point of view and published (Masson 1981). The preservation of these statuettes is better, and the quality of manufacturing and degree of detailing is much higher.

It is possible to describe the terracotta figurines of animals from Ilgynly-Depe as a whole as follows: these are small statuettes (length varies between 20 to 57 mm), fired, partly fired or unfired, with four legs, a degree of expressiveness which strongly varies, a more or less elevated head on a more or less massive neck (Fig.1). The head frequently has remnants of horns, oriented in various direction: upwards, to the sides or backwards. In rare cases the horns are absent. The muzzle is often

expressed faintly by a small diffused knob. However, sometimes it can be high and massive. There can be a small tubercle on the back surface of the neck, near the head or closer to the shoulders. Sometimes, instead of it, there is a low crest, running down the length of the neck and spine of the statuette. Another crest, shorter and more massive frequently runs down the front surface of the neck and chest, under the head, from the top downwards along a central line. Hereafter it will be called the "hanger". The small blob made by a light pinch of clay by fingers may be found on the belly, between the fore and hind limbs, in some cases. Less often it is a small knob. Probably it symbolizes a preputial protuberance i.e. the sexual apparatus of males. Behind, on the croup, the tail appears as a flat plate in form of an extended triangle, stuck closely to the body. The tail can hang down vertically or lie along the back, slightly deviating to the right or the left.

Among Namazga III statuettes there are pieces where species attributions do not present problems after close consideration. Thus statuettes of a bull, a goat, a ram, a dog, very possibly a half-ass (onager) and probably saiga-antelope and pig were revealed in this material. The careful examination of such specimens uncovers for each animal, the characteristic features which are an integral part of it.

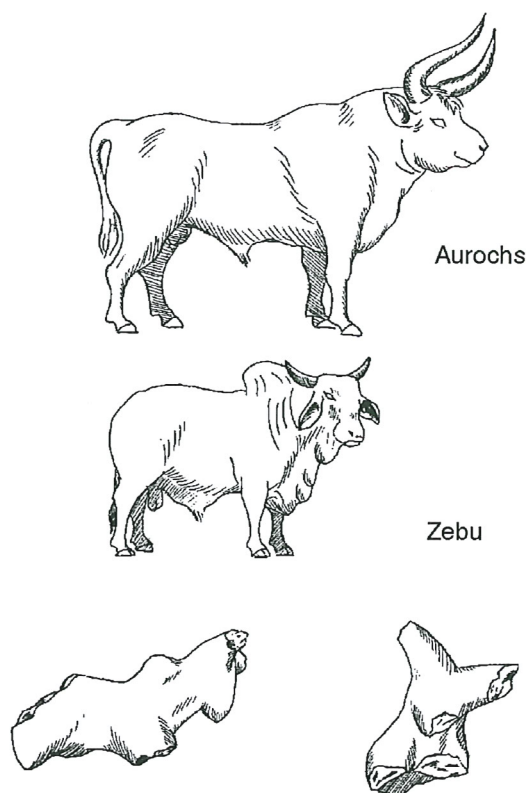


Fig. 1. The appearance of some large Bovidae and clay bull statuette from Ilgynly (second half of IV millennium BC)



## Bulls

The statuettes of bulls have horns on their head, directed in the lower part to the sides and then turn forward and up. The bulls have small, specially formed knobs on the back surface of the neck. These come in different sizes and are located directly behind the head or, less often, close to the bottom of the neck. It is difficult to say what this stylized attribute symbolizes. In one case, where the statuette was made quite realistically, it is possible to see that this knob is displaced to the back and extraordinarily resembles the muscular-adipose hump present at the base of the neck of zebu-like breeds of large cattle, widespread over all South Asia (Fig. 1). This form also has characteristically a good 'hanger' the result of deposition of conjunctive tissue and fat on the forward surface of the neck and breast, which is possibly being reflected on the statuettes too.

Statuettes of bulls from Kara-Depe (six specimens) have no 'hanger' and blob on the belly. However, it occurs on Altyn and Ilgynly figurines almost everytime. Judging by pictures from Egypt, zebu was known and already widespread at the beginning of the III millennium BC (Reed 1959). Gromova (1935) identified one vertebra of zebu from an early Iron Age settlement at Kaunchy-Tepa, located to the east, in the region of Tashkent.

It would be possible to assume that the cattle of the ancient inhabitants of Ilgynly-Depe belonged to the same breed group (though there are no incontestable palaeontological proofs of it) and that the terracotta statuettes represent just these animals. However, the form of horns practically excludes such an assumption.

As has already been mentioned, statuettes of bulls have their horns directed to the sides and ahead, with the ends turning up. These horns, even taking into account the significant stylization of figurines, are rather large. Zebu has small bent horns, the ends of which are directed upwards, and even sometimes to the back. The size and the form of horns of statuettes almost completely corresponds to the other kind of large Bovidae that inhabited the region, namely the wild aurochs. But aurochs did not have a hump and their 'hanger' is also not very marked. It, however, has an appreciably more powerful build than zebu which is also typical for the sculptures of bulls, which often have the same deliberate massiveness.

It is possible, that the statuettes of bulls do not represent some concrete animal, but something collective which took on the most characteristic features of large Bovidae well known to protohistoric sculptors.

Certainly, the question about what kind of Bovidae the clay figurines represent can not be considered definitively resolved. Other opinions and hypotheses also exists. Nevertheless it is possible to assert that these figurines with all the above-mentioned attributes, namely: the powerful horns, directed ahead with the ends turned up, the knob behind the head or on the back surface of the neck, the 'hanger' on the breast, the blob on the belly as a stylized display of sexual features of the male or even only some of them, represents a bull (Fig. 2). Especially realistic in this sense are certainly the horns or the fragments of them which are well enough preserved, and the knob behind the head.

Another indicative sign is the massiveness of the sculpture, which will be considered below in more detail.

## Small cattle

The characteristic feature of statuettes which represent small-sized Bovidae, goats and mufflons, is first horns (or the basis of horns at least) which are oriented absolutely differently. In contrast to bulls, they are directed upwards for goats and backwards for mufflon (Fig. 2). The goats have parallel horns, while mufflon has horns directed to the sides at an angle about of 100 degrees.

The direction of horns in most cases is aparent, even if the head is heavily damaged. Moreover, the figurines of small caprines never have knobs on the back of the neck or a 'hanger' on the breast as bulls have. In a majority of cases they do not have sexual attributes on the belly. If the knob is presents, it is almost not expressed.

The identification of the specific species representing statuettes of small-sized cattle is problematic. Only in one case was the statuette of a goat found with well-preserved vertical horns, which turned

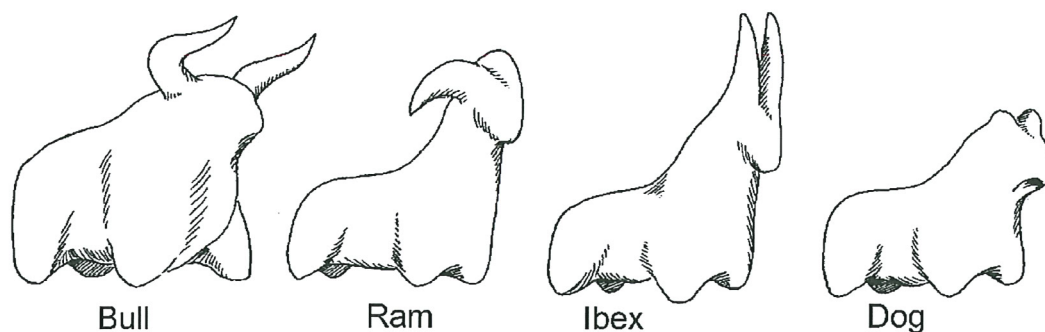


Fig. 2. Approximate appearance of Eneolithic statuettes from Ilgynly and Altyn

backwards. Proceeding from their form and parallel arrangement, it is possible with a considerable confidence to assume that this sculpture is the image of a wild goat, *Capra aegagrus*, specifically a male. Males of domestic goats have horns which diverge more to the sides and are strongly twisted in adult individuals. Females, domestic and wild, have horns which in general, are smaller.

### Dog

Statuettes of dogs are also found at Ilgynly-Depe and Altyn-Depe. The characteristic difference of dogs from small Bovidae is, clearly, the absence of horns on the head. Instead dogs have two knobs which are recognisably not remains of the bases of horns, but specially formed. They possibly represent standing ears (Fig. 2). Some statuettes of the Namazga V period have ears which are so well preserved and formed so realistically, that it is possible to suggest that dogs living in Altyn at that time may have had their ears cut.

Unfortunately, the caudal part of two statuettes of dogs, found at Ilgynly, have not been preserved and therefore positions of the tails are not clear. However, the tails of three dogs, found at Altyn, were formed clearly, and turned upwards. The tails of finds from Namazga V layers appear as short thick rods, pointed at the end, set at an angle of 60 degrees to the body and slightly turned ahead. The characteristic detail of dogs from the Namazga III period is a specially made depression on the end of muzzle. One statuette has it in front and two others on the lower side. Probably it represented the opened mouth of a barking animal (Fig. 2). At Altyn-Depe in the Namazga V period, prehistoric craftsmen thrust a thin stick through the front of the snout of dog statuettes. It is possible to assume that it was made for same reason. At that time, frequently it already has a purely symbolic purpose, as the tiny aperture did not look like a dog's mouth at all. In comparison with bulls and small-sized stock, the muzzle of dog is not designed as a small ledge, but is worked out with perfect naturalism. So, an expressed muzzle, standing ears on the head, the tail separated from the body and bent upwards, a indication of an open mouth are typical attributes of dog statuettes. The 'hanger', the knob at the bottom of the neck and marked sexual signs are not present on dog statuettes.

### Onager and other species

Images of other animals were also, presumable, represented. Four statuettes from Ilgynly-Depe and one from Kara-Depe which have specially formed low crests on the back of the neck and on the spine, were found. These figurines are not very massive, the 'hanger' is absent in three cases. In one case, it is present and also has the appearance of a flat crest. The muzzle is well expressed, like a big knob. The remains of two projections are obvious on the head, but they are directed upwards, instead of to the sides. The knob behind the head is not found. Sexual attributes are not present in three cases.

There are two kinds of knobs on the belly. One such figure has a mane which flows from the neck to the head and proceeds to between the "ears". They attract attention because these figurines have



rather long limbs which are well made, compared to other statuettes, the legs of which are somewhat secondary in importance. In a majority of cases they are hardly marked, or flattened by putting the rough figurine on a plane, or have the form of thick tubercles, bearing no resemblance to reality. It is not possible to say unequivocally what is represented by these five sculptures. However, one could assume that probably this is an attempt to portray the half-ass.

A figurine with a bulky huge pointed muzzle, distinctly turned down was found on Ilgynly-Depe. There are the remains of ears or horns on the head of this figurine. There is no 'hanger' on the breast or sexual attributes on the belly. The tail has the appearance of a knob, directed backwards. The hypothesis is permissible, that the 13 statuettes from the Altyn-Depe settlement, found over two years and 13 statuettes from Karaš-Depe, in all cases dated to the Namazga III period (second half of IV millennium BC), are rather stylized images of saiga-antelope.

In addition, there was found one quite strange figurine at the settlement of Altyn-Depe, clearly different from the general form of figurines. The head looks as if was a continuation of the body but a little elevated above it while the neck is almost not expressed. The muzzle is represented by a massive projection, with a quite flat end. The strong 'hanger' looks like a flat crest on the breast. There are clearly visible ears, directed forward and downward on the head. The bulky tail, directed downwards, does not join the trunk as in the majority of cases. This statuette has long, well worked legs, which is also extremely atypical for the main group of figurines. There is no blob on the belly. We can only to guess whether this statuette is the image of a wild or domestic pig. New finds of similar type will make things more clear as regards this question.

### Size and proportions

Besides external signs we also considered the proportional construction of statuettes. The fact is that the ancient craftsmans absolutely did not conserve the real scale of the objects in their work and statuettes, symbolized animals which were different in size, have the same arbitrary size. We assume that they can also be distinguished by the body proportions of the real animal, which were unconsciously reflected by the craftsman in his work. Special attention was paid to proportions because, as already mentioned above, the figurines frequently lose all characteristic external features of a particular animal, but the constitution is the last to be lost after damaging.

Each investigated statuette had nine measurements which reflected its main proportions. It should be mentioned at once that all these measurements appeared necessary at that time for practical use. However, hereafter three parameters will be enough to precisely describe the basic features of the proportional structure of each figurine. First of all one can see clearly that the statuettes are distinguished by their massiveness. That is, it is possible approximately to separate them into two morpho-

logical groups: figurines having well expressed necks and high standing heads, and figurines with massive and short necks, and the head located low. Of all these, the second group obviously prevails.

It is possible to characterize these variables with several measurements (Fig. 3):

1. General length of body. It was measured along the mid-line from one side from a forward point at the base of the breast to a back point on the mid-croup. Here the width of 'hanger' and the thickness of the tail were not taken into account to exclude changes in length, caused by the preservation of the statuette, but by the various skills of the craftsman. Depending on the force of pressure of his fingers the 'han-

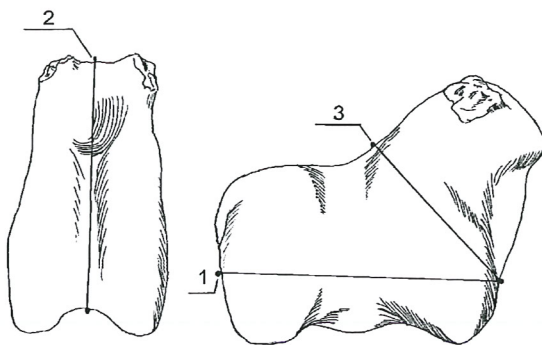


Fig. 3. Scheme of measurements on the statuettes



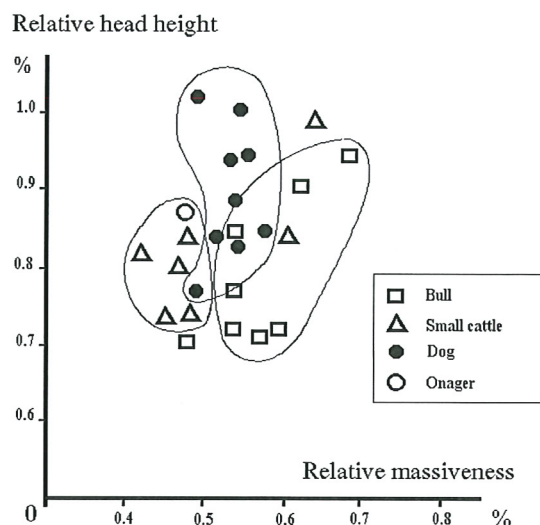


Fig. 4. Correlation between the head's relative height and massiveness of statuettes of Bronze Age Altyn

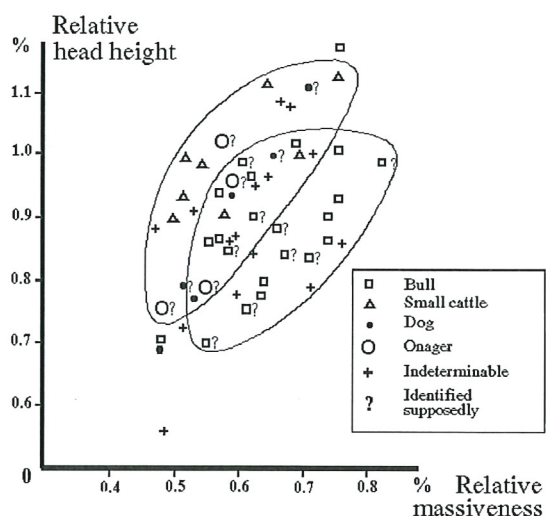


Fig 5. Correlation between the head's relative height and massiveness of Eneolithic statuettes at Altyn

same height of head with a much larger width of the neck. This conformity to natural appearance is more indistinct on a similar graph for statuettes of the Namazga III period from Ilgynly and Altyn (Fig. 5). Probably in earlier times the ancient craftsmen were not so skillful in forming their products and therefore the proportions were not observed so strictly. The set of points separates now in two areas, one of which is represented by bulls, and a second, representing all other animals. It is characteristic, that the dog holds a middle position here too, though not as clearly. It still overlaps the other areas, thus resembling both.

It is notable that there are occasionally some figurines which do not conform to the proportions of its own species, but such "monsters" are rare and do not change the general picture. Unfortunately, this kind of graphic display of statuettes cannot be used as the universal and absolutely reliable way

ger' became larger or smaller or the tail was thicker or thinner.

2. Head's height. It was measured in front of the statuette along a central line without considering the length of limbs and "horns" or "ears" since these attributes can vary in each concrete case depending on the whim or qualifications of the master.
3. Least forward-back width of the neck along a slanting line. It is the shortest distance from the already mentioned forward point at the basis of the breast to the back surface of the neck.

Statuettes from Altyn, dated to Namazga V were measured the same way. The relative height of the head and relative massiveness in the forward part were identified by the calculation of indexes of the ratio of measurements 2 and 3 to the general length. Thus two indexes for each figurine were calculated (where possible). The results are shown in Figures 4 and 5.

Each statuette was presented as the point on the diagram where the relative height of the head is marked on the abscissa, and the relative massiveness is reflected by the ordinate. In the beginning it was used for statuettes from the later periods at Altyn. Proportions are more standard there, and the species represented by the statuettes in a majority of cases is absolutely clear (Fig. 4). It is visible in this diagram that points relating to different kinds of animals are grouped in different areas, though the borders of these areas overlap. Thus, it is clear, that statuettes representing goats, mufﬂon and onager have the most highly placed head and least massiveness in the forward part. Dogs fall in this sense into an intermediate place and it can be seen that they can have the most highly placed head. The cattle as has already been noted, have a more bulky shape, i.e. they have the

for species identification, if the external characteristics are not clear. It can be used only as an additional argument for the identity suppositions. Such clear distribution of points on diagrams gave the idea to the author to statistically analyze the significances of the relative height of head and relative massiveness. The primary statistical data processing was made for figurines from the Namazga III period from Ilgynly, Altyn and Kara-Depe and a comparison of the results was made between bulls and the composite group of onagers and small-sized cattle. The comparison was made using the Student t-test. The data processing was executed with the help of the computer program Statgraf 5.0.

Unfortunately, the number of statuettes from the Namazga V period from Altyn is insufficient for secure comparison. Groups of figurines of bulls and small-sized cattle and onagers from the Namazga III period are reliably different in both parameters. The level of probability of distinction is less than 0.05. That is, these groups of data in both cases have different natures. Thus, it is possible to declare, in spite of the fact that proportions were not always observed and statuettes which present the same kind of animal frequently bear little resemblance to each other, as can be seen in the graph, we have objectively proved that in the beginning there were two and then probably more, canonical proportional types of animal figurines. The ancient craftsman voluntarily or involuntarily aspired to follow them when making one or the other animal.

In the beginning, in the Namazga III period, only two such types existed: the bulky bovids and secondly, goats, mouflon and onager, who had thinner and vertically positioned necks. It is impossible to reliably judge the place of dog, as the quantity of its statuettes is insignificant and its type is not recognisable as an individual group in this graph. During the Namazga V period the dog was probably considered a special proportional type at Altyn, occupying the intermediate field between the group of small-sized cattle, onager and the group of oxen by the height of the head and its massiveness. In addition, the camel and, possibly, the pig appear among figurines at that time. The camel is not considered in this research, since its statuettes are not represented at Ilgynly, and the interpretation of it, as a rule, does not cause difficulties at Altyn because of the typical stylized humps on the back.

It is necessary to note also that the statuettes from the Namazga V period from Altyn are not very demonstrative in terms of changes of figurine proportions and their standardization. The fact is that these objects used for archaeological publication were especially selected, as objects which have the most well-preserved characteristic external appearance. However, it should be taken into account that statuettes with such careful observance of proportions and external appearance were not found at Ilgynly-Depe and Kara-Depe at all.

Among seventy figurines found at Ilgynly-Depe during eight years of excavations it is possible to certify, on the basis of external signs and proportions of statuettes, that 28 of them represent bulls, seven goats or mouflon, five presumable onager, and four represent dogs. The attempt to determine the species of 25 other statuettes was not successful.

Among the 13 statuettes from Altyn, found during two seasons of work: two are bulls, two small-sized cattle, two dog, one presumable boar, and four are indefinable.

Among 13 statuettes from Kara-Depe from several years of expeditions six are bulls, two small-sized cattle, one onager, one dog and three objects which are not clear.

Thus, the majority of statuettes represent bulls. Small-sized bovids were produced by prehistoric sculptors in lower numbers, and many fewer figurines of onagers and dogs were being produced by them. New finds from these sites will allow us to further clarify this question.

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