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# **Reading Figurines**

**Animal Representations in Terra Cotta  
from Royal Building AK**

**Rick Hauser**

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R esearch  
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**RICK HAUSER / Renderings by Claudia Wettstein**

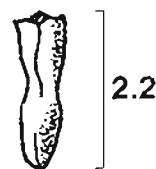
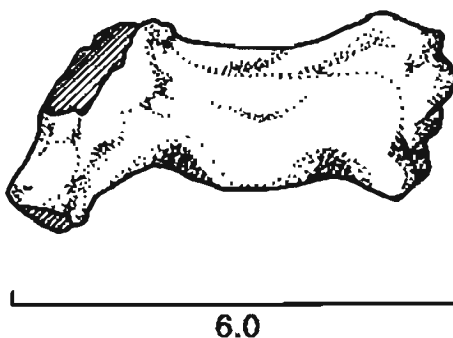
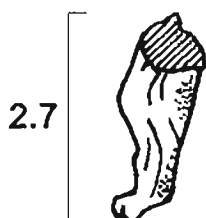
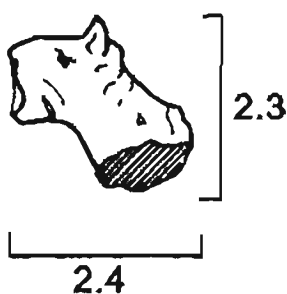
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***READING FIGURINES: ANIMAL REPRESENTATIONS  
IN TERRA COTTA FROM ROYAL BUILDING AK  
AT URKESH (TELL MOZAN)***



# READING FIGURINES

ANIMAL REPRESENTATIONS  
IN TERRA COTTA  
FROM ROYAL BUILDING AK  
AT URKESH (TELL MOZAN)



TPOLOGY  
RICK HAUSER

RENDERINGS  
CLAUDIA WETTSTEIN

PREFACE  
GIORGIO BUCCELLATI

UNDENA PUBLICATIONS  
MALIBU 2007

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*Rick Hauser*

# FOREWORD

## Giorgio Buccellati

### **Referentiality and structure**

In presenting the corpus of figurines from the Royal Palace of Urkesh, Rick Hauser has developed a method that aims at providing explicit standards of identification. There is a basic assumption that conditioned his whole effort, and a methodological consistency that ultimately lends it, in my view, true credibility.

The basic assumption is that the animal figurines of our corpus (and presumably those of the same genre in the rest of Syro-Mesopotamia) answer a specific need for referentiality. There was, he suggests, a univocal correlation between any given figurine and a living type of animal. The accent here is on “univocal.” For it is certainly common for all archaeologists to label one figurine a sheep and another a horse. But what is original with Hauser is that, he claims, *every single* figurine unequivocally referred to a very specific genus. And if such referentiality did obtain in the past, it must obtain in the present as well. If the individuals working in the Royal Palace of Urkesh understood the reference, there must be discernible formal traits that we can read into the exemplars that are left for us.

This is all the more remarkable in that a cursory inspection of the data would rather lead us to subsume a good many of these exemplars under such generic categories as “quadrupeds,” without any further attempt at specificity. In this respect, the stratigraphic element bears some weight (and so it did with me as I was hearing the first formulations of Hauser’s principles). Why would there be in the storehouse of the Royal Palace such a wealth of undistinguishable objects? A concrete function, whatever that might be, would more likely be associated with actual, rather than potential, referentiality. Not that one should necessarily attribute precise meaning to everything we find. Yet, given the very concrete context from which they all stem, one would like to explore the possibility that we have here more than just some sort of three-dimensional doodling. At least, this was sufficient to encourage Hauser in his pursuit for meaning.

And he has come up with an answer. What is it, then, that makes this answer plausible? What are the standards for the referentiality he proposes? He points to structure. There are, he shows, recurrent correlations in the general proportions that match, regularly, two important attributes: external diagnostic traits and physiological characteristics. The external diagnostic traits are the ones we all recognize: the mane of a horse, the fleece of a sheep. The physiological characteristics are the more subtle features that a zoologist associates with animal morphology.

And in this respect Hauser was fortunate to be able to spend long hours with Sándor Bököny, then serving as our paleo-zöologist, and insightful enough to know how to avail himself of his expertise. Building on his protracted association with a scholar who related instinctively with the animals being portrayed, Hauser thought he could decode, as it were, the criteria that underlie, precisely, the portraiture. Those recurrent correlations to which I referred are, in effect, distributional classes that he has painstakingly documented and from which he has abstracted repetitive patterns.

It is the high degree of correlation, and fairly sizable scope of the inventory, that lend plausibility to his effort. It also supports his implicit contention that these correlations are neither casual nor random.

The specific results will of course be subjected to criticism by the experts. But one thing at least stands out clearly. And that is that Hauser's identifications are not casual approximations, but formal definitions. Like a linguist studying a language, he points to formally definable distributional classes. He then arranges his data concretely within these precise formal arrays. He goes further and attributes meaning to these arrays by postulating referentiality. Again, like a philologist reading a text, he identifies exemplars that may be considered "cursive," as it were, i.e., a less accurate rendering of the standard template, but what remains in any case, so he claims, is the precise conceptual construct that made the template possible in the first case.

Hence, his use of the Latin terminology for the specific types of animal should be seen not as pretentious, but as the expression of a carefully thought out categorization. Where, looking at a figurine, I may say "sheep" without much concern for pattern recognition, he would say "sheep" as specifically distinct from a goat or an ox — and this he wishes to convey by saying "Ovis." The presupposition remains, as I have stressed, that the ancients were precisely sensitive to such pattern recognition, or else there would not be such a high incidence of correlations.

### **Function**

The implications are significant. If even the simplest "quadruped" could be "read" univocally by a functionary in the Royal Palace as a sheep and thus distinguished from an ox, then the figurines were part of a precise system of meaning in the service of specific administrative mechanisms. I have already referred to the importance of the fact that the bulk of the figurines presented here were found in the accumulations on the floors of the Royal Palace of Tuzkash. In other words, the figurines are found in a context that presupposes regular activities by functionaries and bureaucrats handling goods for various members of the royal family and their high officials. It seems logical to at least consider the possibility that the figurines may have been a mechanism used for the practical operations of this administrative system. All the more so if they carried, as Hauser claims, a univocal referential meaning.

As an additional alternative to the suggestions advanced below (Introduction, p. 43 f.), we may consider the possibility that the figurines may have served as place markers. Sector B of the Royal Palace of Urkesh (Figure F1) is a large storage area where, in our understanding,<sup>1</sup> goods were brought from outlying supply centers (farms producing food staples, ateliers producing finished products like textiles, etc.). These goods were shipped on behalf of the king, the queen, and high officials, and bore sealings that testified to their destination (possibly also their origin). The seal of the king was placed on goods belonging to the king, the seal of the queen on goods belonging to her, and so on. This explains why so many different seals belonging to one and the same individual were used, as evidenced by the impressions found together in the Palace. Once in the Palace, the goods were stored until need for their use arose, at which time the sealing was broken (the small pieces that fell on the floor are the ones we have found).

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<sup>1</sup> I relate here the understanding of a complex administrative procedure, which results from a research carried out in common with Marilyn Kelly-Buccellati. Our conclusions are published in "The Royal Storehouse of Urkesh: The Glyptic Evidence from the Southwestern Wing," *Archiv für Orientforschung* 4243 (1995-96), 132.

There was therefore a period during which goods belonging to the various members of the court were stored together in the large room B1 and elsewhere. If these goods were grouped according to the persons to whom they belonged, one might reasonably expect that each area where any given group was stored be labeled accordingly. Given the fact that storekeepers were certainly illiterate, it would make sense to have symbolic place markers that could be “read” as labels. It is such a function that I am suggesting the figurines may have served.

In support of this hypothesis one may consider the following. In our reconstruction, the seals were used to identify at the point of origin the goods being shipped to the Palace as belonging to distinct members of the court. Many of these seals bear an inscription and, in close proximity to, generally immediately below, the inscription itself, they show a filler motif, which is unrelated to the rest of the scene. In several, though not all, the cases the filler motif is an animal of the type found in the figurines (see Figure 2, Object 1). In my interpretation, the sheep would have been used analogously to mark the place where the goods of the queen were stored. In this particular case, the similarity may seem too generic to be particularly meaningful. But consider the other examples.

In Object 2, the reclining human-headed bull has a much higher degree of specificity. The seal belongs to the nurse of the queen, as the inscription says. But obviously she is the nurse *in the service* of the queen, and her real charge is the crown prince, shown in the seal sitting on the lap of his mother. Hence the bull might be the symbol for the crown prince, and only by extension of his nurse as well.

In Object 3, the lion on the seal is not a filler motif, but an integral part of the scene: I show it in this context because the animal’s position at the feet of the king suggests a possible correlation between the animal (whether living or a statue) and the king, in line with the symbolic valence which I am proposing we may attribute to the figurines. In other words, the lion figurines would be place markers for goods belonging to the king.

Finally, Object 4 shows a highly specific detail as a filler motif: a hanging cut of meat. Since the case with the inscription (at least half of it) is too long to allow a filler motif below it, the cut of meat may be viewed as serving both the purposes of a filler motif and as a representational detail, illustrating the actual situation in a kitchen. This place marker would be not a clay figurine, but a bronze pendant (a ring at the top is still preserved) that can unmistakably be identified as exactly the same cut of meat shown in the seal.<sup>2</sup> The subject seems unlikely for a piece of jewelry, and if so we can at least consider the possibility that the pendant hung from something like a shelf where the goods belonging to the mistress of the kitchen, a woman named Tuli, were kept.

Such a proposed function for the figurines found in the Palace would account for the two features identified in Hauser’s typology. Referentiality was important because the symbols stood for actual animals, as shown on the seals, and the structural correlations were important in order to allow a sure recognition of each type as distinctive. What I have called earlier the “cursive” aspect of many of the figurines would also fit in well. Even the simpler exemplars are not really sloppy. Rather, they always show a sure mastery of the plastic results intended. (Hauser brings this out with much sensitivity in his analysis.) The only explanation must be that they were professionally made, even if at times “cursively,” knowing that they were ephemeral by intent. And such professionalism must in fact be recognized, regardless of what one might think of the specific functional hypothesis I am proposing here.

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<sup>2</sup> In fact, just such a figurine fragment has been recovered — *Capra* 32 A7.301, the right (?) foreleg and hoof of a goat. See *Capra* CATALOG, page 342, this volume (author’s note).

The question may remain open as to why some of the figurines were produced in such a cursive manner while others were not, if they were all meant to serve the same purpose. In fact, in a case such as *Bos 7 A6q569.1* the quality of the manufacturing, the miniature size, and the nature of the iconography (not a real animal, but a human headed bull) are so different from other figurines that one wonders if we are justified in subsuming it under the same category. And are we justified in assuming a similarity of functions for the bronze pendant? For, while the iconography seems to make our hypothesis plausible, everything else puts this object apart from the figurines proper.

In line with these observations, two additional questions arise. The first pertains to what the difference might be between figurines and other types of plastic art. To simply rely on the material used (statues are in stone or bronze, figurines are in clay) seems insufficient. For some of the clay representational objects show a sensitivity for detail very similar to stone and metal “statues.”

Perhaps we may consider as a criterion the (presumed) intent to render generic qualities in the figurines as distinct from that of rendering individual traits in statues or “statuettes.” This will remain a subjective valuation, but by and large the quality of individual modeling does stand out.

The second is the obvious fact that we need not assume a single functional explanation for all figurines. The interpretation proposed here is largely based on the provenance of the exemplars collected in this volume — the storage area of the service wing AK within the Royal Palace. With Hauser, it seems reasonable to assume that these specific figurines were professionally made and served a specific, professional purpose, even when cursively produced. But in other contexts, the figurines may indeed be not the cursive variation of professional production, but rather a parallel, vernacular version, possibly even at the hand of children.

### **The Urkesh Typological Record**

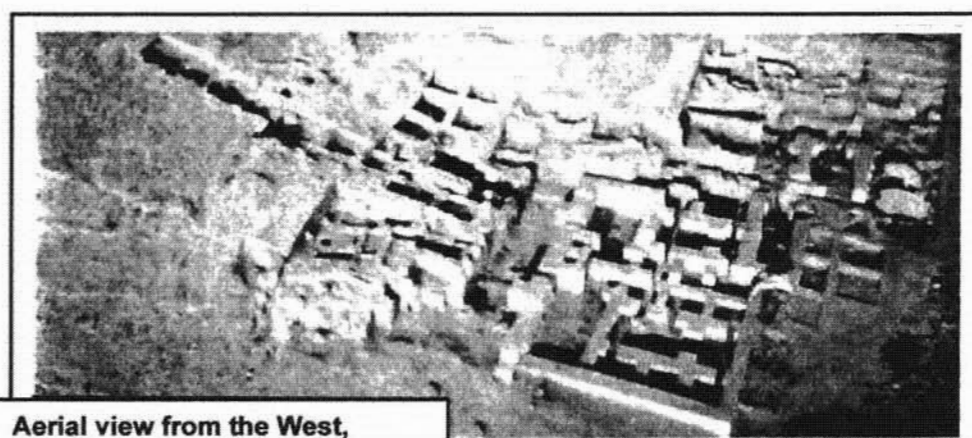
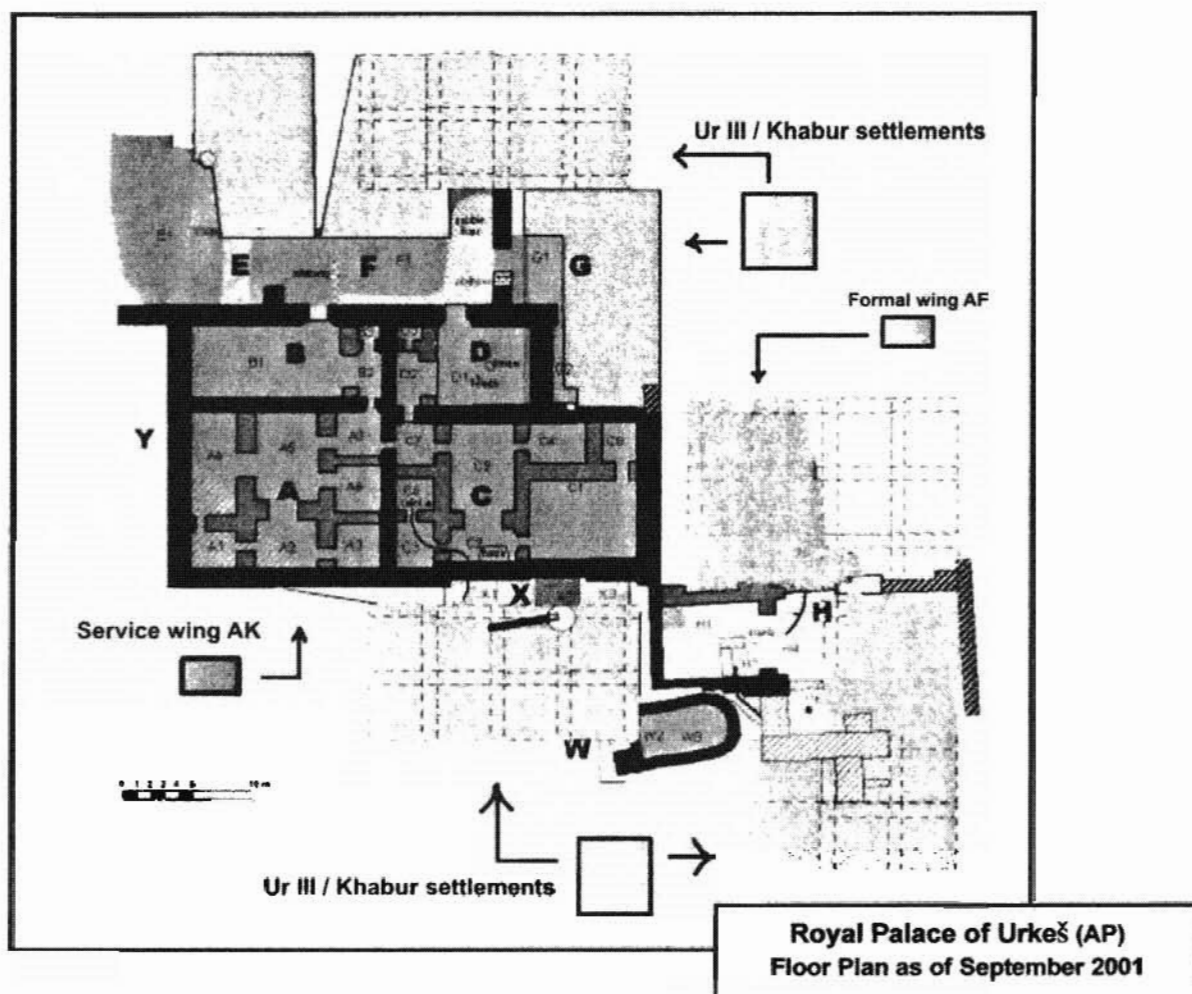
This volume inaugurates a series of reports in which we intend to publish data from our excavations at Tell Mozan, ancient Urkesh, sorted in typological order rather than according to their stratigraphic provenience. Of course, such provenience is not ignored, and in fact appropriate indications are given in Hauser’s catalog for each item. In addition, the overall provenience is homogeneous, since the majority of the figurines come from the main accumulations of the Tupper strata of the service wing AK of the Royal Palace. However, the main focus remains a discussion of the corpus as a typological whole. A full presentation of the AK stratigraphy is left for another volume, which will appear in the series *Urkesh Stratigraphic Record*, and a full analysis of the stratigraphic distribution of this class of object, together with other classes, will also follow.

All primary data will also appear in digital format in the *Urkesh Global Record*. This is a comprehensive database that includes the entire information available for any given excavation unit, with regard to both stratigraphy and typology. The precise articulation of the system, and the way in which the data presented in this volume fit in it, will be presented in detail in the first set of CDs that is due to appear at about the same time as this volume.

### **Acknowledgments**

Together with the Director of the Mozan/Urkesh Archaeological Project, Marilyn Kelly-Buccellati, I have the pleasant task to acknowledge the assistance of all the individuals and institutions that make our project possible.

As always, we are very grateful for the assistance and support of the Directorate General of Antiquities and Museums, in particular the Director General, Dr. Abd el-Razzaq Moaz, the new Director of Excavations, Dr. Michel Maqdissi, and the Director of the Office in Hassaka, Mr. Abd el-Mesiah Bakdou.



**Figure F1 The Royal Palace of Urkeš**

## SEAL IMPRESSION

## MOTIF ON SEAL

THREE  
DIMENSIONAL  
OBJECT

1



*Ovis* 13  
A7.501

•  
*Ovis* 26  
A5q135.1/A5.199

•  
*Ovis* 53  
A7.308

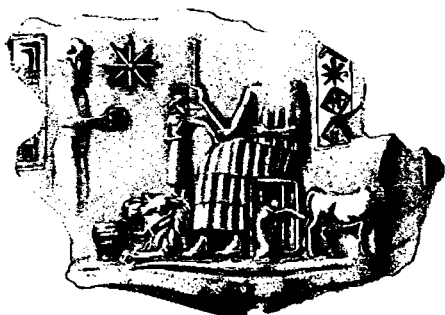
•  
*Ovis* 202  
A10.18

2



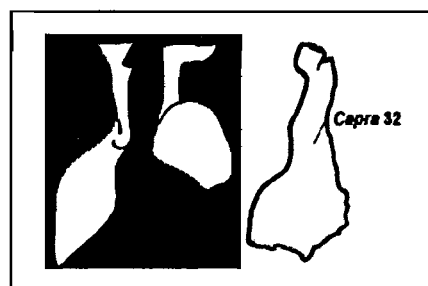
*Bos* 7  
A6q569.1

3



*Felis* 8  
A5.25.1

4



*Capra* 32  
A7.301

**Figure F2 Possible correlations: figurines and artifacts with seal motif**



The material presented here was excavated during the sixth through eleventh seasons (1990–1998). Work in that period was made possible through grants from the National Endowment for the Humanities, the Ambassador International Cultural Foundation, the National Geographic Society, the Catholic Biblical Association, the S. H. Kress Foundation, the L. J. and M. L. Skaggs Foundation, the Ahmanson Foundation, Syria Shell Petroleum Development B.V., the Urkesh Founders, and various donors.

When I suggested to Rick Hauser that he take on the publication of the figurines from the Royal Palace, I did not suspect that so much would come of it. But I should have known better. His commitment to this task, as to any other he has undertaken on behalf of our Expedition, grew in the measure in which the intellectual scope was widening. Such a development was directly proportional to his great sensitivity for a class of objects, which he came to regard more and more as a witness to a life once lived. There was courage in his endeavor — the courage of seeking complexity in spite of a superficial simplicity, of seeking meaning where the obvious seemed apparent, if trite. I, for one, feel that such complexity, such meaning, is not of his making, but is in fact what the data tell us. Beyond the specific results he proposes, I trust that his effort will be appreciated for what it contributes with regard to the articulation of verifiable formal correlations. Certainly, the “philological” basis of his “reading,” i.e., his publication of the primary data as such, is as thorough and accurate as it could possibly have been. Such documentation was after all the primary aim of the task when he first undertook it, and for this we are indeed in his debt.

In his overall effort, Hauser could avail himself of the precious collaboration of Claudia Wettstein. She was not only the person who drew practically all the figurines included in this publication; she also contributed in a substantive way to the definition of the typology in its finer points. And that is because the technical expertise with which she was able to render the figurines was never a mere mechanical exercise, but was rather the natural rendering of a deeper perception. Every single drawing is not only a carefully measured projection; it is, in its own way, a reading.

# A GUIDE FOR THE READER

## Narrative and Style

This volume has as subject the animal figurines recovered from Royal Storehouse AK at Urkesh (Tell Mozan). To the extent that the CATALOGS accurately represent the genera in this corpus, it is a reference tool and a baseline. Moreover, this work presents a typology, a way of classifying terra-cotta animal figurines in a systematic way. The method cannot be taken whole and superimposed on any other body of data. It was nonetheless our thought from the beginning that others might find ways to adapt this work and to apply it in different circumstances not necessarily contemporaneous with Mozan nor even within the same geographic, temporal or cultural provenience. In this, I share M. E. L. Mallowan's sentiment:

It will be seen that the catalogue makes very lengthy reading, and it is hoped that it may prove of some use as a work of general reference, since it has aimed at referring as widely as possible to similar or analogous material discovered on other ancient sites. (Mallowan 1948)

As for the tone and written style, I have kept in mind field reports that I have found particularly *readable*, namely, Mallowan's work on Arpachiya, Chagar Bazar, and Brak (Mallowan 1936, 1937); Parrot's prose, including his summaries of Mesopotamian archeology (Parrot 1946 I, 1953 II); the Braidwood volumes on the Zagros flank (Braidwood 1983), including the frank and practical evaluations provided by Morales on the figurines from Sarab and Çayönü (for a more complete survey, see Morales 1990). Each of these studies is characterized by expansiveness and by a willingness to share information about context and process as well as artifact; the text moves effortlessly among these three aspects of archaeological documentation without straining credulity or compromising the analysis. To the contrary.

Some of these narratives are downright lively. I have wanted this text to be the same, so that the general reader might also find the subject and the treatment inviting.

This narrative rather frequently speaks in the first person (singular and plural). This seemed natural and appropriate. I have felt that the personal process of discovery and the way a certain line of reasoning developed would be useful to others engaged in the analysis of artifacts, perhaps the more so as classification procedures are reevaluated.

Here is a synopsis of the organization of this volume.

- Each genus is represented by a section in the book.
- Each section is comprised of an INTRODUCTION and a CATALOG.
- In some cases, families are represented by a separate section; as, the order Carnivora is represented by sections on the family Canidae (the dogs have their own CATALOG) and (taken together in another CATALOG) the families Felidae • Ursidae • Mustelidae.

- Some genera are further specified by TYPE, a classification that may point to species differentiation or morphological change brought about by domestication. *Ovis*, *Felis*, and *Equus* are so divided.

- In the first instance, graphic artist-illustrator Claudia Wettstein and I took as model the exemplary drawings of Mr. L. Osman, architect-illustrator for Mallowan's second campaign to the Habur Region (Mallowan 1937). Later, we assigned specific meaning to certain types of graphic conventions of our devising (see page 50, this volume).

The artifacts are identified as follows:

- Within each genus, artifacts are listed in order of discovery, with associated field number. An approximation of stratigraphic sequence can thus be read without reference to more complete depositional information (see the FOREWORD to this volume by the excavation co-director, Dr. Giorgio Buccellati).

- Artifacts are grouped with others found in similar circumstances:

**STRATIFIED FINDS (1–99)**

**STRATIFIED FINDS TENTATIVE IDENTIFICATION (100–199)**

**RELATED STRATIFIED FINDS (200–299)**

**RELATED UNSTRATIFIED FINDS (300–399)**

**OTHER GENERA (400–499)**

The findspot of unstratified artifacts cannot be determined with certainty. Some are surface finds. Typological considerations can help to position these artifacts within an appropriate context.

**Measuring**

Some general observations about the Urkesh figurines and the manner in which they are classified are in order.

Figurines — and certainly many other types of artifacts — may be described in detail in field reports. In the case of an intricately elaborated animal figurine, this description may suffice to distinguish the representation from other examples of the animal form depicted.

If the excavator provides complete description, then medium, color, texture, type of surface decoration, stylistic considerations, and so on — what we could call *secondary characteristics* — may contribute to understanding and may be noted.

Seldom, however, does measurement, except in terms of gross size, play a part in definition of the type of object or its description. As a rule, length and height are the only measurements taken. Occasionally width is specified. Where exactly these measurements are taken, from what point to what point, is seldom made clear. This might be important, for example, if an equid were at rest or in action or if standing, the legs were extended. Where in fact does the body of the animal representation begin and end? If an object is broken and missing appendages, could measurement ever be diagnostic?

These and similar questions began to be important to Claudia Wettstein, my artist-illustrator colleague, and me as we were faced with an ever-mounting assortment of what appeared to be animal representations, all very similar. The difficulty in differentiating amongst them was further complicated by breakage. Deposition in the ground had taken its toll; the figures often were missing an appendage, two appendages — *all* appendages, including the tail. Almost never were we lucky enough to find an animal with its head on.

Even within a class of readily identifiable artifacts, say, horse and rider from the second millennium and later, what *does* distinguish one object from another? Secondary characteristics, assuredly — this example may have a bridle, the rider a beard or cap. And usually the height and length of the object are dutifully noted.

Might there be other information that would be useful in establishing a typology of similar objects from a given period?

In the case of animal figurines, at least, I believe that we have ignored one of the most useful and obvious diagnostic tools — measurement of body parts and, further, ratio and proportion of the given body part to other parts of the animal anatomy. These measurements have become for me, *primary* characteristics, rather than obligatory notations without any particular meaning other than classification by size — a “large horse,” a “larger horse,” the “largest of the lot,” etc.

When we render or photograph the Urkesh animal figurines at Tell Mozan, if time permits we represent six views, taken on a quadruped in normal standing position:

- dorsal (frontal plane, from above)
- ventral (frontal plane, from below)
- cranial (forequarters, transverse segmental vertical section)
- caudal (hindquarters, transverse segmental vertical section)
- left median (vertical longitudinal section)
- right median (vertical longitudinal section)

By examining the artifact in each of these views, taken separately at first, we are able to isolate certain characteristics and see, after a time, similarities of body structure.

Where does this terminology come from? We have borrowed our approach to anatomical analysis from veterinarians, scientists whose very specialty is the adequate and accurate description of anatomical normalcy and variants from this norm in order to heal or nurture animals. Our end is different, of course. We aim to describe and define different types of animals as represented in the Urkesh corpus. A *typology* hopefully is the end result of such exhaustive collection of data.

Measurements are taken in the various planes and views described above and the point at which the measurement is taken is usually at the point where the plane intersects the anatomical detail at its greatest extension. It is not unusual for us to take as many as seventeen different measurements of body parts, in order to determine the animal’s genus or species by comparison with other examples from the sample.

Other attributes — secondary characteristics — can also be telling. Some are definitive. Measurement, however, is the underpinning of the typology I have established.

How else might one accurately give meaning to the shattered clay remnants of what Urkesh artisans must have meant to represent a living animal?

We comment in some detail on these matters in the pages that follow.

# READING FIGURINES

ANIMAL REPRESENTATIONS  
IN TERRA COTTA  
FROM ROYAL BUILDING AK  
AT URKESH (TELL MOZAN)

INTRODUCTION

### Before the Typology

At Urkesh, in the Royal Storeroom of Building AK, a remarkable number of figurines were found alongside and in layers contemporaneous with many fragmentary seal impressions. The reconstructed impressions eventually helped identify a Hurrian king, Tupkish; his consort Uqnitum; their courtiers; and the site itself as the Hurrian capital (Buccellati and Kelly-Buccellati 1995/1996, 1996). The stratigraphic setting of the Royal Building has been described elsewhere (Buccellati and Kelly-Buccellati 1997), and the historical background of Urkesh and Hurrian beginnings in Northern Mesopotamia are the subject of a recent essay (Steinkeller 1998).

Human representations, both male and female, were found among the figurines. They will be discussed in a subsequent volume.

There were numerous animal representations. All, with few exceptions, were crafted in clay. They comprise a corpus that eventually numbered 335 examples including appendages and artifacts tentatively identified. These are the objects discussed and catalogued here, complete through excavation season 1998. Figurines recovered from layers above the Royal Palace and Residence — that is, from a time when the Royal Building no longer served as administrative center, after the time of Tupkish and his court, have more than doubled the number of figurines recovered. Upon occasion throughout this study, notable examples from these levels are studied as *comparanda*. When illustrative, artifacts from coeval strata at Tell Mozan and other third millennium sites are referenced as comparative material. Instructive examples of a particular animal type from earlier or later times and other sites have occasionally been cited.

From the beginning, it was clear that these representations were not variations on the same animal. Some were undeniably caprids — sheep and at least one goat. Some of the legs that could be clearly identified must have belonged to goats, although no other fragments — legs? horns? — were identifiable at the outset. There were equids, too, but they seemed to belong to different “families.” Could they all be horses? And then there were scores of figurines that were missing appendages. How could they be reliably assigned to any animal family? These figurines might be missing a head — usually a fairly reliable identifier. Or they might be lacking one or more, usually all, legs. Seldom were tails intact. They might be lacking all of these, little more than a nondescript cylinder. Yet they, too, seemed to be different one from the other.

These numerous fragmentary objects must have had some expressive content. Those who crafted them must have intended to represent more than just one animal type. Whatever animals the makers did mean to represent, they did so repeatedly; the same shapes recurred, although it was not clear to what species they belonged.

But how to identify what type was represented by which shape? There had to be a key that would allow us to “read” these intricate and varied terra-cotta objects.

Sándor Bökönyi, director of the Archaeological Institute in Budapest and author of seminal studies in paleontology, provided the key, although the present study goes beyond what he might have countenanced, were he still alive to see where I have taken the observations we made in our conversations. The noted archeozoologist had come to Tell Mozan as a visiting specialist in order to analyze the faunal remains.

In the afternoons, after he left the laboratory and I was in from the field, we looked together at figurines from the site. I have described elsewhere our conversations (Hauser 1998) as they related to the equid representations. Here I will only say how intrigued I was that he felt the little animals we had recovered were in fact *accurate* representations of real animals. He had found himself upon occasion relying upon figurines as a confirmation of a given animal presence in the environs of sites he had studied.

These observations and our discussions were based solely on observations of animals in nature. Systematic measurement and development of a typology were to come later.

### **Animals Observed**

Over the next several years, as we recovered more examples of different animal types, it became apparent to me and to my associate, Claudia Wettstein, that there was in fact an *underlying pattern* that could be documented, by consistent measurement and by documentation of variables. Based on these measurements and observations, the artifact could with some measure of confidence be assigned to a given genus.

At one point or another, of course, it must be decided that a given animal figurine does or does not represent a given animal. In most cases, an intact representation was recovered and it was clear what animal the artisan intended to make. Simplistically, if it *looked* like a sheep, had horns that curved down, a voluminous pelt, and a fat tail, then it *was* a sheep. The representation conformed to expectations. This was true in spite of differences that we simply passed over because we did not yet know how to read them. This artifact, we thought, was a useful indicator for the particular species. In each instance, I have chosen one such animal figurine as the TYPE for that species. Animals grouped together as belonging to the TYPE share the same characteristics.

In some cases, no intact exemplar of a genus has been found. This is the case for some Carnivora, although good examples of the body types of different families among the genera have been recovered. In the case of dogs, a stocky body and the deep curve to the back, sometimes with an intact curly tail, identifies the animal. In the case of cats, a lean body and well-defined musculature are decisive; no other animal possesses these characteristics. Sándor Bökönyi considered these two characteristics indisputably definitive. In the case of weasels and hedgehogs and some few other unique specimens, family characteristics are also fairly certain. These examples serve to show how important it is to consider shared characteristics as well as standard and consistent body measurements. Together, measurements and shared characteristics isolate and define the different genera.

### **The Mental Template**

I must say I do not grasp the usefulness of observations that *we cannot know* what the artisans who made the figurines intended to make, no matter whether the animal seems identifiable to us or not. I call the consistent pattern repeatedly observed in the manufacture of a given animal representation the *mental template* that the artisan carried in his or her mind. This template was a reference point; it inspired a certain style to which the artisan conformed, but it also constrained inspiration. I also grant that the mental template may not conform to our most obvious expectations. It has to be discovered.



Beyond this, I claim that the mental template was *shared* amongst a number of artisans, each of whom understood well enough what a given species looked like so as to be able to represent this reality in a manner understood by all. This shared understanding accounts for the remarkable consistency with which the animal figurines at Urkesh were fashioned. They obviously belong to one and the same corpus.

The animal figurines at Urkesh are remarkable for another reason. They exhibit, for the very great part, a considerable level of skill in manufacture. In no measure can they be described as “crude” or “primitive.” If there were not one maker, then the several artisans who collaborated on the execution of the animal figurine corpus took a similar level of care in execution. Taken together, be they fragmentary or intact, the Urkesh animal figurines exhibit a high level of control and restraint that can only be deemed artistic choice guided by a keen sense of observation.

### Genera

A few examples will serve to demonstrate what I see as a pattern, so unvaryingly applied as to constitute a template for the making of a given genus. The reader is invited to establish other comparative relationships not discussed here.

### GENUS *Bos*



*Bos* 10 A7.396. Right median plane.

Scale 1 : 1.

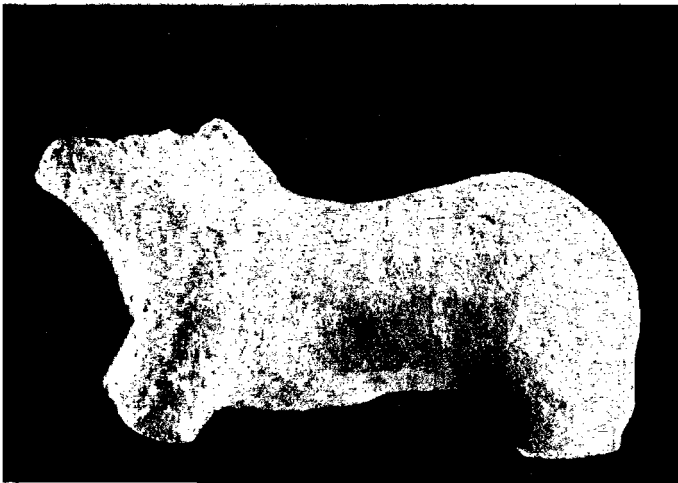
(photograph V13D2538)

It was not until relatively late in our excavations that an intact example of genus *Bos* was recovered — *Bos* 10 A7.396. Prior to recovery of this artifact, since there is almost no mistaking the genus, so unvarying are its characteristics, any one of a number of *Bos* representations could have been taken as the TYPE of the species. See comparative renderings following the *Bos* catalog and the TABLE that displays measurements and shared characteristics of the family.

Note that there is a remarkable consistency in the *Bos* body type. The width of the forequarters, torso, and hindquarters taken in the frontal plane is each approximately equal to the other. That is, the proportion approaches 1 : 1 : 1. If there is a variance, it is on the order of one to two percent, with the greatest measurable variance less than 10 percent from the norm — and that was for a piece in the process of manufacture (*Bos* 8 A6q626.1).

Stance and conformation of *Bos* are also consistent. Buttocks are fused; both forequarters and hindquarters are solidly founded, contained within an inverted U. What I call the “inside stance” — the angles at which the legs meet — is an open inverted V, on the order of eighty to ninety degrees; that is, rather wide.

*Bos* horns also exhibit consistent characteristics that serve to identify the fragment. The artifact is usually flat above, curved, and tapering to a point. The horn remains oval in section from where it joins the crown of the animal to the tip of the horn itself, although some examples are lozenge-shaped (a kind of rounded rectangle) in section.

GENUS *Ovis* TYPE I

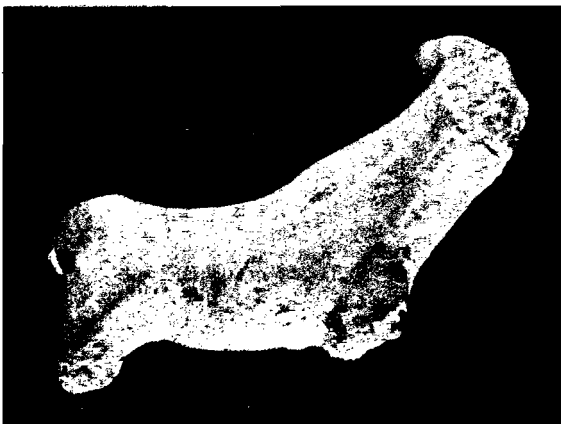
*Ovis* 7 TYPE I A5q353.1. Left median plane.  
Scale 1 : 1.  
(photograph VD13D0045)

The rounded form of *Ovis* TYPE I is also relatively easy to identify. Proportions of the body type can be distinguished from *Bos* by a slight indentation — the torso can be as great as .8 of the forequarters/hindquarters width, but in all cases falls between .7 and .85, that is, within a rather narrow range of variance.

Because the hindquarters and the forequarters are very close to each other in width taken in the frontal plane, virtually all fragmentary examples of the genus can be evaluated and measured for conformation to the typology, as the torso/forequarters and the torso/hindquarters measurements remain meaningful (the forequarters width can be projected from the hindquarters width, and *vice versa*).

Of the secondary, shared characteristics, tail width as compared to hindquarters width has been the most useful diagnostic ratio. For TYPE I *Ovis*, the ratio is on the order of 1 : 3. Again, there is a narrow range of variability (see **DESCRIPTIVE TABLES**, pages 566-567: four examples of twenty-one *Ovis* TYPE I recovered approach 1 : 4 rather closely — *Ovis* 3 (1 : 3.8), *Ovis* 9 (1 : 3.7), *Ovis* 16 (1 : 3.7), and *Ovis* 17 (1 : 3.6).

All examples of *Ovis* exhibit an herbivore leg/body join.

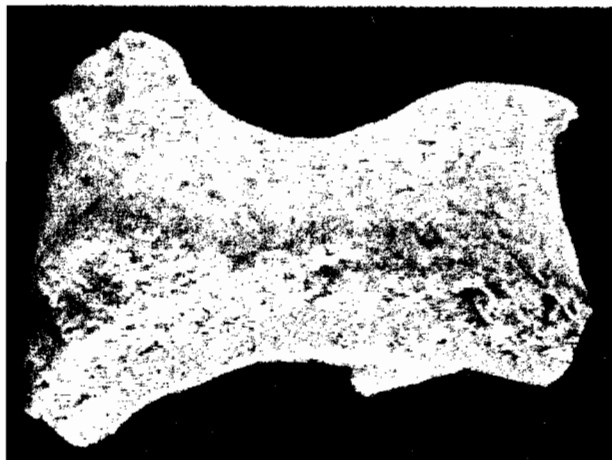
GENUS *Ovis* TYPE II

*Ovis* 203 TYPE II A10.20. Right median plane.  
Scale 1 : 1.  
(photograph V13D0620)

When first we identified a second *Ovis* body type representing the animal raised for milk or meat, I assumed that these examples would be leaner in body than their wool-bearing counterparts. In fact, *Ovis* TYPE II body proportion is closer to 1 : 1 : 1 than I had supposed. A distinguishing characteristic of the type is that the body length is greater than or is almost equal to twice the width of the forequarters ( $l \geq 2w_1$ ). The impression of a leaner animal is therefore projected.

The pendant tail of *Ovis* TYPE II as compared to the hindquarters is 1 : 4. The buttocks are most often recessed to carry the tail, rather than fused, as is the case with *Ovis* TYPE I.

See **DESCRIPTIVE TABLES**, page 571.

**GENUS *Canis***

*Canis* 7 A5q82.1. Left median plane.  
Scale 1 : 1.  
(photograph V13D6323)

As with other animal representations, the forequarters width and the hindquarters width taken in the frontal plane are not far from being equal, yet in all cases, where measurable, the forequarters are greater in width than the hindquarters. Torso width, however, is only slightly greater than three-quarters of the hindquarters width ( $\geq 3/4w3$ ). The body type is rather compact, as body length is, in all cases but one, less than twice the width of the hindquarters taken in the frontal plane ( $\leq 2w3$ ). The exception (*Canis* 3 A1.323), nonetheless characterized as “stocky” in the catalog, may have been incorrectly measured and seems anomalous.

Shared characteristics are important in identifying the genus (see **DESCRIPTIVE TABLES**, page 577). The attitude is “alert,” that is, the head is carried high, and the neck is in several instances almost vertical. For the most part, dogs exhibit a deep curve to the back, as did their ancient forebear, the *spitz*. Buttocks are fused, with one exception (*Canis* 14 A7.235), and the hindquarters are solidly founded, contained for the greater part within a narrow inverted U.

**GENUS *Felis***

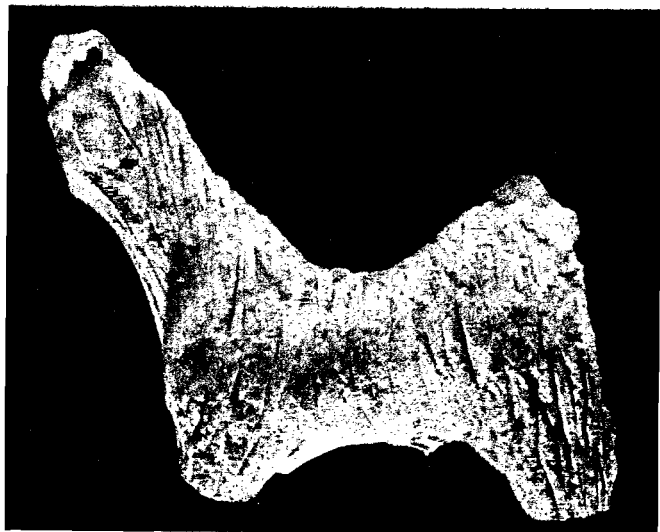
*Felis* 8 A5.25.1. Left median plane.  
Scale 1 : 1.  
(photograph V13D2987)

In all cases where the length is measurable, this body type is lean, being some three times the width of the torso as taken in the frontal plane ( $\sim 3w2$ ). In seventy-six percent of the examples recovered, the *Felis* neck is about as thick as the torso itself ( $w1@neck \sim w2$ ), (exceptions are *Felis* 5 A1q581.1, *Felis* 9 A5q172.1, *Felis* 26 A7.142, *Felis* 27 A7.335) and the torso itself is, in all instances but one (*Felis* 9 A5q172.1), slightly less than or equal to eighty percent of the forequarters width.

Amongst shared characteristics, musculature is indicated for every two of three artifacts recovered. The surface of some of these examples is also further elaborated with incisions to indicate a hairy pelt or by decorative markings (See **COMPARATIVE TABLE 1 Pelts & Surface Decoration**).

The foreleg/body join, in and of itself, is often diagnostic of *Felis*; it lies in a range of 130 to 140 degrees — fully seventy-two percent of the measurable forelegs are thrust forward as if the animal were leaping; fourteen percent are in the range 110 to 115 degrees and fourteen percent are in the range 145 to 160 degrees.

All *Felis* TYPE II exhibit the same ratios/proportions and shared characteristics as *Felis* TYPE I, but all *Felis* TYPE II also exhibit sexual parts and each is marked by some form of human intervention; in this case, the caudal band or deeply incised buttocks in combination with a penile strap.

GENUS *Capra*

*Capra* 1 A1.44. Left median plane.  
Scale 1 : 1.  
(photograph V13D6295)

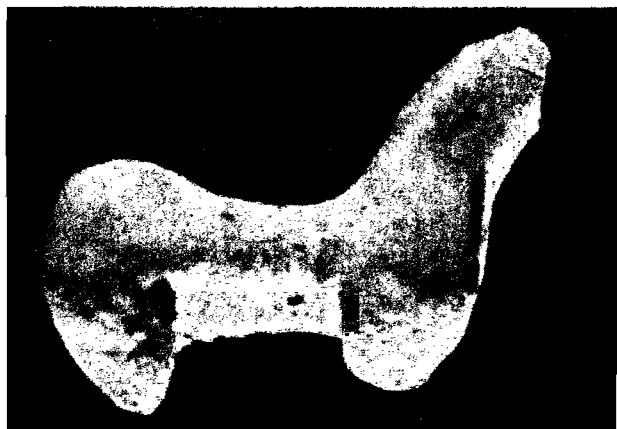
The body type of the goat is fairly compact, the body length of virtually all diagnostically measurable examples being greater than twice the width of the torso taken in the frontal plane ( $\geq 2w2$ ).

The torso of the genus is substantially greater than half the forequarters width ( $w2 \geq 2/3w1$ ) and the forequarters themselves are about the same width as the hindquarters taken in the frontal plane ( $w1 \sim w3$ ).

An interesting visual impression is conveyed by the genus, if the head (of which there are a number of intact examples) is taken in transverse section along the cranial length (snout to crown or back of horns) and in vertical section perpendicular to the frontal plane from head through forequarters.

Two triangular sections appear to meet apex to apex and serve to characterize unmistakably the forequarters of the animal. The impression is also obtained by taking a vertical section through the hindquarters where the inside stance — the angle at which the legs meet — is never greater than 45 degrees.

Often, the hindquarters are contained within caudal flaps, aside deeply recessed buttocks. The tail, in all instances but one (*Capra* 10 A7.7), curves up and is carried high. In the case of *Capra* 3 A5q443.1, the tail is carried high but curves down. Thus, for the majority of instances of *Capra*, the conformation of the tail corresponds to that of a healthy animal in nature. In all cases, the leg/body join is that of an herbivore.

GENUS *Equus* TYPE I ASINID

*Equus* 5 A6.238 TYPE I. Right median plane.  
Scale 1 : 1.  
(photograph V13D6621)

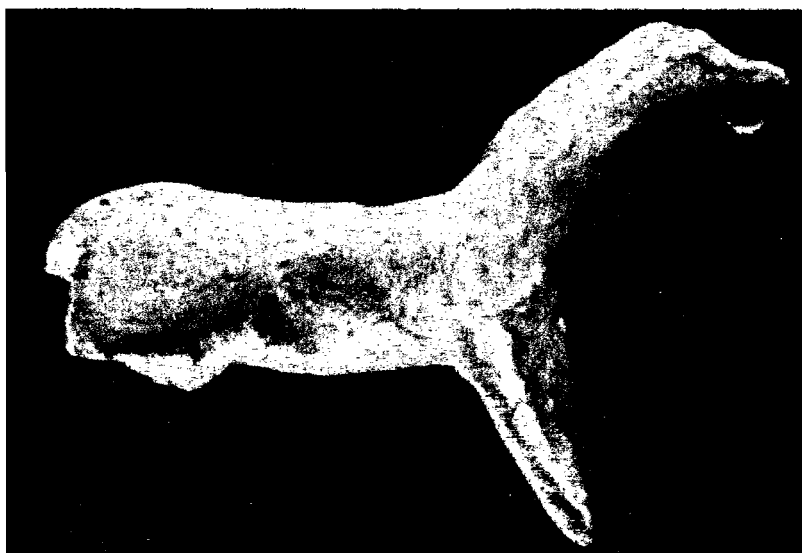
Clearly, there were a number of equid representations amongst the figurines recovered from the first floors of Royal Building AK. They *looked* like horses, after all — mane, long neck, a conformation that somehow “said” equid. Thanks to P. R. S. Moorey’s fine article (Moorey 1970) and discussions about domestication with Sándor Bökönyi (Bökönyi 1993), I was alert to the fact that there might be different *types* of equid present in the corpus. Not all needed to be “horses.” Indeed, relatively few of them were, as it turns out.

All the equids, however, share to one extent or another a body type that approaches 5 : 4 : 6 in proportional conformation, forequarters, torso, and hindquarters taken in the frontal plane. Congruency cannot be demonstrated, but consistency can be, as documented in the accompanying tables for each of the three types of equid to be identified amongst the examples recovered at Tell Mozan.

Shared characteristics, particularly those that demonstrate morphological change associated with domestication turned out to be crucial and serve to distinguish amongst the equids present. Seventy-three percent of *Equus* TYPE I figurines exhibit a pronounced breast ridge. The mane of all examples is erect with the exception of two related stratified finds (*Equus* 202 A8q138.3, *Equus* 206 A10q312.2) that conceivably have a flowing mane. The tail, where indicated, is thin at the base. Two examples of the tail of *Equus* TYPE I amongst the related stratified finds are broad at the base. The *Equus* TYPE I tail may be tufted, as is the case with two examples here (*Equus* 5 A6.238, *Equus* 11 A7.510).

Other indicators of domestication that serve to differentiate the various equids are documented in the **COMPARATIVE TABLES** at the end of this volume.

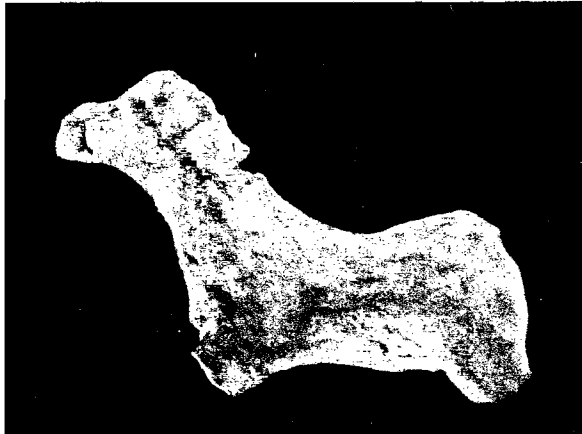
#### GENUS *Equus* TYPE II HEMIONE



*Equus* 23 A5.30. Right median plane.  
Scale 1 : 1.  
(photograph V13D7117)

It is tempting to identify *Equus* TYPE II as horses. The conformation is horselike and only a few details would keep us from doing so. Most notable among these is the erect mane — only 20 percent of the representations identified as *Equus* TYPE II have what could be characterized as a flowing mane and one of these, among the RELATED STRATIFIED FINDS, is questionable (*Equus* 209 A2q251.1). Otherwise, the tail where indicated is broad at the base, a sure sign of the domesticated horse.

Another indicator — although I have not analyzed it in detail — may be the vertical section of the head as taken first at the crown of the head and secondly at the muzzle. A number of variants are seen — square → inverted triangle, large vertical rectangle → small vertical rectangle, vertical rectangle → horizontal rectangle, square → vertical rectangle, triangle → vertical rectangle. Preliminary analysis indicates that a good number of *Equus* TYPE II exhibit muzzle conformation of square → inverted triangle. Each of these manners of terminating the snout of the animal requires a conscious effort on the part of the artisan who crafts the representation. There may be an inherent meaning that remains to be deciphered.



Equus 36 TYPE III A5q815.1. Left median plane.  
Scale 1 : 1.  
(photograph V13D6396)

### GENUS *Equus* TYPE III CABALLINE

In actuality, the true horse is rarely found at Urkesh. Four examples have been identified and two more are tentatively included in the corpus. Stratified and unstratified finds increase this number somewhat (see **TABLES 2A & 2B**, pages 48-49). Following Moorey and Bökönyi, all examples of *Equus* TYPE III, have long manes, including one that Bökönyi imagined to be “flowing in the wind.” A least one of these has a forelock that falls over (*Equus* 38 A7q855.1, also *Equus* 212 K3.16, a related stratified find); another representation exhibits a most complex manufacturing process (*Equus* 35 A5q63.1).

Of course, harness and/or halter point to domestication or demonstrate at the very least a wish to control — tame — an animal. Eight examples of *Equus* do have yoke or halter or harness. Not all are horses (see **DESCRIPTIVE TABLES**, page 624).

### The Template Is Broken

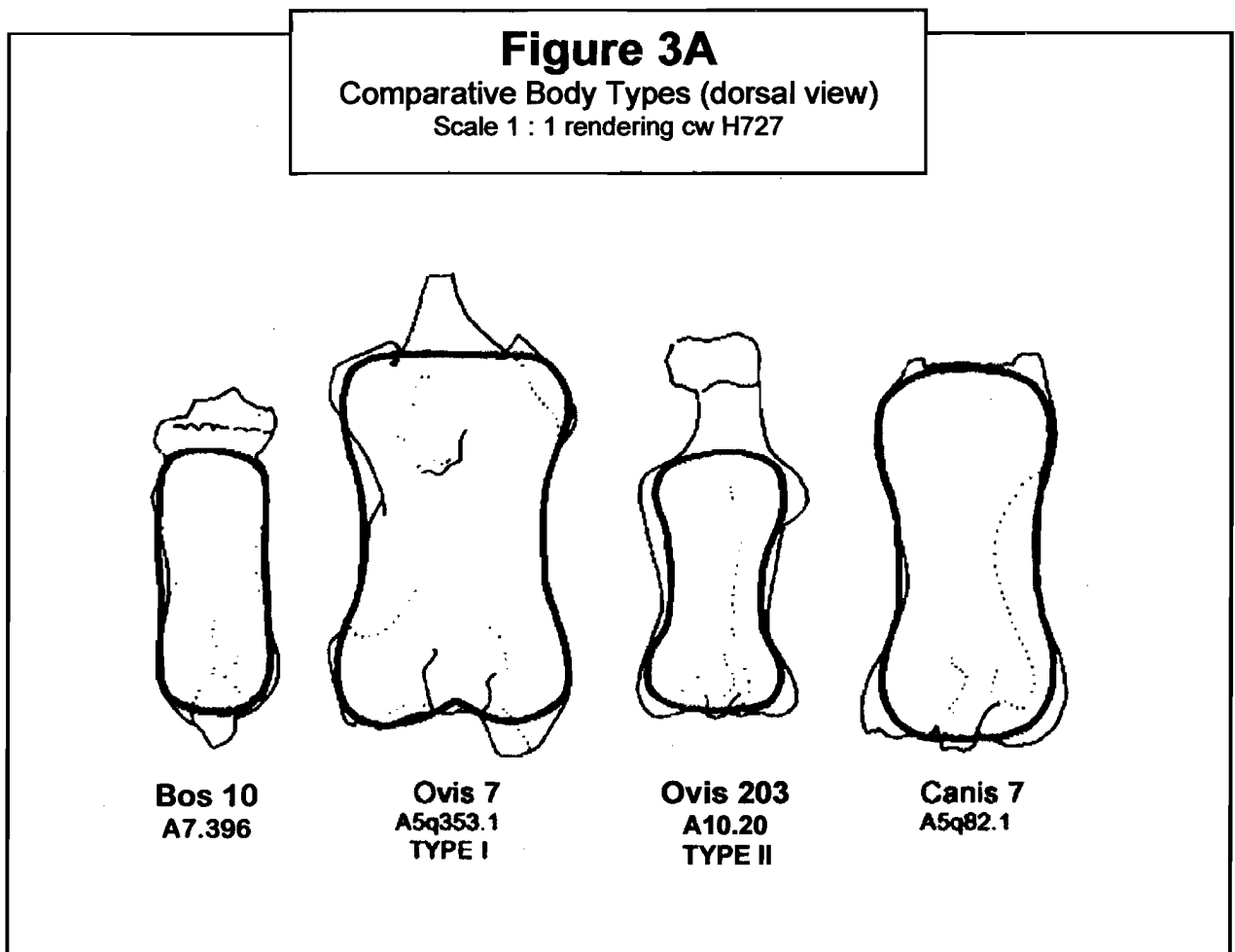
By the time we reach Khabur and Old Babylonian times, the template itself slips, rearranges itself. Characteristics of one genus can be found in another. And, as time goes on, the hand-molded figurines apparently manufactured on the Tell could never be mistaken for artifacts recovered from the Royal Building. Some are simply not identifiable. The key to their identifying characteristics has been lost. It may be that we will be able to demonstrate, as we document context of these later finds, that the reason for making them changed. That would explain why there is this radical departure in terms of style and manner of execution.

### Terminology

Now, a few remarks as to the specific terminology used in this book. The genus names given are invariably singular. For example, *Ovis* is the genus, and the genus is composed of a number of *species* and *subspecies*. Sheep and cows and cats and dogs and goats and equids are all members of the class Mammalia, each belonging to a different genus. It so happens that our studies enable us to identify and classify them by genus. Asses, onagers, horses, and zebras are all *species* of equids — some domesticated, some wild, some even extinct in our region — and we believe we can differentiate amongst the figurines that represent them. But we are not able to speak about subspecies, for our typology does not cast a net that fine. We will occasionally be able to refer to the wild progenitors of domesticated creatures. And we will have occasion to differentiate between different *breeds* of some domesticated animals — sheep raised for their wool and sheep raised to bear young or as “walking larders,” both artificially selected by humans and bred to a specific purpose.

*Aves*

Birds are another matter. They are outside the present typology and will be the subject of a forthcoming article. While the various examples in the corpus can be compared meaningfully by category — most notably, whether they are free-standing, seated on a pedestal or attached in some manner to a vessel — I will not distinguish them by genus, but only by class. They are all “birds” — *Aves*. So their label is to be read as “One of the class of birds, such-and-such.” Whether they are chickens or turkeys or prairie fowl will have to await further analysis. We have noted such “guesses” as they may prove helpful; for example, a circumstantial find — a fragment of an ostrich egg — lends credence to the tentative identification of a bird on a pedestal (A7.253) as an ostrich. It is within the realm of credibility. But *Gallus* or *Meleagris*, *Anas* or *Anser* are not identified as such.



### The Typology: Renderings and Roster Entries

Through the sixteenth excavation season at Tell Mozan (2003), animal figurines excavated in the Royal Building AK and comparative figurines from other locations on the tell have been documented in two ways:

- Renderings    1 : 1 graphic transcription of individual figurines
- Roster Entry    textual description and measurement of variables and attributes

### The Typology: Genera and TYPES

As we have already set out, the typology developed for the animal figurines differentiates amongst genera, of which there are six:

***Bos • Ovis • Canis • Felis, Ursus, and other carnivores (fera) • Capra • Equus***

*Aves* is a class apart, typologically related by apparent function.

A further designation by TYPE of animal is sometimes appropriate, as with sheep —

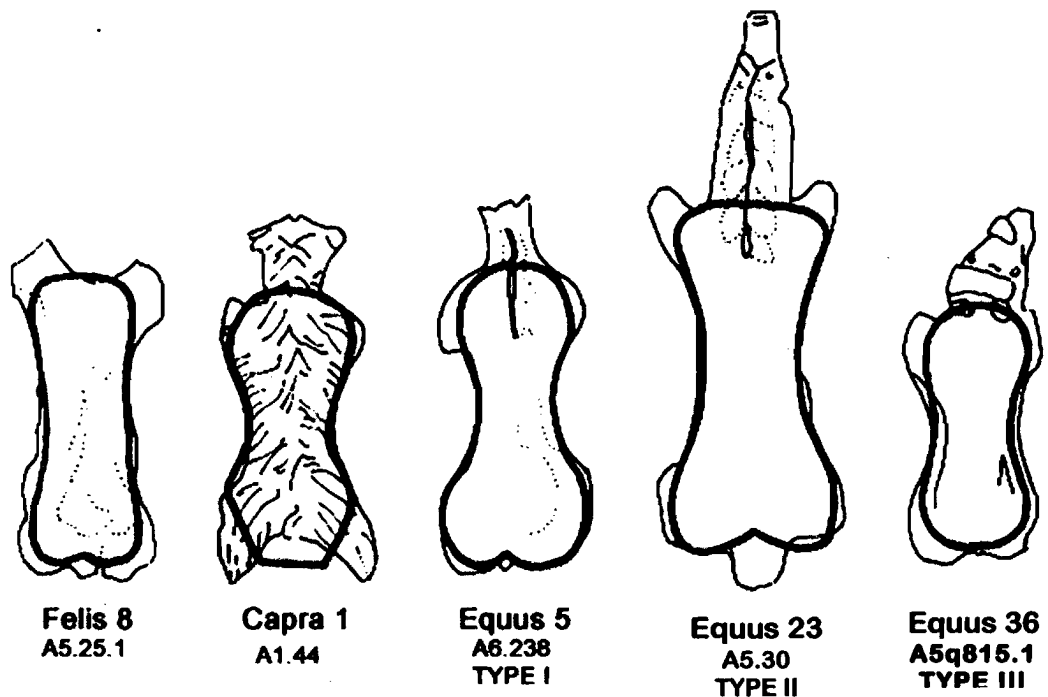
***Ovis* TYPE I (fat-tailed)**

***Ovis* TYPE II (milk or meat stock)**

— where it is possible to distinguish between the uses of domesticated stock and also —



**Figure 3B**  
 Comparative Body Types (dorsal view)  
 Scale 1 : 1 rendering cw H727



***Equus* TYPE I asinid**

nondomesticated or domesticated; for example, wild ass, onager

***Equus* TYPE II hemione**

possibly domesticated; for example, onager, onager/ass hybrid, donkey

***Equus* TYPE III caballine**

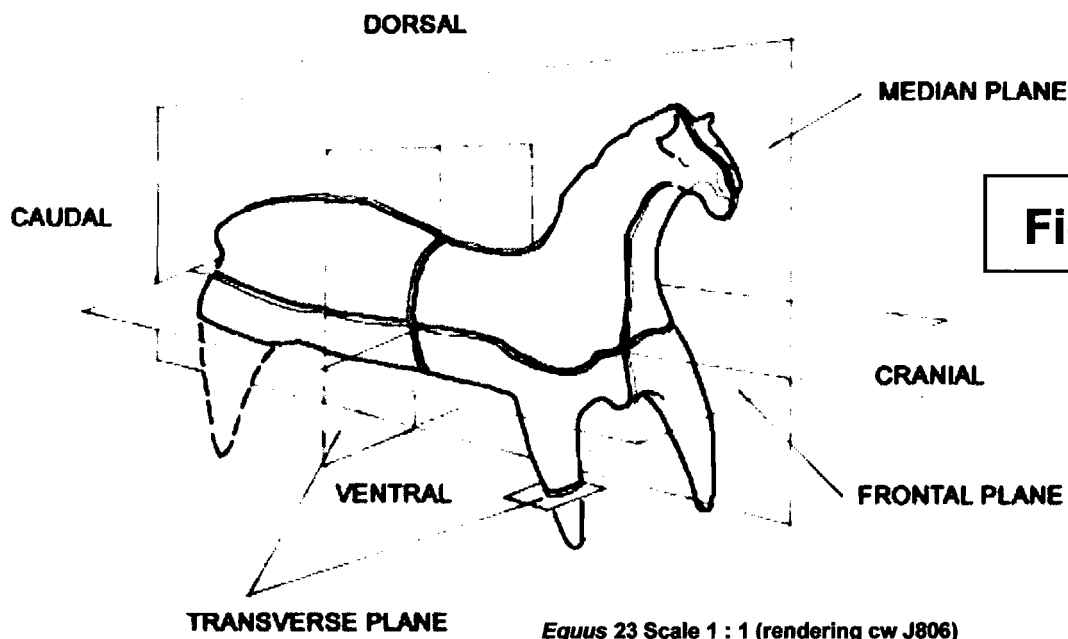
domesticated horse

— where it is possible to distinguish among the attributes of nondomesticated and domesticated species, as with the equids.

**The Typology: Views**

Renderings of individual figurines are exhibited in six views, taken on a quadruped in normal standing position:

- dorsal (frontal plane, from above)
- ventral (frontal plane, from below)
- cranial (forequarters, transverse segmental vertical section)
- caudal (hindquarters, transverse segmental vertical section)
- left median (vertical longitudinal section)
- right median (vertical longitudinal section)

**Figure 4**

Topographic Anatomy: Terms of Position and Direction as applied to Body Shapes of Animal Figurines, adapted from Sisson and Grossman's *The Anatomy of the Domestic Animals*. Volume 1.

This manner of representation is not typical of figurine analysis. In most studies, only the length and the height, and sometimes the width, of the object are given. By contrast, I have chosen to use classical topographic anatomical terms of veterinary science in order to emphasize that the figurines represent *observed, living animals*, not arbitrary creations by inexperienced artisans or nonprofessionals or children. The animal figurines of Urkesh exhibit a will to accuracy within accepted conventions of representation of given animal types.<sup>1</sup>

C. R. Ellenport, in her introduction to Sisson and Grossman's classic text, quotes Goss, who says:

Although the acquisition and organization of anatomical knowledge is easier for beginners if followed by systems, students in the medical fields must continually be on the alert to learn the relationships of the various parts to each other and to the surface of the body because *the final purpose of their study is to visualize them in living subjects*. (Goss, 1966; italics ours)

<sup>1</sup> We would be remiss if we did not note here Gay Robin's work, *Proportion and Style in Ancient Egyptian Art* (Robins 1994), notable for its observation of actual monuments and for her effort to define and to trace a Classical style over time. Her study is not a typology *per se*, but rather an attempt to discover underlying methodology.

In establishing our typology, I have chosen to emulate — metaphorically, at least — Goss’s “students in medical fields,” for we, too — Claudia Wettstein and I — have as a goal the visualization of living subjects based upon their terra-cotta representations. For a visual definition of terms and planes of measurement, see the rendering opposite.

Animal figurines of a given genus and TYPE exhibit variables shared by all the animals in the corpus. These variables are the body parts. *Each body part can be compared with every other body part*; however, some ratios and proportions are more meaningful than others. Those body parts marked with a ♦ are diagnostic, when intact.

Each body part exhibits certain attributes, which can be measured or described.

- ♦ forequarters (cranial frontal plane)
- ♦ neck (transverse section)
  - neck length (crown of head to top of torso)
  - muzzle length (from tip of nose to back of head)
  - muzzle (transverse plane)
- ♦ torso (transverse plane)
- ♦ hindquarters (caudal frontal plane)
- ♦ tail (transverse section)
  - tail length (rump to tip)
  - leg (transverse section)
  - leg length
- ♦ body length (taken from breast ridge to rump or buttocks, not including tail)
  - body length (legs fully extended, or to the fullest extension of the object, not diagnostic of the genus, but useful in the rendering, for size comparison)<sup>2</sup>
  - foreleg/body join (in degrees)
  - hindleg/body join (in degrees)
  - height at forequarters<sup>3</sup>
  - height at hindquarters<sup>4</sup>

Individual body parts can be further subdivided, if such measurements seem useful, as when a leg section taken in the transverse plane is oval. One would take both the long and the short diameter. Such would also be the case with the muzzle of an equid, often found to change from vertical rectangular section toward the back (caudal) part of the muzzle to triangular section at the tip (rostral section). With further analysis, this very change in the equid muzzle may prove to be an indicator of domesticated stock.

The stance of the animal can be diagnostic, being

solidly founded (“foursquare”)  
 inverted V  
     tight  
     open

---

<sup>2</sup> Note that this manner of measurement is the traditional one. Every excavator I have encountered uses it.

<sup>3</sup> Traditional measurement.

<sup>4</sup> Traditional measurement.

inverted U  
tight  
open

The inverted V is on the inside of the legs, the inverted U on the outside.

The inverted U can be "rounded" or "outward-curving."

The inverted V can be further specified by the angle (in degrees) of the leg join.

Forequarters are diagnostically differentiated by the presence of a breast ridge or the relative absence of same.

Within the hindquarters, buttocks (the rump) can be

fused  
divided by  
incised line  
ridge<sup>5</sup>

not divided

hind legs do not meet, but fold onto the torso termination

Legs are seldom intact on animal figurines, due to their extension and consequent fragility. Not once in the documentation of the corpus has leg length been taken as a *diagnostic* measurement. Legs, however, depending upon genus, exhibit consistency; that is, it is possible to tell an equid leg from that of a goat.

The height of the animal figurine is seldom diagnostic, as the legs are so often broken off or completely missing (see footnotes 2, 3, 4, this section.).

The width of the forequarters, the torso and the hindquarters lie in the *frontal plane*, a horizontal section taken at the mid-point of each of the three variables. These three measurements taken as a proportion define the body type of the different genera.

The ratio of torso (as defined) to body length can be diagnostic.

Hindquarters (as defined) bear a diagnostic relationship to forequarters of the animal figurine.

A multiple of the hindquarters measurement may also be compared with body length.

The transverse section of the neck is diagnostically related to the forequarters of the animal figurine, as is the width (transverse section) of the tail to the hindquarters.

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<sup>5</sup> Depending upon the manner in which this ridge is realized, it may or may not represent a "caudal strap," a device related to domestication practices and not part of animal anatomy.

**TABLE 1**  
**RELATIONSHIP OF BODY PARTS**  
**BY GENUS**

<i>Genus</i>	<b>w1</b>	<b>w2</b>	<b>w3</b>	<b>w1@neck</b>	<b>lg</b>
<i>Bos</i> **	1	$\leq 1$	1	$\leq w1$	$\leq 2 w1$
<i>Ovis</i> **!	1	$\geq 4/5 w1$ !! $\geq 3/5 w1$ !!	1	$\leq 2/3 w1$	2
<i>Canis</i>	$\leq w3$	$\geq 3/4 w3$	$\geq w1$	$\leq w1$	$\leq 2 w3$
<i>Carnivora</i>	$\leq w3$	$\leq 4/5 w1$	$\geq w1$	$\leq w2$	$\leq 3 w2$
<i>Capra</i> **	1	$\geq 2/3 w1$	1	$\leq w2$	$\geq 2 w2$
<i>Equus</i> *	$< w3$	$< w1 < w3$	$> w1$	$lg \geq lg/2$	$\geq 2 w3$

**w1** forequarters width in cranial frontal plane

**w2** torso width vertical transverse section

**w3** hindquarters width in caudal frontal plane

**w1@neck** width horizontal transverse section

**lg** torso length in frontal plane

**w3@tail** width horizontal transverse section

\* *Equus* w1 : w2 : w3 ~ 5 : 4 : 6

\*\* E.E. Seton Thompson's identical body types (coat = body silhouette)

! *Ovis* TYPE I w3@tail = 1 : 3 *Ovis* TYPE II w3@tail = 1 : 4

!! *Ovis* TYPE I  $\geq 4/5 w1$  *Ovis* TYPE II  $\geq 3/5 w1$

### The Typology: Variables

Measurements and notes about color and the state of preservation of the object correspond to the roster of the Global Record at Tell Mozan.

The figurines at Tell Mozan, for the very great part, are terra cotta. They therefore share some characteristics of ceramic artifacts on the site. That is to say, they are composed of a certain fabric that is of a composition, texture, and color that can be specified.

Figurines do present an especially difficult problem as regards measurements taken to define the object. First of all, the dimensions are organic and irregular, rather than geometric and regular. In the case of quadrupeds, we tried to regularize measurements as much as possible, recording the *width* at three junctures — forequarters, torso, and hindquarters.

Separately and in various combinations, the ratios of body part to body part define the typology of animal figurines discovered in the Royal Building AK at Tell Mozan. These, in our parlance, would correspond to the roster slots in the Global Record, **w1**, **w2**, and **w3** (for a ceramic piece, they measured diameter at rim, body, and base of a vessel). We further needed to measure body parts related to these three main measurements, qualified by the addition of @ + prose description, e.g., **w1@neck**, **w3@tail**, etc.

*Height* (**ht**) would be measured where diagnostically useful, as would *thickness* (**th**), the dimensions of an object other than forequarters, torso, and hindquarters, e.g., muzzle, forelegs, and hindlegs. "Thickness" is an awkward term, not meaning very much in itself; but when qualified, it does serve as a roster slot for the particular dimension. How else to record the measurement?

At present, we are devising new roster slots that will serve to measure figurines in the field. They need only be applied conscientiously, as with other recording by excavators and staff. Amongst the measurable attributes listed on page 15 herein, ♦ designates those measurable attributes that could usefully be systematized for entry in the Global Record in the field. Here following are the labels currently designating these attributes:

**w1** forequarters (cranial frontal plane)  
**w1@neck** neck (transverse section)  
**w2** torso (transverse plane)  
**w3** hindquarters (caudal frontal plane)  
**w3@tail** tail (transverse section)  
**lg** body length (taken from breast ridge to rump or buttocks, not including tail)

The following measurements, less often diagnostic, but descriptive nonetheless, are entered as

**sz** measurement @ attribute  
     tail length (rump to tip)  
     leg (transverse section)  
     leg length  
     neck length (crown of head to top of torso)  
     muzzle length (from tip of nose to back of head)  
 muzzle (transverse plane)  
 body length (legs fully extended, not diagnostic of the genus  
     but useful in the rendering, for size comparison)  
     height at forequarters  
     height at hindquarters

Stance and angle of body join, and the sculptural treatment of the hindquarters are included in the text, as part of stylistic or iconographic description of the individual animal figurine.

### Cranial and Caudal Views of the Animal Figurines

A first and often definitive identification of genus — and sometimes of species — can be made by examining the forequarters or the hindquarters of the figurine. After looking at the dorsal view, we — Claudia Wettstein, the graphic designer, and I — look to the cranial and caudal views when beginning our analysis of an animal figurine. As so many of the figurines are shattered, consisting only of a partial torso, this method can be a useful diagnostic tool.

I have tried to standardize my terminology — the animals are each taken in six *views* of the complete figurine — so we have a *view* of the forequarters and a *view* of the hindquarters. But the animal, taken in standard anatomical position — a quadruped standing on four limbs — demands more precision, if we are trying to identify it. And sometimes it must be described in other ways.

When we measure the forequarters, for example, *where exactly* is the measurement taken? At *the cranial frontal plane*. That is, between the two points where the frontal plane bisects the torso at the forequarters of the animal. When first Claudia Wettstein and I began to work on the typology, our measurements were sometimes taken high up on the torso. After a time, however, I couldn't understand why we were doing this, as there was no regularity to the measurement of any given genus. It was a little like trying to measure down from the “withers” (“the high part of the back of a horse,” the *American Heritage Dictionary* calls them). At a point midway down the torso, then, and in the frontal plane, we standardized our approach.

After we decided on this way of measuring, it became apparent that there were indeed standard variations in one genus that we could trace. Sometimes, for example, the breast ridge widened appreciably. Sometimes it was quite narrow, while still palpable. And so we came upon one sign of domestication amongst our equids — a widening breast ridge.

Forequarters and hindquarters themselves, however, can be diagnostic when considered by themselves in a *view* that is *the transverse segmental vertical section* — a cut from top to bottom and in the widest extent of the object throughout, the plane itself being *transverse* — perpendicular to the *frontal plane*.<sup>6</sup>

This is the standard view we present of forequarters and hindquarters of each animal figurine, if the animal is whole. From this view, we can analyze the *stance* of the animal. We can see if the forequarters are contained within a solidly founded inverted U. Or if the legs are splayed outward, in which case we try to define as precisely as possible whether the U is open or narrow.

The forequarters of *Bos*, for example, are contained within a solidly founded inverted U. Rock solid. Also, how do the legs meet? At what angle? The hindlegs of *Ursus* meet at a ninety degree angle, quite open — seemingly splayed. In the deviation from these standards lies all the interest.

These measurements and a description of the way the animal is founded, its *stance*, often serve — in not a very precise way, it is true — to give us an impression of how the animal carries itself. If most dogs are “alert,” well, then, so be it. They simply are.

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<sup>6</sup> In the strictest sense, this view is not a *section*, which is a cut taken across a given plane to expose viscera and internal organs during dissection or anatomical analysis.

Measurements taken vertically of forequarter height (in cranial view) and hindquarter height (in caudal view) have not proven to be diagnostically useful. First of all, legs are often broken off, so diagnostic vertical measurement is not possible. We have also not been able — at least at this juncture — to devise a method of measuring the animal in full vertical extension. Does one measure from the top of the crown to the tip of the leg at its furthest extension? Or from the crown to the ground? It is nonetheless true that either of these measurements and the manner in which they are taken may be useful for the artist who must draw the figurine.

Let us take the animal (a quadruped, say) as it presents itself when standing. From a cursory appraisal alone, we might suspect that this animal figurine, missing head and tail, may well represent *Capra* rather than *Ovis*. But will we be judging from obvious secondary characteristics? Or will we observe that the triangular form of this supposed caprid (something like an isosceles triangle, as taken in *transverse segmental vertical section*) is radically different from the same section taken in torsos *Bos* and *Ovis*? Will we note that it is similar in section to the torso of *Equus* TYPE I, also lean? Perhaps the representation bears comparison with some examples of *Canis* — usually much stockier but also rather often triangular in vertical section.

Something of a cautionary tale here — when first I was working with the figurines at Tell Mozan, it became apparent that the hindquarters were not always treated the same way. It was something of an amusement for my colleagues that I was obsessively concerned with the “fused buttocks” of some of the figurines. I could occasionally be found outside the compound staring at this anatomical detail on the real life nomadic herbivores that meandered onto the Tell.

Yet it was certainly clear that hindquarters were treated quite differently. Sometimes the buttocks *were* fused, a flat plane, with no differentiation to speak of. But more often than not, the buttocks were divided in some manner, whether actually separated and applied to the cylinder of the torso itself, or incised, either boldly or with a light line. Then, after a time, the use of the veterinary band (discussed under both *Carnivora* and *Equus*) came to light.

I cannot deny I thought for a while that this was going to turn into a typology of fused buttocks. But it struck me, not so long ago, that I was studying a phenomenon in true isolation — the hindlegs were often simply not there! Mostly, enough of the rump and enough of the legs remained so I could speak of *outside stance* and the way the legs joined *inside*, so there was yet another type of diagnostic detail. But I seldom saw the animal the way it left the hands of its maker.

Such are the ravages of depositional action.

Why this preamble? To underline that visual inspection in each of several planes, together with a judicious appraisal of secondary characteristics, can provide a guide to identification. Measurement objectifies our observations. Naturally, this multivalent notation will become meaningful only as it pertains to a given corpus. There is no one universal reading.

Here, then, are cranial and caudal views of representative figurines of each genus recovered in and around Royal Building AK. The way we read these views is an important component in the typology of animal figurines at Tell Mozan.

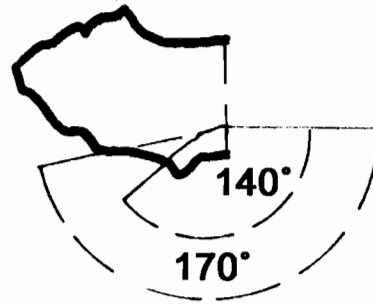
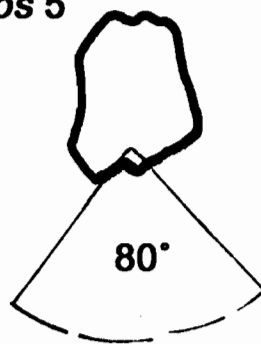
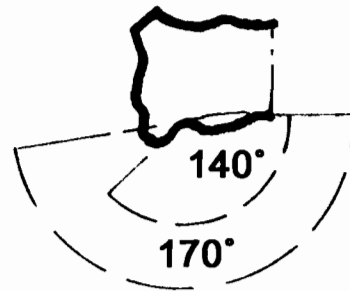
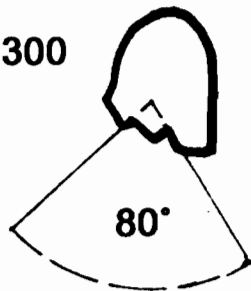
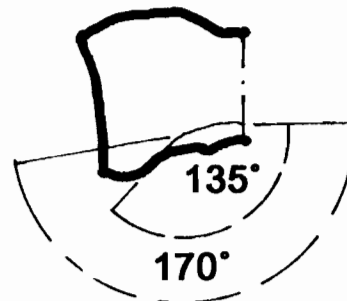
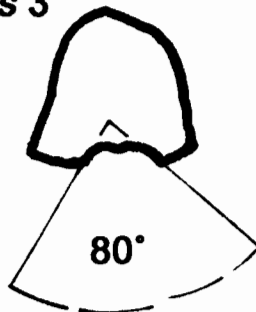


# READING FIGURINES

ANIMAL REPRESENTATIONS  
IN TERRA COTTA  
FROM ROYAL BUILDING AK  
AT URKESH (TELL MOZAN)

CRANIAL & CAUDAL VIEWS

THE URKESH CORPUS

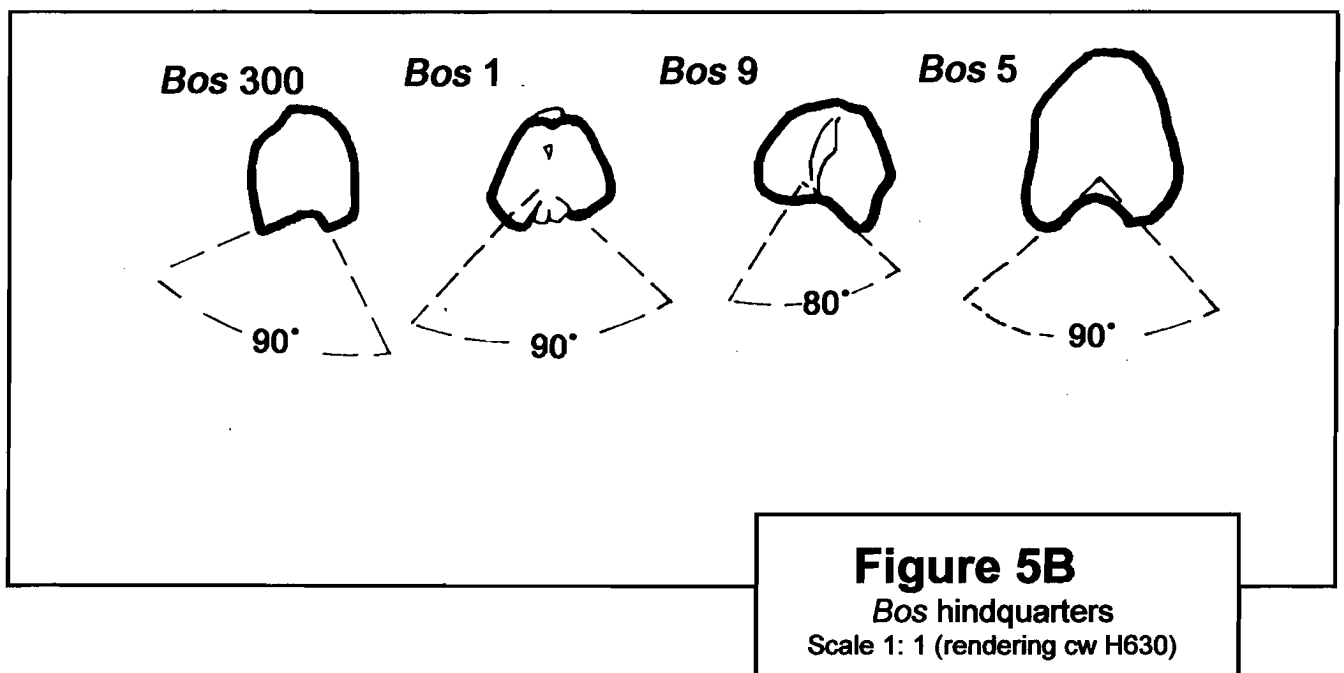
**Bos 5****Bos 300****Bos 3****Figure 5A***Bos* forequarters

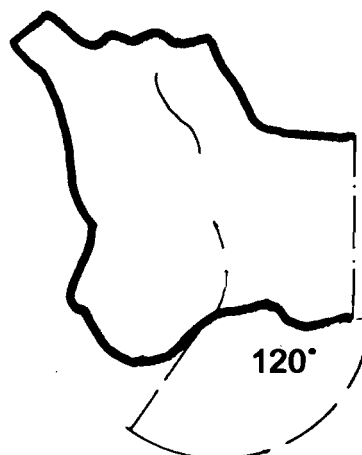
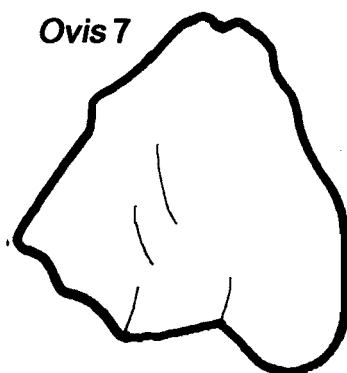
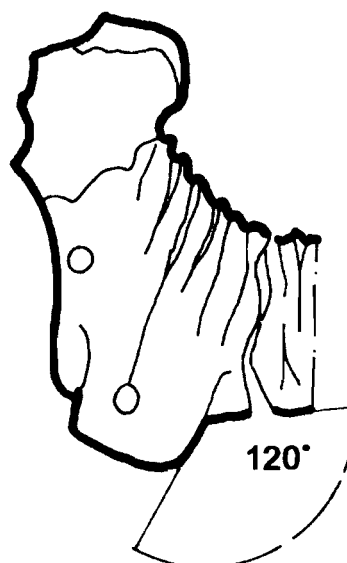
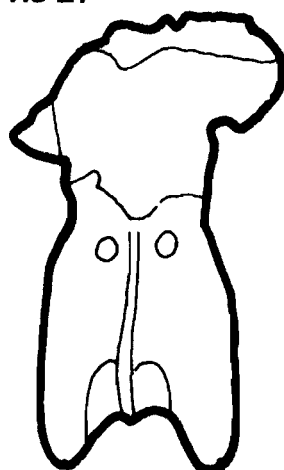
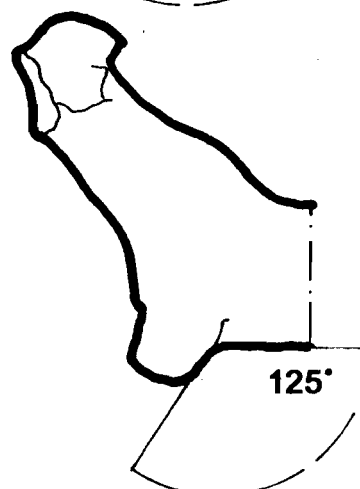
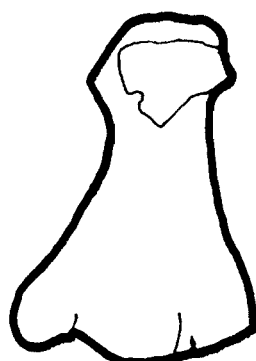
Scale 1 : 1 (rendering cw H630)

## *Bos*

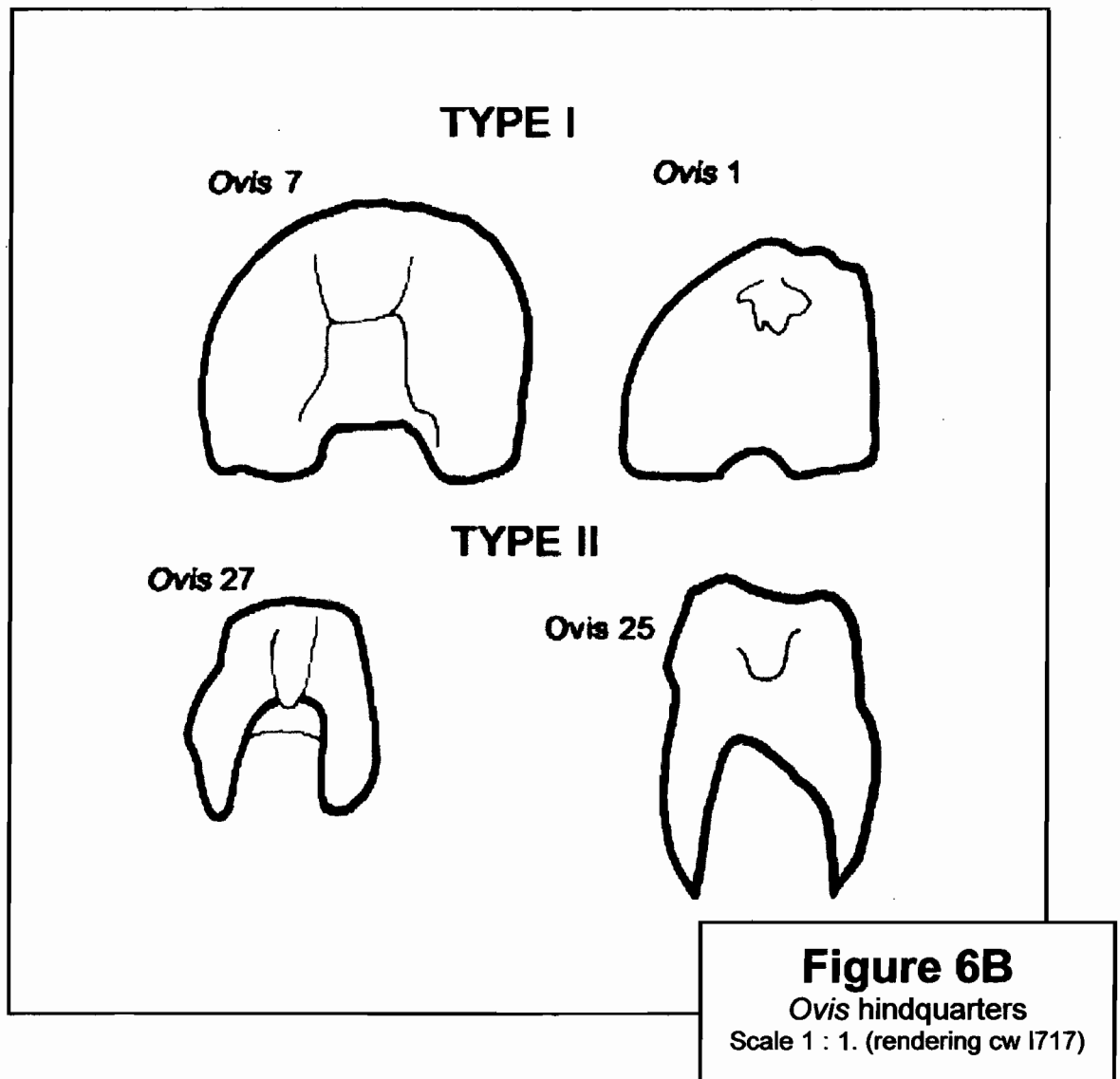
When you see them side by side, it is obvious that both hindquarters and forequarters of cattle are contained within a solidly founded inverted U. The legs meet in a wide angle, from eighty to 90 degrees — as wide as some bears' hindquarters. In a rather unusual detail, the forelegs project forward markedly — the leg/body join is around 140 degrees. Another singular detail is the underbelly, almost always distinct from the legs themselves. Note that the underbelly continues in effect the line of the breast ridge — the angle is almost a full 180 degrees. Remember that the breast ridge of *Bos* continues onto the belly and is terminated by the sexual parts, carried forward and in the belly.

In this schematic rendering, it appears that the sexual parts of *Bos* 1 are carried between the hindlegs. In fact, this is the underbelly seen at the leg join and the hind part of a tab that projects *back* toward the hindquarters, not forward as would the sexual organ.



**TYPE I***Ovis 7***TYPE II***Ovis 27***TYPE II***Ovis 203***Figure 6A***Ovis forequarters*

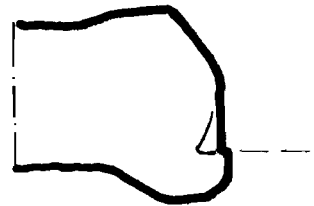
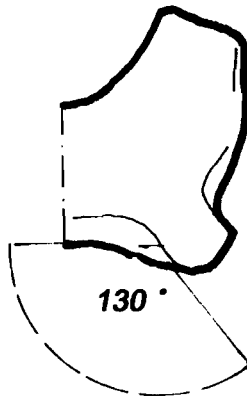
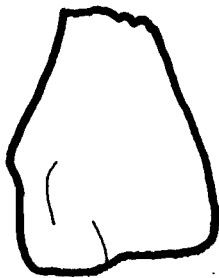
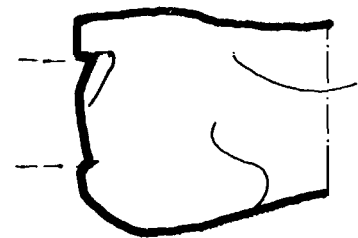
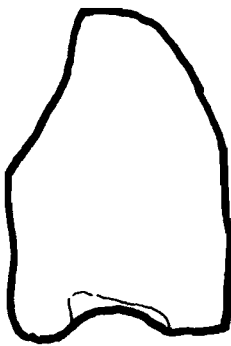
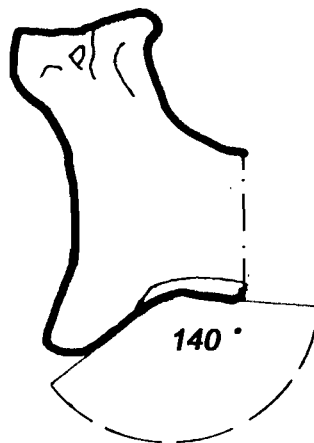
Scale 1 : 1. (rendering cw I718)



### *Ovis*

The major anomaly that had to be resolved with *Ovis* was the obvious difference between the rounded hindquarters of TYPE I and the rather lean hindquarters of TYPE II. In each, diagnostic details point to *Ovis*, with a distinguishing characteristic being the tail that was about one-third to one-fourth the width of the hindquarters. One of our sheep did not have a “fat tail”; we call it TYPE II, an animal domesticated for either its meat or milk, yet still *Ovis*. One has only to read Steinkeller (1995) for a bracing corrective understanding of the many different *species* of sheep in the Mesopotamian world.

TYPE I examples here, so thoroughly “sheeplike” — rounded bodies, heavy with unshorn wool — are both missing their legs! We should bear in mind how the body silhouette would be transformed, if the torso were raised on legs. *Ovis* 27, once ferociously defended as a hyena, when it had no legs, does have a doglike torso and proportions. Raised high on wheels, however, it becomes the very TYPE II sheep body. Bökönyi made no mistake about it — the Urkesh artisan would not have executed any given detail without actually *meaning* to represent that detail. There is a caveat — the level of artistic skill, a point that, in the main, I choose not to address when I analyze the Urkesh figurines.

**Canis 4****Canis 7****Canis 1**

**Figure 7A**  
**Canis forequarters**  
Scale 1 : 1 (rendering cw H701)

## *Canis*

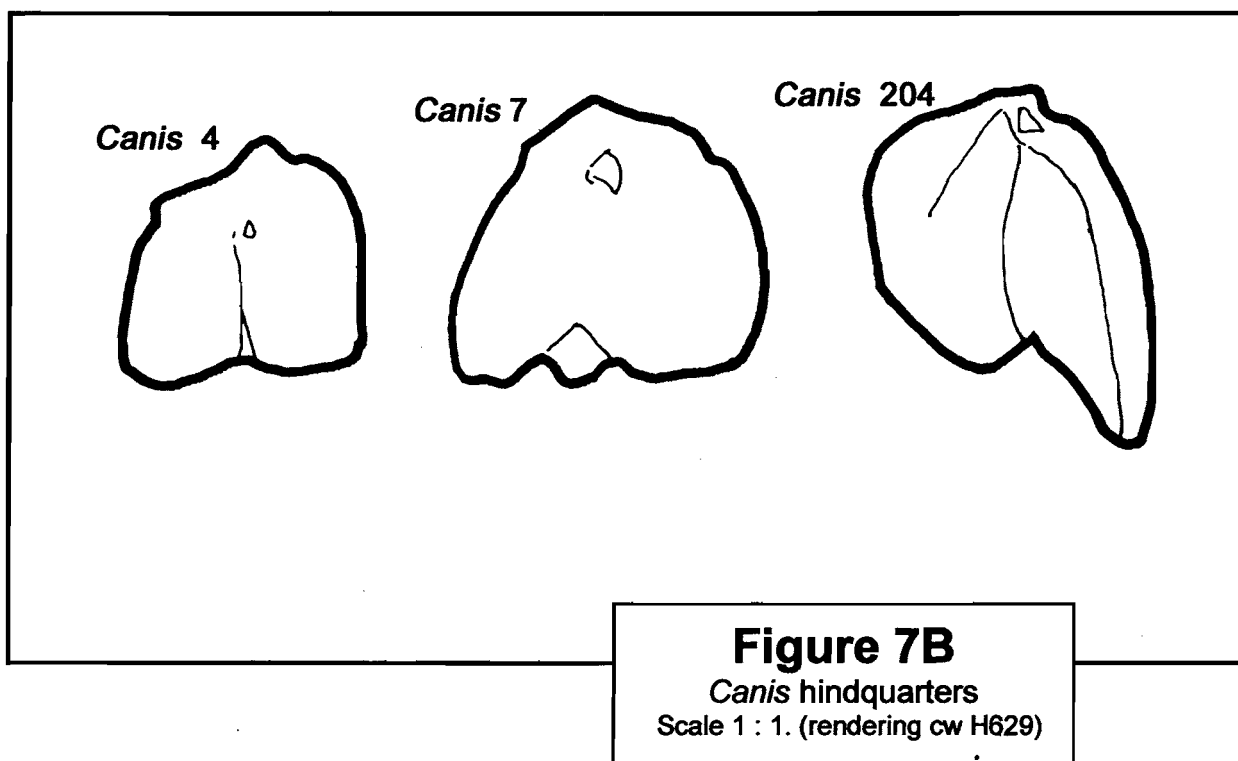
The most notable detail of the domesticated dog is the curly tail that cannot be raised. This may be one characteristic of early selection for

a submissive animal that was physically unable to signal dominance and thus could be controlled and dominated by humans. (Reitz 1999, 295)

*Canis* hindquarters are solidly founded. This diagnostic detail remains true for all examples of dog retrieved from the workhouses of the Royal Palace, as does the deep curve to the back. However, from Khabur levels, we excavated what, by body type, must be a dog. The hindquarters, contained within an inverted slightly outcurving U, differ from those of the dogs of previous centuries. The vertical caudal edge of the legs is sharp, the buttocks are separated one from the other, and the division is marked, receding to the torso. The manner of execution is similar to *Capra* A1.44, but the body is strikingly doglike and could be nothing else. I take this detail to mean that the model, the *mental template* for the dog, remained true for centuries, changing only little with the abandonment of the Royal Palace and its service sector.

The attitude of the dog is telling. The animal holds its head high. The muzzle is tilted up and back. It is important to understand the relationship of legs to torso, so I have included a dorsal view with two of the examples. Note that the legs extend straight out and that the leg join is 130 to 140 degrees.

Forequarters are triangular in transverse segmental vertical section. Even in this view, the animal does not appear to be lean, but rather stocky — in contrast, say, to *Capra*.



### ***Carnivora (Felis, Ursus, fera)***

Although it might seem surprising, the forequarters of *Felis* are wide (see **Figure 8A**). The breast ridge is prominent. In combination with the forelegs, which project far forward — a leg/body join in excess of 130 degrees — and the muscled torso, the impression is of a beast ready to spring.

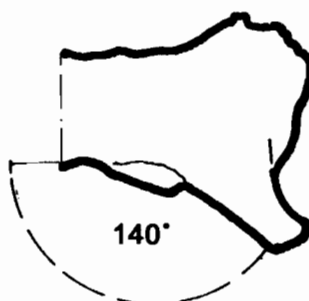
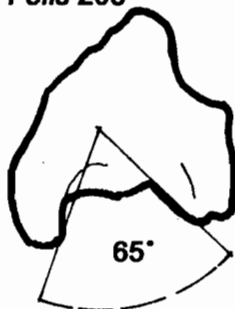
In an attempt to characterize the stance, we rendered the dorsal view. Since the legs of *Carnivora* are out from the body, we tried to standardize the angle of the legs with respect to the breast ridge (as with *Felis* 2). Unfortunately, this led nowhere; examples from the corpus were too fragmentary to permit repeated analysis of this detail. Do note the forelegs of *Ursus* 403, however; interestingly, the body/leg join is substantially less than *Felis*.

*Mellivora* 402, the honey badger, possesses the carnivore body type, but differs in the cranial view, as does *Ursus*.

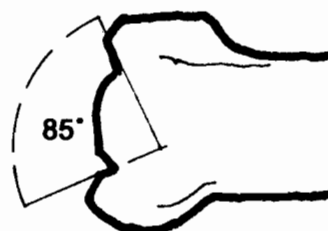
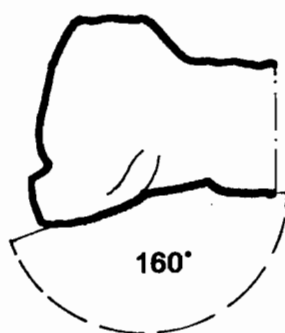
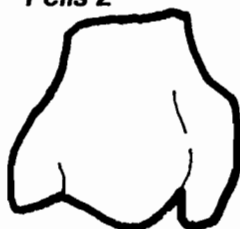
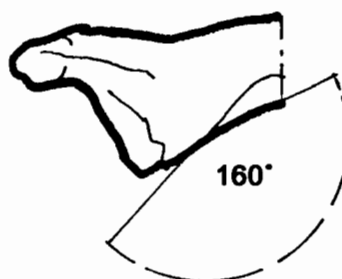
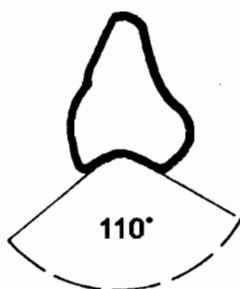
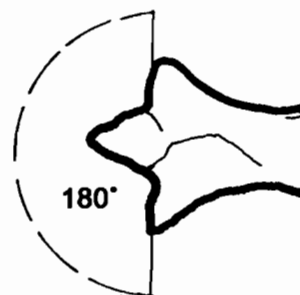
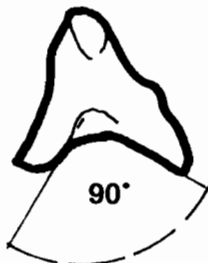
Note the curve of rump to leg of one example (*Felis* 36).

*Carnivora* hindquarters often display expressed sexual parts, and in examples compared visually elsewhere, the veterinary strap, sign of an effort at domestication — at the least, of attempted *taming*.

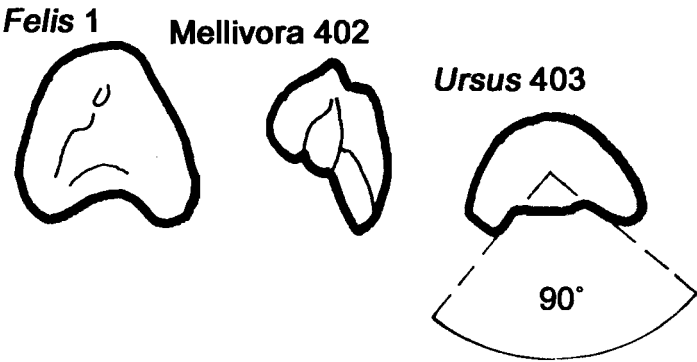


*Felis 203***Figure 8A**

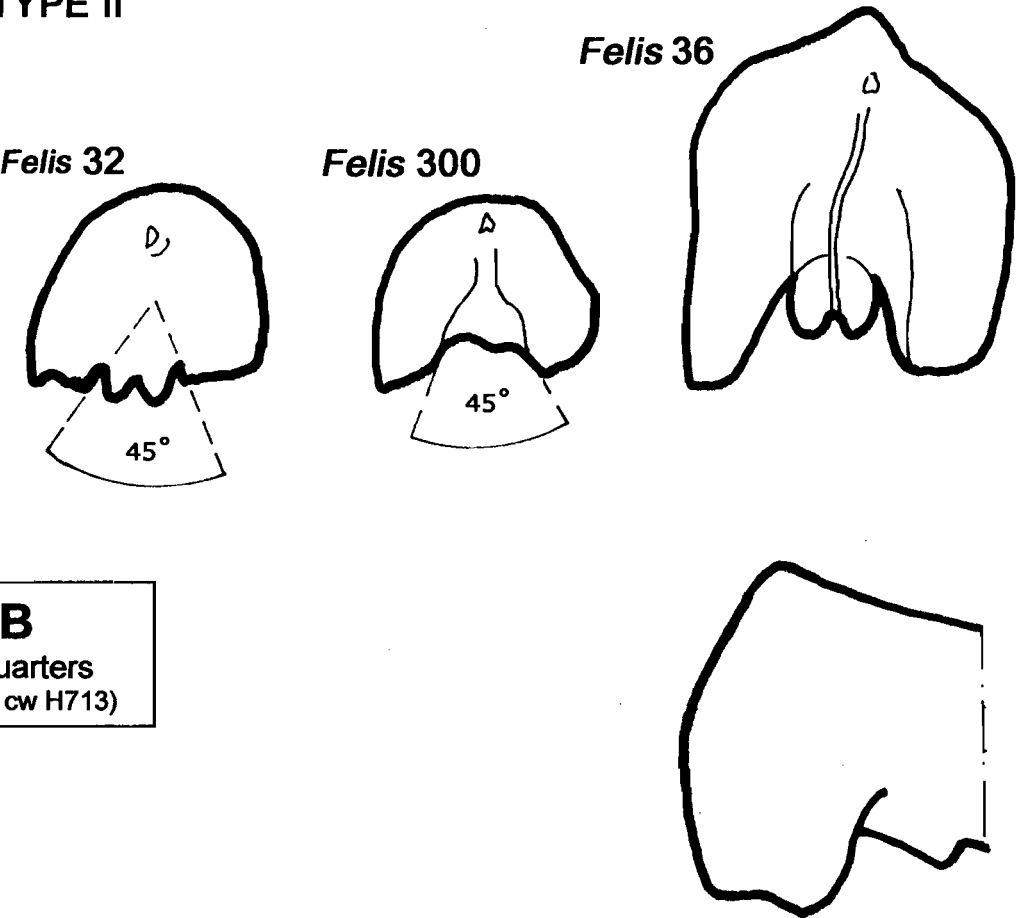
*Carnivora forequarters*  
Scale 1 : 1 (rendering cw H703)

*Felis 2**Mellivora 402**Ursus 403*

TYPE I

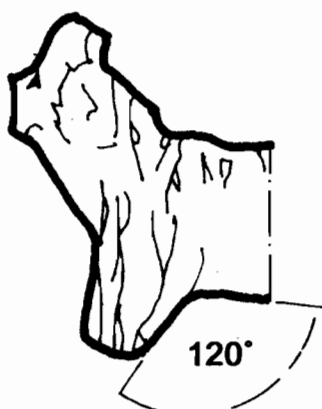
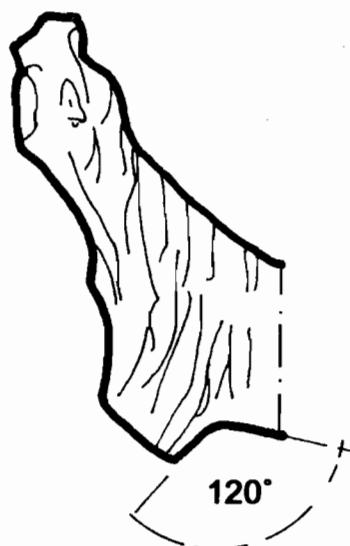


TYPE II



**Figure 8B**

*Carnivora* hindquarters  
Scale 1 : 1 (rendering cw H713)

**Capra 6****Capra 1****Capra 13****Figure 9A**

*Capra* forequarters  
Scale 1 : 1 (rendering cw I715)

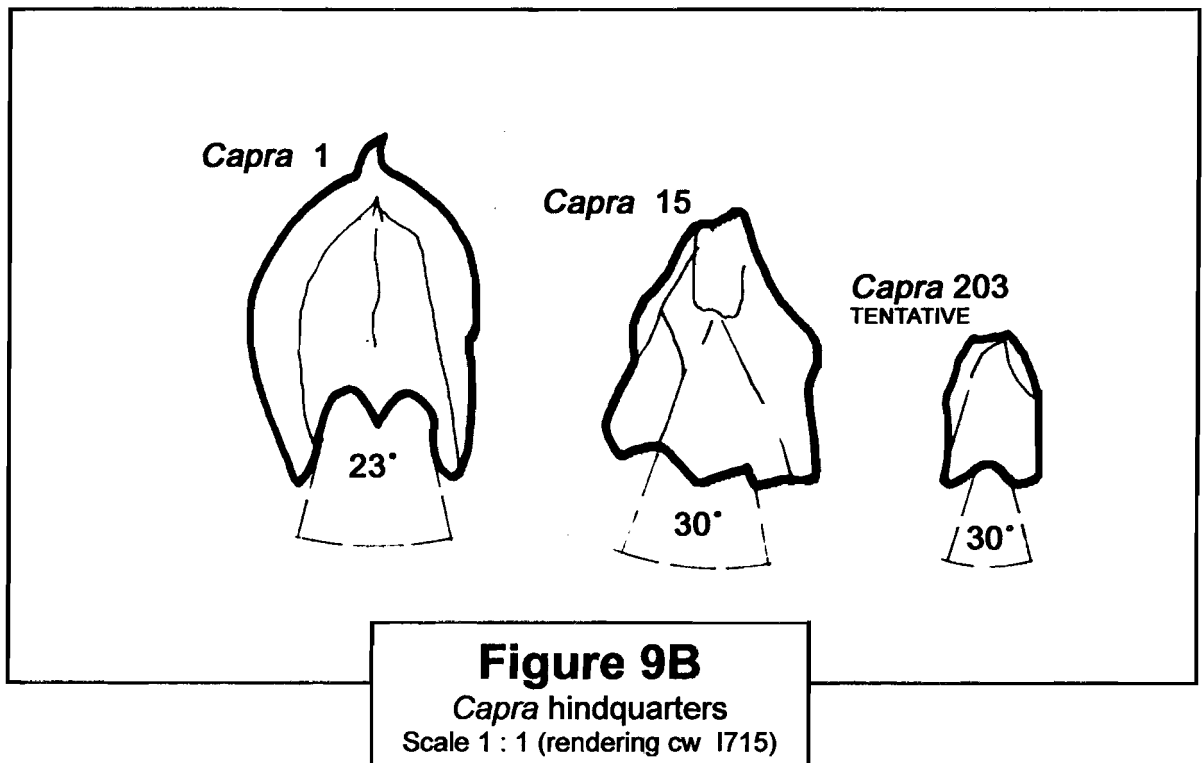
## *Capra*

*Capra* diagnostic details are marked and relatively easy to identify. The tail is carried high and points up (alternatively, as in real life, the tail may be carried out from the body, but seldom hanging down — a sign of sickness or great distress). The hindlegs join at an acute angle — 30 degrees or less. The division between the buttocks is often recessed.

For the greater number, the cranial view is a narrow triangle. Horns are carried high on the crown of the head and extend back from the head, rather than curving down around the ears and side of the muzzle, as is the case with *Ovis*. The neck is long. The head is carried forward.

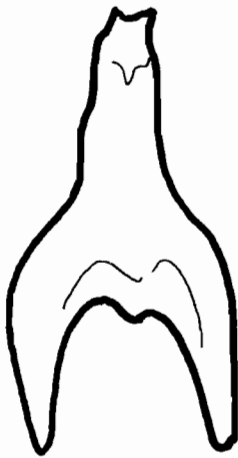
The *Capra* torso is lean, as may be seen in the dorsal view, but so are the forequarters and hindquarters — in contrast to dogs, for example.

There is often a pelt, indicated by finely incised lines that follow musculature and body form.

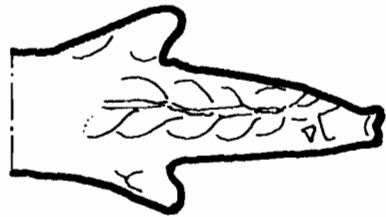
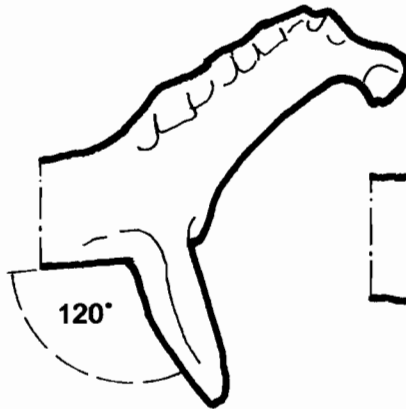




TYPE I *Equus* 5



TYPE II *Equus* 23



TYPE III *Equus* 36



**Figure 10A**

*Equus* forequarters  
Scale 1 : 1 (rendering cw H726)

## *Equus*

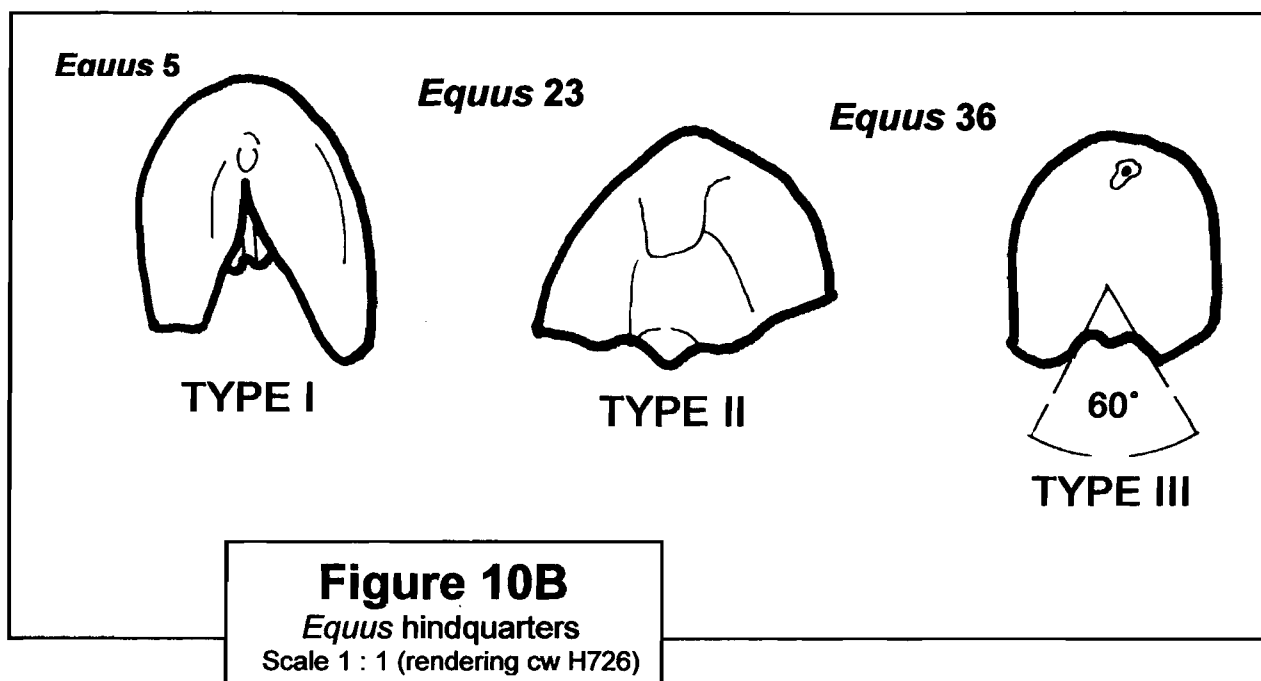
In the *Equus* body type, we can read one of the stories of domestication told at Tell Mozan. Morphological change can be traced as equids moved down from the mountains and into the steppe and from the steppe into the pens of the inhabitants of settlements.

Widening breast ridge and forequarters, forelock, free-flowing mane, and tail — these diagnostic details mark the stages of equid domestication. A hole for the insertion of (presumably) an actual tail is present in other animal representations, also.

The equid body type can be more easily seen in the dorsal view, but the details seen in cranial and caudal view are telling. In a tentative way, I think it is possible to identify wild ass and onager, domesticated donkey and onager/ass cross, and the domesticated horse. The wild horse is a bit more problematic; there are no signs of the heavy coat of the northern equid. In general, though, the tail broadens at the base with domestication, and this serves as an alert.

*Felis*, *Canis*, and *Equus* are similar genera, as far as body type is concerned, and each has a story to tell with respect to domestication. Each is a companion to humans. Only one — *Canis* — was domesticated with the dawn of agriculture. Some species of *Felis* have never been domesticated and only recently have scholars begun to pinpoint with accuracy the moment at which the various equids were tamed and finally domesticated by humankind.

In a rather more mundane observation, an animal in halter must clearly be somewhere on the way to being domesticated; the equid need not, however, be a horse. And the equid need not be domesticated; perhaps the animal is only *tame* and under control, surely a necessary step on the way to domestication.



### Similar body types: de Genouillac at Telloh

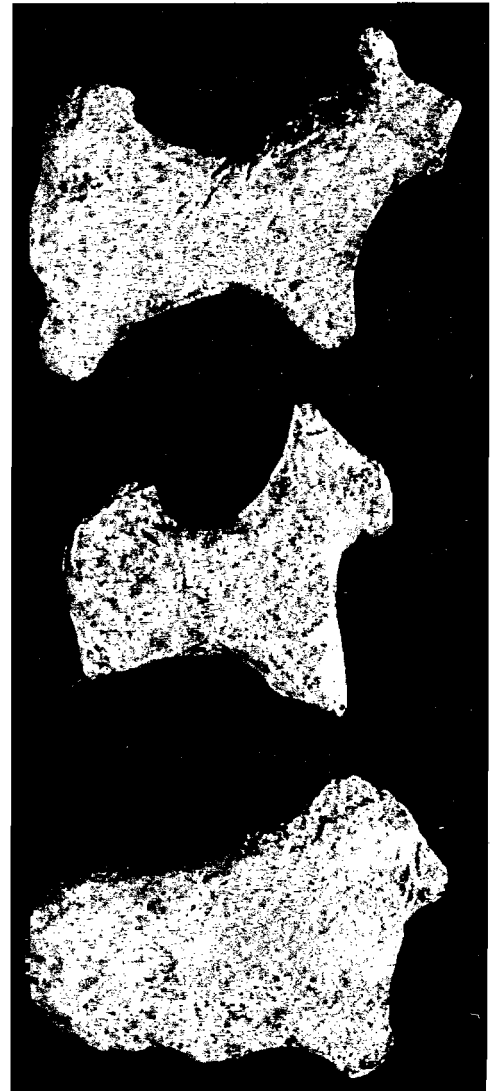
We have occasionally remarked on the similarity of *Canis* to *Bos* and compared the genus rather less often with the *Ovis* body type. All three are contained within a cylinder, as opposed to blocky stone, as Frankfort did once remark. *Bos* exhibits equal proportions —  $w1 : w2 : w3 = 1$ . *Ovis* TYPE I deviates from these proportions only slightly, as one might expect from the body silhouette of a wool-bearing creature. The *Canis* torso, too, taken in section at the frontal plane is only a little less wide than the hindquarters; but the hindquarters are themselves greater in width than the forequarters — and this is a crucial difference. Other comparisons and contrasts can be made; see the formulas given in the appropriate section of the CATALOG.

We are told that there is nothing new under the sun; sometimes it is heartening to have the old adage proven. I was recently reviewing de Genouillac's *Fouilles de Telloh* and came across not only an original image I had reproduced in line drawing (after Parrot and Barrelet) and now have reproduced from de Genouillac's original plate in the *Bos* CATALOG, but also several plates that bring together terra-cotta representations of cattle and sheep and dogs.

De Genouillac did correctly identify, by my lights, many of these creatures. He doesn't say what caused him to make distinctions among them, but judging from the plates and the way he shows them to us — he says at one point that he has "gathered several examples together as a demonstration," a rather unusual turn of phrase (de Genouillac 1934, 79) — I wager it must have been *attitude* and what may pass for a curly tail on the dog. Equally telling is the deep curve to the back of the figurines he identifies as dogs, although the author does not remark on this aspect of the dog's body.

The sheer number of the finds ("44 sheep in a single day by the same excavation team") leads de Genouillac to surmise that the terra-cotta objects were children's toys (de Genouillac 1934, 37), although the reasoning that contrasts them with what would have been a lower number of ritual objects somewhat eludes me. (He intimates that some drama of herding was playing itself out among shepherd, sheep, and dogs.)

Parrot, in presenting again the work of a respected colleague, talks about the passage from *une école réaliste* to *une école idéaliste* (Parrot 1948, 78). As with pre-Sargonic representations of the human body, so too, perhaps with animal representations, although the fascination with the exacting representation of ugliness probably cannot be traced in animal representations. It is not too far a stretch, however, to say that presumably something was made of three-dimensional objects as direct representations taken from nature.



Telloh (Girsu) from Warka IV & V.2,  
dogs and a "sheep lying down."  
After de Genouillac, *Fouilles de Telloh*,  
Pl. 14/1 abc.  
Scale app. 1 : 1.

I find no signs in the text that de Genouillac systematized his analysis, but he certainly took pains to establish a glossary of terms relating to pottery manufacture. I can well imagine, had he turned his attention to figurines on their own, he would have left us clear and replicable guidelines for the identification of *Genera* otherwise indistinguishable. Certainly, the matter is neglected in the literature of the decades following.

### **Local Sources of Clay**

That the figurine fabric corresponds to the fabric types of the AK sealings would indicate that there is a local source of clay and that the figurines were manufactured at Urkesh. In the present day, there are two main sources of clay in the vicinity of Q'amischli, one "red," the other "white." Munsell readings have yet to be taken for these deposits. Modern fired pottery made from the clay in the "white" deposit gives Munsell reading 10YR 7/3 color very pale brown, well within the chroma range of pinkish white to very pale brown that characterizes much of the AK corpus.

Schmandt-Besserat in her survey of clay artifacts from Ganj Dareh in the Zagros notes that "a finer fabric, similar to the paste used for figurines" was used for a small vessel, one of three types of fabric at the site (Schmandt-Besserat 1974 winter, 13). At this early stage, intentional firing of the fabric is uncertain. In both the "later" levels of the stupa at Mohenjo-Doro (contemporaneous with mid-third millennium Urkesh) and the "early" levels (Djemdet Nasr), Mackay identifies two types of firing, "burned light or dark pink," the latter due it seems to a small iron content. Earlier, he ventures the opinion that the darker clays, which required no temper, did have an "admixture of some carbonaceous material" (Mackay, Guha et al. 1937, 174; the color variation of the pottery at the site is discussed on pp. 174-5). The Mohenjo-Doro figurines are all fired, however, and with only one exception are burned light or dark pink in the kiln, according to the heat of the firing. Mackay goes on to say that "in many cases exactly the same clay was used as for the pottery, and it is likely that the source of supply was the same for both the potter and the image-maker" (Mackay, Guha et al. 1937, 258). That Mackay makes a distinction between the two is provocative.

Mohenjo-Doro, by the middle of the third millennium, was a vast urban complex, a city. Urkesh also was at the height of its development in pre-Sargonic times. In both cases, the urban infrastructure was sufficient to support local manufacture of clay artifacts. In both cases, a common source of clay is used for pottery and for figurines. Indeed, in prehistoric times, once sedentarization had come about, as at Ganj Dareh, the same practice is found.

### **Manufacture: Fabric**

With few exceptions, the clay of the AK figurines is fine to medium fine; in a few cases, the medium is very fine, similar to simple fabric, but having a higher silica content. The following figurines exemplify the variety of "paste" or clay media used. The list is not exhaustive, but serves as a good guide and eventually may be diagnostic.

**Figurine Fabric I** *Aves* A1.321, from a theriomorphic vessel. No catalog number as yet. The medium is fine (Munsell reading 2.5Y 8/2-8/3 color pale yellow).

**Figurine Fabric II** *Equus* 19 forequarters TYPE II. A1q615.1. This is a very fine clay, similar to simple fabric and rather rich in silica. Uniformly fine inclusions. This fabric is often encountered where it has been smoothed with a wet cloth or fingers to define musculature, as is the case along the neck of this representation (Munsell reading 7.5YR 7/3 color pink).



**Figurine Fabric III** *Equus* 35 crown of head and neck with mane TYPE III. A5q63.1. Fabric medium with uniform chaff temper. The surface of this figurine fragment is treated in three stages of manufacture; the fabric, while not fine, is of uniform enough consistency to accept and to retain various cross-hatchings and dragged marks of a comb (Munsell reading 10YR 7/3 color very pale brown).

**Figurine Fabric IV** *Equus* 1 head TYPE I BLANK. A1q836.1. Fabric medium with heavy but uniform chaff temper. This fabric approaches the “nubbly” consistency of *Felis* 8, marked by many inclusions and irregularities due to oxidation of temper. See catalog notes about the consistency of this medium, its mixing, and how depositional action might account for the impression of a coarse medium (Munsell reading 10YR 7/3 color very pale brown).

### **Manufacture: Color**

Among the four types of fabric here presented, there is yet considerable variation in chroma. Firing temperature and depositional accretions might alone account for the range of differences in chroma, were the fabric tempered uniformly and modified with but one type of inclusion. Mineral additives in the fabric may also account for variation in chroma.

Marilyn Kelly-Buccellati categorized the fabric used to make seal impressions according to the following schema. As might be surmised, these types are found amongst the figurines as well, but in a distribution that varies by usage (these are figurines, not sealings) and, to at least some extent, by genus.

All figurines have been given a Munsell reading, as is usual. How the following typology of color might be used as a precise diagnostic tool is yet to be determined. In general, I may say that the range of color exhibited by the figurines at Tell Mozan is fairly restrained, as seen in the catalog; but so is the range of color as exhibited in the fabric used for seal impressions, to say nothing of the color range found in sherds and vessels at the site.

The following range of fabric color is restrained in value and chroma. Only *Bos* figurines range outside this muted palette (tending to reddish browns and grays). For the very large part, hue amongst the Urkesh figurines ranges from Munsell pinks to very pale browns (2.5YR–10YR) containing as a component both yellow and red as the labels indicate; but artifacts tend not to be intense in value and they exhibit medium (/2–/4) chroma values.

**SEALING COLOR TYPE 1** (Munsell reading 5YR 6/8 color reddish yellow). A match is rarely found among the figurines; *Ovis* 33 head with perforated ring on neck A1.479 is an exception. The color is, however, encountered frequently in ceramics from earlier strata. The “reddish yellow” hue (5YR) typical of the decoration on Khabur pottery, for instance, has been noted in the field.

**SEALING COLOR TYPE 2** (Munsell reading 10R 6/8 color light red). *Capra* 211 left hindleg. A10q197.1. See catalog note regarding contrast between patina and fabric and the relationship of chroma to hue. Very “bricky” in appearance, as chroma increases in intensity within the same value.

**SEALING COLOR TYPE 3** (Munsell reading 2.5 YR 5/2 color weak red). A remarkable number of *Bos* figurines are found within the same hue (Munsell 2.5YR). Within the other genera, however, few artifacts are encountered at this intensity of value. It is to be remarked that the chroma reading is one factor that does distinguish the *Bos* corpus; they can be “spotted” (this is a remembered “sense” of the corpus). The intensity of hue may be due to firing; *Bos* figurines are rather small, many of them MINIATURE, as we have noted; and extended firing time would tend to deepen the value of the hue. It might be noted that sealings on containers are often quite small; the MINIATURE *Bos* figurines might be drawn from the same mass of fabric and crafted in the same “counting” place, or registration area.

**SEALING COLOR TYPE 4** (Munsell reading 5YR 4/1 color dark gray). *Canis* 102 hindquarters. A5q706.2. The fabric is coarse, and appears almost carbonized.

### **Manufacture: Inclusions**

Overall, fabric inclusions are fine to medium, with the majority of figurines being chaff-tempered. The temper is fine, seldom gross. Gypsum (or its free form, calcium carbonate) is frequently encountered. Finds from excavation unit A10 and now from excavation units outside A10 — in the courtyard and areas to the east and south of the AK service sector — exhibit fine mineral inclusions (grit or fine silica). The inclusion changes the character of the surface of the object.

In general, I have remarked that the larger figurines have a heavier chaff temper than the smaller objects. The little animals require more intricate detailing; a heavy temper would not permit this, whereas it is perfectly appropriate for larger objects that need body strength to hold together. An exemplar for study in this respect is *Equus* 35, where surface detail is complex and layered, yet the fabric is characterized as “medium, with uniform chaff temper.”

### **Manufacture: Surface Treatment (Incisions, Combing, Folding, and Pinching)**

A wide range of surface treatments is encountered in the Royal Storehouse. These include incisions to indicate mane and pelt or the way feathers lie along wings; to define facial features and (in one case only) a geometric design on the torso of an anthropomorphic figurine; and, with less certainty, as an indication of embroidered decoration around the hem of a garment (A5q95.1.3). When it is deep and single, an incision may separate the recessed buttocks of animal figurines.

Smoothing by hand and, less frequently, cloth also serves to define musculature. *Hachures* (short choppy lines laid down in a pattern and by lifting the tool from the surface of the fabric) and combing lines are used in at least one instance to define the mane of an equid (*Equus* 35); the technique is encountered as a linear decoration on modern-day pottery of the region. The head of *Aves* A1.321 is unique in manufacturing technique. As seen from underneath and inside the bowl, the bird head appears to have been formed by an added flap of clay, folded over and back on itself and then smoothed into the body of the bowl. Pinching of the medium by fingers is frequent, as when used to define an equid's mane (*Equus* 23).

### **Manufacture: Dots/Pointillés**

Rather than being an overall surface treatment, dots impressed into the clay surface while it is still wet indicate either parts of specific organs (pupils, nostrils) or decoration (harness, bridle).

Dots are impressed, for the most part, rather deeply into the clay. At least three types of instruments appear to have been used: (1) An instrument tapering to a rather wide but sharp point (the pelt of restored figurine *Ovis* 26 A5q135.1/A5.199); (2) A flat-ended round instrument (*Equus* 212 K3.16) — on occasion, it appears that the instrument has been pressed into the clay and then rotated around a central point so that the point of entry is larger than the innermost point of the impression (A1.478, a humanoid figurine); (3) Hollow reeds that leave a central piece of clay intact within an outer impressed ring (A5.134, the base of an anthropomorphic figurine and for the eyes of numerous animal figurines: *Equus* 36 A5q815.1, a domesticated equid, likely a horse; and possibly *Ovis* 33 A1.479, a ram's head, where the eyes and incisions for mouth and nostrils have all apparently been made by the same instrument; see cranial view, page 170).

Marilyn Kelly-Buccellati calls attention to a frequent treatment for the eye in seal impressions found on the middle third millennium floors at Urkesh. The dot, which serves as pupil, is bounded by a grooved circle making the outline of a large eye (Seal h4, Seal of Innin-Sadû; Buccellati and Kelly-Buccellati 1995/1996, 22, Fig 8). In this case, however, the impression is made with a drill, not a stick or rod, due no doubt to the scale of the work.

### **Manufacture: Scraping**

Scraping with a blade is frequently encountered on the torso of carnivores from the corpus, less frequently so amongst equids. Scraping with a flat blade or other instrument is a modeling technique over which the artisan can have great control, and it proves to be diagnostic for a range of figurines we have identified as carnivores. Given sufficient elaboration, many equid figurines also exhibit scraping on the torso.

A variation of the technique has long been in use. Schmandt-Besserat identifies a “groove” in a human figurine (the Venus of Sarab) that defines musculature, a “naturalistic” (the word is hers) detail in an otherwise geometrically rendered figure (Schmandt-Besserat 1974 winter, 16).

### **Manufacture: Smoothing**

The figurines at Mozan often have quite a smooth texture. A very fine clay may give this impression, with no further surface treatment; but more likely than not, the surface of the fabric has been smoothed in at least a second stage of manufacture. Warren MacKenzie, a celebrated American potter and teacher, tells how the surface is obtained by explaining that clay, at a microscopic level, is composed of many little plates. When mixed and formed into an object, these plates are every which way — “higgledy-piggledy.” Compression of the surface by using any hard, smooth object aligns the plates in something approaching the same direction and accounts for the appearance of smoothness.

The North American Indians used, for example, a stone to smooth their wares. Modern-day potters use a variety of smoothed “ribs” to treat the surface of their wares; many of these ribs are preformed, and potters treat them as special objects, any one of a variety of ribs being used for a specific purpose. Bones, too, might be used. The second stage of manufacture was accomplished when the object was in a “leather-hard” stage, not, as was my original impression, when the fabric was “wet.” This means that the figurines were kept around for a while before firing and not immediately put into the kiln.

In yet a third stage of manufacture, for cooking vessels, the Southwest American Indians would often slip their pots with a thinned wash of the same clay or another clay of contrasting color and then smooth that fabric. The original fabric of a pot used for cooking needed to withstand the shock of fire as well as to retain heat, and would have been rather coarse in composition. The pot might be dipped in a larger vessel containing the slip or wash, so that the entire surface of the vessel was covered with the slip and consequently smooth-appearing. Another way of applying the slip could be with a brush, if the clay were a fine fabric, with relatively little smoothing required (MacKenzie 1999).

It was only late in my work on the figurines of Mozan that I began to notice that many of the figurines were slipped; I could see the layer of clay wash that had been applied to the object in a second stage of manufacture. The equids were first to capture my attention in this respect and although I have not done a detailed analysis, my impression remains that an equid figurine is more likely to be slipped than the animal figurines of other genera. In some cases, this was a contrasting fabric; in the majority of cases, however, the wash appeared to be only a thinned-down version of the fabric of the object itself.

The surface of the figurines is obviously finished in a secondary stage of manufacture. Much of this work can be done with the fingers, but it might also be accomplished with a cloth dipped in a wet medium. What might be seen as “fabric impressions” have been left on the surface of the artifacts; this detail is frequently seen at the juncture of appendages and torso. If cloth were used, one conceivably would find these markings (in which it is difficult to discern the crosshatching), only at the point where the fingers of the artisan left the clay at the end of one stroke.

I remain convinced that the surface of the Urkesh figurines was smoothed in a number of ways, just as in the manufacture of modern pots. My “tool of choice” was a flat blade that shaved the surface in a series of similar passes, often remaining on the surface and contributing to the impression of defined musculature.

Julie Hruby, a specialist in dactylographic impressions, makes the following comment:

The difficulty is in deciding how something was finished when no impression is left or in cases where multiple finishing techniques are used. [It is, for example, often difficult to detect scraping] directly because after scraping, the potter wets his hand and runs it across the scraped part to hide the grooves. (Hruby 2001)

### New Approaches to Reading Figurines

Only now is there some sign of a new approach to the traditional manner of figurine analysis. It is founded on respect for the objects and characterized by careful attention to detail.

In the work of Denise Schmandt-Besserat, for example, I appreciate the perceptive analysis of animal representations from early sites. Of the hoard of *Bos* figurines found at 'Ain Ghazal, she says: "Virtually all . . . were made by someone who had a knack for pinching clay into well-formed figures" (Schmandt-Besserat 1997, Fig. 14 and page 52). It is worth noting that she stops short of saying that the craftspersons were "skilled" or "talented." She also distinguishes amongst objects that are well-formed and those that are awkwardly rendered, lending credibility to the analysis. She sees in one of twenty-four figurines the work of a "less experienced hand," suggesting that there was training or mentorship involved in the making of the small figures.

Dr. Schmandt-Besserat's work has for years stood alone in the literature; now she has been joined by David Wengrow. His thoughtful analysis of animal renderings on the occasion of the republication of Frankfort's *Art and Architecture of the Ancient Orient* is pitched just right (Wengrow 2003). He asks questions where reasoned analysis has simply never been brought to bear.

It is important to grasp Wengrow's central tenet, for it will surely lead to a more humane (!) understanding of figurative work. On page 153 of his brief essay, he cites Douglas Bailey (1996) to the effect that

the act of figuration is capable of generating symbolic equivalence between things which are in reality different: 'In making figurines, unequal things (people) are made equal and similar; they are placed together within a delimited, visible, understandable category.'  
(Wengrow 2003)

He goes on to say that "the process need not be restricted to relationships between people, and may also extend to the definition of relationships between humans, animals and other valued objects."<sup>7</sup>

It is just such a relationship that I maintain is documented in the figurines of ancient Urkesh.

### Perceptual Grouping

For several decades, researchers in computer vision have sought to create object-recognition algorithms that would enable computers consistently to recognize objects that present potentially infinitely variable composite regions for visual analysis. The effort may hold promise for the analysis of objects that upon cursory inspection present no distinguishable differences.

If there are constraints — [such as a given corpus of animal figurines from within a closed context] — on the geometric relations between parts . . . it is often easy to tell whether image regions that appear to correspond to two parts of an object could in fact do so. In short, each image region generates hypotheses about its identity; these hypotheses then suggest new grouping strategies to identify a larger and more distinctive group of image regions.  
(Forsyth, Malik, et al. 1997)

Progressive combination and recombination of attributes of figurines — call it "layering" — may lead to a deeper yet undiscovered understanding of their meaning within cultural contexts.

<sup>7</sup> As Wengrow notes (page 155), simply postulating this explains nothing; but it does give us a basis for critiquing work that would disregard the figurative value of diminutive terra-cotta representations, thus divorcing them from the mainstream of art and cultural history. The dimension of pure aesthetics raises other issues of valuation.

## Reading Figurines at Urkesh

Ces terres cuites de petites dimensions . . . constituent une documentation figurée précieuse dans une région où sont conservés assez peu de monuments plus grands, sculptures ou peintures. Elles peuvent donc être considérées, de même que les cylindres-sceaux, comme une des expressions les plus caractéristiques de la culture de la Mésopotamie antique. (Barrelet 1968, 1)

Only in relatively recent times have figurines been deemed worthy of study. If they were rarely mentioned or given prominence in site reports, this condition reflected the attitude of many excavators. More recently, I visited a site that might contribute, in my view, precious information about figurines from strata coeval with Tell Mozan. I was sent to a storage room and directed to a couple of boxes a few inches deep. There, tangled, jumbled together were the animal figurines I had hoped to find. No protective packing cushioned them. By all accounts, terra cottas of any stripe are fragile, but these clay creatures were not protected from breakage in any way. Clearly, the excavator did not consider figurines to be important. They were numerous. Common. Primitive in execution. Why else would they be subject to such neglect?

A few years' back, I visited a second millennium site and questioned a researcher about the figurines. This young woman was cleaning a carnivore torso. "This is a horse," she proclaimed. "We know that because we found it with horse heads." She paused. "We find them everywhere, at every level." Again a pause. "We throw them away."

The attitude is received wisdom, so the young researcher should not be blamed. She is after all only voicing a feeling that has become almost consecrated. This sentence introduces none other than the most widely quoted of all volumes on Mesopotamian figurines: "The terra-cotta figurines found in Mesopotamia do not, as a rule, reach a very high level of artistic merit" (van Buren 1930, xxxvii). Her thought is brought to unfortunate term, a couple of decades later, by Frankfort, who advises us to dispense with the study of figurines altogether, for they are not worth our attention (Frankfort 1970, originally published in 1954, 18).

A few commentators, nonetheless, call attention to standards of some sort to which artisans must have referred when working with animal imagery:

Despite a paucity of studies on animal imagery in the art of the ancient Near East, visible evidence for anatomical augmentation and the use of standardized proportions in depiction of lions in the glazed panels from Susa justify expectation of the observance of artistic standards for depiction of some, if not all, of the animals at various periods in the history of the art of the ancient Near East. (Azarpay 1995, 2518)

I need not make excessive claims about artistic excellence nor about the symbolic function of all figurines to say that many are worthy of attention, that more than a few from every age are of surpassing artistic merit and that each diminutive figure may carry, as Barrelet intimates, a cultural charge that asks to be studied in systematic fashion.

Sigrist alludes to this potential store of valuable knowledge in the very last phrase of his recent *Drehem*:

Pour reconstruire et retrouver une civilisation du passé aucune voie ne devrait être négligée, pas même celle des tablettes qui ne traitent que de moutons et de chèvres. (Sigrist 1992, 409)

It's a touching observation that I fully understand, having devoted so many years to the compilation of this volume. It speaks not so much of *neglect*, perhaps, but rather of *opportunity*. Taken together, the thousands upon thousands of tablets from Drehem constitute a precious archive. From the ensemble emerge congruent and persistent truths that not only can be applied to the animal processing center itself but also may have resonance and meaning far beyond the confines of the animal pens and clerical stands. A single tablet may not approach eloquence. It must be, in this case, the archive that we celebrate.

Yet it is in the classifying of artifacts — the *sort*, as it were — that meaning comes. As Claudia Wettstein and I spent more time with the figurines, differences became apparent. These points of distinction were far more than accidental. They became definitive. Certain differences were repeatedly found, and we devised categories that isolated and highlighted these differences.

As will become apparent in a number of cases, we were able to group the artifacts in a given category so as to show morphological change. This change marked a definitive encounter between humans and animals at the site, the continuing process of domestication. Not that change would be palpable from one generation to the next; but that wild animals of the same genus existed side by side with their domesticated relatives. Further, the effort of the humans to tame the wild creatures was sometimes attested to in the record.

None of this has really been remarked before, within a grid of systematized observation. That became the *raison d'être* of our typology.

### Refining the Typology

The point about all this, of course, is that objects are not what they may at first appear to be. How many “horses” have been found on excavation sites, for want of a clear typology that invites comparison and contrast with known models?

A typology is a working tool. It is *a standard against which objects may be measured*. When characteristics exhibited by a figurine do not identify the animal with certainty or when those of another genus entirely are noted, the researcher returned to the typology, logged the actual characteristics displayed, and then categorized the figurine in that genus with which most characteristics were shared.

This text is a first step, and its associated typology is an ordered collection of observations meant to guide other researchers as they work with the Mozan figurine corpus or with other collections. Presumably, the typology will be refined over time. It will never be more than a guide, because those who make the figurines stray from the “ideal form” of the genus. Yet still we admire the quality of the work produced, even though elsewhere in this text we refrain from praising the artisans.

As Gay Robins observes, speaking of the grid that guided stoneworkers in ancient Egypt:

The grid was not, then, a straitjacket that forced all figures to be identical. When a figure differs slightly from ideal proportions, it is not because it was produced by a bad draftsman but because there was room for some variation. (Robins 1994, 259)

Not such a far straying then, not so far so as to ignore the *mental template* — !

### Processing Sense Data

In a disarmingly straightforward essay, Naomi R. Miller discusses representations of plant life in the jewelry from the Royal Tombs at Ur. An assumption underlies her article, and it is made clear from the outset. “Plant classifications at the level of genus,” she says, “are frequently consistent cross-culturally, which suggests that the way humans process sense data from the natural world is similar, and that the features of plants salient for identification and classification have both a reality in nature and a reality in human perception.” Now, here’s the important part: “That is why we can even hope to recognize stylized and abstracted versions of plants and animals created by people of different times and places, such as those of ancient Sumer” (Miller 2000, 149). Later, she mentions that this is likely to be true in situations “[so] long as [artisans] are familiar with the organism being depicted” (154).

We embrace this argument and wish to invite readers to consider its relevancy to the present study.

### Realism

The animal figurines that have been recovered in our excavations are in very large part *identifiable*. If this is not so in the first instance, our working typology makes subsequent identification likely.

The figurines *accurately represent* animals familiar to the inhabitants of ancient Urkesh and recognizable by us today. The silhouette of an animal is characteristic, as are stance and attitude. There is *Equus* 5 A6.238, a donkey braying, head held high, thrust out from the neck. *Equus* 36 A5q815.1, a domesticated stallion, turns his head to the right, as if to catch something he missed; his mane is “blowing in the wind” (an observation by Sándor Bökönyi).

We signal, then, the *realism* of the figurines from ancient Urkesh. After all, representation was accurate enough to enable Sándor Bökönyi and me to discuss the genus of many of the figurine fragments from the corpus, even when the technique of the maker was not consummate, nor the observational powers acute. Indeed, identification by species is a hallmark of the typology as documented in the corpus CATALOGS.

In subsequent revisions of the typology, I shall try to systematize gestural reality to understand better how technique and representation filter and translate real life movement and pattern.

*Élan vs. détail* — a formulation I owe to Émanuelle Besson who spent a study season with us at Tell Mozan.



### Usage

Perhaps I should not find it odd that the very first question asked is always the same — *What were the figurines used for?* There is then usually a brief pause and my questioner follows with several plausible suggestions. Toys. Ritual objects. Domestic gods.

No one ever assumes, I note, that they were art objects — produced for the sheer pleasure of modeling or for mere looking.

Can this be the only interesting question about these fragmentary terra cottas?

I think not. But the question disturbs me enough to venture a preliminary response here. When complete stratigraphic analysis is available for findspots and for rooms and sectors of the Royal Buildings, I will have more — definitive, I hope — thoughts on the topic.

That I have proposed a typology for these diminutive objects already says one thing. I believe that the makers — the artisans responsible for the manufacture of the figurines at Urkesh, be they male or female — held firmly in mind a *mental template* that gave form even over time to the piece they were making.

Artisans. Craftspeople, if you will.

I do not believe, that is, that the objects were fashioned by amateurs. It took skill to make them. I would not be surprised to find — as we venture further into the royal residence, its courtyards and adjacent rooms — the leavings of a workshop, an *atelier*, a common room where workers gathered to make the figurines.

If I do not take into account the sheer volume, the skill required to make them, and the utter consistency of manufacture over the long haul of the Urkesh figurine corpus, the idea of an *atelier* is conjecture, unadorned speculation.

I reject categorically the idea that these figurines were toys used by children. The queen of Urkesh had, it is true, her dynastic program. And she had children. But I consider it unlikely that they ventured into Storeroom AK and played there with toys over a period of years, leaving the place strewn with their playthings.

It must be said that wheeled vehicles are frequently thought to be the province of children. From the first floors of the Royal Building, we have recovered some two dozen such vehicles. They will be examined in another volume.

Neither altars nor religious paraphernalia have been recovered at Urkesh in the Royal Building. In the absence of texts or evidence indicating such usage — the dogs buried under the floor of Nebuchadnezzar's library come to mind — we cannot posit such usage.

A flood of figurines was recovered in deposits on the first floors of what we took to be a storeroom, an area immediately adjacent to vaults (excavation units A1 and A5). Figurine finds continued unabated, consistently distributed through three superposed layers, indicating occupation and usage over some years. A dump would not exhibit these characteristics.

Let us assume, then, that the figurines had something to do with the function of the room in which they were found. How would they have facilitated storage, the keeping or materials over time and the eventual return or redistribution of the proprietary goods?

It would not be unusual for this function to be assigned to a least one area of the Royal Palace, an administrative complex in itself. It is the matter of scale and the variety of processes undertaken that are interesting. I am thinking of Drehem, ancient Puzrich-Dagan, founded by King Shulgi in the middle of the twenty-first century B. C. as a center for the collection and distribution of domestic and wild animals delivered to the state as tax revenues or obtained as booty during the course of military campaigns (Steinkeller 1995, 49).

Now, it seems that the figurines of Urkesh demonstrate an interest in the taming and domestication of animals, presumably in the further interest of expanding herds and thereby revenues. This contrasts with what Steinkeller says about Drehem — “its sole purpose having been the collection and distribution or allocation of animals” (49) — but we have enough evidence from the corpus, I think, to argue for *control of an animal population*.

I propose that the figurines from the storerooms at Urkesh were a means of record-keeping, control of stock, both in numbers and kind. Giorgio Buccellati has suggested that their importance would be all the greater for workers who did not have scribal skills and who were illiterate. Expanding on this, I would suggest that a sheep figurine would represent so many head of sheep, a bull so many head of cattle. While the stock were being sheared or harvested or otherwise processed, the figurines “held their place,” stood in for the real livestock or animals in the course of domestication.

Such usage would offer a possible explanation of the universal breakage — all or most appendages missing. Say that as part of the flock was returned, claimed by its owner, an appendage of the figurine was broken off. This would serve as visible reminder that the owner had claimed part of his stock. Once the transaction was terminated, the head was broken off — crushed or powdered — and the torso was discarded on the storeroom floor, as were the sealings that secured containers.

I am uncertain how the individual figurines might be assigned to the individual owner, unless they themselves were sealed, not in the fabric, but perhaps strung and sealed with an owner’s seal.

This is plausible. May texts be found that document the practice!

### **Counting the Finds**

Perhaps most intriguing of all is the number of animal figurines found in these rooms — the queen’s storehouse, not a domestic location.

*Aves* — birds taken as a class — will be the subject of a forthcoming article and are not included here. Related stratified comparative finds are counted, as are related comparative unstratified finds. Numerous figurines have been recovered since this catalog was completed.

Tabulation follows (**TABLES 2A & 2B**).

**TABLE 2A**  
**ANIMAL FIGURINES RECOVERED**  
**IN ROYAL BUILDING AK**

***Bos***

THE CORPUS	13	
TENTATIVE		4
RELATED STRATIFIED FINDS	7	
RELATED UNSTRATIFIED FINDS	1	
HORNS	6	
TENTATIVE		7
<b>TOTAL Bos</b>	<b>27</b>	<b>11</b>

***Ovis***

THE CORPUS TYPE I	21	
TENTATIVE		1
RELATED STRATIFIED FINDS	3	
RELATED UNSTRATIFIED FINDS	1	
THE CORPUS TYPE II	9	
TENTATIVE		1
RELATED STRATIFIED FINDS	2	
RELATED UNSTRATIFIED FINDS	2	
THE CORPUS NOT IDENTIFIED BY TYPE		
FRAGMENTS & RELATED OBJECTS	27	
TENTATIVE		5
RELATED STRATIFIED FINDS	6	
RELATED UNSTRATIFIED FINDS	2	
<b>TOTAL Ovis</b>	<b>103</b>	<b>7</b>

***Canis***

THE CORPUS	18	
TENTATIVE		8
RELATED STRATIFIED FINDS	8	
RELATED UNSTRATIFIED FINDS	1	
<b>TOTAL Canis</b>	<b>27</b>	<b>8</b>

***Felis***

THE CORPUS TYPE I	32	
TENTATIVE		15
RELATED STRATIFIED FINDS	9	

**TABLE 2A**  
**ANIMAL FIGURINES RECOVERED**  
**IN ROYAL BUILDING AK**

*Felis* (con't)

THE CORPUS TYPE II	7	
TENTATIVE		2
RELATED STRATIFIED FINDS	4	
UNSTRATIFIED FINDS	3	
THE CORPUS		
<i>Fera</i> (OTHER NONDOMESTICATED ANIMALS)	3	
<i>Ursus</i>	5	
TENTATIVE <i>Ursus</i>		2
<b>TOTAL <i>Felis</i>, <i>Ursus</i>, <i>Fera</i></b>	<b>63</b>	<b>19</b>

*Capra*

THE CORPUS	18	
TENTATIVE		4
RELATED STRATIFIED FINDS	8	
APPENDAGES	17	
TENTATIVE		4
RELATED STRATIFIED FINDS	8	
RELATED UNSTRATIFIED FINDS	1	
<b>TOTAL <i>Capra</i></b>	<b>52</b>	<b>8</b>

*Equus*

THE CORPUS TYPE I	7	
TENTATIVE		7
THE CORPUS TYPE I – II	6	
THE CORPUS TYPE II	17	
TENTATIVE		8
THE CORPUS TYPE III	4	
TENTATIVE		2
<i>Equus</i>		
TYPES I-III RELATED STRATIFIED FINDS	17	
<i>Equus</i>		
TYPES I-III RELATED UNSTRATIFIED FINDS	4	
<b>TOTAL <i>Equus</i></b>	<b>55</b>	<b>17</b>

**TOTAL Animal Figurines Identified by Genus 327**

**TOTAL Animal Figurines TENTATIVE 70**

**A Rendering Legend**










Claudia Wettstein, the graphic artist who is responsible for the vast majority of line drawings in this book, has worked over many seasons to refine a style that is at once clean and instructive. The corpus was large. In addition to different styles of manufacture, some of it quite subtle, layered and complex, artifacts undergo significant changes in the soil. Often, there is considerable depositional damage. Characteristic detail can be abraded away.

We have sought to render these details in drawings that are an integral part of diagnostic work we have undertaken. These renderings are tools. Time and again, it is necessary to return to an artistic representation scientifically rendered to verify a given observation. As discussed, the artifacts are drawn from multiple angles when such views would be diagnostically useful.

Beyond the exhaustive documentation of various views, however, a line drawing often can convey the essence of an object more effectively than a photograph. There is, as it were, an omnidirectional light that does not flatten but rather heightens surface detail and modeling. Or it can be so, in the hands of a skillful artist. Both Ms. Wettstein and her collaborator, Pietro Pozzi, brought meticulous passion to their work. The work of Émanuelle Besson is also found here; her work is not as detailed, but the rendering is sure.

The advent of digital photography promises to bring a new level of recording to documentary work. It will not, however, reproduce the line drawing so very useful diagnostically, the work of a human hand.

Below, a legend of design conventions that Ms. Wettstein has come to use to draw the figurines from ancient Urkesh.

	original modeling
	visible trace of missing detail (negative)
	(thick line) applied detail (evident)
	(thin line) applied detail (trace)
	abraded
	broken
	adhesions
	bitumen repair
	tail hole

**Table 3**  
**LEGEND**  
**Design Conventions**

### **Domestication and Taming**

I take as a working definition of domestication that given by Sándor Bökönyi:

The essence of domestication is the capture and taming by man of animals of a species with particular behavioural characteristics, their removal from their natural living area and breeding community, and their maintenance under controlled breeding conditions for mutual benefits. (1989, 22)

Juliet Clutton-Brock questions the “benefit” to be derived from domestication by animals and offers that it is only humans who profit from the bargain (Clutton-Brock 1994, 27). This seems to be a reasonable emendation, appropriate for these enlightened times.

Upon occasion, animals will be tethered or show other signs of some type of restraint. We remark there and reiterate here that this may not necessarily mean the animal was domesticated. It may be led about on tether or simply restrained. Taming, however, is one step on the path to domestication and alteration of the animal. In some cases, this alteration, controlled by humans, leads to the development of a different breed of animal.

As I claim morphological change can be traced, it is important to say in this preamble that animals in the same genus that we have distinguished one from another exist side by side, and do not descend successively one from the other in a short matter of time. While a generation is two to three years in small species (dog, sheep, goat) and five to six years in large species (cattle and horse) (Bökönyi 1976, 21), Bökönyi says that it takes as many as thirty generations for morphological change to be palpable and that “domestication time” (our locution) is measured more aptly in centuries than in decades.

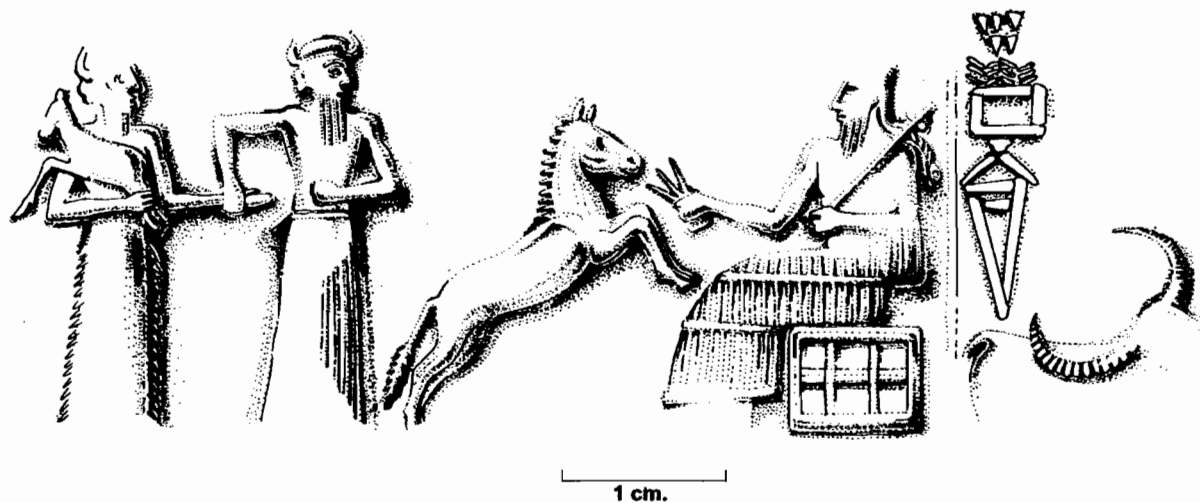
I also have occasion to refer to “animal husbandry,” which is different from domestication. Bökönyi considers it a “developed category which follows domestication” (1989, 26). In the way I refer to it, animal husbandry has rather to do with behavioral aspects of the animal-human relationship. While I hardly dwell on the subject, the care lavished on the animal figurines has much to say about this relationship.

Taken collectively, the animal figurines from Urkesh are a precious resource encompassing more than a single chapter and recounting rather a story about the intertwined lives of humans and animals at the end of the third millennium before the present era.

### **Other Disciplines**

I have made so very much of domestication and taming in this introduction that one might think that they are the subjects of the book. They are not. Throughout this study, I have had to call on paleontologists, veterinarians, archæozöologists, ceramicists, and most recently, specialists in dactylography. I am specialist in none of these disciplines, so it is with gratitude that I acknowledge the help I have received. The uses to which I put this knowledge is, I hope, novel and on occasion idiosyncratic. The responsibility is mine and not that of my advisers.

I hope that the documentation of the figurine corpus from Urkesh will provide raw materials for further study by these very specialists and that this work will open a window on the lifeways of past times.



**Figure 11**  
**Ishar-Beli sealing reconstruction**

The story the animal figurines of Urkesh have to tell is a story of domestication and of wild beasts, tamed.

### **The Impossible Bargain of the Ishar-Beli Sealing**

In this eloquent and complex presentation scene from a sealing found at Tell Mozan, an equid paws the air before a deity, rearing on hind legs. The mane is erect, or perhaps it is dressed — teased and twisted, as for a ceremonial occasion — it does not come up onto the crown between the ears. The snout is blunt. The tail is narrow at the base and it is tufted. Perhaps the tail hairs have been prepared as has the mane, for they, too, appear teased into striations, not loose and unrestrained. Surely, this is a special animal.

The equid, centrally located and occupying a space unto itself, is the key figure in some drama whose meaning unfolds as we study the sealing. An attendant holds a miniature representation of the equid. It has the same dressed mane. The attitude of the smaller animal echoes that of the larger, in spite of the fact that it is pinioned by the legs. Is this a foal? Or rather, might it be a figure crafted in the image of the actual animal? A statuette?

What is the horned attendant behind the equid about to do? Is he reaching for a knife? What might he do with it — strike the animal? Or cut the animal in some way, so as to render it more docile? Is the god proffering a crown or a comb?

This equid is not a horse, in spite of the short, pert ears and a lean torso, but rather an onager, the “donkey of the steppe.” Strong and wily, untamable by all accounts. This attitude of spirited obeisance before a god’s throne is remarkable, then, as if the animal were offering itself in an impossible bargain of domestic servitude.

Such things can happen in heaven, of course, where the gods live.

To the south, both much earlier and later, there are examples of animals — usually goats or sheep — that rise up on hind legs to nibble at flowering branches (Collon 1987, 12–13, 15/seal impression 6, from the fourth millennium; also Collon 1990, 13/seal impression 3, from the mid-second millennium) and, closer to our time, the famous “ram caught in a thicket” from the Royal Cemetery at Ur (Woolley 1934, U 12357 A., Plate 87 and 121, 264). Rampant animals are common in combat scenes in Akkadian times (Teissier 1984, 14, seals 66–79), and often they fight men in contest scenes, as in the “crown prince’s seal” (A7q853.2) from Tell Mozan (Buccellati and Kelly-Buccellati 1997, Fig. 15).

It is rare to encounter an animal that presents itself to a god. A contemporaneous example from southern Iraq is striking (Collon 1990, 44–45/seal impression 30). The divinity is adorned with a horned headpiece; before him is what is called “a bull-shaped stand.” “His identity is not known,” Collon tells us, “but he was probably a god of fertility or animal husbandry.” While the species of the rearing animal is debatable and while it is unlikely, I think, that the animal is but a fixture of a “stand,” the observation of the scene taken as a whole is apt. The choreography is identical to the Ishar-Beli sealing.

For all the ambiguities in the Ishar-beli scene, even for its uncertainties, I have chosen to place it as an *en-tête* to the catalog and discussion following in this volume.<sup>8</sup> The figurines from ancient Urkesh recovered at Tell Mozan are part of the same story as the Ishar-beli equid. They are caught up in the sweeping story of animal domestication and human domination of animal stock over 4,000 years ago in Northern Syria.

<sup>8</sup> Permission to do so was graciously granted by Dr. Giorgio Buccellati and by Dr. Marilyn Kelly-Buccellati.



# READING FIGURINES

ANIMAL REPRESENTATIONS  
IN TERRA COTTA  
FROM ROYAL BUILDING AK  
AT URKESH (TELL MOZAN)

COMPARANDA  
REPRESENTATIVE SITES

### Comparative Material

A measure of caution is necessary when generalizing from one geography to another, the more so when one reads similarities in artifacts from one culture to another, from one time to another, millennia later. I am mindful of the fact that I have rejected arguments regarding function of the Urkesh figurines when a pattern of usage based on Guatemalan village life was proposed. My rejection was almost out of hand, as those figurines were recovered from a domestic context and were thought to be children's playthings.

In the case of MacKenzie's observations as regards the surface finish of figurines at Urkesh, I feel confident that they do in fact apply and may within generous perceptual limits be taken as a guide. Ceramic theorist Phillip Rawson reminds us that "potters the world over have varied their techniques only slowly" and that within the poles set by mushed-around mud and transcendent formal ceramic statement, "the potter is likely . . . to stick to materials he has learned how to handle and that he can rely on" (Rawson 1984, 12).

When examples from coeval strata at other sites seemed pertinent or illuminating, I did include them in the catalog discussion of individual figurines. Stratified comparative material from Urkesh itself — from other sectors of the Royal Palace, and sometimes from strata that predate or follow the establishment of Service Sector AK — is also occasionally included in the CATALOGS.

Comparative material from other sites and from strata that are contemporaneous with third millennium layers at Urkesh can be identified. It is nonetheless a perilous exercise to try and establish a common impulse or function in these cases, and I have not attempted to do so. Context must be taken into account in each and every case.

In this commentary on exemplary third millennium sites that accompanies the introduction to "reading figurines," I have in some instances tried to establish ratios and proportions of body parts of figurines, using the same techniques of measurement that Claudia Wettstein and I have applied at Tell Mozan for the figurines of ancient Urkesh. At its most productive, this effort could provide a basis for a coherent and consistent typology of artifacts at the other site, whether or not the manner of representing genera proved similar.

My canvassing of contemporaneous sites is neither exhaustive nor comprehensive. I have attempted rather to point the way for further research and to keep my attention on the matter at hand, namely, the elaboration and deeper understanding of the typology of the Urkesh figurine corpus. Because of this focus, I have found it instructive to treat the *corpora* of representative sites *as a unity*, in much the same manner that I studied the figurines at Urkesh.

As will be seen, I invariably find the manner of measurement wanting. As must by now be abundantly clear, I am critical of the way figurines have been recorded to this point in time. This is not to disparage the good work of colleagues, but rather to celebrate the fact that a *corpus* of figurines has in fact been identified and made available to the field for study. I am thus able to build on the research efforts of excavators who have been respectful of the cultural charge that may be contained within small terra-cotta representations. In turn, I offer my comments with utmost respect.

Here follow some representative sites, notable for the careful manner in which figurines have been documented.

### **Tell Al'Abd Zrejehey**

In this compact and useful compendium, the author catalogs 150 animal figurines, over half of which are surface finds and therefore, I would ordinarily think, of uncertain provenance. However, the author says that *all* the figurines are found “on the surface of the tell, in the first, second and third levels of areas in which excavation continues and in the deep sounding in area K8” (Toueir 1978, 3). I take this to be a gloss, which occurred in translation from the Arabic. Surely the remainder of the figurines must have been recovered *in* the second and third levels and from *within* the deep sounding. The latter represent some twelve percent of the figurines and are dated to pre-Sargonic times. The author surmises that they are fewer in number since a limited number of squares were opened in the deep sounding, as opposed to other levels in the excavations.

The author ascribes the remaining figurines treated in this study to the Middle Bronze by association with securely dated pottery samples as well as “various bronze tools of known types” (Toueir 1978, 5). Knowing this, the author goes on to say that the figurines recovered from the surface can also with “no doubt” be attributed to the earlier levels. The presence of third millennium figurines amongst Roman, Hellenistic and Achaemenid artifacts is attributed to the disturbance of the first level “as the result of agricultural activities, forces of weather, and various diggings.”

The investigators attempt to group the figurine corpus according to distinctive characteristics by level with the aim of tracing development of techniques of manufacture and styles. This effort proves unsuccessful; the examination reveals “only common properties.” All of the figurines are handmade; few are smooth-surfaced. Two principal types of clay are identified, resembling the fabric of the pottery recovered. This fact, along with the presence of a kiln in the second level, argues for local manufacture.

The author approaches the figurine corpus therefore as “a nearly homogeneous subject,” disregarding the level from which the artifact originates. The animal figurines are “in an imperfect or mutilated state” (Toueir 1978, 11). The extent of the damage is extensive, and the author does not feel secure in describing the animal groups “in a conclusive way.” He does nonetheless make several canny observations. For example, he contrasts the hindquarters of the bull and the sheep, noting that *Ovis* has a “short fat tail and fat back haunches.” He observes the disposition of the horns and uses this characteristic to distinguish between sheep and goats. He also notes that *Canis* and *Capra* may be difficult to distinguish, the one from the other, because both have upturned tails (this is exactly the situation at Tell Horvat Qitmit).

Beyond these observations, Toueir does not distinguish amongst the genera, except to note that the great majority are bulls and sheep. Animal heads, which might be expected to carry identifying characteristics, “remain anonymous because of the craftsman’s failure to indicate the details of the nose and mouth in all but a few exceptions,” where the eyes are indicated by two holes or two attached disks.

Certain secondary characteristics are enumerated in a table (11–12). These characteristics are: eyes indicated by hole or attached disk; ears and mouth indicated; cone-shaped face vs. elongated

face; long vs. short horns; long legs; long neck; relatively long vs. short, condensed torso; and tail (displayed by all animal figurines with the exception of two). This is a useful tabulation and will surely provide a basis for further analysis of the corpus.

No measurements have been taken. I assume the figurines, sixty-one of which are documented in photographs, are reproduced 1 : 1, although no artifact is reproduced in more than one plane. In some instances, I believe the animal representation is canted, in order to give two views (as an example, ventral and left median planes) at one and the same time (catalog numbers 3, 4, 9, 15, 25, 29 (?), 149, 221 248; each a slightly different variant of this positioning). Animal heads are reproduced in either cranial or median plane, but it is not clear that this is the most useful diagnostic view.

As regards the function of the figurines, Toueir repeats an error made by Barrelet, saying that equids are never found in contexts where mystical qualities might be ascribed to them. See the INTRODUCTION to *Equus* in this study for references.

A good many of the Tell Abd' figurines may bear some resemblance to the Urkesh corpus. I have cited them where I thought comparison might prove instructive. In the main, however, I must refer the reader to the Tell Abd' study itself, for it has its own internal coherence. I cannot bring my method of analysis to bear on each and every example; that would be both disrespectful and inappropriate within the confines of this study.

I consider the study of the Tell Abd' figurines as a credible first step in analysis of the corpus. Precise measurement must be applied as a diagnostic tool before the import of the Tell Abd' corpus can be fully appreciated.

### Assur (Qal'at Scherqat)

In Evelyn Klengel-Brandt's beautifully organized study of the Assur figurines from the excavations of the ancient city at present day Qal'at Sherqat in the Vorderasiatischen Museum Berlin, there are more than twice as many anthropomorphic figurines as there are animal figurines. Representations with human characteristics are grouped by type, largely based on attitude — whether they are standing or seated, arms crossed and holding the breast or not. Whether they are handmade or molded and formal characteristics such as the shape of the base are also catalogued. These human-like representations are presented in chronological sequence.

Yet the animal figurines from Assur in the Vorderasiatischen Museum Berlin are taken together as something of an unmanageable class of object (*häufig schwerfällt*) (Klengel-Brandt 1978). True, we are given some chronological clues, as the animal representations come from the same strata or "areas" as the human representations and were retrieved in the same (early, for the most part) excavation seasons; those that are assignable to dated strata are identified in introductory subchapters on individual species.<sup>9</sup>

The author seems uneasy when it comes to identifying the animal representations that are in her charge. They cannot be identified with anything approaching certainty. That this should be the

<sup>9</sup> In an article accompanying an exhibition at the Metropolitan Museum of Art, Evelyn Klengel-Brandt comments, "Unfortunately, notes and observations regarding [the] findspots [of the Ashur terra cottas] provide few hints about their age, so it is necessary to rely on iconographic and stylistic considerations and comparisons with similar figures from other sites" (Klengel-Brandt 1995).

case is significant. It does not seem to be a result of the poor state of preservation of the figurines that is mentioned in the introduction (Klengel-Brandt 1978), for there are identifiable characteristics that permit at least a provisional grouping by *species*.

Now, when we look at a human form, we recognize certain features immediately, almost as a reflex reaction. We are able to break the figure down into component parts, because we identify significant features that we recognize in ourselves — eyes, ears, arms and their attitude, a telling posture, type of clothing or jewelry and so on.

Yet I would not rush to assume that attitude and accoutrements and body decoration provide diagnostic measures in human figurines. I don't mean to say that some of these details may not be time-specific or found within a closed context and therefore diagnostic. They remain, however, *secondary* characteristics, and I am not sure they should be taken as the basis of an entire system of typological classification. Perhaps there is *some measurement not taken* that would tell us more explicitly what workshop, what era, the figures belonged to. Significant diagnostic information may not have been extracted from our observations of these diminutive terra cottas.

The subject of this commentary, of course, is not the humanoid forms. I would apply these same remarks to the humanoid figurines at any site, not just those that are otherwise so admirably presented as those in the Klengel-Brandt volume from the Vorderasiatischen Museum Berlin. It is striking, nonetheless, that detailed observation of the humanoid figurines led to a typology and organization in chronological sequence based as much on typological considerations as on findspot. By contrast, the animal representations are organized by what they “look like”; further classification was not attempted. Perhaps this is due to some residual feeling that the terra cottas were of relatively simple manufacture and of “modest” artistic interest (Klengel-Brandt 1995).

We do know that, as a general rule, figurines are not measured as precisely as we measure *pots*! If we continue to measure as we have always measured — height, width, length — little wonder we overlook indicators that might point to the very aspects that bind dissimilar figures together in a same type, those perhaps telling proportions that would provide the basis of a *defining* typology.

With animals, we are unused to analyzing the figures in minute detail. Interestingly, *we take them as exemplars* and that keeps us from closer analysis. It is the case that when we rely on secondary characteristics, we will invariably group artifacts as to “what they look like” — these are dogs, these, cattle, these, goats, and these, sheep. And if we cannot identify the *species* straightaway, we do not attempt to classify them at all.<sup>10</sup>

In the case of the “animals, carts, furniture models”, plaques and various implements, Klengel-Brandt says that the representations can truly be called “rudimentary” (Klengel-Brandt

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<sup>10</sup> As an example: “Eine detaillierte Einteilung innerhalb der Gruppen war nicht möglich, da zahlreiche Terrakotten zeitlich nicht eindeutig zu bestimmen sind” (Klengel-Brandt 1978). See also the provisional grouping of Nr. 568 and Nr. 579 with “horses” (89).

1978); as this is the case, precise identification is difficult and assignment to categories is, as I take it, provisional (she uses the word *versuchweise*). Without prolonged or detailed exposure to the humanoid representations from Assur, I should say that they appear no more nor less *primitif* than the animal representations.

Photographic documentation, while graphically well-designed, is confined to one view only, usually the right or left median plane. A dorsal view is not given. Thus, diagnostic measurement is not possible.

Also, I am unable to reproduce the measurements given for a number of objects. Take as an example an important *equid*, Nr. 579 (see catalog, comparative material for *Equus* 11 A7.510 for a discussion of this object). At fullest extension in height and length, as I believe the object was measured, I can only measure 3.8 x 5.3 cm; therefore, the object is reproduced at approximately 3 : 4. However, another representation, *Ovis* torso Nr. 605, is reproduced at 2 : 3. Yet another, *Ovis* Nr. 644, a head and neck serving as a vessel, is reproduced in the cranial plane at almost exactly 1 : 1, but in the left median plane, the scale is slightly less than 1 : 1. It is therefore necessary to proceed on a case-by-case basis, taking measurements as they are observable in the median plane given.

In spite of these concerns, there are some significant parallels between the Assur and the Urkesh *corpora*. They are cited with the appropriate figurines in the catalog.

### **Ebla (Tell Mardikh)**

The long-awaited volume cataloguing the third millennium figurines from Tell Mardikh is here (Marchetti 2001). I will confine myself to a few specific remarks only, as I have not been able to study the work in close detail. I have included comparanda that represent reasonable or provocative parallels with the Urkesh corpus in the catalogue.

The great contribution of Marchetti's work is careful attention to stratification of the various finds. He thus has provided a solid basis for discussion of the stylistic development of the artifacts.

A good many of the figurines are both photographed and rendered in exemplary fashion. The photography, however, is of variable quality, and only some of the images permit an appreciation of surface quality and three-dimensional modeling (TM.72.N.148/Plate CLXVII, taken to be the horns of a bovid, is, by contrast, a fine image that shows both modeling and manufacture).

I understand, I think, why the photographer chose to orient the figurines at different angles to the camera — so as to show specific characteristics that distinguish the individual exemplars. This approach does not permit diagnostic measurement. Since there is no central axis, it is difficult to determine if the figurines are photographed at 1 : 1 scale.

I have tried to get a handle on how, exactly, the various figurine fragments were measured. I have been unable to do so. The author says

Le misure in centimetri delle figurine riportate nel catalogo sono quelle desunte dai registri; l'ordine delle variabili (altezza, larghezza o diametro, spessore) non ha un riferimento regolare e costante rispetto ai singoli pezzi, potendo infatti essere talora scambiate le varier misure. (335)

And in fact measurement of height, “diameter” and “thickness” (which sometimes, I note, is taken to mean “length”) does seem to have been taken in different planes with no consistent orientation of the object, so that one might judge from what angle the piece is being seen.

As an example, a representation that I would provisionally take to be an equid (TM.75.G.430/PLATE CLXX) — judging from appearance! — is defined by its “height,” in this case taken at the forequarters; but the measurement seems to have been taken from the very tip of the extended snout to the upper portion of the break in the right foreleg. As an outside observer, I am reduced to guessing at what point, exactly, the measurement *was* taken; this is a poor substitute for diagnostic measurement that can be applied to all figurines in the corpus. The measurement for “width” can be reproduced, provided one assumes the torso taken in vertical section at the midpoint (?) can be generated in three dimensions as a perfect cylinder.

I was at first heartened to find that the “length” of the figurine was measured as are Urkesh animal representations; that is, not in full extension as the object would be rendered, but from midpoint of the forequarters to midpoint of the hindquarters of the torso exclusive of the tail and muzzle. Unfortunately (to my mind), the technique cannot be applied to another figurine I chose at random (TM.79.G.226) from the same table (CLXX). In this case, “width” seems to be taken as I would take the height at the hindquarters. The “height” seems to be taken not in full extension, as would the rendering artist, but from neck break to tail; “thickness” may correspond to the full extension of the object at the hindquarters (hindleg break to hindleg break, as seen in a dorsal view, thankfully included).

It will be important to study the figurine corpus from Tell Mardikh, so admirably documented, at length, for there are techniques of manufacture — such as coils of medium wound about the body of the animal representation — that are rarely found at Urkesh. Also, the attitude and conformation of some of the figurines is distinctly dissimilar from that of the Urkesh corpus, and truly gives pause — as an example, see TM.79.G.349, catalog number 1116/Tav. LVI, and compare it with the attitude and stance of asinid equids at Urkesh.

### **Ekalte (Tall Munbaqa)**

*Tall Munbaqa — Ekalte — I Die Bronzezeitlichen Kleinfunde* (Czichon, Werner, et al. 1998) is an exemplary document and can only be described as a classic in the genre of artifactual reporting, almost 4,500 objects documented in no less than 234 tables and plates, 181 of which are line drawings and halftone renderings, 53 of which are photographs. The book’s scope, as might logically be inferred from the title, covers everything from spindle whorls to sickles and daggers, not to forget architectural models and jewelry.

It is within this vast landscape that Czichon and Werner situate the terra-cotta figurines, humanoid and animal. There is an argument to be made, I think, for the presence of a workshop at Munbaqa, for modeling and detailing techniques are similar across species, whether humanoid or animal. A related section of this study deals with applied figures and encompasses a range of lively animals. It is in the applied work — vessels, models, plaques — that the artisans distinguish themselves; one may begin to speak of a consistent, distinctive style that surpasses realism.

None of the objects from the Early Bronze Age at Munbaqa are intact, as I gather; indeed, only seven damaged torsos can be counted amongst a collection that includes twelve fragmentary forequarters, eighteen hindquarters and eight heads. None of the torsos are rendered. Additionally, there are two birds, eight legs and one horn retrieved from layers of the *Frühe Bronzezeit*. The fact that the corpus from the early levels is fragmentary means that the investigators will more often than not be obliged to rely on secondary characteristics for species identification; only a system of consistently applied measurements linked to species could lead to a finer analysis.

Nonetheless, the degree of attention given the fragmentary artifacts is exemplary; Abb. 699, for instance, is identified as *Rechtes Vorderbein*. Granted this object from a later stratum, while not rendered here, is rather large (L: 6,2 cm, H: 10,2 cm, B: 3 cm); at least two contemporaneous objects (Abb. 443, Abb. 449) are at a scale to accommodate such an appendage and the legs are similarly modeled.

It is remarkable that appendages such as legs and horns are documented in the catalog at all. In less respectful circumstances, I fear that these humble fragments are most often relegated to a jumbled collection in a storage box somewhere, the diagnostic information they might impart well-nigh irretrievable. Only one animal appendage is reproduced photographically, *Fuß eines Rindes* Abb. 820 Mbq 12/14-1 (Tafel 201). I do regret that the excavators did not document more of the appendages by line drawings or photographs.

Of 444 figurines and fragmentary appendages, fully one-fifth of the corpus is represented by line drawings. Of the objects that are rendered, most are realized in two views, usually either the cranial or caudal plane and, if the torso is intact, one median plane. If a third view is provided, it is usually taken in the dorsal plane (e.g., Tafel 87, Abbs. 588 and 598). As we at Tell Mozan depend upon measurements  $w1 : w2 : w3$  in order to determine proportions that are diagnostic of the species, the dorsal view is a welcome addition, for it is impossible to determine proper ratios if the median plane and only one or the other of the cranial or caudal views is given.

Occasionally, where the intent is to document detail, as with a bridled equid head, the object is represented by as many as five views (Tafel 88/Abb.731); in this example, I gather the ventral view did not provide diagnostic detail. See also Tafel 201 for photographic documentation of this object in the cranial and left median planes; also see Werner, Busch, et al. 1998. The authors speculate that this object might represent an ass or donkey, but this speculation is based on the manifest appearance of the animal and although secondary characteristics are noted, none are taken as indicative of the species. For instance, in addition to noting the trappings, it might have been remarked that the mane is erect, the muzzle relatively short and blunt — indicators that point to an equid in process of domestication.



One artifact (Tafel 81/Abb. 446) has been rendered in dorsal and ventral views, extremely useful for diagnostic proportions. Although the figurine is also represented in vertical cranial plane and in the left median plane (the only view in which it appears the figurine is one example of a good many *buckelrind*), no caudal view is given. Instead a cross-section taken at mid-torso is provided. Since this is the case, only the forequarters and torso measurements are certain; the hind-quarters cannot be determined, for it is necessary to take this measurement at the midpoint and that cannot be ascertained, even with this degree of documentation. I imagine that the authors were brought to this manner of rendering because of the *Blesse* (?) on the forepart of the crown (a scratch that may be a pelt detail, visible only in cranial section) and the two “channels” that extend the length of the belly (visible only in ventral plane).

Artifacts are rendered with care and attention to verisimilitude. There are a very few line drawings; most artifacts are rendered with the stipple technique — fine dots applied more or less heavily at some points over the surface of the object to indicate modeling.

I am undecided whether the stipple effect obscures or reveals detail. What are we to make, for example, of Tafel 79/Abb. 401, which the authors take to be a “bird (?),” and which I might more easily take for an example of a humanoid figurine with vestigial tapering arms — *aileron*s as I have dubbed them elsewhere? Compared with companion renderings on the same table, this figure is covered with heavy stippling over the entire surface; modeling is rendered with even heavier application of the tiny dots. Is the surface uniformly abraded? Or is this rendering no different from the others, but in a different “register” of shading? Is the fabric darker?

The effect is rather more representational when applied to the three-legged bowls, chipped and abraded (I take it) from blocks of stone (Tafellen 140–148). Some of the humanoid and fantastic animal plaques lend themselves nicely to modeling through the stipple technique (Tafellen 155–167). Also note the applied lion head (Tafel 72/Abb. 335) and the remarkable humanoid and ram on the rim of a receptacle (Tafel 74/Abb. 348) where the manner of execution is well served by the soft stippling. Examples abound — as with another lion’s (?) head (Tafel 77/Abb. 372).

I have paused to remark on the manner of rendering of certain of the line drawings because it is a distinctive feature of the documentation of the Munbaqa corpus, and because at Mozan we came to the technique rather late. Pietro Pozzi, a superb artist who drew a handful of the objects from Urkesh in an early season, did use stippling to great effect (*Equus* 36, A5q63.1, as an example). There, the technique was invited by the complexity of the manner in which the mane was laid down — no less than three stages of manufacture, as I read the figurine. Stippling helped to define these stages. Also see the voluptuous *Ovis* 7, A5q353.1. Still, Claudia Wettstein and I resisted the technique until recent years, and then we used it only when we felt modeling could not otherwise be conveyed. (As an example from a recent season, see PLATE V *Bos*.) I think we may have sometimes been overcautious.

My admiration of the documentation accomplished by Czichon and Werner is tempered somewhat as I have come to realize that this work is a *catalog*, rather than a treatise on typology that might have guided us to species identification in some systematic manner. The very fact, however, that the figurines are a small part of a much larger collection of many different types of artifacts is telling.

If the animal figurines are taken under the same rubric — “small finds” — as a sickle or an architectural model or a needle, then it is understandable that they be measured in the same way — height, length, width — as are all the artifacts with which they are grouped. And, indeed, these abbreviations are listed in the introduction with others that could not rightly be applied to artifacts that were meant to represent animals.

I mean only to call attention to the fact that a consistently applied program of measurement might have told us more about the animal representations that were retrieved than is here presented. The impulse toward a more complete analysis is everywhere apparent in this volume — but the investigators stop short of a system of classification that could have taken identification from the arbitrary to more certain if not final identification.

There are many animal representations in the Munbaqa catalog that call for prolonged study; I have noted others of them as I cite comparanda in this volume. The remarkable *Blesse* on certain of the representations (Abbs. 451, 516, 387 and possible vestigial markings on Abb. 479) — an enclosed tracing on the upper muzzle between the eyes — is unique and to my knowledge has not been encountered elsewhere. The representations of *Felis* that are applied to vessels at Munbaqa have much to teach; they are noted in the discussion of the Urkesh cats.

Most notable for me were the representations of humped bovids that are most certainly *zebu*. All were retrieved from later Bronze Age levels, and a preliminary analysis of similar figures at Mozan would seem to place such representations as late as the Khabur.

What needs be said before leaving this discussion is that the authors have brought an enormous respect to the study of all the artifacts, not just the animal figurines. Only a certain sense of wonder could have led them to such an extensive and careful compilation.

### **Tepe Gawra: workmanship**

Goff characterizes the workmanship of all 200 animal figurines at Tepe Gawra as “crude” (Goff 1963, 132). It’s an astonishing summary judgment. Also, she singles out an *Ovis* figurine (Speiser, Cross, et al. 1935, Plate XXXIV (c) 8 and page 67), a representation with “large pellets of clay along its back” as “not successful.” One is prompted to ask, “On whose terms?” Goff simply doesn’t buy the “pellets” as “thick tufts of curled wool” (Speiser’s description). In this case, it is not clear that the “pellets” are meant to represent the pelt; they may be only a decorative addition or they might even represent a burden of some sort. Orientation also counts for something with this representation. Is it in fact a standing quadruped?

In whatever manner we eventually do read this animal representation, the examination must be more than cursory and summary. Matters of taste are defensible, certainly, and it is worth being exposed to the aesthetic judgment of a given writer; but such statements contribute little or nothing to an understanding of a given object.

I fear that the excavator himself would in all likelihood not quibble with Goff, for Speiser says, "The modeling is mostly indifferent, little effort having been made to produce more than a general likeness of the animal in question. . . . On the whole the objects admit of no more than a rough identification." Speiser does admit to a few "delightful departures from this norm" (Speiser, Cross et al. 1935, 67); presumably we, too, can share his delight. It must have been a disappointment to Speiser that amongst nineteen equids recovered, the craftsmanship of none could be "considered a sufficiently secure basis for more precise differentiations" (71). No measurements are given other than those ascertainable with the centimeter scale reproduced on the photographic plate, so one useful avenue that might actually help distinguish one species from another is closed to us.

### **Tell Halawa A**

We have become accustomed to exemplary typological classification of terra-cotta figurines from Alexander Pruss and his colleagues (Orthmann 1995). The volume on the smaller finds from Tell Halawa A and the section on animal figurines does not belie this impression (Orthmann, Meyer, et al. 1994). Because of its very clarity and orderly presentation, as well as its judicious speculation about function, the work is a pleasure to use, and can serve as basis for further work that may differ in approach from that of the authors.

At the time the Halawa study was written, little attention had been paid to figurines as cultural avatars in Northern Syria. For recent syntheses that canvass a single type of figurine, the field had seen only Badre's notable syntheses of Bronze Age figurines from Syria (Badre 1980) and Spycket's study of comparative material from a single site, *Les Figurines de Suse* (Spycket 1992). Both dealt exclusively with anthropomorphic representations. It is surprising that Pruss and Link did not reference Broman Morales's exemplary study of the clay finds from Sarab and Çayönü, which contains an extended discussion about the animal figurines (Broman Morales 1990). This is all the more regrettable, since she bases her analysis on methods of manufacture and modeling. Perhaps the authors felt that the prehistoric sites were simply too far away in time to have much use as comparative sources, although this does argue against their thesis that over time animal figurines don't really change all that much in style or craft (Meyer, Pruss, et al. 1994).<sup>11</sup> Four more years would have to elapse before another truly notable study would be published — and then, the Munbāqa figurine study would set a new standard for documentation (Czichon, Werner, et al. 1998).

A footnote from the Pruss-Link study does cite a grab bag of sites where figurines from coeval layers at other sites more or less in the region have at the very least been documented — Selenkahiye, el-'Abd, Chuera (*author's note*: a surprisingly late citation), Sweyhat, Bi'a, Ebla, Hama, Mozan, Hammam et-Turkman, Nuzi. In the case of Tell Mozan, the reference contains but one line drawing; in another, we are directed to the one table in the entire publication that deals with animal terra cottas. That is to say, the playing field was well nigh empty; all the more credit to Pruss and Link and their editor for devoting a substantial section of their publication to the careful documentation of terra-cotta representations from a single site and to preliminary speculation about their function and meaning.

<sup>11</sup> Anscheinend hat sich die Herstellungsweise, die Verbreitung und die Nutzung solcher Figuren in einem recht großen Gebiet und über lange Zeit hinweg kaum verändert, zumindest ist eine solche Änderung den Figuren nicht anzusehen.

While noting that some animals are avatars for deities — Ea, Gula, Nergal — they are puzzled by inconsistencies and rightly muse on the frequency of bovine representation and the relative infrequency of horses or goats in the divine pantheon (page 120)<sup>12</sup>, citing Liebowitz, who decides his riders and equids are “household replicas of major and minor deities,” doing so, we note, based on the “provenience, attribute and gesture” of the artifacts (Liebowitz 1988). Although the authors do not mention it, to his credit Liebowitz does mention that animal figurines might be “tokens,” but he extends the observation to include “amulets” also, therefore imputing some cultic function to the objects; even (or perhaps especially), I presume, to those found in domestic context.

Barrelet, who does not so classify equids, says that “les représentations d’animaux ont été souvent considérées comme chargées de significations occultes” (Barrelet 1968). At Mozan, however, neither religious paraphernalia nor emplacement has been found in coeval strata within or without Royal Building AK that would invite such an interpretation (The unusual “goddess” figure from the *favissa* in Area A16 may be an exception.).

Usage seems not at all to be pertinent in the similarities I shall discuss nor for the comparative references within the catalog. I certainly have no basis whatsoever for considering the Mozan corpus as having cultic significance, nor have we ever been able to justify the artifacts as playthings for children, given that in our case they were discovered in the context of the Royal Storehouse. We do share the latter persuasion with the authors (121), even though a good number of the Halawa figurines were found in domestic context (119). Pruss and Link do not discard easily the religious interpretation; in essence, they buy Liebowitz’s arguments, even though a domestic provenience leads each author to assert usage that is authenticated more by tradition than by excavation (that is, precisely *because* there have been figurines found in temple context, then those found in domestic context *must have* some religious significance as household deities, stand-ins for offerings, etc.). Yet neither study moves from “stand-in” or “token” to counting or herd management, a link that seems to me more logical and that actually might explain how similar artifacts are found in dissimilar circumstances.

The Halawa corpus is presented in line drawings with photographs of representative artifacts following. Measurements taken from these figures offer illustrative comparisons with the Urkesh corpus, although the authors conform to traditional practice and document only length, width, and height. Of the total 259 stratified examples retrieved, 42 percent were measured in three dimensions, with another 35 percent characterized only by their findspot. Since this is the case, and since there is no indication of from where measurements were taken, only circumspect observations can be made, the most useful based on measurements taken from the scale drawings, when that is possible (As an example, I would not feel secure in the measurement of hindquarters width if the object were shown only in dorsal view and not in caudal view). It is important in any case to avoid the observation that such-and-such Halawa figurine “looks like” or “is similar to” such-and-such figurine from the Urkesh corpus.

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<sup>12</sup> See Barrelet on the divinity of equids in the Bronze Age. She agrees with the authors.

### **Tell Halawa A: “Appearance”**

Judging from appearance alone can be misleading.

In a notable instance, the authors say it is difficult to distinguish goats from dogs; and although this at first blush might appear to be odd, the difficulty has been encountered before. I discuss the matter in the introduction to *Capra* and cite comparanda from Horvat Qitmit, a case where distinguishing the genera can be facilitated by measurement. Another author, Toueir, distinguishes a goat from a dog by its upturned tail, and for reasons having to do with herding (Toueir 1978). Such reasoning should be regarded with caution.

Pruss and Link include a table that offers a schematic overview of characteristics of cattle, the two types of sheep they identify, equids, and dogs. These include the shape of a cross-section of the body (although it is not clear at what point this cut is taken), the length of the head, snout length (as seen in “side-view”), whether the eyes are made with a pointed or a blunt instrument, and so on. A somewhat impressionistic vocabulary is used — *rund, hohl, lang* — as applied to the body. The authors further indicate to what extent this feature is prominent by symbols that represent given percentages — circles, asterisks, dots, a plus sign.

While this method is an attempt to systematize the authors’ observations, the categories chosen provide limited information. This is more so the case, since the authors mix techniques of craft with observations of body characteristics. In the first instance, I am not sure what craft has to say about animal characteristics except insofar as it compromises representation and subtleties of rendition, as with the animal figurines from Ain’Ghazal (Schmandt-Besserat 1997).

I must note that nowhere in the Halawa study has a measurement other than height/width/length been taken; we can only presume that these measurements are taken at the point of greatest extension in the section/plane. I feel that only precise measurements taken in a consistent manner can serve to distinguish species from species. And then, of course, measurements alone cannot tell the whole story. Secondary characteristics complement initial observations.

I have provided an analysis of those characteristics of the Halawa corpus that are most striking to me, as they relate to the Mozan corpus. My remarks must be taken as preliminary; they are far from complete. My examination of the authors’ work has illuminated for me many of the issues that are necessarily caught up in the Mozan typology.

### **Tell Halawa A: *Bos***

Whereas the proportion forequarters/torso/hindquarters of representations identified as cattle (Katalog-Nr. 1-78) sometimes falls within a range typified by the Mozan corpus (Abb. 30/10, 11, 13; Abb. 31/25, 28, 30) the ratio of length to forequarters, with the exception of Abb. 31/25, is greater than or equal to 3 : 1. The forequarters stance is a solidly founded inverted U inside and a slightly incurving inverted U outside. Hindquarters are rarely represented, although in the median plane, one might observe that the hind legs are perpendicular to the cranial plane, so it is likely that the caudal stance is solidly founded. A notable exception is the damaged Abb. 30/2, a most unusual representation, at any rate; the hind legs splay out at an angle of almost 75 degrees. Otherwise, Abb. 30/2 exhibits what appears to be an erect mane, a snout that curves downward (broken?), and a length/forequarter ratio, insofar as it is possible to measure it, that is greater than or equal to 3 : 1. The authors note that the neck also is quite long (*meite lang*), sometimes, as I measure it, twice the length of the forequarters width.

For the greater part, the animals appear to be horned, with a flat juncture at the top of the skull and the horns themselves curving (?) up and out or forward and out from the skull; breakage renders a reading difficult. The authors note the possibility of harness or (I take it) tethering and call attention to two examples, only one of which is illustrated (Abb. 33/59), and “perforated” though the dew-flap. Although the authors note that the perforation is horizontal, it is not possible to read this detail in the illustration. There is only one example of possible perforation on *Bos* exemplars at Mozan, and this is at the base of the neck (*Bos* 103). Three of the Halawa cattle are decorated, one with a collar (Abb. 30/3), one with three rows of dots at the horn juncture (Abb. 31/32), and Abb 32/49, which exhibits regular striations across and in front of the forequarters and across the rump. No Mozan cattle from the Royal Storeroom are decorated; one must wait a century or two before this detail is encountered, and then exemplars are more likely to be painted than incised (A15q382.1, Khabur; this example is lean, in contrast to earlier representations from AK)

The authors say that the Halawa cattle type is “round” in cross-section (Meyer, Pruss, et al. 1994). Yet, while the Halawa cattle are stocky (1 : 1 : 1) in dorsal view, and solidly founded, they appear in median plane to be relatively lean, with body length being almost three times as long as the forequarter width.

#### **Tell Halawa A: *Ovis***

The authors have clearly studied their corpus with assiduity; they note species-specific detail, such as the relatively abundant wool that distinguishes some sheep (*Rasse 2*, Katalog-Nr. 89–92), all with incisions that would presumably indicate a pelt, from others (*Rasse 1*, Katalog-Nr. 79–88). They quote Bökönyi to the effect that abundant wool is a sign of domestication (Meyer, Pruss, et al. 1994). This is a remarkable observation and might have provided the basis for an extended commentary on animal domestication at Halawa and how the figurine corpus relates to such practices. As far as I can tell, however, only three of the sheep belonging to *Rasse 1* (Abb 35/79, 80, 82) are lean; the others are rather stocky and might more properly be grouped with the wool-bearing *Rasse 2*. I believe the authors have been guided more by the incised pelt than by body silhouette and conformation.

#### **Tell Halawa A: *Carnivora/Felis***

Pruss and Link wonder why so potent a symbol as the lion is absent from their corpus (120). The authors, I think, are right that felines are conspicuously absent, with the possible exception of Abb. 38/132, which they take to be an equid. As I measure the artifact from the drawing, the body length is slightly less than three times the width of the torso, which I of course take to be the proportions of a carnivore. The ghost of an erect mane does not invalidate this observation. Although some measurements cannot be taken from the drawing, proportions of other body sections do conform to the Mozan typology; that the tail is thick and not carried high renders the identification more problematic.

At Mozan, we are by contrast led to ask the question why *in fact* are there so many felines represented in the corpus, when actually few are represented in the faunal finds? But at Mozan, the lion is represented iconographically in tandem with members of the royal household. Potency of representation is made manifest in clay. And of course the beast did roam the surrounding plain until the early years of this last century. Without such testimony, we would feel less certain of our interpretation.

### **Tell Halawa A: *Equus***

For the most part, the authors speak of “equids,” and they state flatly that it is not possible to distinguish amongst clay representations of onager, ass and horse. Few illustrations are reproduced in dorsal view, so I cannot judge. Trappings speak only of taming and not of differentiation amongst species. The one dorsal representation that I can read (Abb. 36/95) would be at home amongst the equids at Urkesh (4 : 2 : 3); the mane is erect and rises onto the crown, which would argue for a nondomesticated equid.

There are a number of anomalous representations in the corpus of Halawa equids, notably Abb. 37/112, which to my eyes surely must represent a sheep, although the authors take it to be a kind of “double image” of a horse and rider; they see a spot atop the piece where a rider might have sat. This may be, but the illustration does not convey the mirror image aspect of the piece. I wish it might have been reproduced in photograph, so that the reader might better judge how it is made. Nonetheless, the frequency with which the authors identify a “rider’s seat” (*Ansatz für Reiter*), from which the rider has been broken, is most intriguing.

Abb. 39/153, identified as an equid, is strikingly similar to Mozan *Capra* 1 A1.44, as taken in the left median plane. There is no sign of a mane along the neck. It is unclear whether the protuberance on the crown could have been the seat for ears or horns, as there is no indication that the piece was broken. See Abb. 35/79, quite a detailed representation and identified as a sheep, for a close parallel to body stance. I was often tempted to read the Halawa equids as caprids, largely because of the extremely long necks of the creatures. This seems to be a characteristic of a number of species amongst the Halawa animal representations. I found myself wondering if this might not characterize the style of a particular workshop, as the manner of representation cut across species.

### **Hamath (Hama)**

We have one invaluable reference to the third millennium excavations at Hama, E. Fugmann’s publication of the pre-Hellenistic architecture (Fugmann 1958). Terra-cotta objects from the Iron Age levels were published in 1990 by Riis and Buhl (Riis, Buhl, et al. 1990). Publication of the series has been interrupted, stopping short of the publication of the sculpture and small finds by H. Ingholt. The series will now of necessity be continued as a contemporary review and publication of the original excavation notes by museum staff.

Luckily, Professor Fugmann published representative examples of the small finds. Among these are a number of figurines from levels coeval with the Service Sector in third millennium Urkesh. These finds are from Level L (Tell Halaf pottery recovered), Level K (2700–2400 B. C.), and Level J (2400–1900 B. C.).

A somewhat unusual method of reproduction was established for the smaller finds; all were reproduced on large charts that were then photographically reduced for publication. At about the same time, one encounters a similar technique in Mallowan’s comparative work at Chagar Bazar (Mallowan 1948) and in the chronological charts devised by Erlich (Erlich 1992), a publication the idea for which was born at a Philadelphia symposium in 1952.

In devising the charts, it was the excavator's aim to facilitate typological comparison of the various finds. The same scale was used for all the objects; thus, figurines are reproduced at a scale of 1 : 5 and/or 1 : 2.5. The excavator is for the most part scrupulous in reproducing a drawn section of both left median and cranial planes. However, as these are representations of objects and not the objects themselves, true diagnostic work is not possible at this scale — I had to examine the drawings with the aid of a magnifying glass.

I have chosen, therefore, to identify only “likely candidates,” rather unprecedented in a publication of this sort, but I feel driven to do so, as the excavator's visual report is summary and there is no commentary that might further specify telling secondary characteristics of the animal representations; *acéphale*, a description of an animal representation not illustrated from Level L2, is of course not helpful.

I mean the remark to remind us how very far we have come in the last half of the last century toward diagnostic representation.

In presenting these exemplars from Hama, then, I find myself perilously close to the “Well, this looks like an *x . . .*” school of analysis. Because I am uncertain, I have chosen not to include these notes within the catalog. Here they may serve as reference to future diagnostic work in Copenhagen or, when excavators return, at the ancient site itself. Animal representations from Level J3 are dissimilar enough in attitude, conformation, and function from any representation at Urkesh that commentary without diagnostic measurement would be useless.

Two specific and two general remarks. It is worth asking if 3C 628 from Level J5 is in fact an animal representation. It is positioned so one might take it to be *Camelus*; and the dashed “leg” extension contributes to this interpretation.

It startled me that the excavator should note that “two miniature horns from cattle” (4B 608) were recovered in Level L. That they were noted is both commendable and atypical, for other than being rendered and committed to paper, the analysis of figurines at Hama is cursory.

Particularly in the earlier strata, Level K, representations that are in all likelihood *Ovis* are modified with dashed outlines so that the horns extend outward in the manner of cattle. In earlier strata, dashed outlines sometimes overextend what would be a short tapered appendage, giving low carriage quite another aspect. In other instances, the dashed outlines/projected legs of certain Hama animal representations bow outward unnaturally rather than tapering smoothly to termination.

*Bos*. Level J1 Fig. 103: 3A 190. Reminiscent of the *bucrania* (see DISCUSSION *Bos*, this volume) of earlier times (Arpachiya), the horns on this head are widespread and upright, rising above the crown as opposed to being carried forward. The muzzle is wide, tapering in a gentle curve to the blunt snout.

Level J5 Fig. 74: 3C 597. Uprturned horns, genitals carried forward in the belly (it seems), heavy forequarters, hindquarters solidly founded. Parallel hatchmarks may indicate the animal's pelt. All in all, this animal is rather more slender than *Bos* at Urkesh.



Level J6 Fig. 64: 3D 590. Although the dashed outlines extend the legs by too much, this is most likely an example of *Bos*. The undercarriage of the belly is “two-tiered,” as can be seen in the forequarter sections in the INTRODUCTION to this volume. Compare also the carriage of the head with *Bos* 306 A14q275.3, a detail that only became clear to me after repair of this find from Excavation Season MZ16 (2003).

Level J6 Fig. 64: 3D 495. See 3A 190. Here the horns spread more widely and the silhouette of the muzzle curves, tapering to a blunt snout.

Level K6 (a) Fig. 46: 4A 740. Quite an interesting exemplar, as the tail “swishes” to the right and there is an incised diamond containing a vertical mark forward on the lower torso, left median plane. The marking is not dissimilar from some representations in other circumstances that have been taken for a vulva. Body conforms to type.

*Ovis*. Level J1 Fig. 103: 3A 39. Added details, such as the blunt horns close to the head and the rounded rump (both missing sections indicated by dashes), invite comparison with the Urkesh corpus, although the body silhouette does not conform to TYPE. The belly is concave, rather than convex. The tail is carried high, as with *Capra*.

Level J2 Fig. 98: 3A 409, 3A 195. I am almost sure the excavator thinks that these two torso fragments are equids of some sort, because the projected legs (dashes) are long, if rather stumpy. It is possible that the animals carried the body low and that they are examples of *Ovis*, the former being TYPE II (because of the narrow forequarters) and the latter TYPE I. Head/neck join is thick —  $w_1@neck \leq w_2$ . This would be unusual for an equid.

Level J4 Fig. 85 3A 727. What may be ears are in all likelihood horns, carried back; they could not curve down and forward as represented here. I take the round circle on the side of the head to be an applied disk for an eye. Forequarters rather narrow for *Ovis*.

Level J5 Fig. 74: 3C 666. It is probable that the excavator took this terra cotta as *Bos*, for dashes extend the crown into long upturned horns and a long pendant tail. I think it is more likely a representation of *Ovis* TYPE I.

Level J7 Fig. 62: 3 F 366. Projection of muzzle possibly misleading. Unclear whether legs are terminated or not. May be an indication of pelt. Otherwise, conformation to *Bos* TYPE.

Level K4 Fig. 49: 4C 69. Once again, the projection invites us to see *Bos*. I think it likely that this is a representation of *Ovis*, particularly as the torso is just less than equal to the width of the hindquarters. Also, the tail is wide, in 1 : 3 proportion with hindquarters. I think it is projected and possibly did not hang down as here drawn.

Level K5 (b) Fig. 46: 4A 742. Horns projected inaccurately, I believe. Attitude of body, indication of pelt, and particularly the hindquarters point to *Ovis* TYPE II.

Level K8 (a) Fig. 37: 5B 126. Forequarters. Indication of pelt. Rendering of crown and muzzle conforms to TYPE.

Level L3 (b) Fig 13: 7A 764. Body conforms to TYPE. Indication of pelt. How do the horns lie on this animal?

*Canis* Level J4 Fig. 85: 3A 719. If this terra cotta is represented in the left median plane, then the forequarters cannot be accurately drawn. The upcurving appendage invites interpretation as *Canis*, but there are no other representations from either Hamash or Urkesh that carry the tail in this manner, and it is unlikely that this unique example would have survived. The manner in which the “tail” is carried is reminiscent of the Horvat Quitmit *Capra* and the *Canis* from Assur. Quite exuberant, if it is *Canis*.

*Equus*. Level J2, Fig. 98: 3A 200. Holland takes the upturned ears as a sign of the true horse. (Holland 2001) They are broken and projected (only) in this example. The eyes are wide-spread as seen in cranial section. Muzzle tapers, neck long and likely thrust forward, judging from the break.

Level J6 Fig. 64: 3D 484. The forequarters are narrow and the carriage is reminiscent of the tethered nondomesticated equid on a plaque, *Equus* 26 A6q271.1. The effect may be due to the manner of rendering, as it is reduced to a basic outline, with regular hatching to indicate modeling of the belly. Bulging leg projection troublesome.

### **Hamмам et-Turkman**

Hamмам et-Turkman is situated in the valley of the Balikh, a tributary of the Euphrates, in Northern Syria. The site is about 200 kilometers as the crow flies from Tell Mozan. Periods represented in the stratigraphy of Tell Hammam encompass a remarkable time frame from the Pre-Pottery Neolithic (I) to Parthian/Roman levels (X). We shall be primarily concerned with artifacts recovered from levels of the Ubaid (IV), Late Chalcolithic (V), Early Bronze (VI), Middle Bronze (VII), and Late Bronze (VIII) (Loon 1988).

The authors (Rossmeisl 1988) of the brief section devoted to animal figurines comment on artifacts that have been recovered from levels that span more than a millennium. The book-length section (various other authors) devoted to the pottery and the helpful definitions provided are with profit referenced (manufacture, temper, firing, exterior/interior color) in the study of the animal figurines, although Munsell references are not provided.

Figurine measurements were taken as follows:

length = full extent of the artifact in presumed “at rest” position; if the fragment represents a torso, the measurement is taken so as to include the tail

width = forequarters

height = height of forequarters or another body part of greater extension.

The authors speculate as to what kind of animal is “depicted,” and refer exclusively to secondary characteristics — “horns pointed back” (HMM 82-A 3, pl. 175:20), a “snout pierced for reins” (HMM 81-A 2, pl. 175:26). The former object was recovered from levels in the Ubaid; the latter in Early Bronze levels. How the authors determined that HMM 82-A 2 (pl. 175:27), dated to the Middle Bronze, and HMM 81-O 9 (pl. 175:28) are bovids is not made clear. In the latter example, orientation is most problematic.

Identification of two of the artifacts is particularly troublesome. HMM 84-A 3 (pl. 175:21) is “only a fragment of what seems to be a hoof. . . . Because of the three grooves in its base, one may alternatively interpret this piece as either the representation of a hare of which only the ears are preserved and the snout is broken or a human figurine, i.e., a woman with the elbows resting on her breasts” (Rossmeisl 1988). As I myself have been often mystified by fragmentary artifacts, I must and do respect the author’s effort, but I am unable to construct referents that could reasonably encompass the reconstructions proposed.

Another reconstruction (HMM 84-O 2) of “what seems to be a cult vessel” dated to the Late Bronze Age (Level VIII B) is admirable as invention, but must be regarded solely as a product of the imagination (Loon 1988). It was found in uncertain context, but Nuzi parallels suggest the date. How this object described as a rhyton resolves into a wheeled pig is worth an extended discussion.

Of two objects identified as a “ram’s head,” only one seems certain (pl. 122:77); the other (pl. 142:209), dated to the Middle Bronze Age, sports deep incisions that may indicate a pelt, but there is little else to suggest that the animal is a ram, neither the way the pelt lies on the crown of the head nor the conformation of the muzzle.

The authors also identify two bird figurines, one of which (HMM 84-A 6, Plate 175:31), apparently terminated and dated to the Late Bronze Age, has notable parallels in the Indus Valley (Mackay and Royal Society of Arts 1934); for example, Plate LXXIV, 2 and Plate LXXVII, 4, respectively, whistles, “rattles”, and many others. Similar objects were recovered at Mozan and will be treated in a subsequent article.

Other objects from the Hammam et-Turkman corpus are exemplary, notably a surface find identified as a “horse or donkey” figurine (HMM 81-A 1, pl. 175:25). In dating this exemplar and other objects, the authors cite stratified comparanda from Early Bronze levels at other sites. The representations noted in Mallowan 1937 are assuredly not horses, although Mallowan refers to them as such, and one of them is dated to “1900 B. C.” (Mallowan 1937). Otherwise, commentary notes secondary characteristics alone and does not take body conformation into account. Judging from the Mozan typology, the forequarters of the Hammam et-Turkman equid are those of a TYPE I nondomesticated equid, certainly not a horse. From the rendering it is not possible to say whether the mane lies along the neck or is erect.

An “animal paw” retrieved from Level VII is intriguing. The scale of the object<sup>13</sup> places it somewhat outside the annotated corpus from Hammam et-Turkman. It is certainly not from an ungulate. It may not be from an animal at all. I say this because of the way the ventral portion (as seen in what may be the left median and frontal plane) of the fragment is terminated (It is geometric and regular, rather than animal.), and because the fragment as seen in left median plane appears to have a flat termination and not to have been broken from a torso. I am reminded of Strommenger’s insightful remarks about the Liebowitz “birds” (Liebowitz 1988) where she suggests that what appear to be avian characteristics might more properly be understood as fragmentary theriomorphic supports for three-legged bowls (“zu Rinderbeinen dreibeiniger Schalen”) (Strommenger 1992).

<sup>13</sup> w1 = 5.12 cm, l = 7.84 cm. As at Mozan, these measurements are taken at midpoint, not at full extension.

A fragment from a basalt “orthostat de porte” found outside Building I on the slopes of the Hama citadel and dating to about 960 BC is resolutely geometric, parallel lines defining the claws of the lion’s paw (Riis, Buhl, et al. 1990), in the manner of the Turkman terra cotta. Other examples in Riis’s work are also cited, exhibiting varying degrees of stylization, but all are later than the example cited here. Frankfort denies that stylistic devices found in figurines could be reflected in the execution of monumental sculpture; these examples bring that observation into question, although comparanda from coeval strata would more conclusively prove the point (Frankfort 1970).

### **Mari (Tell Hariri): “Realism”**

Four decades ago, Andre Parrot, the original excavator at Mari, published *Le Palais (II)* and the world got its first glimpse of the spectacular *Déesse au vase jaillissant* and other statuary equally remarkable for its stylistic ingenuity. The figurines from Tell Hariri are not so well known, but taken in context with other finds, such as the bread molds and other terra-cotta molds, they raise questions about typology and style that are yet to be answered. A forthcoming volume on the figurines of the third millennium at Mari will surely provide a framework for understanding.<sup>14</sup>

Parrot introduced his chapter on the figurines recovered near and in the Palace by saying

que si Mari n’a pas rendu d’aussi nombreuses séries de figurines que certains chantiers du Sud-mésopotamien, la production en ce domaine ne manque pourtant pas d’intérêt compte tenu de son originalité.<sup>15</sup> (Parrot, Barrelet-Clemental, et al. 1959, 58)

Faced with a unique and complex corpus of small terra-cotta objects and lacking comparative material, Parrot went on to say that being able to identify and correctly interpret the artifacts, short of being impossible, was often “an uncomfortable task.” He found himself having to accept “description without the certainty of explanation (*décrire sans pouvoir expliquer*)” (Parrot, Barrelet-Clemental, et al. 1959, 58). I have always found the statement admirable, for Parrot went ahead anyhow to analyze his artifacts for others of us in the field, leaving precious testimony that might otherwise have been lost — shunted aside in favor of the “major finds,” a fate often reserved for terra-cotta figurines.

Later, speaking of the ferocious realism of a lion’s head that may have been part of the ritual trappings of a piece of furniture (M. 684), Parrot says,

Une fois de plus, l’école de Mari fait preuve de naturalisme, né d’une remarquable observation du monde animalier.<sup>16</sup>

<sup>14</sup> The Mari figurines have now been published. They are referenced repeatedly in the CATALOGS (Author’s note 2007).

<sup>15</sup> “[E]ven if the number and type of figurines recovered at Mari are not the equal of those from other sites in southern Mesopotamia, the way the figurines are produced holds some interest, given the special nature of both subject matter and manufacture” (author tr.).

<sup>16</sup> “Once again, the Mari School demonstrates a naturalism born of an extraordinary gift for observation of the animal world” (author tr.).

This artifact bears closer analysis and comparison with the manufacture of the mane of lions from the Urkesh corpus, the lion sculpture from Temple BA, and the beast on the Tishatal foundation pegs.

The scale of the Mari head is large (the Mari head is 0.10 m high) and the ruff of the mane is rendered in odd little cubes.



Mari. *Felis* from Cour 14, Palais de Zimri-Lim.  
M. 684, ht 0.10 m.  
(Parrot, 1959, 58-59, Fig. 49, pl. XXVII)  
Courtesy Librairie Paul Geuthner.

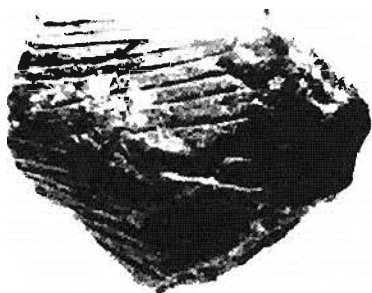


Urkesh. Detail of mane,  
lion sculpture from Temple BA,  
on the High Mound.  
(Kelly-Buccellati 1990, Plate 9/1)

Quoting Marilyn Kelly-Buccellati, I have noted elsewhere the disordered realism of the mane of the Temple lion, and have compared it to the rendering of pelt, feathers, and mane of other figurines from the corpus. The surface treatment of these figurines may fruitfully be compared to the flowing mane of the bronze lions on Tishatal's foundation pegs.

Urkesh. *Felis*.  
Bronze lion from Tishatal foundation peg  
commemorating the building of a temple  
at Urkesh.  
(Muscarella 1988, 375. Object 495)





*Felis* 24 A7.125.  
Left median plane.  
Incised mane, neck, and forequarters.  
Scale app. 2 : 1.  
(photograph V1Oe1611).

An incised fragment, quite small, from the *Felis* corpus at Mozan, *Felis* 24 A7.125, also has been treated similarly. The lines indicating the mane follow the neck and respect the musculature of the forequarters. Other exemplars in the corpus are *Felis* 109 A5q790.1, which has striations on the surface and *Felis* 114 A6q952.1, which bears light incisions scratched onto the torso on both flanks, perhaps the suggestion of a mane.

The manes of all three Mozan pieces reproduced here are rather more disordered than that of the Mari lion, with intersecting lines indicating layers of hair. One may wonder if the mane of the Mari lion spilling onto the chair arm or down the finials of the balustrade was similarly disordered, if it were rendered at all.

Reproduced here is another of the Mari lions — not the realistic jar spout (M. 983), but the somewhat stylized plaque with a pacing lion (M. 1144). The mane is laid on in strips, as if the blade were impressed repeatedly into the surface, criss-crossing every which way. Other aspects of the pelt are quite unusual; this molded plaque asks for study.



Mari. *Felis* found nord de la cour 106  
(zone remaniée) at Mari.  
The treatment of the pelt is quite regular,  
as if the beast were encased in armor  
on the upper part of its body  
or draped in a banner of some sort.  
(Parrot, 1959, 76 and pl. XXXI, object 1144)  
Courtesy Librairie Paul Geuthner.

The reader's attention is drawn to **COMPARATIVE TABLES 1 & 1A Pelts & Surface Decoration**, where the treatment of the surface of various animal figurines from Urkesh is displayed.

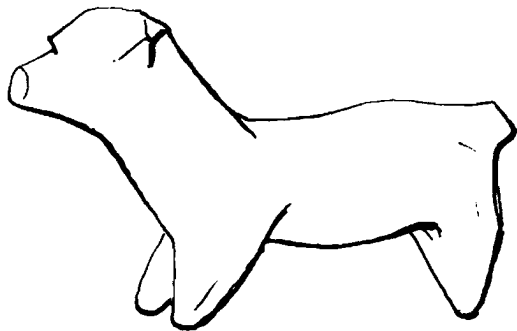
I want now to draw us back to the question of the *realism* of the Mari pieces. If the Urkesh lions' manes were disordered, then I take it to be the artisan's intent to render something *observed in the real world*, not recreated through the filter of an inherited iconography. This intention would seem to be applied across various media carved stone, cast bronze, and incised clay and therefore may be thought of as a *school* or shared aesthetic.

Before leaving this discussion of realism and representation, I want to look at two other small terra-cotta animal figurines, both of which are characterized as “dogs” by Parrot. They illustrate the fine line between firm identification based on typological considerations and identification based on impressionism.

Typology can mislead. I know that only too well, having stubbornly adhered to the “hyena” identification of a wheeled figurine that manifestly was a sheep. The typology said *Canis*. All very well, but as I have discussed elsewhere in this volume, the stubbornness was not all that ill-advised. The figurine did not assume its real-life proportions — that of *Ovis* TYPE II — until wheels were added. Function had displaced, at least momentarily, necessary form.

Much the same consideration comes into play with a wheeled figurine from Mari (M. 762); Parrot calls it a “dog or a sheep”, but gives us no reasons for the identification. Similarly, he says that M.1512 (below) is a dog.

Those who examined these animal figurines must have reached consensus that they did in fact resemble “dogs,” that abstract *dog* form we carry in our heads. My mental template matches Parrot’s in one instance, M. 1512 — and because I observe that the stance is similar to many *Canis* I have seen at Mozan.



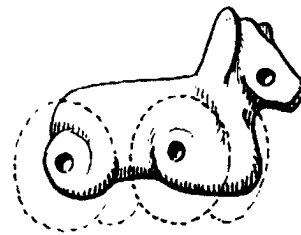
1512

Mari, *Canis*.

Parrot feels that the modeling is cursory. Judging from the plate, there appears to be heavy depositional damage.

(Parrot. 1959, 76, Fig. 59, also pl. XXXI, object 1512)

Courtesy, Librairie Paul Geuthner.



Mari. *Canis*, wheeled dog (or “sheep”).  
Scale 1 : 2.

(Parrot 1959, 77-78, Fig. 60, object 762)

Courtesy Librairie Paul Geuthner.

Parrot refers to the *modelage sommaire* of M. 1512, but to *my* eye, the proportions of this canid representation seem to me deliberate and not accidental. But I am most uncomfortable with the first identification (M. 762). The addition of wheels brings no clarity to the situation. The upright ears and blunt snout don’t help.

I make the comparison to raise the question about the limits of impressionistic observation. Let us acknowledge that Parrot himself is something of a poet. He brings a keen aesthetic sense and refinement to his critical observations of the three-dimensional pieces at Mari.

As long, however, as an observer relies *only* on observation and recollection of some real-world creature, impressionism becomes typology. It is impossible to systematize. We would have as many typologies as there are observers. Were we able completely to delimit or outline — capture the full taste and keen observational powers of, say, a Parrot — *then and only then* we would be able to recreate exactly the objects he describes and to relate them meaningfully each to the other. They could be grouped and classified. Lacking a coherent system, however, even the most refined observer will be reduced at one point or another to base emotivism.

### Nippur (Nuffar)

The excavator of the private houses in the scribal quarter of ancient Nippur provides other reasons not to name species — “careless modeling” is the first (McCown 1967, 93). McCown follows this judgment with the remark that the figurines are “too individualized to be classified by types.” I take this to mean that craftsmanship of the Nippur figurines is so careless as not to allow systematization. In the last sentence of the five paragraphs devoted to animal terra cottas, the excavator refers to a “crude little model” — in this case, an exemplar of *Ovis*, Plate 140/9. McCown speculates that the figurine is a “descendant . . . of the remote prehistoric past and may reflect a survival of a primitive magic invoked to insure fruitfulness of flocks.”

To my eyes, the representation is detailed enough to compare with others from many another site in the Middle East, and it is skillfully enough rendered to be analyzed for diagnostic detail. In fact, the horns of this figurine appear substantially to be intact; they are therefore useful comparatively. This is one of a number of Nippur figurines, some features of which appear to have been fashioned by shaping a single fabric mass, or, if the appendages are applied, there is considerable surface work, so that the appendage merges with the body mass. The figurine bears comparison with Abb. 16/19 recovered from *Steinbau I* at Chuera (Orthmann, Hempelmenn, et al. 1995, 41), although the horns and muzzle are not fashioned similarly and the Chuera figurine is identified as *Bos*, unusual considering that the horns project upwards. For other figurines from the Nippur scribal quarter that are treated in the same manner, see Pl. 140/2, a wheeled exemplar (from Level TB IV, one of fifteen exemplars) very like *Ovis* 3 A1q474.1; Pl. 139/9, an “animal” with “an unusually long neck” from Akkadian/Ur II levels, and from strata substantially later (Kassite levels), Pl. 141/10, a “horse” with a “silvery white glaze.” See comments on surface treatment under comparative material for *Ovis* 301 Z1.93.

Judging from McCown’s Plate 140/9 (the “crude little” *Ovis*), it appears that surface adhesions may not have been removed from figurine 9 nor from some others (Plates 139–141). Speaking from experience, I can say that the aspect of figurines changes markedly if they are properly cleaned; a number of those from Urkesh leapt to startling new life once our conservators had lifted off the surface dirt and depositional debris that I myself did not know how to remove without damaging the object.

In general, the figurines from the scribal quarter at Nippur are described in such summary fashion as not to be useful (a number of species are lumped together across strata; the excavator references “two kinds of animals” which occur in sufficient numbers “to be noted”) or the identification is so idiosyncratic as to inhibit speculation. For example, see remarks above regarding “primitive magic”; also Cat. No. 2N 849 (Plate 141/8 and page 93), which is identified as a camel and linked with “the migration that culminated in the Aramean invasion in the Kassite period.”



The discussion on preceding pages has sought to raise questions about how figurines have been classified at some representative sites contemporaneous with Urkesh exemplars. Many other comparative examples from these and other sites are referenced in the CATALOGS alongside Urkesh counterparts.

I range far and wide in my selection of comparative artifacts — as far to the East as the Indus Valley, for example. I have felt it important to identify the application of specific mental templates wherever they are found to be compelling. My investigation must of necessity be inclusive — the relationship of these diminutive artifacts to the real world has been ignored for the better part of recent archaeological history and any trace of relevance, except in certain rare instances, trampled up and forgotten, as is the significance of the act of figurine making itself.

So, too, will I occasionally cite comparative examples from the repertory of monumental sculpture, murals, and reliefs, for I feel the skills of the stonecutter and the muralist have a legacy that is waiting to be uncovered. Is it too far-fetched to imagine that their work is prefigured in the carefully modeled figurines from Urkesh and at other sites where small terra-cotta representations have been catalogued with care?

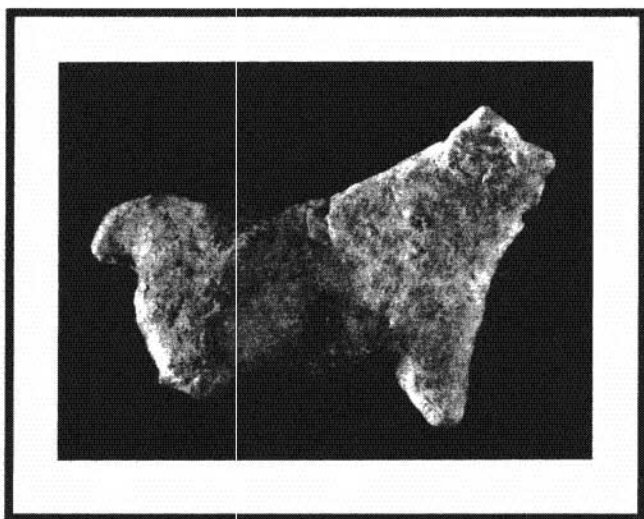
# READING FIGURINES

## ANIMAL REPRESENTATIONS IN TERRA COTTA FROM ROYAL BUILDING AK AT URKESH (TELL MOZAN)

ORDER Artiodactyla

FAMILY Bovidae (SUBFAMILY Bovinae)

GENUS *Bos*



### DISCUSSION

The Genus

### CATALOG

The Urkesh Corpus

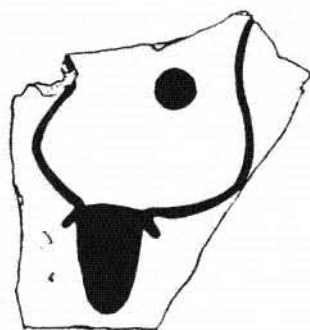
# BOS

## Discussion

Raging bulls surge through the millennia. They stay with us, atavistic metaphors for power and ritual challenge. Many of the images are not recent. The aurochs of Lascaux leap to mind, flickering images from a Paleolithic play whose script has not come down to us. So do the freestanding bucrania of Çatal Höyük, now entrenched in the popular imagination by electronic virtual reality. Millennia later — far later than the founding of mythological Urkesh — bull jumping in the Ægæan civilizations evokes danger and ritual mastery of an erratic beast.

These are images of wild animals, untamed, exploited for awe and terror.

We need note that the first certain archaeological evidence for domestication of cattle in the Middle East comes from late Neolithic villages, Haçilar and Çatal Hüyük (Clutton-Brock 1987, 77); nothing from Jericho, three millennia earlier. In addition to the ritualized bucrania, there are rather placid images of cattle from the site (Hodder 2000, 196, Fig. 16.1) — if not domesticated then tame, manageable — and a monumental, static representation of a bull in a mural (Mellaart 1967, Fig. 64 and caption). Mellaart notes that “no wounding or killing is shown and it is doubtful whether the scene represents the hunt.”



*Bos* BUCRANIUM DESIGN  
EARLIEST STAGE Arpachiyah.  
(Mallowan and Rose 1935 [April],  
Fig. 73, 154–5, 163).

The excavator calls the design  
“crude . . . simple . . . naturalistic.”

Some three millennia later, “as on all early Mesopotamian sites,” so say Mallowan and Rose, “[cattle] are very common.” They illustrate a few fragmentary examples from the prehistoric Chalcolithic mound, Arpachiyah, (Mallowan and Rose 1935 [April], 98, Fig. 48/1–5).

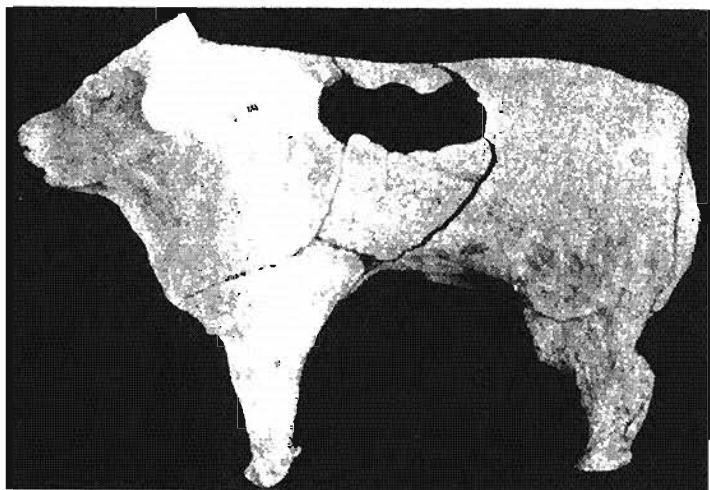
“The importance of the bull is shown by numerous designs on the Tall Halaf pottery”, the authors say, and they go to some lengths to construct a typology of bucrania from the site, moving from rather “naturalistic” renditions to pure geometric forms that echo the lyre-shaped horns of cattle. The progression is chronicled in renderings in Fig. 74 and is discussed in detail in Chapter II of the text.

Goff does not find the demonstration convincing (Goff 1963, 14). One wonders what further information — beyond precise notes on stratification, of which Goff takes no note — she would require. The impulse to stylize and to reinterpret natural form has been often remarked; Mallowan himself quotes Contenau to this effect (Mallowan 1935 [April], from the latter’s “Manuel d’archéologie orientale”).



*Bos* BUCRANIUM DESIGN ON POTTERY  
OF THE TELL HALAF PERIOD.  
(Mallowan and Rose 1935 [April],  
Fig. 74, 156–8, 163).

It is the pervasiveness of the imagery at Arpachiyah — and now, at contemporaneous third millennium sites — that I find notable. We seem to have moved from a closed, fraught world of ritual into another realm, where the animal has free concourse with humans. I find the Arpachiyah bucrania rather a benign reinterpretation of the horn cores of *Bos primigenius* that were sunk in clay pedestals at Çatal Höyük.



*Bos* hollow “statuette” — a rhyton — from Telloh (de Genouillac 1934, 77 Pl. 14/4); line drawing in Parrot (Parrot 1948, Pl. 18c) and Barrelet (Barrelet 1968, 69, Fig. 37). In its permutations, the original clean lines of the original are softened, the vitality somewhat compromised.

material for the object, although she points to comparative material from the Sin Temple at Khafaja(h). Frankfort discusses what must be these same sculptures — notably the front part of a placid bull with halter “which served as terminal of the armrest of a throne” (Frankfort 1939, 33, Pl. 92A, B) and finds a relationship with contemporary statues. He states that the geometric formula of Mesopotamian works of art is not the cube (as in Egypt) but the cylinder or the cone” (Frankfort 1939, 34ff, esp. 35).

What we see amongst these examples drawn from third millennium strata is an animal that would be at home amongst those of the Urkesh corpus. The animal is solidly founded and the body proportions and conformation are those of figurines found at the ancient Hurrian capital.

Having read Clutton-Brock on the domestication of cattle, I am somewhat less puzzled that, of the animal figurines found in the Royal Storehouse at Urkesh, only representations of birds are found with less frequency than cattle. It could not have been easy to coax a cow to give up her milk, nor could a large aurochs be obliged to stay close to human habitation, unless it wanted to be there.

This is not to mention the effect on the habitat of trampling herds nor the promise of a succulent meal for roving wolves and large cats, surely a deterrent for enterprising pastoralists. All in all, she says, “it is rather difficult to imagine how or why the change from hunting of wild cattle to husbanding of tame ones began” (Clutton-Brock 1981, 66–68).

By the third millennium, images of what must be domestic cattle begin to be found. At Tello, among excavated metal objects, Parrot notes small animals that “may pass for” domestic stock, among which are cattle. He quotes Heuzey to the effect that these “must be offerings, stand-ins for the real thing” (Parrot 1948, 75).

In pre-Sargonic levels, he is able to date several figurines from the “period that preceded Ur-Nanshe”, among which figures a “clay statuette” (de Genouillac, the excavator) of what is surely a domesticated bull (Louvre, AO, 14.454). Barrelet notes that the dimensions of this animal “surpass by a great deal” (324 mm x 224 mm) simple figurines (Barrelet 1968, 68), and later she calls the object a “monument.” In her study, she finds a dearth of comparative

Nor is it to say that the lessons learned by Neolithic pastoralists were lost on the herders at Mozan; I mean only to call attention to the fact that there was a considerable investment of energy required to herd cattle. I believe that the ancient inhabitants of Urkesh devoted most of this energy to the herding — husbanding, including tallying and recording — of sheep and goats.

Gouin, in his article on that cylinder seal writ large, the 'Obeid frieze (ca. 2500–2450), depicting domesticated cattle — herds, milking, and the processing of milk products — remarks that arid regions, the steppe and savannahs, are more likely to be home to sheep and goats. In areas where water is less scarce, or lands that are heavily irrigated or swampy, cattle are more likely to be the predominant form of livestock (Gouin 1993, 135-6, 145).

At Urkesh, amongst our domestic faunal samples cattle represent “a distant fourth” (Buccellati, Kelly-Buccellati, et al. 1997). Sándor Bökönyi states that low frequency of faunal finds is a sign of the animal's lesser economic importance to ancient Urkesh (Bökönyi 1994). Of course, we would further have to assume that frequency of representation bears a direct relationship to occurrence of the animal in the real world. This latter assumption has yet to be established. Exactly the contrary situation pertains with equids; there are many more representations of that genus than are proportionately represented in the faunal sample. The same is true for carnivores at Urkesh.

### A MINIATURE Genus

The majority of the finds identified as *Bos* are quite tiny, so small in fact that they rightly belong to a class of objects we could call MINIATURES. The greater numbers of *Bos*, for example, are less than 4 cm in length. By comparison with other genera, they are quite small.

The MINIATURE designation began as a subjective characterization, because there were many small objects in every category of find, whether humanoid, animal or domestic object (for example, tables, beds). More often than not, the judgment was based on comparison of a given object to other similar objects retrieved.

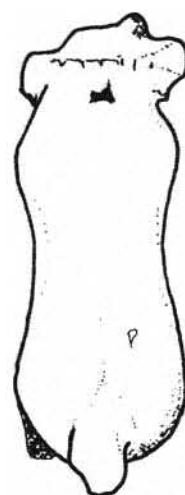
Amongst *Canis*, for example, A6.274 is remarkably tiny (height is 1.46 cm). It must be considered a MINIATURE, particularly as the object is compared to other figurine finds recovered in the Royal Building.

### FIGURE 12

#### APPARENT VS. ACTUAL BODY LENGTH



**Bos 5 A6q439.1.**  
(length 4.28  
extended length 4.29)  
Scale 1 : 1.  
(rendering cw H628)



**Bos 10 A7.396.**  
(length 4.7  
extended length 6.36)  
Scale 1 : 1.  
(rendering cw I705)

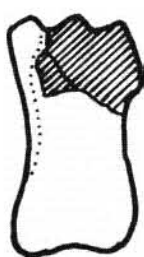
As a provisional classification, I will call MINIATURE figurines in the *Bos* corpus those that, rounded up or down to the nearest whole number, do not exceed 4.0 centimeters in length (diagnostic body length, not the overall relative measurement in extension taken for rendering purposes).

Using this criterion, I have chosen to call *Bos* 5 A6q439.1 a MINIATURE, (body length, 4.28 cm; overall body length, 4.28 cm); and I have chosen not to call A7.396 a MINIATURE (overall length, 6.36 cm; body length, 4.7 cm), even though the figure is diminutive. Although there is a perceptible difference between the two representations in terms of overall body length, there is only 0.42 cm difference in actual body length.

**FIGURE 13 ACTUAL VS. EXTENDED MEASUREMENTS**



***Bos* 300 A8.6.**  
(length 2.55, extension 2.88)  
Scale 1 : 1.  
(rendering cw H628)



***Bos* 1 A1.12.**  
(length 2.8, extension 3.18)  
Scale 1 : 1.  
(rendering cw H628)



***Bos* 6 A6q538.1.**  
(length 2.7, extension 3.2)  
Scale 1 : 1.  
(rendering cw I705)

### Measurements

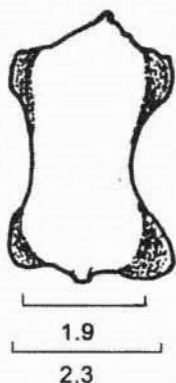
When comparing body proportions of the renderings in the catalog, remember that the measurements noted are those taken at the points of furthest extension — a draftsman's view, in effect. As an example, the extended body lengths of *Bos* 300 A8.6, *Bos* 1 A1.12, and *Bos* 6 A6q538.1 in Figure 13 above appear to be very nearly equal; but this is an accident, not design. It is not immediately apparent that the body length of *Bos* 6 is in fact 10 mm less than the body length of *Bos* 1 and 15 mm greater than the body length of *Bos* 300; only measurement taken in a consistent manner can determine this. However, where there is breakage, the extended measurement depends upon accidents of conservation in the ground and recovery. Actual body length by contrast was decided upon and came about by the volition of the craftsperson who made the object.<sup>1</sup>

Significantly, within our typology, ratio and proportion determine the genus to which the artifact is assigned. Ritual breakage has yet to be substantiated, but it would not in any case form the basis for diagnostic measurement, except in quite special circumstances.

In those rare instances where appendages are intact and measurement can be taken to a termination, height (to withers, with *Equus*, for example), length of the appendage may be taken into account. Measurement to a broken appendage and not to termination cannot be diagnostic. Other factors, such as angle of leg to body join, may also be taken and are not compromised as often by breakage.

<sup>1</sup> I have not set a limit to artisanal tolerances, but have tried to be circumspect when allowing such variance in the analysis of ratio and proportion. A typology, after all, is a *guide*, not an invariable canon.





**FIGURE 14**

**W3: ACTUAL VS. EXTENDED MEASURE**

*Bos 3 A5q792.1.*

Dorsal view, comparing  
hindquarters (w3) measurement  
and legs at their  
fullest extension.

Scale 1 : 1.

(rendering cw f721)

Typological measurements of body length are taken from breast ridge to rump or buttocks, not including the tail or the extension of neck or muzzle beyond the forequarters. A veterinarian would say that these points are where the cranial and caudal ends of the body intersect the frontal plane. To include breast ridge and not tail seemed defensible; the breast ridge is a bodily mass, whereas the tail is an appendage. This is not to say that the tail has no diagnostic value; the contrary is true, the width at the base being of particular importance with *Equus* and with *Ovis*.

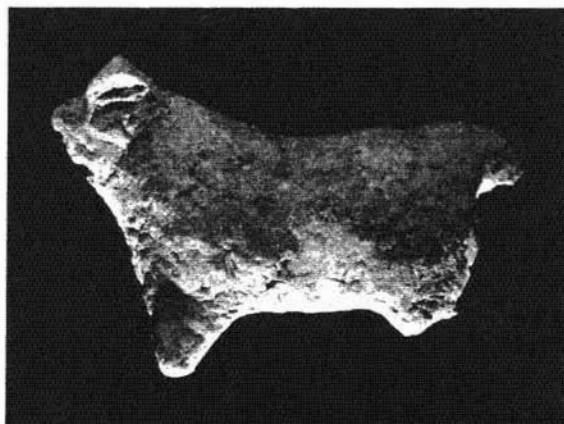
When seen in dorsal view, the equality of the *Bos* proportion may not be immediately apparent, for the legs often swell outward from the torso, contributing to the impression that the quarters are much wider than the torso (see Fig. 14).

This relationship of legs to the cylindrical form of the body is immediately apparent when the objects are handled. With *Bos*, there is also a kind of “secondary undercarriage” — an underbelly of sorts — related to the melding of breast ridge with body and the founding of the sexual parts in the belly that sometimes falsifies the impression of the way forequarters and hindquarters join the body cylinder. See the INTRODUCTION for graphic renderings of this phenomenon.

### Identification

There is rarely a question about the identification of *Bos*. The body type is distinctive and it fairly leaps to attention.

1 : 1 : 1 — the width of the forequarters is equal to the width of the hindquarters is equal to the width of the torso. Simplicity itself.



*Bos 10 A7.396 TYPE (TEMPLATE) .*

Left median plane.

The angle is from below, thus the foursquare aspect of the figurine is somewhat compromised.

Scale 1 : 1.

(photograph VDK1700 DSCN3194)

When the head of the animal is intact, the identification is generally made easier, particularly if the horns cross the crown of the head and curve gently outward perpendicular to the sides of the head.<sup>2</sup>

*Canis* and *Ursus* also have a heavy body type, so some care must be taken to differentiate them from *Bos*.

## GENUS *Bos*

### THE TYPOLOGY

#### PRIMARY CHARACTERISTICS

$w1 \geq w2 \leq w3$  where  $w1 = w2$  (or, for all practical purposes,  $1 : 1 : 1$ )

The *Bos* body type is stocky and the forequarters, hindquarters and torso are most frequently equal in width (taken in the frontal plane).

$lg \leq 2w1$

Body length is equal to or a little less than two times the width of the forequarters.

$w1@neck \leq w1$

The neck fuses with the torso.

*Bos* and *Ursus* share this detail. The snout of *Ursus* tapers to a blunt point, however, and serves to distinguish the genus, at least as we have chosen to distinguish it in this corpus. The snout of *Ursus* 406 A7.239, exceptionally, has a blunt termination. However, the snout itself tapers appreciably and there is a deep cut under the muzzle that is never encountered amongst the cattle at Urkesh.

## GENUS *Bos*

### THE TYPOLOGY

#### SECONDARY CHARACTERISTICS

In addition to the body ratios above, *Bos* representations may exhibit some or — not infrequently — all of the following characteristics.

#### FOREQUARTERS AND HINDQUARTERS ARE FUSED

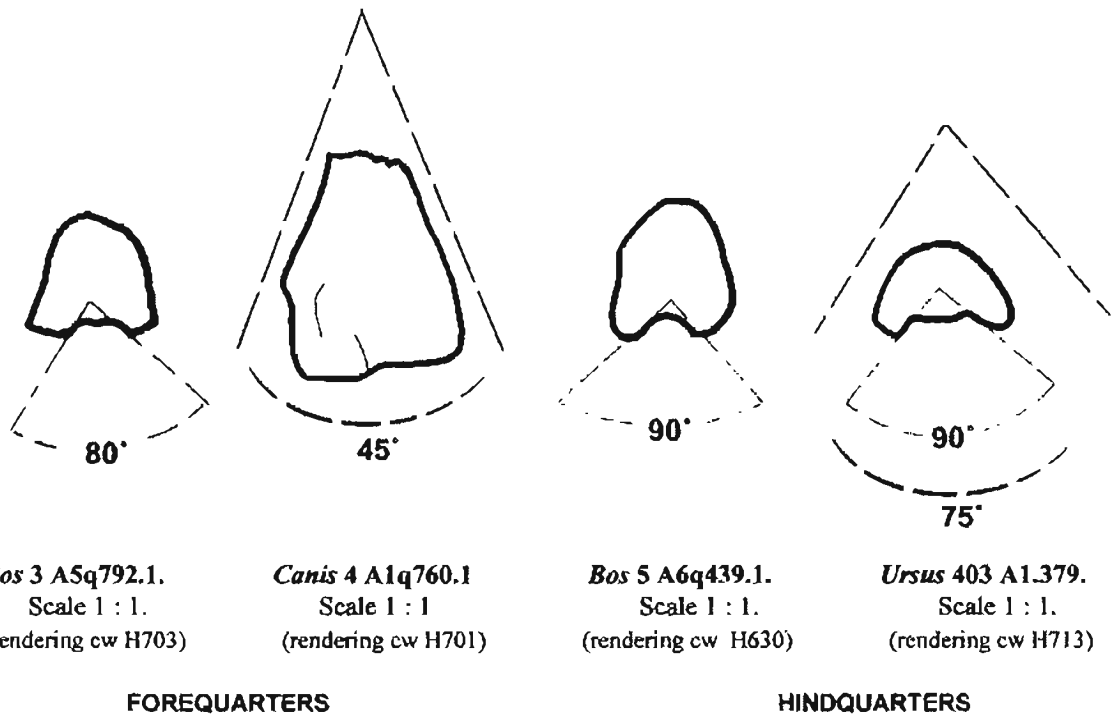
This characteristic, as has been noted elsewhere, can be somewhat misleading — if legs are missing, buttocks may appear to be fused. Depending on how the legs are executed, the character of the stance may change.

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<sup>2</sup> I know of one Jemdet Nasr example, a “ritual vase decorated with animals in low and high relief,” where the horns of a bovine curve down, under, and back up on the crown of the head, somewhat in the manner of *Ovis* (Amiet 1980). Even so, the horns are carried high, a fairly distinctive feature.



In the case of *Bos*, however, every indication is that legs are relatively stocky and short, so we should not expect the characteristic stance of the hindquarters to change much, even were the legs reconstituted. See as an instructive example *Bos* 10 A7.396, a figurine that exhibits a terminated leg.



**FIGURE 15**  
**STANCE *Bos*, *Canis*, *Ursus***

#### **FOREQUARTERS AND HINDQUARTERS ARE SOLIDLY FOUNDED**

This detail distinguishes the body type of cattle from genera of similar body type, such as bears and dogs. The forequarters and hindquarters of a solidly founded animal representation (as, *Bos*) will be bounded by an inverted U. An inverted V will contain the forequarters (less open with *Canis*) or the hindquarters (quite wide in the case of *Ursus*) of an animal not standing in what I call a "four-square stance". Note nonetheless that the hindquarters of *Canis* are solidly founded.

The angle at which the legs meet the body is one other consideration that may prove diagnostic.

**FOREQUARTERS CARRY A BREAST RIDGE THAT CONTINUES ONTO THE BELLY.**

**SEXUAL PARTS ARE EXPRESSED.**

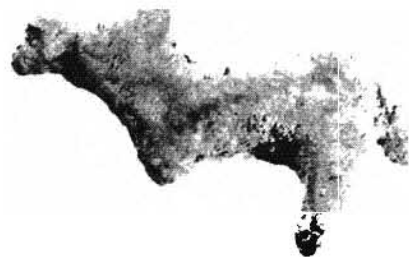
**SEXUAL PARTS ARE CARRIED FORWARD IN THE BELLY.**

These latter two details are diagnostic, distinguishing *Bos* figurines from the bear and the dog, both of which have a heavy body type.

### A Rare Example

An exception to the *Bos* body-type is *Bos* 202 BH.15, a clear representation of *zebu* found on the site. While forequarters and hindquarters are equal in width, the torso is long and lean, markedly less wide than either. The hindquarters are solidly founded, in the manner of other examples of *Bos*.

As the presence of the *zebu* is remarkable, this comparative example from third millennium strata in Area BH has been included here.



*Bos* 202 BH.15. Left median view.

Scale 1 : 1.

(photograph MZ8b E152, slightly tilted away from the camera, falsifying object proportions; the animal is sleeker than it appears here)

### *Zebu* at Munbaqa and at Urkesh

A number of figurines, which the excavators have identified as *zebu*, have been recovered at Tall Munbaqa, namely, Nrs. 443–457, 472–475 (torsos), and 476–485 (forequarters). This entire sub-category of animal representation dates from the Later Bronze Age. Each of these figurines exhibits a pronounced, rather narrow, blunt hump high on the neck. The feature brings to mind perforated ring attachments of some Urkesh figurines (conceivably, *Bos* 103 A7q917.1). Mbq. Nr. 451 exhibits a more gradual rise from torso to crown and bears the *blesse* on the crown ( a “blaze” or somewhat geometric marking, light in color as contrasted with the rest of the pelt, on the animal itself). Compare *Equus* 37 A7.407, which exhibits a gradual rise from torso to crown; in this case a mane, but with two perforations.

All *zebu* in the Munbaqa corpus carry the tail high, as do Urkesh *Bos*. As documented in the present catalog, only a very few examples of what may be *zebu* have been recovered from third millennium levels at Urkesh. Two notable exceptions from Urkesh are *Bos* 100 torso IN PROCESS OF MANUFACTURE A5q294 and *Bos (zebu)* 302 torso MINIATURE BH.15. In contrast to the rest of the Urkesh *Bos* corpus, their proportions are similar to the lean silhouette of the Munbaqa *Bos* figurines.

In later strata, numerous examples of what appear to be humped cattle have been recovered at Urkesh. They have been recovered from outside the Royal Building and most date to Khabur/Ur III times.

Of the Munbaqa humped cattle, Nr. 479 is notable for incised decoration that covers the entire body, including the head; seemingly, the body incisions represent a blanket or covering thrown over the back, whereas the head markings develop into a possible bridle; on the crown, a detached triangle has also been incised. Decoration on the Urkesh *zebu*, which may cover the entire body, is executed in the brownish-red paint characteristic of the Khabur and is familiar from the decorated pottery of the period.

A more developed commentary on Urkesh cattle recovered from early second millennium levels and later must be reserved for another volume in this series.

**Bos at Chuera/Palast F**

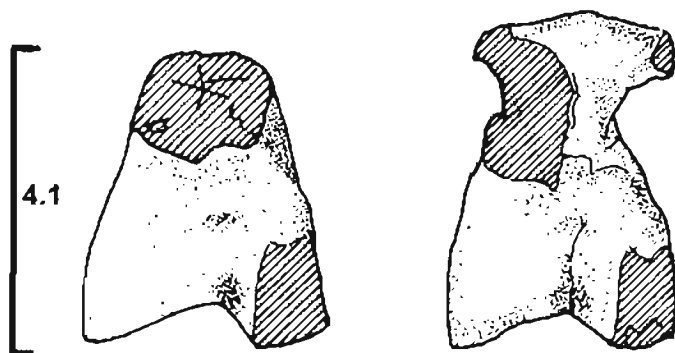
Animal figurines were found in quantity in Palast F at Tell Chuera (Orthmann and Pruss 1995); most appear to be cattle. The typology of the *Bos* figurines differs from that at Urkesh; the excavators distinguish two types, one with blocky heads and those with longer necks and thin tapering muzzles.

The distinction is difficult to maintain. What if, for instance, we were to break off the head of Abb.69/39 or Abb. 69/40 and consider each by itself? Would we say that it belonged to the second group of *Bos*, those with long necks and slender muzzles? This concern notwithstanding, the excavators are to be commended for their effort at categorization and their attention to the small finds.

**Horns**

If the *Bos* TYPE is relatively easy to identify, its horns are not. An assemblage of representative finds is included amongst the PLATES. See **COMPARATIVE TABLE 3 APPENDAGES HORNS (*Bos*)**. It was not until after several seasons that enough examples were retrieved to enable meaningful comparison. Each example is discussed in the CATALOG.

Were *Bos* heads intact at Urkesh, I believe we would see a great many more examples with horns extending outward to the side and curving forward from the crown, in the manner of Urkesh miniature *Bos* 305. Witness the rather large numbers of horns catalogued here.



*Bos* 206 A14q275.3. Torso with partially intact head and horn..  
Cranial view.

On right, forequarters with the fragment affixed to the forequarters.  
Scale 1 : 1 (rendering cw N806, N826 repaired)

An exemplary figurine, *Bos* 206 A14q275.3, illustrates the point. It was recovered during Mozan Excavation Season 16 and therefore lies outside the scope of this study, but is from contemporaneous strata and included here for comparative purposes. Torso measurements conform perfectly to the typology, as exemplified by *Bos* 10 A7.396.

Yet this figurine has more to teach. When it was recovered, a small fragment was included with the find, but it was unclear how it was attached to the representation, if it were at all part of the same piece.

The figurine was washed — and began to disintegrate. It was unbaked. Subsequently, conservator Sophie Bonetti restored the piece, and we were able to document diagnostic measurements. Only sometime later did it become apparent that the accompanying fragment was the head of the animal. A fragmentary horn jutted out from the left of the fragment. Conservator Beatrice Agnelli affixed the head; we decided not to restore the piece further for fear of falsifying measurements.

When the fragment was attached, we were able better to see in profile *Bos* body conformation and the way the head was carried than had heretofore been possible. Dorsal and cranial view and the left median plane are dramatically changed.

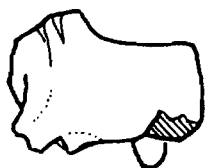
*Bos* 206 A14q275.3, then, is *Bos* at Urkesh as near to complete as we now have it. The representation is reproduced both with and without the attached fragment as a plate following the descriptive catalog.

# BOS

## 1 *Bos* TORSO MINIATURE

**A1.12**

Recovered from feature 17, relay 27 (slc)/r67 (fab) • length 2.8 • forequarters 1.48 • torso 1.45 • hindquarters 1.47 • note on measurement: 1.48 : 1.45 : 1.47 = w1 : w2 : w3 • fabric medium fine with some inclusions • Munsell reading 10YR 4/1 • color dark grey • texture “nubbly” • preservation: all appendages broken, tail intact

*Bos* 1 A1.12.

Left median plane. Tab visible, lower right (this is not the leg).  
Scale 1 : 1.  
(rendering cw H628)

This MINIATURE object has, as do other examples of the genus, a slight ridge between the front two legs. I take this to be the breast ridge. It terminates in the belly and may represent the tuft of hair bulls carry at the tip of the penis where it emerges from the belly. The buttocks are fused. The hindquarters are contained within an inverted U, solidly founded and the inside stance is an open V of 90 degrees. There is a prominent breast ridge.

Between the hindlegs, there is a tab. This detail was at first taken to be a penis, but the tab projects back toward the hindquarters, not forward as would the sexual organ. This may in fact be the base of a protrusion used to hold or support the object. *Bos* 3 A5q792.1 displays this same tab.

The texture of the fabric — described as “nubbly” — is found occasionally, usually in a dark red or gray medium. Is this an inconsistently mixed medium? It seems not to be a result of the inclusions. *Felis* 8 shares the texture, but the Munsell color name is “pink” and the color value is not so intense.

At first, the author and Sándor Bökönyi concurred that this figurine was a dog. Our identification was based on the gestural reality of the piece, for the head was carried high and what we took for the sexual organ was expressed and protruding. However, a season later, I changed the identification to *Bos*. All diagnostic features, with the exception of the height at which the head is carried diagnostically point to a bovid.<sup>1</sup> *Bos* 206 A14q275.3, a find in Excavation Season 16, with head partially intact, invites reconsideration of whether or not *Bos* head carriage might be diagnostic. Certainly, the head/neck join is a consistent indicator of the genus.

**Munbāqa. Tierfigur Mbq 28/37-1 MBQ 383** (Czichon, Werner, et al. 1998, Tafel 197). The object was found in early Bronze Age strata. Note the angle at which the head is carried and the thickness of the neck. Presence of broken horns is useful when considering the original appearance of the Urkesh *Bos* figurines. Tail not carried high. Body proportions are 1 : 1 : 1.

<sup>1</sup> As Krieger sensibly remarked a half-century ago, “Each *specific combination* of features — that is, the manner in which they combine — is of greater determinative value than any single feature.” (1944 [January])

## 2 *Bos* TORSO MINIATURE

A5.148

Recovered from feature 66 locus 18 stratum B12B • length 3.5 • forequarters 1.7 • forequarters (neck/body join) 1.34 • torso 1.37 • hindquarters 1.7 • height at forequarters 1.875 • fabric medium fine, few inclusions • Munsell reading 5Y 3/1 • color very dark gray • conservation: heavy depositional stain or possible carbonization on surface overall from burning • preservation: tail intact and a clear exemplar; all appendages missing

The tail of this MINIATURE object is carried high on the rump; it projects slightly and hangs down. There is a hole visible on the neck; what is at first taken for a “mane” may be a raised area for perforation. The neck is stocky; compare the neck and the carriage of the head to *Bos* 1 A1.12. The penis is carried in the belly. There is a hole at the tip of an undulation (in the belly) that may represent the tip of the penis. If it is not related to the organ, then it may be a hole for a support; it is at least 0.03 cm deep. The hindquarters should be compared with hindquarters *Ovis* 3 A1q474.1.

The figurine is built on a core. Detail visible at neck. There are signs of scraping in order to model the left flank.

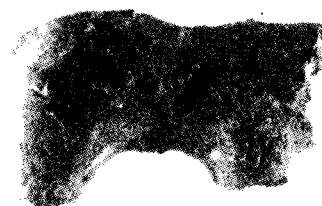
## 3 *Bos* TORSO MINIATURE

A5q792.1

Recovered from feature 107 locus 5 stratum B12A • length 3.65 • forequarters 2.0 • torso 1.6 • hindquarters 1.9 • fabric fine, chaff temper • Munsell reading 10YR 3/1 • color very dark gray • preservation: all appendages broken; forequarters and head broken off in a clean vertical plane, leaving intact diagnostic forequarters profile; tail broken at tip

The figure has the same diagnostic features as *Bos* 1, with the exception of the carriage of the neck/head; here, the neck fuses with the body. An unusual protrusion, first identified as a penis, is found here; but so, also, is the tuft of hair further forward on the belly.

Note that the ratio of forequarters to hindquarters ratio (w1 : w3) is 1 : 1; the torso is only eighty-five percent of the hindquarter width. The hindquarter stance is an open inverted U with fused buttocks. The forequarter stance is a slightly open inverted U.



*Bos* 3 A5q792.1.  
Right median plane.  
Scale 1 : 1.  
(photograph MZ8a E81 [?])

On the back, there are two broken raised areas that have the look of gas bubbles (see photograph MZ8a E81 [?]); the ware may have been overfired. Also visible in the photograph are fingerprints at leg/body joins and at the tail/body join where the medium was shaped from a basic clay cylinder.

Munbāqa. *Tierfigur* Mbq 28/37-1 MBQ 383 (Czichon, Werner, et al. 1998, Tafel 197). See *Bos* 1 torso MINIATURE A1.12.

**4      *Bos* TORSO WITH LEFT HINDLEG MINIATURE****A6.156**

Recovered from feature 211 locus 22 • length 3.08 • length (neck to left hindleg) 3.2 • forequarters 1.55 • torso 1.45 • hindquarters 1.50 • height (forequarters) 2.0 • height (hindquarters) 2.4 • fabric medium, heavy chaff temper • Munsell reading 7.5YR 5/1 • color gray • preservation: torso only; three appendages and head broken off; left hindleg intact



*Bos* 4 A6.156. Cranial, right median plane, and caudal views.

Note the different body join of the hindlegs and forelegs.

The thick neck/body join is diagnostic.

Scale 1 : 1.

(photographs Neg. 36A B04i7, Neg. 31AB04i7, Neg. 33A B04i7)

The forequarters and hindquarters of *Bos* 4 are solidly founded — and the hindlegs join in an eighty-degree angle. Compare *Ovis* 4 A1q558.1. The forequarters are contained within a narrow inverted U, while the hindquarters are contained with a gently incurving U. Neck/head juncture is not marked, and one becomes the other. The left hindleg is terminated and intact. A very useful detail.

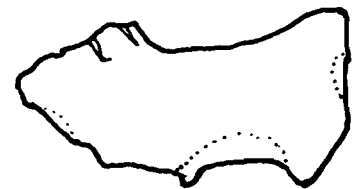
The fabric is overfired. There are at least three gas bubbles on the right flank.

**5      *Bos* TORSO MINIATURE****A6q439.1**

Recovered from feature 29 locus 218 • length 4.28 • forequarters 1.82 • neck 1.64 • torso 1.75 • hindquarters 1.89 • height at hindquarters (break-to-break) 2.3 • fabric medium fine with some large inclusions and silica • texture nubby • Munsell reading 7.5YR 7/3 • color pink • note on color: no patination, but slight gloss due to handling (?) • preservation: all appendages broken off; forequarters badly abraded, almost half of hindquarters missing

The tail of this MINIATURE *Bos* torso is carried high. The hindquarters are fused and the stance is an open inverted U. The buttocks are fused. The breast ridge is long, rising from belly to neck, in front of forelegs. Compare with *Bos* 305 BH.15 (*zebu*). The termination of the breast ridge may indicate sexual organs, carried in belly.

The forequarters, too, are solidly founded in a wide inverted U. The left foreleg joins the body at 135 degrees. The orientation of this object is difficult to determine and the pattern of breakage does not help. Compare this figurine with *Bos* 3 A5q792.1 (for tail, sexual organs, and stance).



*Bos* 5 A6q439.1. Left median plane.

Note that if the figurine is solidly founded,

then the tail must be carried high.

Scale 1 : 1.

(rendering cw H628)

**Munbāqa. Tierfigur Mbq 28/37-1 MBQ 383** (Czichon, Werner, et al. 1998, Tafel 197). See *Bos* 1 torso MINIATURE A1.12. Also study tail and body conformation of **Halawa A. Rinder, esp. Nr. 13** (Meyer, Pruss, et al. 1994, Tafel 30, also Tafel 31). Clockwise rotation of *Bos* 5 in vertical plane facilitates comparison

## 6 *Bos* TORSO WITH TAIL INTACT MINIATURE

**A6q538.1**

Recovered from feature 177 locus 21 • length 2.7 • forequarters 1.31 • neck 1.25 • torso 1.4 • hindquarters 1.45 • height at forequarters 2.33 • height at hindquarters (to break in left hindleg) 1.12 • Munsell reading (fabric) 5YR 7/1 • color (fabric) light gray • Munsell reading (patina, depositional deposit) 5YR 5/1 • color (patina, depositional deposit) gray • preservation: head chipped; appendages broken; tail intact

Fingerprints cover the body of this MINIATURE, particularly on the right flank. To what extent this detail might reflect care in the modeling of this diminutive object is worth considering. The musculature of this example was formed with the fingers, not by scraping with an instrument. Note the neck/torso join at the forequarters.

The sex is carried far forward in the belly (visible in right median plane). The hindquarters stance is a narrow outcurving inverted U. The buttocks are fused and the tail hangs down, but is carried slightly up. Compare with intact torso *Bos* 10 A7.396, particularly the tail that is carried high and thick, hanging down.



*Bos* 6 A6q538.1.  
Right median plane.  
Scale 1 : 1.  
(photograph MZ VE10-0505)

Munbāqa. *Tierfigur Mbq 28/37-1 MBQ 383* (Czichon, Werner, et al. 1998, Tafel 197). See *Bos* 1 torso MINIATURE A1.12 for additional commentary.

## 7 *Bos* FOREQUARTERS BEARDED BULL MINIATURE

**A6q569.1**

Recovered from feature 176 locus 218 • height 2.55 • thickness (leg to leg) 1.6 • length (knee, to break) 1.75 • fabric fine, uniformly fine chaff temper • texture smooth, burnished • Munsell reading (fabric) 7.5YR 8/2 • color (fabric) pinkish white • Munsell reading (slip) 7.5YR 6/1 • color (slip) gray • preservation: upper part of figurine missing

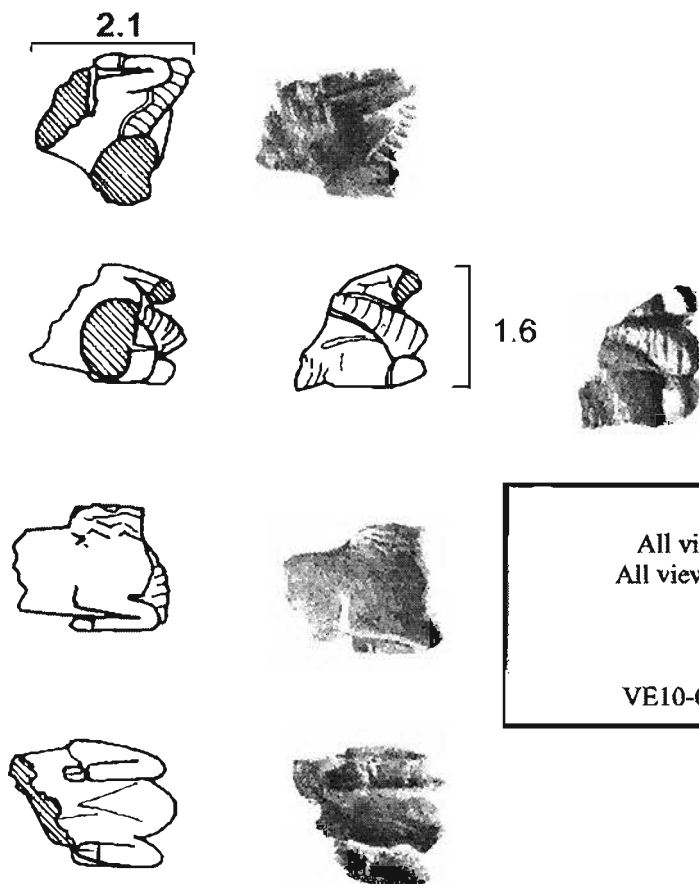
The portions that are extant are in excellent condition; the piece is nonetheless only a fragment. The only indication that this *Bos* torso was human-headed is a fragment of the beard, indicating also that the head was turned to the right, over the body, as opposed to looking straight ahead. Two contemporaneous monumental sculptures (discussed amongst comparanda) show bovids with human attributes looking over the opposite shoulder, that is, turned left; the carriage of the head is erect in both, however, and it is based on this detail that I say the Urkesh example is looking right. The layout of the incisions that indicate the beard seems to confirm this impression. The beard is detailed by three regularly-spaced chevrons (0.01 cm apart), composed of diagonal lines alternating with horizontal lines; they appear not to join, but do indeed give the impression of chevrons.

The forelegs are folded back under the body and are terminated on the underside of the piece by cleft hooves. Between the legs, slanting from lower right to upper left, is a tapering protrusion that might be construed as the breast ridge or possibly a macelike tool or even an apron of some sort. This detail is covered with seven thin incisions progressively more tightly spaced near the top. If, as it appears, the head is turned to the right over the body, then it is possible that this tapering protrusion is a braid from the back of the head, as is sometimes seen on humanoid figurines (the plaited hair style of the queen of Urkesh is but one example).



The piece is carved in the medium, rather than modeled with the fingers. It appears to have been crafted reductively from a cylindrical core.

The surface of the figurine is burnished. As there is no sign of depositional stain or adhesions, we must assume that the surface patination is a detail of manufacture. At the break, there is a clear differentiation between the fabric and the exterior surface treatment. This is the slip. Note that the slip is in the same hue, but slightly less intense chroma, and a substantial increase in value, moving toward the grays. This is somewhat more extreme than we see elsewhere in the corpus, a sign that the maker treated the slip somehow. It is unlikely this color effect could be achieved through dilution of the medium. The surface of the terra-cotta Urkesh figurine is burnished, as if in imitation of harder stone.



*Bos 7 A6q569.1.*

All views rendered except caudal view (broken).

All views illustrated except caudal and dorsal views.

Scale 1 : 1.

(rendering cw I728)

(photographs [top to bottom]

VE10-0806, VE10-0805, VE10-0804, VE10-0807)

An alert **reclining bull with a human head (TB11001)** was recovered in the Akkadian Buildings excavated during the 1990–91 season at Brak. (Oates 1991) This marble sculpture (41.5 cm in length) was not found in situ; it is not certain whether it is Akkadian or Early Dynastic in date. The Drs. Oates find close stylistic parallels with Mari, while noting that no bull-men are found at this site. They cite an exact parallel for the pose at Ebla in a small statuette of reconstructed gold leaf once overlaid on wood (I reproduce this figure as a comparative example in *DISCUSSION Ovis*, where I discuss applied hair and pelts.). The chevrons of the beard, which on the Urkesh *Bos* are laid on as a narrow horizontal band around the neck, are applied in two wide horizontal rows one atop the other across the beard of the Brak sculpture. Both front legs of the Urkesh exemplar are folded under the body in contrast to the raised right foreleg of the Brak sculpture.



**Human-headed bull from Tell Brak (TB 11001).** Length 41.5 cm.

(Oates 1991, 134–135, Plates XXVI–XXVII).

The authors call attention to “an interesting combination of South Mesopotamian and North Syrian features.”

(photograph courtesy of Dr. Joan Oates, Tell Brak Expedition)

Parallels are also cited on **late Early Dynastic and Akkadian seals from Brak (Plate XXVIIIe)**. R. J. Matthews and colleagues unearthed an important collection of sealings of Akkadian date in Area HP during the 1994 excavation season. One of these is reproduced below.



**Sealing with bull-headed man,**  
recovered amongst 276 others,  
of “provincial style”

(Matthews 1994, Fig. 13/16).

Reproduced without regard to scale.

Reproduction courtesy of  
Dr. R. J. Matthews.

Of especial note is the guilloche seen in the upper right of this sealing. Here, it fills negative space. In another sealing from this important corpus (Fig. 13/10), horizontal bands are more prominently featured. They appear to be abstract renderings — horizontally laid — of bull-headed figures! This iconographic fantasy lends added credence to Mallowan’s assertion that the bucrania of an earlier time were repeated — horizontally laid — late in the Halaf period. See *Ovis DISCUSSION*.

At Mari, small charms are rendered as human-headed bulls (see below left.). Here the tail folds back and over the body, “as in Sumer,” says Parrot (Parrot 1956, 157) — but, strikingly, the rendering is similar to the “beard” fragment from our Urkesh bull-human. Also see seal h4 Seal of Innin-Sadû from the AK sealing corpus (Buccellati and Kelly-Buccellati 1996, Fig. 5/d) and below.



1 072

**Human-headed bull from Mari,**  
M.1072, Pre-Sargonic levels.

This is a small charm,  
crafted from plaster-stone (gypsum).  
Length 0.036 m, height, 0.040 m.  
(Parrot 1956, 157, Fig. 94)

Another striking example is the contemporaneous **stone sculpture of a cow with beard tied on from Khafajah**. Object 293 was found in an altar in Nintu Temple VI at Khafajah. The beard is “rendered as a tied-on appendage, fixed with a strap over the muzzle.” So specific are the details of beard attachment that Frankfort is of the opinion there must have been an actual prototype for the figure (Frankfort 1943, 9–10, Plates 46–48) — the attachment is clearly visible in Plate 48. All four legs are folded under the body, as are the forelegs of A6q569.1. The dorsal view of the stone sculpture is strikingly similar to that of the Urkesh figurine, in that the legs, strictly parallel and terminated in cleft hooves, define the outer contours of the torso.

Another variant on the body posture with the human-headed animal facing straight ahead, neither left nor right, is seen in **another Khafajah object (294, Plate 49)**. I cite it here because the beard is strongly detailed with curls in front and the mane falling from the top of the head terminates above the folded forelegs on either side of the head. Another reading of the incisions and modeling of A6q569.1 could yield such a posture (that is, the beard chevrons might be read as the termination of the hair; the regularly incised protrusion could be read as the beard under the chin of the animal.).

**A bull in a similar posture** — but rather more familiar in style — is seen in another chair terminal from the Early Dynastic, excavated in the Square Temple at Khafajah (Frankfort 1939, 33, Object 155, Plate 92A, B). The animal is obviously a domestic creature, haltered (and with no beard) and an example of Frankfort’s “earlier style.”

**A human-headed bull from Ebla (T.M.76.G.850)** is portrayed with one leg upraised, as is the Brak example, but looks to the right, as does the Urkesh terra cotta (Matthiae 1980 [1977], 79–80, photograph 5).



**Human-headed bull**  
from a sealing (A1q75.18) among  
the queen’s seals in the Royal Storeroom at Urkesh.  
(Buccellati 1996, 16;  
Buccellati and Kelly-Buccellati 1996, Fig. 3/c)  
Not reproduced to scale.  
(rendering ch 1995)

**A human-headed bull (left)** is represented among the queen’s seals at Tell Mozan. On A1q75.18, the seal of the queen’s nurse Zamena, the bull is lying to the lower right of the scene showing the Nurse touching the royal child who sits on the lap of Queen Uqnitum (conflated seal h1–2). Only one foreleg is represented; the hoof is on the ground, the knee raised. The hindlegs are folded under the breast. The beard hangs down from the human head, and contains six ringlets, corresponding to the “thin incisions” seen on A6q569.1.

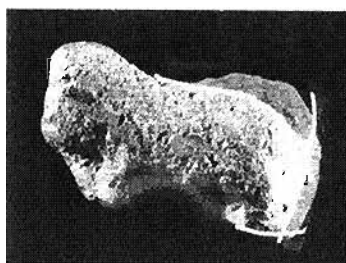
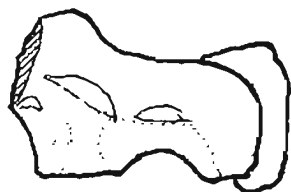
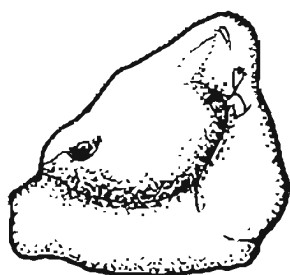
8 *Bos* TORSO IN PROCESS OF MANUFACTURE MINIATURE

A6q626.1

Recovered from feature 115 locus 168 • length 3.11 • thickness (undifferentiated head/neck) 1.18 • torso 1.2 • height at hindquarters (to unfinished termination) 1.6 • height at forequarters (below neck-break) 1.55 • note on measurement: torso measured vertically • fabric incompletely prepared (wedged); small air bubbles throughout; fine chaff-temper • Munsell reading 5YR 8/3 • color pink • preservation: head heavily abraded; clean break at forelegs, hindlegs incompletely formed

This *Bos* torso is still attached to the fabric from which it is being extracted. As such, it is an instructive object. The fabric for the animal would be pinched off of a thick flat piece of clay, then shaped with the fingers or with possible additions of fabric. Compare with *Bos* 6 A6q538.1, an example that is formed with the fingers.

The left flank is complete. The neck fuses with the head and there is a breast ridge.



*Bos* 8 A6q626.1. Left median plane.  
Scale 1 : 1.  
(rendering cw I706)  
(photograph MZ7 B0504A)

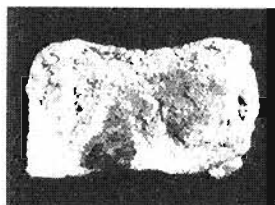
The body of the bovid stands out from the mass of clay behind, but has not yet been separated from it. The clay mass was likely a flat slab worked and pushed into place.

The presence of fingerprints would enhance this theory of manufacture, but they have been eroded away. The working instrument may have been flat and blunt, eventually used as a cutting tool to separate the figurine from the raw slab.

9 *Bos* TORSO MINIATURE

A7.95

Recovered from feature 89 locus 10 • length 2.96 • forequarters 1.75 • torso 1.65 • hindquarters 1.8 • height at forequarters 1.8 • height at hindquarters 1.9 • fabric chaff-tempered, many inclusions • Munsell reading 2.5Y 7/2 • color light gray • preservation: all appendages broken, left foreleg and right hindleg less so; torso chipped on left flank

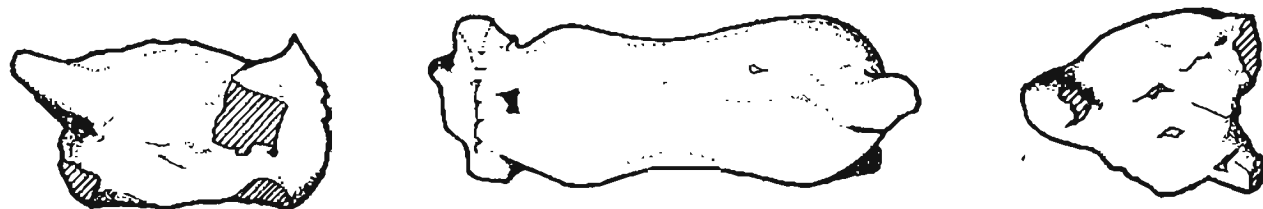


The hindquarters are an inverted U. The angle of the leg join is eighty degrees. The left foreleg joins the body at an angle of 130 degrees. The tail is not completely intact and is carried high. Orientation front to back is problematic.

*Bos* 9 A7.95.  
Right median plane.  
Scale 1 : 1.  
(photograph NEG. 24A504i7)

**10    *Bos* TORSO WITH CROWN AND RIGHT FORELEG INTACT TEMPLATE****A7.396**

Recovered from feature 264 locus 22 • diagnostic length 4.7 • length (break in muzzle to break in tail) 6.36 • forequarters 2.18 • neck 2.1 • thickness (horn to horn) 2.415 • torso 1.99 • hindquarters 2.23 • tail 0.8 • fabric medium fine, inclusions • Munsell reading 5YR 7/2 • color pinkish gray • preservation: horns and tail broken; snout broken off; right foreleg terminated



*Bos* 10. A7.396. Cranial, dorsal, and caudal views.

Scale 1 : 1.

(rendering cw I705)

In excavation season MZ11, this *Bos* torso with crown and right foreleg intact, was designated the TYPE figurine for *Bos*. Now, we refer to these exemplars as the TEMPLATE, recalling the ideal image referenced by the craftspersons who made the objects.

This piece is almost twice as large as many examples of the genus. Some of the MINIATURE figurines exemplify the genus equally well; yet this piece has one leg and the head in place and these details helped in the identification. There is no denying that realistic details have power when the researcher is assigning an animal to one or another genus.

The horns of *Bos* 10 A7.396 gently curve over the crown of head, projecting slightly down and out from the side of the head. There are regularly spaced incisions across the top of the horns. Compare this detail with theriomorphic attachment *Bos* 13 A7q867.1.

The forelegs join at an 80 degrees angle. The tail is thick and is carried high. There is no discernable breast-ridge and no apparent sexual parts. The hindquarters swell outward slightly and are founded in an inverted U. The hindlegs join at approximately eighty-five degrees. Right foreleg joins torso at 130 degrees.

**Munbāqa. Tierfigur Mbq 28/37-1 MBQ 383** (Czichon, Werner et al. 1998, Tafel 197). The horns of the Urkesh exemplar are atop the head and appear to curve down slightly, in contrast to the Munbāqa figurine. See *Bos* 1 torso MINIA-TURE A1.12 for additional commentary. Also see the forequarters conformation of **Mbq 24/26-3 MBQ 496** (Tafel 84), although the figurine is identified as a ram and it is from Late Bronze layers. Horns broken, but probably curving back, not downcurving. **Mbq 14/20-2 MBQ 458** (Tafel 82), from Late Bronze strata, is identified as bovine, rather lean in the manner of *zebu*. Horn conformation very like the Urkesh exemplar.

**Tail Halawa A. Rind Nr. 10** (Meyer, Pruss, et al. 1994, Abb. 30). The proportions  $w1 : w2 : w3 = 1 : 1 : 1$  and the two objects are almost exactly the same size. The blunt, curving snout is not encountered at Mozan amongst intact *Bos* (see even the anomalous *zebu Bos* 302 BH.15). The horns may be seen in cross section at the break and it is possible that they may have projected back, if we take the "underside" to be flat. The Halawa tail is not carried high.

**Tail Halawa A. Rind Nr. 30** (Abb. 31). The forequarters of the Halawa example are equal in width to the torso. The carriage of the horns, judging from the break, may have conformed more closely to the Mozan exemplar. Undercarriage is not dissimilar.

**Tall Halawa A *Rinder* Nr. 32** (Abb. 31). This is one of three examples of decorated *Rinder* in the Halawa corpus, here rendered by parallel rows of tiny dots.

## 11 *Bos* HINDQUARTERS

A7q814.1

Recovered from feature 264 locus 22 • length (torso break to tail break) 2.55 • hindquarters 1.83 • torso (at break) 1.74 • tail 0.91 • fabric medium fine • Munsell reading (fabric) 2.5YR 7/2 • color (fabric) pale red • preservation: hindquarters only; tail and legs broken

Though fragmentary, these *Bos* hindquarters yield provocative information about manufacture. There is a possible cloth impression on the right flank at the break. The figurine was re-examined at my request by Chris Kimbrough, our visiting textile scholar. We remarked on the “combed” look of the detail, which appears not to be on the surface of the object. Microscopic examination would be necessary to determine if this marking were or were not fabric. (Kimbrough’s test for a viable textile impression is whether or not at least one thread is visible under the microscope.)

The tail is thick, carried high, and hangs over. The stance is an inverted U. Buttocks are fused.

## 12 *Bos* TORSO MINIATURE

A7q821.1

Recovered from feature 148 locus 13 • length (break to tail) 3.89 • forequarters 1.63 • torso 1.52 • hindquarters 1.63 • tail (base) 0.79 • tail (tip) 0.57 • height at hindquarters 1.59 • fabric fine, with some inclusions • Munsell reading (fabric) 2.5YR 7/2 • color (fabric) pale red • Munsell reading (patina) 2.5 YR 6/2 • color (patina) pale red • preservation: torso, all appendages broken; head missing; tail chipped

There is a lozenge-shaped hole on the right flank of this *Bos* torso. It extends inside the object in both directions. The hindquarter stance is a solidly founded inverted U. The tail is wide and tapers quickly to a point (chipped). The sex may be indicated and is carried forward in the belly.

There are fingerprints on the forequarters and the underbelly.

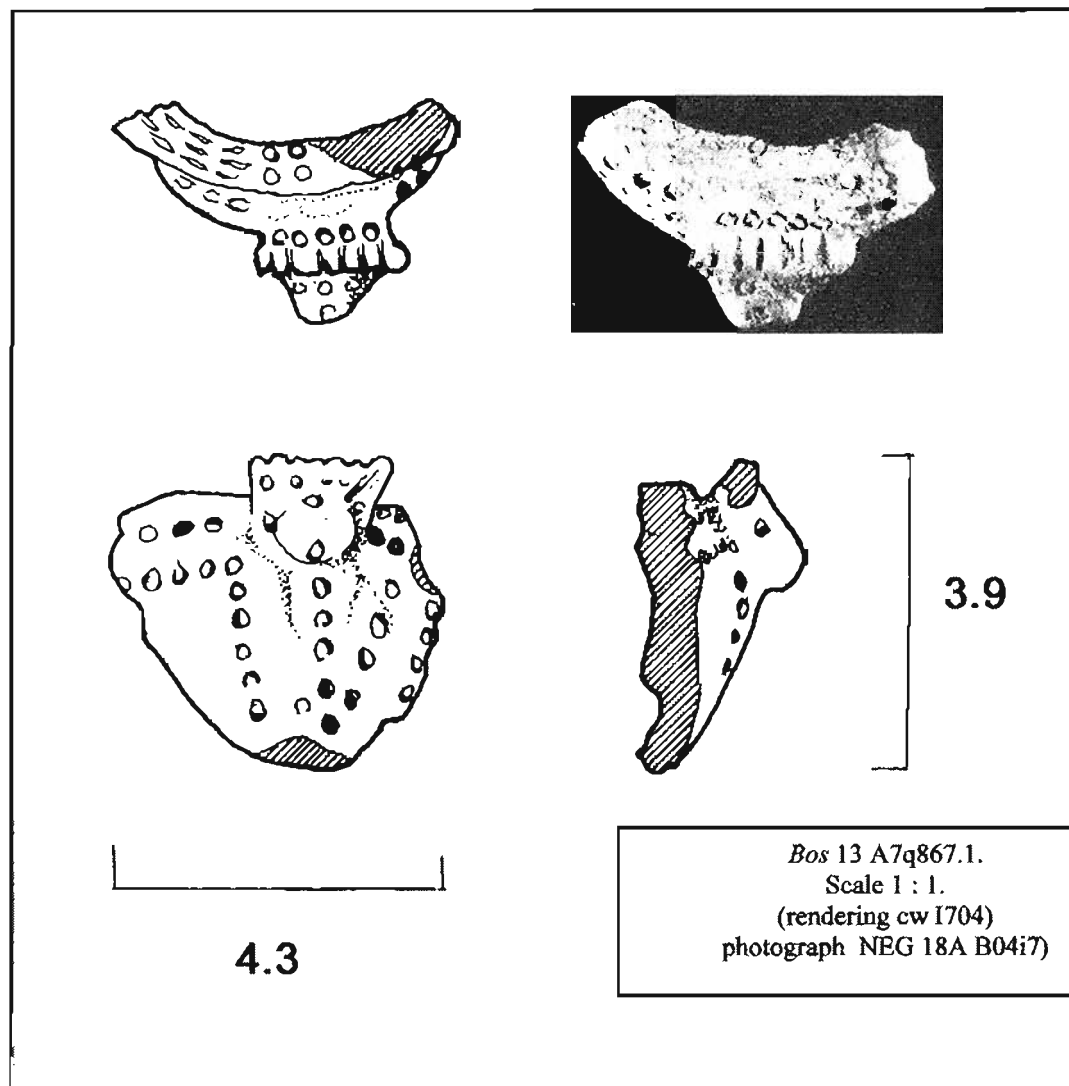
## 13 *Bos* HEAD, THERIOMORPHIC ATTACHMENT

A7q867.1

Recovered from feature 261 locus 12 • thickness (horizontal measurement, beyond and across horns, break to break) 4.49 • height (vertical measurement, from rim behind head to break) 3.655 • cranial length 1.38 • thickness (across horns, right horn broken) 1.95 • fabric fine, little temper • Munsell reading 5YR 7/4 • color pink • conservation: surface abraded and worn • preservation: sherd from vessel rim

This theriomorphic attachment for a vessel was found by Hélène Cooper on I629, amongst the sherd lots. It is a decorated *Bos* head and forms a lug at the vessel rim. The horns pass straight across the crown and are blunt; the left horn is intact.

The muzzle and snout are equally flattened — or rendered in low relief — and the muzzle appears to curve downward as with *Ovis*. Also, if the vessel rim is held in a horizontal plane, the angle at which the head joins the “neck”/vessel body is typical of *Bos*.



The muzzle from horns to snout is a flat triangle. Muzzle section is oval-shaped. The snout seems not to have been worked by hand; it may only have been pushed backward, splaying outward, when the decoration at the snout was applied to a wet medium. The vessel is unevenly fired (visible at break).

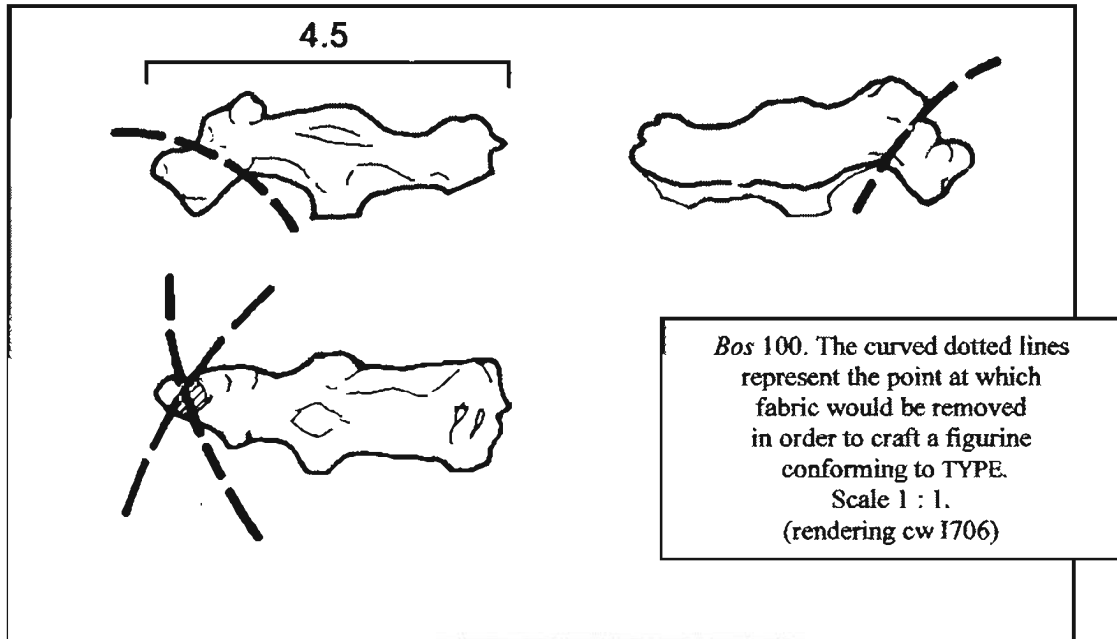
The top edge of the vessel rim is flat and decorated with fine, short incisions. The body of the vessel is decorated with dots/small circles (we have habitually referred to these markings as *poin-tillés*) made with a hollow reed or bone. The circles are only lightly impressed and the clay at the center is neither *dégagé* nor lifted out. The upper rim has two parallel lines of dots, spaced approximately 0.24 cm apart. Lines of dots converge below the head of the animal and intersect the lower rim line. Eyes and nostril have been impressed with the same instrument. There are five tightly spaced dots just behind the horns of the head. Atop the horns, there are six hatch marks.

*BOS*

## TENTATIVE IDENTIFICATION

**100** *Bos* TORSO IN PROCESS OF MANUFACTURE MINIATURE**A5q294**

Recovered from feature 39 locus 20 stratum B9 • length 4.34 • forequarters 1.3 • torso 1.15 • hindquarters 1.3 • height ear to left foreleg ) 2.9 • fabric fine, uniformly fine inclusions • texture nubby • Munsell reading 7.5YR 7/4 • color pink • conservation: kiln waste adheres to surface • preservation: depositional damage; four extremities broken; muzzle may not be finished; remnant of a tail on round rump



The muzzle of this MINIATURE object was distorted, pinched, splayed. The torso was long, yet the body type was unclear, perhaps incomplete; the orientation was not certain. For several seasons, this remained a mystery object. Then, as the finds began with greater frequency to include objects that were clearly in the process of manufacture, we looked at *Bos* 100 again, comparing it with figurine *Bos* 202 BH.15. I concluded that this object might be a *zebu*, given the way the head is carried and the slightly humped back over the forelegs. It has become a useful case study.

The back appears humped, although the “hump” would seem too far back on the body. If the head is truncated, the hump is in the correct relationship to the body length. In fact, the head may not be fully modeled, but in progress, awaiting the removal of the flat “flap” that still adheres. The muzzle is modeled as with some equids — square in section, triangular in section at the snout. However, one side is flat, the other bent and slightly folded back. If this piece were removed, the muzzle could be feline (although there is but one intact feline head in the corpus to judge by (*Felis* 3 A1.414)).

The left ear is prominent and curves in and back from the head. It is broken at the tip. There is a strike in the middle. The torso is scraped.

If the object is turned upside-down (as now interpreted), four appendages are clear.



**101 *Bos* FOREQUARTERS****A6q681.1**

Recovered from feature 215 locus 22 • height (back to broken forelegs) 1.96 • forequarters 1.52 • neck 1.51 • fabric medium fine • Munsell reading 2.5YR 8/4 • color pink • note on color: fabric only; not patina • preservation: forequarters only; head abraded; forelegs chipped; torso is broken clean through

The piece is problematic; interpretation is not certain, although the 1 : 1 neck/body join is convincing and *Bos* forequarters is a most likely identification. There may be horns, badly abraded. The muzzle is flat and tapers to a blunt point, forming a triangle with the crown/horns above and opposite.

A possible cross-weave cloth impression on forelegs should be examined under high magnification.

**102 *Bos* TORSO MINIATURE****A7q747.6**

Recovered from feature 235 locus 23 • length (snout to tail) 3.32 • forequarters 1.4 • torso 1.15 • hindquarters 1.41 • Munsell reading 2.5YR 7/3 • color light reddish brown • note on color: perhaps slightly darkened by consolidating agent • conservation: damaged in cleaning • preservation: torso and head intact

The head of this fragmented *Bos* torso is mostly intact, giving an idea of the relationship of head to torso and how the animal carried the head. The figurine should be compared to *Ursus* 403 A1.79. At the left ear, is the horn intact?

The figurine is not baked. The piece was damaged in cleaning with water. It began to disintegrate and has been consolidated for further analysis. The diagnostic details of the head are now rather more uncertain, since portions of the molded fabric flaked off the main body and even though they were carefully replaced in their original place during consolidation, their emplacement is less certain.

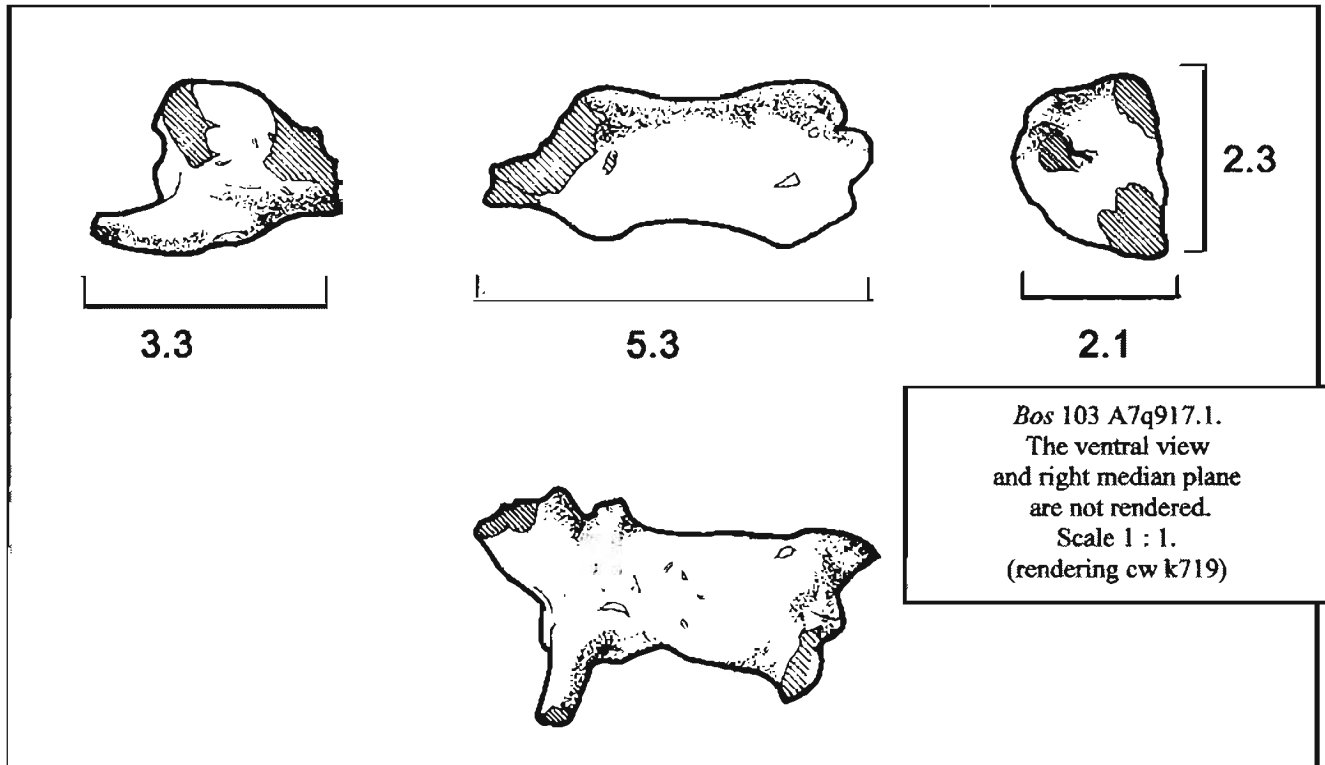
The tail hangs over; the hindquarters are bounded by a rounded, inverted U. Compare also to *Bos* 9 A7.95 and see *Bos* 10 A7.396, which has a tail similarly wide, carried high and hanging down; also see *Bos* 11 A7q814.1. The stance of this figurine is not *Ovis*-like, although similar figurines with similar tails have been entered in the latter category.

**103 *Bos* TORSO (*zebu*?)****A7q917.1**

Recovered from feature 312 locus 27 • length 4.255 • forequarters 2.2 • torso 1.87 • hindquarters 2.26 • tail 0.08 • fabric fine, with inclusions • Munsell reading 2.5YR 7/6 • color light red • preservation: torso and hump of zebu intact, except for head, three legs, and broken tail

This *Bos* torso may represent a *zebu*. The hump is intact and situated just below the neck of the animal on the back. I cannot discount the possibility that the "hump" is only a tab for a perforation. The hole seems to have been made with several passes of a thin bone or reed. The "tab" would have been fairly large.

The tail is carried high. The foreleg/body join is not typical of the genus (100 degrees; except, see below, comparative examples from Tell Brak). The forequarters are wide, as with *Equus* TYP E II. The outside forequarter stance is an open solidly founded slightly incurving inverted U. Inside stance is a truncated inverted V. The foreleg tapers to termination (chipped) without further articulation. The musculature of the neck is lightly indicated by modeling. The hindquarters are solidly founded, an inverted U. Buttocks are fused.



There may be some strikes on the surface, as, on the left flank above the foreleg and on the left hindleg halfway up the forequarters. These do not appear to be burned-out chaff temper. There is an unusual detail at the hindquarters, a slightly raised area under the tail, which has chipped away variously. This may be the result of manufacture, but is certainly not an intentional feature.

**Tall Halawa A. Rind Nr. 59** ((Meyer, Pruss, et al. 1994, Abb. 33). One of two examples with perforations. This animal is pierced through the dewlap, presumably for a tether, although in the rendering, the perforation cannot be read as such.

A striking parallel with this figure has been recovered at Tell Brak from the vaulted shrine in Area HH, level 8. The level dates to Old Babylonian times (Oates 1997, 106; Oates 1994, 173). The majority of the figurines from the HH Area were found in domestic buildings dating from the Mitanni occupation through Old Babylonian times. Four of these are *zebu*, two of which are from Level 8, the lowest level reached in this area, and they were not found in a domestic context, but in what appears to be a shrine.

The figurine in question, **Reg. No. 4041, Artefact Drawing 23** (Oates 1997, 279), carries its tail high as does *Bos* 103 and the hump is carried high on the neck. The Brak find is a centimeter or so larger than the Mozan figurine (6.2 x 3.9 x 2.3 cm). The manner in which the foreleg joins the body in both figurines is of interest. The leg/body join of the Mozan find is slightly greater than ninety degrees, similar to the apparent carriage and stance of the three other *zebu* figurines from Brak.

The left foreleg of *Zebu* 23 meets the body at an angle of +/- 130 degrees, similar to the body join of the *Bos* corpus from ancient Urkesh.

These finds demonstrate, according to Helen McDonald, principal in the ongoing excavation and research at Tell Brak, "the presence of these Indian cattle in northern Mesopotamia in the second millennium" (Oates 1997, 131).

For a comparison between the Brak *zebu* exemplars and another stratified example of *zebu* at Urkesh, see *Bos* 202 BH.15.

## BOS RELATED STRATIFIED FINDS

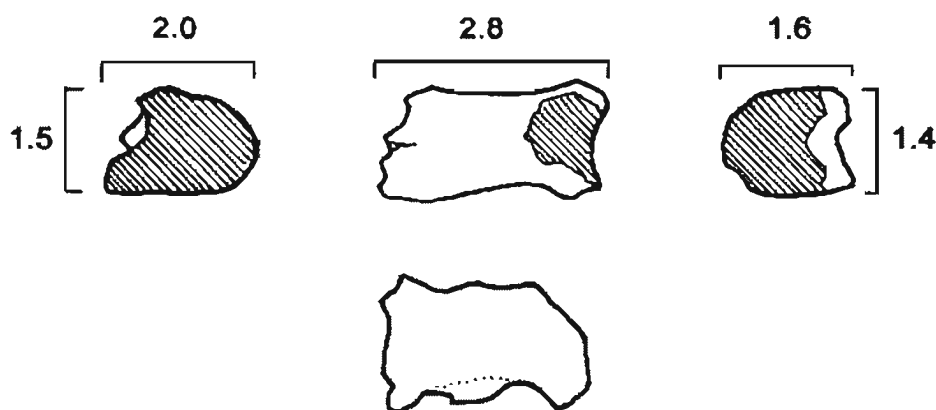
### 200 *Bos* TORSO MINIATURE

A8.6

Recovered from feature 10 locus 4 bone lot 37, f10, k4, i6, stored in ZS9.33; locus and feature correspond with find-spot of A8.6 • length (break to break) 2.88 • length 2.55 • forequarters 1.44 • torso 1.31 • hindquarters 1.3 • height at hindquarters 1.57 • height at forequarters 1.57 • fabric fine • Munsell reading (body) 5YR 7/3 • color (body) pink • Munsell reading (depositional action or carbonization) 5YR 2.5/1 • color (depositional action or carbonization) black • preservation: head missing; all appendages broken; hindquarters broken; piece nonetheless diagnostic, as w1, w2, and w3 remain intact

The bottom of the figurine is black, whether from carbonization in fire or by depositional action of the soil is not certain. The musculature is defined by scraping. The belly curves downward.

This MINIATURE bovid torso was found in proximity to several bones. The largest of these fragments is the lower part of an *ulna*, genus *Bos* (Schmid and Garraux 1972, Plate XIX, 117), but we cannot say that the figurine is associated with the faunal finds, for the immediate context is not contained. A photo was not taken, and this oversight is important to note here.



*Bos* 200 A8.6. The ventral and left median plane are not rendered.  
Scale 1 : 1.  
(rendering cw H628)

It becomes clearer and clearer that the only meaning or function we may eventually be able to ascribe to these small creatures is through context and association. Triangulation and photographic documentation are imperative.

Schmandt-Besserat, among others (1996, 1997) emphasizes the importance of context as it relates to the interpretation of figurine function.

Munbāqa. *Tierfigur* Mbq 28/37-1 MBQ 383 (Czichon, Werner, et al. 1998, Tafel 197). See *Bos* 1 torso MINIATURE A1.12 for additional commentary.

### 201 *Bos* FOREQUARTERS AND NECK

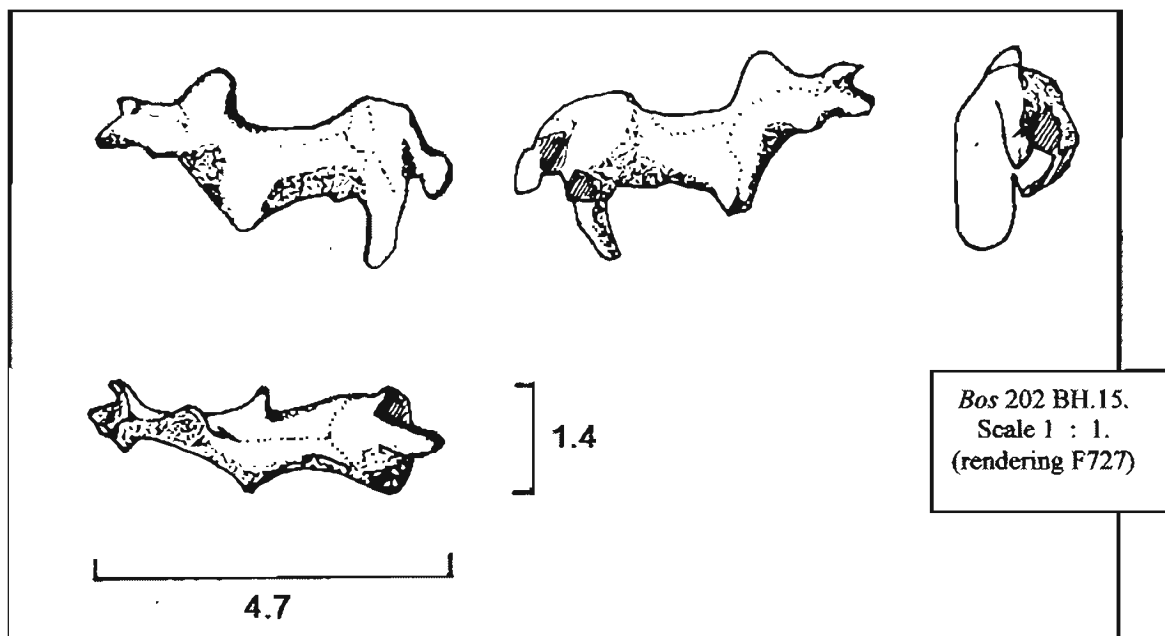
A8q189.1

Recovered from post-Palace layers • length (torso break to forequarters) 2.74 • torso 1.72 • note on measurement: only torso measurement is diagnostic • Munsell reading 10R 7/6 • color light red • preservation: forequarters and neck only

202 *Bos* TORSO (*zebu*) MINIATURE

BH.15

Recovered from ash layer, below jar in third millennium layers • length 2.78 • forequarters 1.4 • torso 0.925 • hindquarters 1.425 • note on measurement:  $1.4 : 0.92 : 1.4 = 1.4 : 1.0 : 1.4$  • fabric fine, few inclusions • Munsell reading (fabric) 2.5YR 6/4 • color (fabric) light reddish brown • Munsell reading (depositional mineral accretion) 2.5YR 6/1 • color (depositional mineral accretion) reddish gray • preservation: torso intact; tail and muzzle intact; two appendages broken, one abraded; right horn intact, left horn chipped; forelegs broken; left hindleg intact



Note the position of the hump on the neck, in front of forequarters; also heavy rump. There is a curve from the forequarters to head, and a repeated shallow curve under the body. The horns are pitched up and forward. Contrast the termination of the hindlegs and forelegs. (See photograph MZ8B B8/6, B8/7). The foreleg may be abraded, rather than modeled to this termination. Are the forequarters fused? Or is this an accretion?

The left rear leg is splayed, pinched. Some musculature is detailed in the torso. The body bends to the right. The tail is long, thick, terminated (an unusual detail).

The torso does not fit *Bos* TYPE, although the *zebu* has a leaner torso than other *Bos*. See, as an example, *Bos primigenius*, the non-domesticated forebear of *Bos taurus* and *Bos indicus* (Clutton-Brock 1981, 66 ff, Figure 6.3, 64). Also compare these body details — tail *Felis* 105 A1q976.16 and tail *Felis* 11 A5q832.1, hanging down.



*Bos* "humped ox"  
from Arpachiya.  
Scale approximate.

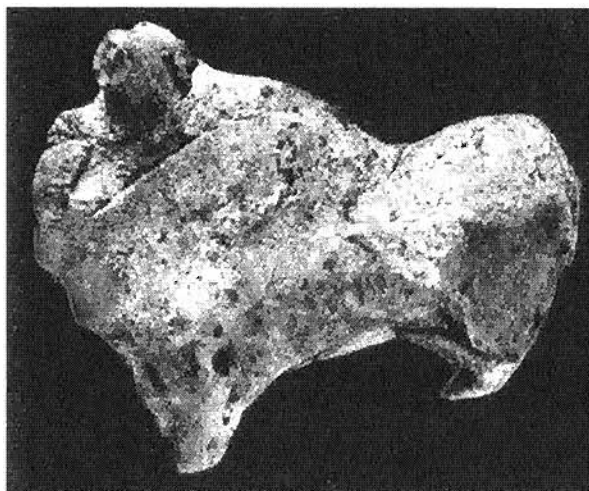
(Mallowan, 1935 [April], Fig. 48/13)

The figurine was found under a jar (BH.14). The deposit that contained the jar was characterized as an "ash fill" — feature 71, locus 33–34. The excavator noted that this was "a humped quadruped" — "certainly looks like a Brahma (n) bull" (rd 86.706 dbq).

Mallowan says that a "humped ox" or buffalo is represented in clay at Tall Arpachiya, but the rendering is far from convincing (Mallowan 1935 [April], 88, Fig. 48/13). Compare also a humped "bull" with unusual reddish brown painted decoration from Tepe Gawra, Str. IV, ca. 2250 BC (Speiser, Cross, et al. 1935, 73, 206, and Plate LXXVII/5). Speiser does not remark on the species.

De Genouillac uncovered on the Eastern Tell at Telloh a number of bovids in the Style Telloh I, contemporaneous with the Acropolis at Susa (and thus quite early), three of which are humped (de Genouillac 1934, object 5743: AO. 14444 in Pl 12/2 and object 5742: A. O. 14443 et Baghdad in Pl. 12/3) The first of these, problematic, has a series of holes along the backbone and is lean (Remember that BH.15 also has a long, lean torso.). This animal may not be humped, but rather have a prominent mane.

Judging from the photograph, it may have horns that curve down. The horns appear to be pierced with a number of small holes along the outer edge. The "bisons" are blocky and bear comparison with *Bos* 204 A12q18. They are, respectively, 52.5 mm high x 64 mm long, and 42 mm high x 54 mm long, chunky by any measure, although only one (the former, I think) is illustrated.



Telloh. One of two humped "bison."

The right hindleg is outlined  
and the breast ridge reconstructed.

Both are only faintly visible in the original photograph.

Scale 1 : 1.

(de Genouillac 1934, Pl.12/3)

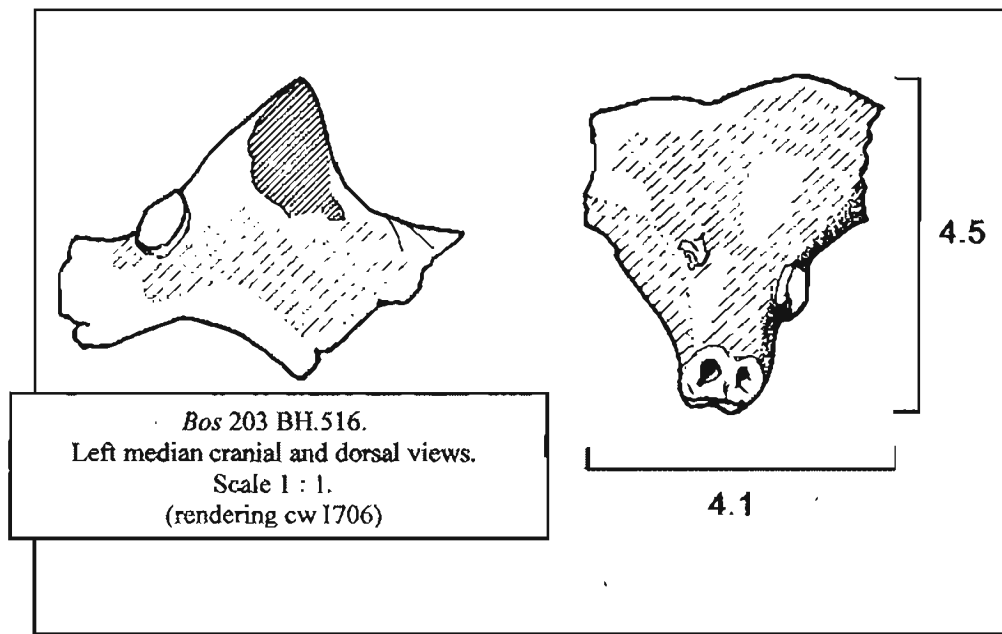
Finds establishing the presence of zebu cattle in northern Syria during the early part of the second millennium have been recovered at Tell Brak — in the 1995 season, a "distinctive bifurcated vertebra" identified by Dr. Keith Dobney as almost certainly from a "Zebu bovid" (Matthews 1995, 98–99 and Fig. 11) and in the subsequent season, from the same excavation unit, a clay figurine of a "humped Zebu cow" (Matthews 1996, 77 and Fig. 18). Matthews describes the vertebra as "one of the earliest secure pieces of zöoarchæological evidence for the presence of Zebu cattle in the Near East" (Matthews 1995, 98) and remarks that the figurines are "unequivocal miniature representations [*sic*] of Zebu cattle" (Matthews 1996, 77). In making such identifications, we should be attentive to Clutton-Brock's observation that the bifurcated vertebra can also appear in some strains of European cattle and is not exclusively confined to the *zebu*.

## 203 *Bos* HEAD, HORNS BROKEN AWAY

BH.516

Recovered from third millennium layers, domestic area • cranial length 4.47 • thickness (snout, shortest dimension) 1.25 • thickness (snout, vertical dimension) 1.59 • height (crown of head to break) 3.56 • thickness (horn to horn, both broken perpendicular to cranial length) 3.92 • note on measurement: thickness (horn to horn) and height not diagnostic • fabric coarse, many inclusions including heavy chaff temper, some gypsum • texture rough; horns and back of neck moderately smooth • Munsell reading 2.5YR 7/8 • color light red • conservation: surface roughened overall, likely the result of depositional action; can be removed with light scraping; entire surface has depositional adhesions • preservation: head only; horns broken off in line with neck; one eye disc intact

The attitude is diagnostic — the head is carried high and to the front, “as the animal looks up and out over grass” (Sándor Bökönyi image, 1993). The horns have been broken off, but were carried perpendicular to the flat muzzle; that is, they extend straight out from the sides of the head.



The nostrils are impressed and the mouth is incised with the same instrument (diameter of both is 0.22 cm at point of entry). The instrument was pointed, as the mouth incision splays outward, a detail visible from either profile. The muzzle is rectangular in vertical section but triangular in full horizontal section (cranial length, snout to back of head). The eyes are appliquéd discs, a unique feature in the Urkesh corpus.

If there was a slip, it has been mostly lifted off by depositional action. There is a thin line of red surrounding each break and portions of the surfaces show only patches of this material.

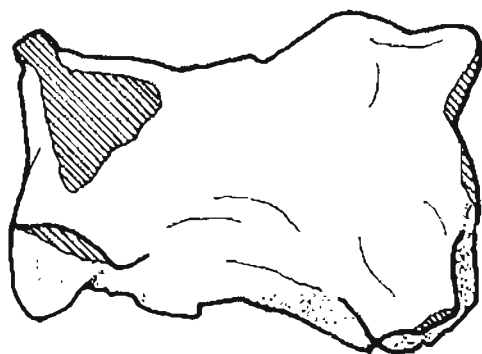
There is a question as to the angle of the join with the body or the figurine base of which this head was once a part. Was the line of breakage parallel with the torso? Or should we assume that the animal carried its head down? The answer is more likely to be the former, as the details of the face read frontally and could not be seen to advantage were the animal's head to hang down. This matter, of course, relates to Bökönyi's supposition that real animal gestures are represented in clay in this corpus. Compare this figurine with *Equus* 301 Z1.188.

**Tall Halawa A. Rind Nr. 59** (Meyer, Pruss, et al. 1994, Abb. 33). The Halawa head must be reoriented for the comparison to be striking. The horns may have been carried in the same manner. It would appear that the nostrils of the Mozan animal are more realistically modeled, whereas with the Halawa example, mouth and nostrils are rendered by incisions with a fine, probably pointed stick. In this, it conforms to the corpus of which it is a part. The cranial length of the Halawa *Rind* is approximately 4.76 cm.

## 204 *Bos* TORSO

A12q18

Recovered from feature 74, locus 18 • length 5.98 • forequarters 2.345 • neck 1.94 • torso 2.375 • hindquarters 2.965 • height at forequarters (neck to breast ridge in belly) 4.15 • height at hindquarters 3.775 • fabric medium heavy chaff temper, many calcium carbonate inclusions • Munsell reading 5YR 7/4 • color pink • conservation: depositional deposit overall • preservation: all appendages broken; breast ridge and hump intact



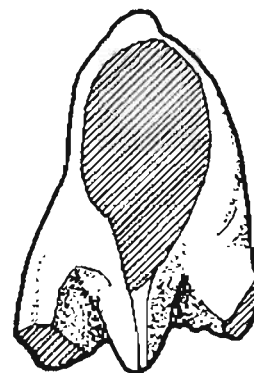
*Bos* 204 A12q18. Right median plane.  
Scale 1 : 1.  
(rendering ca J709)

The first of these two figurines exemplifies the blocky body type and may in fact bear a hump. Neck/body join is typically *Bos* and the right median plane should be read not as representing an alert attitude, as with *Canis*, but as a blocky *Bos* torso from which emerges, straight out, head and horns.

There is some indication of musculature. Angle of foreleg/body join is 110 degrees at the right foreleg. The forequarters outside stance is a narrow inverted U, solidly founded. The forequarters, while triangular (in the manner of many *Capra*), are solidly founded, the extension of the legs firmly planted on the ground. The hindquarters are contained within an inverted U.

There is a sharp breast ridge, quite prominent. It extends from the forequarters between the legs and onto the belly, ending at the penis. There is an indentation at the head of the penis. The sexual parts are prominent and the shaft of the penis continues the line of the breast ridge from one end of the ventral section to the other.

Two figurines excavated in a season outside the scope of this study are included here for reference, as both are illustrative of iconographic concepts that I have written about here. These objects have not been analyzed nor described in detail. I asked to have them rendered primarily as *aide-mémoires* — and they here serve that function, pointing forward to future exploration of the relationship of second to third millennium strata near and above the Service Sector and Royal Residence and to areas immediately adjacent to these buildings.



*Bos* 204 A12q18.  
Cranial view.  
Scale 1 : 1.  
(rendering ca J709)

## 205 *Bos* HEAD AND HORNS MINIATURE

A12q207.1

Recovered from feature 108, locus 9 • cranial length 1.81 • cranial width (horn to horn) 2.03 • neck 1.14 • snout (vertical rostral section) 0.8 • snout (horizontal rostral section) 0.635 • fabric fine, some fine sand inclusions • Munsell reading 7.5YR 8/3 • color pink • preservation: head only; right horn chipped, left horn intact



This is the second of two figurines that, while stratified in other sectors of the excavations, were excavated in recent seasons and are instructive.



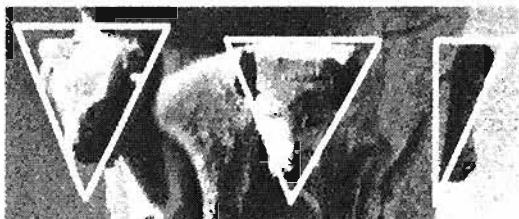
*Bos* 205 A12q207.1.

Scale 1 : 1.

(rendering cw J724)

The eyes are applied discs; they have been smoothed into the head, a detail unique in the corpus. The neck has been scraped to model musculature. The snout is rectangular in rostral section and triangular in caudal section. The horns of this bovid curve slightly to meet squarely in the middle of the crown of the head. The horns intersect, two gentle curves that meet in horizontal plane atop the crown.

Our **MINIATURE** bovid head is 2.205 cm across, measured from tip of horn to tip of horn (broken). Note the angle of the neck at the body join (conjectural).



Nippur. Receptacle for oils and creams.  
Iraq National Museum, Baghdad.

Triangular tracing applied to emphasize  
head & horn conformation.  
(Parrot 1969, Fig. 19 and 393)

An **alabaster receptacle for oils and creams from Nippur** provides a useful parallel with *Bos* 205, emphasizing the manner in which horns join at the crown and the tapering muzzle of these crouching cattle, seen both in profile and frontally. The artifact dates from the first half of the 3<sup>rd</sup> millennium.

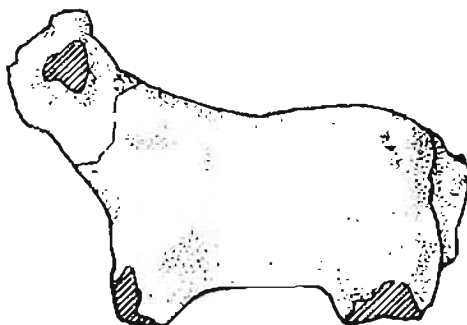
As I have noted elsewhere, the former detail is significant and will, once suitably codified, prove diagnostic. See **COMPARATIVE TABLES 2 & 2A The Way Horns Join at the Crown of Ovis & Capra**.

It is worth noting that the **monumental sculptures from Khafajah** referenced on page 99 of this study have horns that meet in this fashion but that sit atop the head, almost as if resting on it (Frankfort 1943, pl. 47, obj. 293). **Another sculpture from the Nintu Temple** (obj. 295B) exhibits horns that meet in the manner of our **MINIATURE**, but that turn upward at the tips. It is not outside the bounds of reason to suppose that the horns of A12q207.1 also turned upwards, but being tenuous, broke off. The horn on the right side of the head does indeed seem to turn upward; it is visible in the cranial plane.

206 *Bos* TORSO WITH PARTIALLY INTACT HEAD AND HORNS

A14q275.3

Recovered from third millennium strata south of AK • length 5.05 • forequarters 2.54 • neck 2.01 • torso 2.47 • hindquarters 2.555 • fabric medium • Munsell reading (approximate) 5YR 5/3 • color reddish brown • conservation: head affixed after reconstruction of figurine • preservation: torso intact, appendages broken off; head and horns partially intact



*Bos* 206 Left median plane.  
Scale 1 : 1. (rendering cw N806)

The saga of this figurine is told in DISCUSSION *BOS* under “horns.” It is reproduced here for study purposes. Of particular note: the attitude, observable with the head affixed; the tail, which is actually carried high, as visible in caudal section and which is quite thick, with a perforation that may have carried an actual affixed tail; the torso proportions which perfectly reflect *Bos* typology; the foursquare stance of a body solidly founded.

The neck width is somewhat surprising; I have always taken the *Bos* neck/body join to be thick, almost the width of the forequarters. This secondary characteristic may have to be reconsidered. Compare this exemplar with *Bos* 10, where the neck/body join is so very close to the width of the forequarters. Size of horn(s) and their disposition point indisputably to *Bos*. Otherwise, this exemplar might have found a place in the *Ovis* corpus, particularly if we took the tail as wide and hanging down.

A complete set of diagnostic drawings of this figurine can be found with the PLATES that follow the **COMPARATIVE TABLES**.

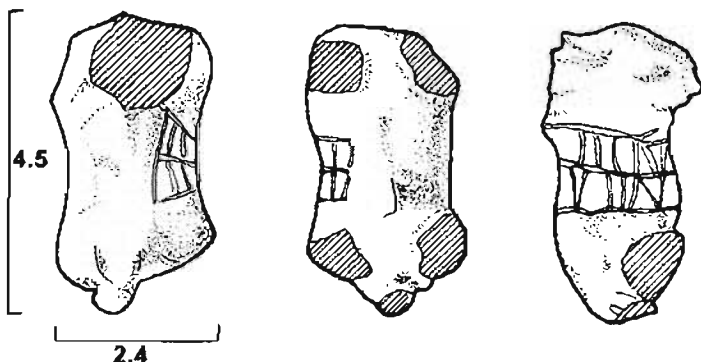
Body conformation of Halawa A. *Rinder* Nr. 6, 10, 11 (Meyer, Pruss, et al. 1994, Tafel 30) bears comparison with this exemplar, especially as they are fairly compact representations and as the body/neck join is thick, while the head is carried high. The tail of the Halawa *Rinder*, however, hangs down even as it emerges from the top of the rump. This gives pause.

## *BOS* RELATED UNSTRATIFIED FINDS

### 300 *Bos* TORSO WITH INCISED GEOMETRIC PATTERN

Z1.164

Recovered from surface • length 4.05 • forequarters 2.2 • torso 1.86 • hindquarters 2.15 • tail 0.5525 • note on measurement: all taken from rendering after close of field season • note on color: no reading recorded • preservation: all appendages broken; incised decoration clear



*Bos* 300 Z1.164. Dorsal, ventral, and right median views.

Left median view in

#### COMPARATIVE TABLE1 Pelts & Surface Decoration Figurines & Utilitarian Objects.

Scale 1 : 1.  
(rendering cw L730)

This *Bos* representation differs from other Urkesh bovids in that there are incisions around the torso, a detail rarely encountered in the corpus. The same situation pertains amongst the anthropomorphic figurines at Urkesh; only rarely does one encounter surface decoration. A notable exception is A7q52.1, a humanoid figurine that carries an incised face or emblem on its chest.

Here, incisions are applied in two bands around the mid-section. They are horizontal — thus seemingly not intended to represent a pelt hanging down — and are contained within a closed rectangular box. Oddly, the geometric pattern seems not to have been applied over the dorsal region, also arguing against representation of a covering of some sort thrown across the back.

Once the time for the Service Sector and its workers is past and villages replace Tupkish's palace, incised decoration will have given way to bands of brownish-red paint on animal representations as well as on the pottery.

See *Felis* 25 A7.135 for amplification of this discussion and reference to incised pelt treatments.

## BOS HORNS

In order to compare the following artifacts to each other, see

### COMPARATIVE TABLE 3 Appendages HORNS (*Bos*).

#### 14 *Bos* RIGHT HORN

A1.401

Recovered from feature 173 locus 20 stratum B12A • length (tip to join, not along curve) 2.3 • note on recovery: MS5 • thickness (long side, tip) 4.5 • thickness (short side, tip) 0.3 • thickness (short side, body join) 0.7 • thickness (long side, body join) 1.05 • thickness (thick end of horn, at body join) 1.05 • fabric fine medium, some inclusions • Munsell reading 10YR 8/3 • color very pale brown • preservation: horn only, tip broken off

The way the object is held was helpful in making this identification. If attached to the right side of the head at the crown, the horn would be flat on top, as with other *Bos* horns in the corpus.

The horn is a parallelogram (offset rectangle) in vertical section, at both attachment and tip.



*Bos* 14 A1.401.  
Dorsal view.  
The orientation  
is as seen on the animal.  
Scale app. 1 : 1.  
(rendering cw I708)

#### 15 *Bos* HORN AND CROWN

A1q980.1

Recovered from feature 113 locus 20 • height 2.8 • thickness (attachment) 2.43 • thickness (attachment, short axis) 0.885 • thickness (tip, short axis) 0.67 • thickness (tip, long axis) 0.78 • fabric medium, with many inclusions • Munsell reading 5YR 6/2 • color pinkish gray • preservation: horn only, chipped at tip



*Bos* 15 A1q980.1. Dorsal view.  
Scale app. 1 : 1.  
(rendering cw I708)

This *Bos* horn was attached at the top of the crown and formed the back of the animal's head (there is a large break). The horn is curved and tapers toward what would have been the tip. It is rectangular in section at the broken tip and oval in section where it joins the head.

There is a fold in the fabric visible on the outside and in section of each horn; it has been folded up and over and is not smoothed into the surface. The fabric is perhaps not thoroughly mixed ("wedged", in modern parlance). Manufacture warrants further study.

16 *Bos* HORN

A5q338

Recovered from feature 6 locus 69 • length 2.37 • thickness (head join, long axis) 1.35 • thickness (head join, short axis) 1.27 • thickness (before tip, long axis) 0.42 • fabric medium • Munsell reading GLEY2 3/1 • color dark bluish gray • note on color: value of fabric is not typical • Munsell reading (fabric?) 10R 8/3 • color (fabric ?) pink • note on color: an alternative reading; there are small amounts of fabric that show through both patina and depositional stain; hue still relatively intense for the corpus • conservation: depositional stain on one side of object, perhaps accounting for reading amongst GLEY • preservation: tip chipped

This *Bos* horn is curving, almost oval in section at the body join, gradually tapering to a tip.



*Bos* 16 A5q238.  
Scale 1 : 1.  
(rendering cw 1708)

17 *Bos* HORN

A7q266.1

Recovered from feature 84 locus 10 • length 2.78 • thickness (tip, short axis) 0.38 • thickness (tip, long axis) 0.71 • thickness (body join, short axis) 0.91 • thickness (body join, long axis) 0.99 • fabric medium fine with inclusions • Munsell reading SYR 4/1 • color dark gray • preservation: horn only, tip chipped

This curved horn tapers to a thin point (chipped).



*Bos* 17 A7q266.1.  
Scale 1 : 1.  
(rendering cw 1708)

18 *Bos* HORN

A7q667.1

Recovered from feature 193 locus 23 • length 5.39 • thickness (break, body join, long dimension) 2.09 • note on measurement: break continues behind fabric in rendering to second bulge • fabric medium, chaff temper • Munsell reading 5YR 7/3 • color pink • preservation: horn only



*Bos* 18 A7q667.1.  
Scale 1 : 1.  
(rendering cw 1708)

This *Bos* horn has more in common with modeling techniques of the figurine corpus than other horns examined to this point. I had originally described the modeling technique as straightforward and strong, but this yields to an impressionistic assessment of the technique used. The size of the piece probably contributes to the impression that the maker fashioned the object more fully than other examples in the corpus, which because of size may be formed with a single gestural trait — such as a thumb imprint of one pinching pass.

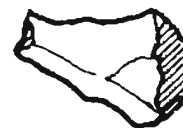
The horn has been smoothed by scraping and progressively shaped on the “front” of the horn (if oriented forward toward the viewer) by reductive cutting and shaping. It is almost flat on all sides and rectangular in section. The wider, flat side would likely be carried up, thus causing the horn to project forward and not down. The horn is oval in section at the head-join. As the horn reaches its furthest taper at the point, the longer dimension has become the horizontal dimension. Thus there is a slight “twist” to the object.

## 19 *Bos* HORN

A9q112.3

Recovered from feature 66 locus 4 • length 2.02 • thickness (head-join, vertical dimension) 1.55 • thickness (head-join, horizontal dimension ) 1.25 • fabric fine, light chaff temper • Munsell reading 5YR 8/3 • color pink • preservation: horn only, tip chipped

The piece is short and flat on one side, tapering to a blunt point. There is a fingerprint on the upper “left” side, if the tip is to the left and the break is visible on the right.



*Bos* 19 A9q112.3.

Scale 1 : 1.

(rendering cw I708)

# *BOS*

## HORNS

### TENTATIVE IDENTIFICATION

#### 104 *Bos* HORN

A1q147.1

Recovered from feature 40 locus 120 • length 1.64 • thickness 0.07 • fabric fine, few inclusions • Munsell reading 2.5YR 7/3 • color light reddish brown • preservation: horn fragment only

This object, so fragmentary that identification is far from certain, has been categorized as a *Bos* (right) horn. It is flat on one side, and curved below, approximately triangular in section, as with some horns.

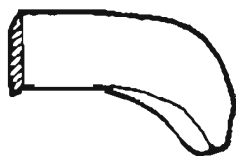
#### 105 *Bos* HORN

A5q805.1

Recovered from feature 105 locus 4 stratum B12A • length (flat part of curve to break) 2.6 • thickness (short axis) 0.0695 • thickness (long axis) 0.0745 • thickness 0.034 at tip • fabric fine with no inclusions • Munsell reading (patina) 2.5YR 4/1 • color (patina) dark reddish gray • Munsell reading (fabric) 2.5YR • color (fabric) light reddish brown • preservation: horn only; otherwise intact

This object, tentatively included amongst the *Bos* horns, eluded definition for three seasons and it is not certain that it is in fact of the same type as the other horns in the corpus. It was found in the second season of excavations in A5 and remained a mystery piece until examination in excavation season MZ10 of *Ovis* 33 A1.479, a realistically detailed ram's head, and comparison with a growing number of similar appendages.

For example, while the ear of *Ovis* 33 has the same "hook" at the leading edge, it has clearly been manufactured to lay flat against the head. Such contrasts helped us isolate salient characteristics of horns, those from *Bos* and from other genera. Upon cautious reflection, we eventually identified tails and finally ears.



*Bos* 105 A5q805.1.  
Scale 1 : 1.  
(rendering cw I708)

*Bos* 105 A5q805.1 remains the most stylized of several *crochets* (broken appendages having a hooklike form), although here the tip turns in smoothly and follows the curve of the object. The two sides come together at the tip. It is geometric and regular rather than idiosyncratic or organic in form; the larger object of which it is an appendage must be stylized, too.

It is nonetheless a regular curving, tapering form. Note the slight taper and change in section from break to tip. The object is rectangular in section at the body join and also rather more attenuated at the very tip. This level of stylization, approaching the geometric in form, is unique in the corpus. (Amongst the birds, A7.309 has a similar relationship to the genus.) The surface of the object is smoothed to a fine polish.

Although this piece is highly stylized, there certainly is a formal similarity to the objects amongst which it is grouped. It should also be contrasted with another fragmentary “sheep’s ear,” *Ovis* 43 A5q713.03, horn *Ovis* 32 A1.303 and with hoof *Capra* 24 A5q948.1 and right hindleg *Ovis* 39 A1q1048.3. Also look at *Capra* 104 A1q495, tentatively classified as an ear, and primarily of note for its manufacture.

In order to label this object, one surface was completely covered with Wite-Out (an opaque correction fluid sometimes used on archeological artifacts to permit labeling) and the object number; it obscured possible diagnostic information. Subsequently, to remove the offending layer, several applications of acetone were made. The Wite-Out was removed, but such a heavy coat was applied, it seeped into the face of the clay; it is possible to gauge the depth to which it penetrated in section on the object. A cautionary tale!

## 106 *Bos* HORN

A5q946.2

Recovered from feature 66 • length 1.75 • thickness (tip, long dimension) 0.0635 • thickness (tip, short dimension) 0.078 • fabric fine with inclusions • Munsell reading 2.5YR 7/3 • color light reddish brown • preservation: large break at attachment; tip broken off

This object is curved and flat, more so than would be found with a leg. The break at the head attachment is extensive and renders identification difficult. The tip is oval/rectangular in section.

## 107 *Bos* HORN

A7.73

Recovered from feature 63 locus 7 • length 1.79 • thickness (just before tip) 0.32 • thickness (base, long axis) 1.25 • thickness (base, short axis (but broken)) 1.1 • fabric fine few inclusions • Munsell reading (fabric) 5YR 7/3 • color (fabric) pink • preservation horn only, tip chipped

The object (not illustrated) is short and tapers to a point (chipped). The identification is made because one surface is flat and finished, the other curving and not smoothed. The point of attachment to the crown may be problematic, unless this horn was carried high, at the very crown of the head — it has a break along a wide base. The horn is oval in section.

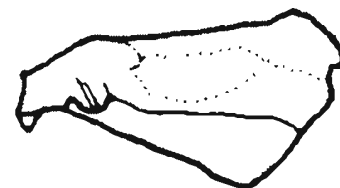
Staff member Carole Noyes noted that A7 excavator Fan Xi Xiu thought this small fragment might belong to a figurine excavated some days earlier. There is no number with which to correlate, but the date of excavation of this piece is g728. To be investigated further for possible match.

## 108 *Bos* HORN

A9q112.1

Recovered from feature 66 locus 4 • length (tip to break) 3.06 • thickness (headbreak) 1.58 • thickness (shorter dimension, head break) 1.57 • thickness (at tip, before break) 0.44 • fabric medium fine, few inclusions • Munsell reading 2.5YR 7/2 • color pale red • preservation: horn only

This slightly curving form is found repeatedly. In the very first year of cataloguing these objects, I categorized this form as a *crochet* (having hooklike form) and assumed it to be a leg. At least one of a number of similar objects should be taken as a sheep’s ear, as seen on the still-intact ear of *Ovis* 33 A1.479, “ram with pull.”



*Bos* 108 A9q112.1.  
Scale 1 : 1.  
(rendering ca I708)



This object is everywhere covered with fingerprints, as if no part escaped the artisan's attention. On the surface, the prints are deep and clean. The medium was quite wet when it was modeled and the fingerprints were apparently taken by a slip made from dilute medium applied to the entirety of the intact figurine — a sign of deliberate, careful modeling and finishing.

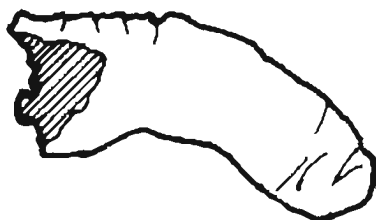
When it was made, the piece was clearly modeled as an appendage. Two fingerprints document the manner of manufacture of the tip where pressure was applied, bending and curving it downward. Since this part does not seem suitable for support and does not fold over on itself as an ear would, it seems likely that it is a horn. Also, since it is flat on one side only and slightly curved, but not on itself, this fragment appears more *Bos*-like than do representations of the horns of other genera.

Imagine how this piece (and others) might have emerged from the crown of *Bos* 10 A7.396. I would surmise that this fragment was attached to the skull with the flat, slightly curved part uppermost. Thus, the horn would emerge straight from the side of the crown and curve out and downward slightly. Note that the place of attachment is rather thick.

## 109 *Bos* HORN

A10q70.2

Recovered from feature 66 locus 4 • length 4.13 • thickness (midpoint) 1.29 • thickness (tip) 0.61 • fabric chaff temper; many inclusions mark the surface • Munsell reading 2.5YR 5/3 • color reddish brown • conservation: piece flaking badly; consolidated • preservation: horn only; break jagged, not clean because of friable fabric; a chip has fallen out, near tip



*Bos* 109 A10q70.2.  
Scale 1 : 1.  
(rendering cw I708)

The object is almost circular in section at the body join, tapering to a blunt, rounded point; no other horn in the corpus is so nearly circular in section. The broken area of attachment is neither wedge-shaped nor flattened to adhere, as would be the case with a tail or with sexual organs. There may be three strikes on the surface, near the place of attachment to the crown. There is a groove and adjoining shallow marks near the tip. This may only be due to the burning-out of inclusions (if the piece is fired), and revealed by depositional action.

The fabric is friable. The object may not be baked (similar to several of the humanoid figurines, made in this dark fabric) .

## 110 *Bos* head and horn, perhaps a vessel attachment

A10q84.1

Recovered from locus 2, no associated feature noted • width (horn to horn) 2.72 • thickness (horn, long dimension) 0.048 • thickness (horn, short dimension) 0.037 • thickness (head/horn join) 0.068 • thickness (head/horn join) 0.087 • height (crown to base of muzzle) 1.04 • fabric medium fine, some inclusions • Munsell reading 7YR 7/1 • color light gray • note on color: overall patination makes color difficult to read • preservation: two pieces, now glued together in correct match; head and one horn only; break at "neck"

The piece is in two fragments and was incorrectly joined. Acetone was used to dissolve and remove glue and the object was reglued with correct join. The shape of the piece can now be interpreted.

The muzzle is blunt, the horn quite long for the size of the head. No other piece in the corpus is stylized in this manner. Horns are oval in section.

After shaping, the horn has been modeled reductively, by scraping.

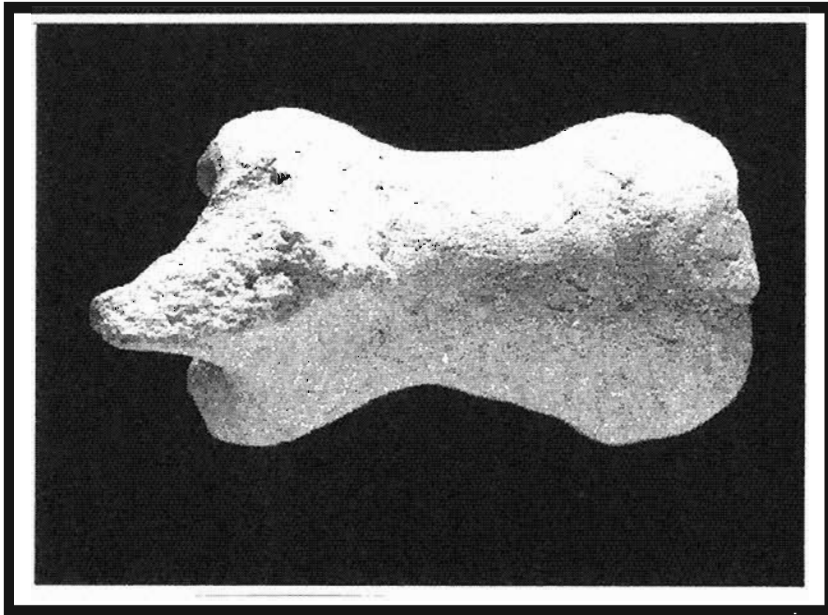


*Bos* 110 A10q84.1.  
Scale 1 : 1.  
(rendering cw I708)

This piece is reminiscent of bucrania found with frequency throughout Mesopotamia; it seems likely that the broken piece was symmetrical with the long horn. Originally, we surmised that it may have been attached to a vessel. However, the break is not large, as it would be if the piece were a theriomorphic attachment. And, judging from the smoother and finished portions of the piece, the break must be across the muzzle, not at the neck. The piece was therefore complete in itself and not part of a larger figurine.

# READING FIGURINES

ANIMAL REPRESENTATIONS  
IN TERRACOTTA  
FROM ROYAL BUILDING AK  
AT URKESH (TELL MOZAN)



ORDER *ARTIODACTYLA*  
FAMILY BOVIDAE  
(SUBFAMILY CAPRINAE)  
GENUS *OVIS*

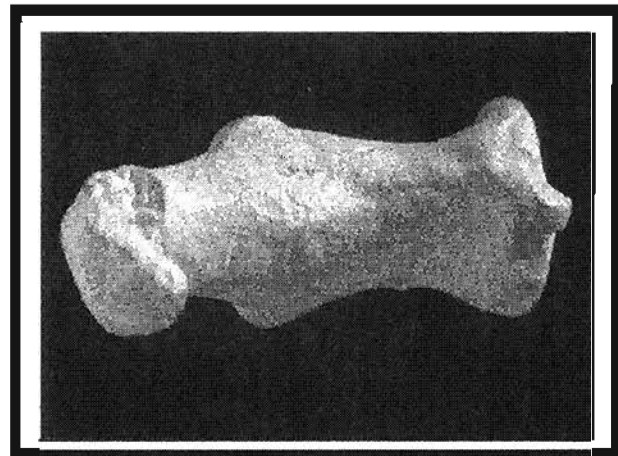
## DISCUSSION

The Genus and Comparative Material  
from Other Sites

## CATALOG

The Urkesh Corpus

## PLATES



## *Ovis*

### A Domesticated Corpus

Domestication is an old story. The sheep and the goat were amongst the first wild animals to be domesticated, protagonists in a human drama along with the dog and the reindeer. This took place some 9,000 years ago (Clutton-Brock 1981, 52 ff.), predating agriculture itself (Zeuner 1963, 63, 154). Of course, nomadic herds have long been a fact of life in northern Syria. Amongst the faunal remains of domestic species at Urkesh, no less than 333 sheep, 137 goat and 4224 specimens that might be either sheep or goat were examined by Sándor Bökönyi at the site (Bökönyi 1994, Table 2). This sample was accumulated during the first four seasons of full excavation and accounted for 58.01 percent of the faunal remains.

So it might be expected that representations of sheep would be frequent amongst the figurines of the Royal Storehouse. However, as the typology developed, figurines that seemed at first glance "sheeplike" were assigned to caprids, then to equids and surprisingly, finally, to a growing collection of carnivores (for example, *Felis* 104 A1q809.2)!

When I consider the origins of this typology, I seem to remember wrestling with the identification of *Ovis* first off. Not the fragmentary forequarters, with heads and horns remaining — I still am unsure of the type to which these presumed "rams" belong — but rather the figurines I came to identify as TYPE I — the wool-bearing animal. The full body and rounded hindquarters, solidly founded, became to me as unmistakable as the silhouette of the muzzle, the blunt snout, and the downcurving horns that, when intact, make for ready identification.

This immediate preoccupation does make some sense, as the living models of the fat-tailed sheep were all around us at Mozan. They flowed over the slopes of the Tell every evening, as the flocks came home from a day's grazing in the steppe. And the ratio of fat tail to hindquarters is the same today as on our diminutive models.

Had I read Sigrist a bit more closely, I might have sooner come to the understanding that there were different types of sheep represented at Urkesh and that the contrast between the two had been early recognized at Drehem (Sigrist 1992, 25–28). The classifications at this processing center were quite detailed, extending to the quality of the animal, the race, the age, the size, and the fecundity of each animal with separate appellations for each category. The two signal categories, however, I take to be *toison* (pelt) and *engraissement* (the manner of their fattening and, by extension, the weight or corpulence of a meat-bearing animal) (Sigrist 1992, 28). At least, these are the two categories I was able to identify at Urkesh, designating them as TYPE I, an animal raised for its wool, and TYPE II, an animal raised for its meat or milk.

The *Ovis* corpus is comprised of twenty-one examples of sheep raised for wool (TYPE I), an additional example tentatively assigned to this type, and three additional related stratified finds and a related unstratified fragment; nine examples of a leaner sheep, probably raised for milk or meat (TYPE II), an additional three examples tentatively assigned to this type and one related stratified find — very important. Two surface finds complete the TYPE II corpus. Additional examples of *Ovis* not identified by type, either because they represent an appendage or the head only but clearly of the species number twenty-seven, plus six related stratified examples, including a wedge-shaped lithic artifact. An additional six appendages have been tentatively identified as belonging to the species, as well as two related unstratified *Ovis* heads, both of which are perforated.

## The Typology

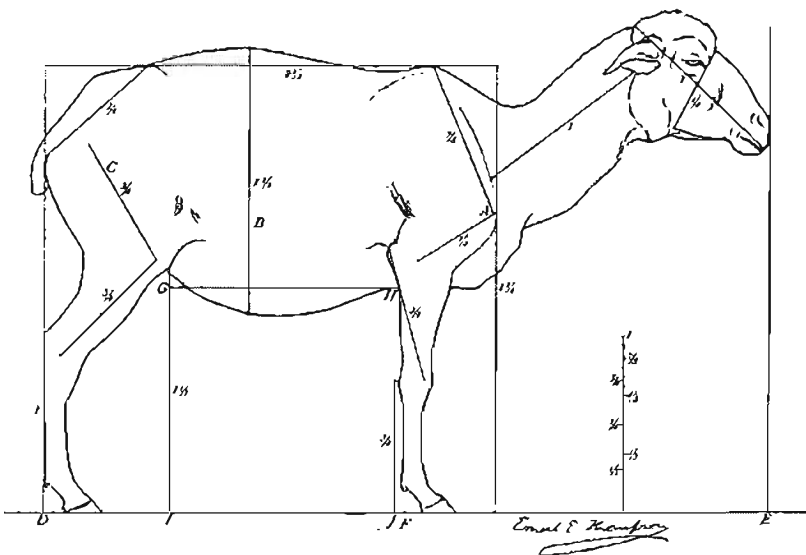
In a citation that is at first a little startling, no less sensitive an observer than Ernest E. Seton Thompson says that

in its muscular and bony anatomy the Sheep may be considered as a miniature Ox. Its external peculiarities, consisting as they do of the well-known difference in the coat, the form of the head, horns, and hoofs, are chiefly matters of degree, and need not to be enlarged upon." (1896, 60)

In his chapter on the goat, he flatly states that

the ordinary goat, though so unlike in appearance, is of the same proportions as a Sheep, nor does its bony and muscular anatomy present important differences. (1896, 63)

Being familiar with Thompson's beautiful book illustrations of exotic rain forest animals, I had early turned to his *Anatomy of Animals* as a guide to differences in body shape amongst the genera. When I came upon the above citations and similar remarks throughout the *Anatomy*, I was at first disheartened. His observations, it seemed, were going to be of scant help in distinguishing amongst the genera. Then I realized what Thompson the teacher was doing. His prime interest was to reduce the various animal body types to a common shape or form — a core, an essential shape upon which all manner of design peculiarities could be wrought. He needed to bind the genera together visually for artists, those for whom he was writing his guidebook.



**The Proportions of the Sheep**

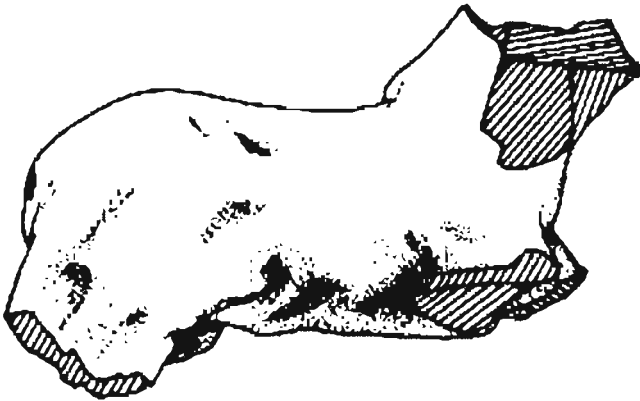
(Thompson 1896 [1990, reprint], PLATE XXXVII)

So I have learned to temper my surprise somewhat when I read that the sheep "goes in a square of  $2\frac{1}{2}$  heads." And so does the goat. And when I measure the proportions of his ox, I find that the head is exactly 40 percent of the height and 40 percent of the length of the torso (PLATE XXXVI)! Thompson's measurements from life bear out these relationships.

What I did learn from Thompson's meticulous plates and observations was that the ratios between body parts remain fairly constant. His point of departure was basic animal anatomy, the hidden structure. Mine was *animal anatomy as it is visible in the silhouette of the living animal, observed at close hand and in the wild*.

Thompson himself, I took some comfort in reading, does not give anatomy prime importance. This would lead to the production of "mere diagrams" (losing sight of) the greater essentials of light, color, and movement" (Thompson 1896, 2). I also learned, it might be said in passing, that to pay attention to such matters in such specificity is not mere obsession, but a search for hidden order. These details offered the beginnings of meaningful typological classification, an order that is not necessarily at first apparent.

### The Figurines *Ovis* TYPE I



*Ovis* 7 A5q353.1 TYPE I. Right median plane. Scale 1 : 1.  
See also PLATES for all views of this figurine.  
(rendering pp F709)

Sheep were domesticated both for meat and for hair. As the direct descendants of modern species evolved, the rangy body form of wild varieties disappeared under the coat of the domesticated type. This change is among the most striking transformation that eventually occurs with domestication (Zeuner 1963, 70).

In body type, sheep in the Urkesh figurine corpus fall between cattle and dogs. The body type is therefore stocky, as represented. The torso is almost as wide as the forequarters and as the hindquarters, being greater than or equal in transverse section to four-fifths the width of either. We take this to be the observable silhouette of the domesticated animal raised for its wool.



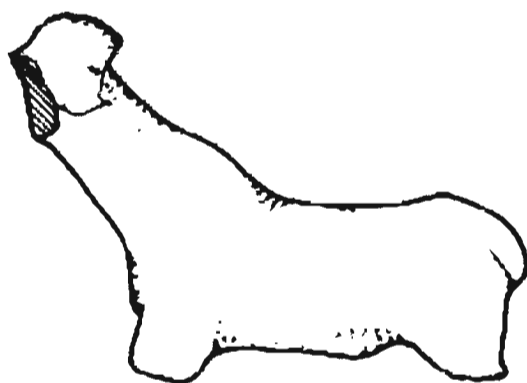
*Ovis* 7 A5q353.1. Caudal view. TYPE I.  
Scale 1 : 1.  
(photograph MZ8b B835)

### The Figurines *Ovis* TYPE II

Another body type, less full, has been designated as TYPE II. The torso in transverse section is somewhat less wide than the forequarters and the hindquarters, being greater than or equal to three-fifths the width of either. We take this second type as an animal domesticated for its meat.

For a time, this seemingly lean body type kept us from identifying the animal represented as a sheep. Any number of examples might have belonged among the dogs; but the heavier hindquarters of the dog, so close in width to the canine torso but less wide than the canine forequarters, differentiate that genus from *Ovis*.

Similarly, the figurines might have been somewhat stocky goats; but the triangular hindquarters of *Capra* serve to distinguish it from *Ovis*, even though our TYPE (TEMPLATE) animal, *Capra* 1 A1.44, has a torso somewhat less than 75 percent the width of the forequarters. Attributes taken together distinguish a genus, permitting tentative identification. Any one attribute held apart may not be diagnostic.



*Ovis* 202 A10.20 TYPE II Left median plane.  
Scale 1 : 1.  
(rendering cw I718)

This stockier body type may be expressed by the equation

$$\text{TYPE I } w1 \geq 4/5w1 \leq w3$$

That is, the body type of the sheep is full, only slightly less stocky than that of genus *Bos*. This impression is primarily due to the tail/hindquarters and neck/torso ratios. Several of the examples presented here are quite heavy, with torso/hindquarters ratios approaching 1 : 1.

By contrast, *Ovis* TYPE II appears to have a somewhat leaner body. The torso may be as little as three-fifths the forequarters width; yet the torso of sheep with narrow pendant tails (TYPE II) can sometimes be only slightly less wide (75 percent, more or less) than the forequarters. In fragmentary pieces lacking forequarters, the hindquarters measurement may be taken instead; that is, we can safely project a 1 : 1 ratio between the cranial and the caudal sections.

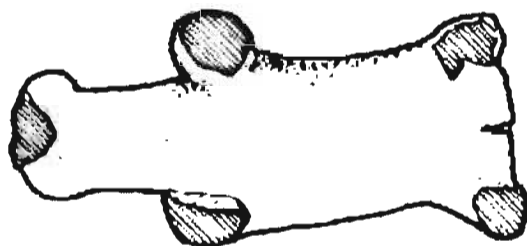
The body ratios of the leaner animal may be expressed by the equation

$$\text{TYPE II } w1 \geq 3/5w1 \leq w3$$

The way neck joins body and its relationship in width to the forequarters of *Ovis* can be diagnostic, and is expressed thusly

$$\text{TYPE I } w1 @ \text{neck} \geq 2/3w1$$

The neck of a TYPE I sheep is about two-thirds the cranial section taken in the frontal plane; that is, it is thick. Not enough examples of TYPE II sheep exist to permit generalization; while the neck is rather long in A10.20, the body join is thick. This is apparent in the ventral view of the object, where neck and body seem to fuse with little differentiation between the two.



*Ovis* 203 A10.20 TYPE II Ventral view.  
Scale 1 : 1.  
(rendering ca I718)

## The Figurines *Ovis* SHARED CHARACTERISTICS

### LENGTH

The length of the body is less than or equal to twice the width of the forequarters.<sup>1</sup>

TYPE I  $lg \leq 2w1$       TYPE II  $lg \geq 2w1$

### RECESSED OR FUSED BUTTOCKS

In the figurine corpus in ancient Urkesh, the caudal view of a sheep — its rear end or rump — is characterized as to whether the buttocks are fused or recessed, by its rounded form, and by stance.



*Ovis* 1 A1.52 caudal view.  
Scale 1 : 1.  
(rendering cw F725)

In an animal that is raised for wool, the pelt curves around the back of the legs and tends to obscure the division of the haunches that is actually present. The buttocks appear fused.

Compare, for example, the hindquarters of *Ovis* 1 and *Ovis* 23. The former, *Ovis* 1 TYPE I A1.52, is a representation of a domesticated sheep raised for its wool; the hindquarters are fused. *Ovis* 23 TYPE II A1.53 exhibits the same foursquare stance, but the buttocks are recessed and there is, exceptionally, a terminated tail that hangs down. (See **CATALOG.**)

I should introduce a cautionary note here, however. The majority of figurines in the Urkesh corpus have legs broken off. In what measure, then, can we say that the buttocks are “fused”? How does the angle at which the legs join the rump change the definition of the hindquarters? Or does it affect in essence the analysis of the object?

Remember that measurements are taken at the mid-point — in the cranial and caudal frontal plane — and in most cases just at that point where the leg extension down from the torso begins. In what measure can  $w3$  — hindquarters width taken in the caudal frontal plane — be a measurement of the width of the buttocks only?

Sometimes, it is difficult to measure hindquarters and not take account of the upper part of the hindlegs, which swell out from the body to one extent or another, terminating in the stance that we attempt to characterize. This practical consideration deserves thought, although we can assume an internal consistency of measurements within the typology. After all, all measurements are presumably taken in the same manner, within the limits of human error.

<sup>1</sup> A number of TYPE I figurines in the *Ovis* corpus exceed the ideal body length for the TYPE. Other characteristic details of these figurines, however, place them solidly amongst *Ovis* TYPE I representations. These figurines are *Ovis* 1 A1.52, *Ovis* 3 A1q474.1, *Ovis* 9 A6q19.1, *Ovis* 10 A7.128, *Ovis* 15 A7q622.1, *Ovis* 19 A7q888.1, and *Ovis* 202 A10.18.



### **ROUNDED RUMP**

Other animals share the feature. Horses and other equids in the AK corpus have a rump that is heavier than the forequarters. Surprisingly, the carnivore corpus exhibits a body type where hindquarters are either slightly greater than or equal to the forequarters in width; at first glance, the rump appears large, possibly sheeplike. Goats, on the other hand, carry hindquarters that are not rounded but more triangular in vertical section, and the buttocks are almost always recessed.

### **STANCE SOLIDLY FOUNDED**

Within the typology of the Urkesh figurines, stance is described as it is seen at the forequarters and hindquarters of the animal. In the case of the sheep, the stance is strong, planted squarely on the ground when seen in cranial and caudal vertical section.

Several types of stance are encountered:

#### **FOURSQUARE**

The leg join is perpendicular to body.

#### **INVERTED U**

This is seen in the outside profile of the hindquarters. The U may be narrow or more or less wide, but the legs are solidly founded and symmetrically rendered.

#### **INVERTED V**

The legs delimit also an inside profile where they meet under or at the tail. This feature is usually seen in combination with an inverted U, which defines the "outside" stance. The angle defined by the legs is in the range of 30 degrees – 60 degrees.

#### **INCURVING, INVERTED V**

The haunches curve inward. Taken with an outside inverted U, the stance characterizes the rear of many sheep figurines.

#### **TAIL FLAT**

The tail is full and hangs down. As a guide, the ratio of tail width to rump as seen in vertical caudal section can be as great as one to three (1 : 3). This latter ratio invariably characterizes "fat-tailed" sheep, which exist to this day as a domesticated species. The caudal view of *Ovis* 7 A5q353.1 TYPE I illustrates this full expression of the fat tail.

Both Zeuner (1963, 69) and Clutton-Brock (1981, 22, 57) cite tail length as a distinguishing characteristic of domestic breeds as opposed to wild sheep.

### **MODELING**

Surfaces are rounded, full, firm. Musculature is not defined; rather, the artisan has chosen to emphasize rounded forms that suggest a heavy coat and a compact body close to the ground.

### **FABRIC FINE WITH SOME INCLUSIONS**

Chaff-tempered fabric is common. Inclusions are moderate to abundant (Orton, Tyers, et al. 1993, 235), suggesting a need to create a substantial, massy medium.

### HAUNCHES MERGE WITH TORSO

The point at which legs meet the body in a sheep (and other herbivores) is not well-defined, as it is with the carnivores. The legs support a heavy body and the haunches meld into the torso. (see discussion of the measurement of the hindquarters above.)

A ram figures on one of the queen's sealings (q2) at Urkesh (Buccellati and Kelly-Buccellati 1995/1996, Fig. 4b, Fig. 6). The join of body and leg is not rendered. The body is squarely supported by all four appendages.



*Ovis* with pendant tail  
and heavy overcoat  
from queen's seal q2  
(Royal consort DAM Turkish).  
(rendering ch)

Bökönyi has identified this animal as a *bezoar* goat, a species that was perhaps the sole progenitor for domestic stock. As, however, the horns curve down and the tail is pendant, I choose provisionally to take issue with the identification.

I believe this is not a wild species, but a hybrid sheep with mixed characteristics. In north central Iran, *Ovis vignei* interbreeds with *Ovis orientalis*. Typically, "in most Asiatic mouflons the horns are curved round and upwards above the neck" (Clutton-Brock 1981, 54). The range of *orientalis* extends into the mountains of Asia Minor and across the Middle East to Sind (Clutton-Brock 1987, 59).

Whether sheep or goat — at least forty wild races have been described (Clutton-Brock 1987, 53) — we have here a very early example of domestic stock.

A long-haired goat is represented on a plaque of Ur-Enlil, c. 2000 B.C. (Zeuner 1963, Fig. 6:4, 137). The goat's horns are horizontal and apparently twisted; the animal has "a little beard" (Zeuner 1963, 136) and the tail turns up. A sheep on the same plaque has long hair, horns that curve up and back and a tail that hangs down. Zeuner then says that in contrast to Egyptian artists, "those of Mesopotamia were bad observers and did not characterize their species and breeds clearly" (1963, 136).

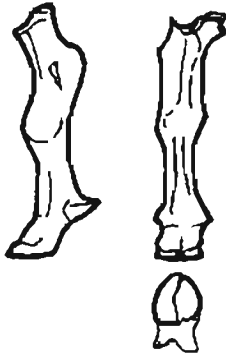
Note also as a passing contradiction of Zeuner's remark, that the coat of the animal depicted on the queen's seal is important and detailed accordingly. If the artisan meant to convey that the undercoat had been shed, leaving long and bristly overlying kemps, then this creature might indeed be a primitive domestic breed of sheep and the symbolic "time" of the sealing would be spring.

### SEXUAL PARTS USUALLY NOT EXPRESSED

If they are, they are forward on the underparts of the animal and not fully detailed. They are partially hidden in the torso, as is the case with most herbivores. In life, one finds the sex of cattle, sheep and goats forward, near the middle of the belly. With heavily haired sheep, the sex is covered, at least as it is represented in the corpus.

### FRAGMENTARY FINDS (APPENDAGES)

There are many, not only from Capridae, but also from other species in the corpus. Rather than grouping them together in a general category, we have made an effort to make them species-specific and to determine which body part they represent. The exercise is fraught with uncertainty, but instructive.



*Capra* 23 A5.154. leg,  
detailed hoof with spur.  
Scale 1 : 1.  
(rendering cw I709)

We know, for example, that the sheep is solidly founded; most legs have been broken off, however, with the exception of the joined figurine *Ovis* 26 A5.99/A5q135.1. In this instance, the legs were originally taken to be quite short and stumpy. Then — as the figurine was clearly meant to be pulled or pushed about on wheels — we realized that the figure would be raised; the legs would lengthen correspondingly.

Realistic proportions were restored.



*Ovis* 108 A7q624.1  
left hindleg.  
Scale 1 : 1.  
(rendering cw I710)

Whatever their length, as contrasted with the legs of goats, sheep legs are not so finely articulated, the knee joint appears not to have been expressed and the hoof or lower appendage tapers quickly to a blunt termination and is not detailed in realistic manner.

When I discuss the corpus, I will refer to the difference among the various types of small hook-like appendages that have been recovered. Some of these are in fact legs, but some are undoubtedly ears based on comparison with the appendages on intact figurines. By contrast with horns, the sheep's ear is practically schematic. The small "hook" at the tip and the wider break at the base are characteristic of the object. These small "hooks" are numerous in the corpus, and the entire collection of fragments should be reviewed with an eye to distinguishing characteristics amongst them. I have tried to bring provisional order to the matter in this volume.

#### OTHER FRAGMENTARY FINDS (BODY)

When figurines are not intact, measurements are of course difficult; if you measure to a break, it cannot be diagnostic, because the figurine is not complete as originally constructed. Take, as an example, *Ovis* 51 forequarters A7.107. Despite the fragmentary state of the object, the head and foreleg, conjoined, are intact, so this measurement *can* be diagnostic.

Often, even if the tips of legs are broken off, a measurement across the legs is useful as we look at the forequarters, although the measurement does not figure in the typological ratios. It does appear on the drawings, as it is important to establish overall length, from break to break, for instance.

As must be clear from the brief discussion of the queen's seal, the descent of sheep and goats to their present form is much debated. We may say that questions are rightly raised when one reads rigid one-for-one parallels between figurine form and animal characteristic. What we have determined and can say about the animal in the queen's seal impression q2 is that it has long hair and is an early domesticated form. We still see the striped pelt today amongst the animals on the Tell.

Whichever species the paleontologist or archeozöologist might see, the Urkesh scribe had an eye for detail and sculpted from life. It is we who must learn how to read the rendering. If it can be said that attention was given to the human figures within this domestic scene, to the portrayal of their persons and their relationship, and if the iconic reality of the scene has some meaning that can be “read,” then why would the animal in the scene be rendered with less attention to telling detail?

# OVIS

## TYPE I

### 1 *Ovis* TYPE I HINDQUARTERS

A1.52

Recovered from feature 108, a "fibrous lens" that rested on the object relay 275 locus 171 • length 4.475 • torso 2.215 • hindquarters 3.3 • tail 1.15 • height at hindquarters 3.2 • Munsell reading 10YR 8/3 • color very pale brown • note on color: Munsell charts revised in 1994; previous reading yielded 8/2 white • fabric medium fine with gypsum or calcium carbonate inclusions • conservation: surface abraded • preservation: hindquarters only



*Ovis* 1 A1.52. Caudal view.

The tail may in fact be terminated, somewhat "bunched." This detail as it relates to body conformation is visible in rendering cw F725.

Scale 1 : 1.

(photograph V8b0819)

The clot of hair that passes for a tail on A1.52 hangs in a flat mass about one-third the body width at the rump, a diagnostic element that characterizes the fat-tailed sheep as encountered in the figurine corpus at Tell Mozan. Buttocks are fused and not recessed. Carried high atop the rump, the tail bends slightly to the left, a detail that occurs with some frequency in the corpus. The buttocks and tail are to be compared with that of *Ovis* 23 A1.53, an animal representation that exhibits a rounded rump, but the buttocks are recessed and in effect "hold" the tail, which is long and hangs down. The torso of A1.52 is lean ( $w_2 : w_3 = 2 : 3$ ). The hindquarters are contained within an inverted U; the legs define a tight V (30 degrees) inside.

The fabric is not fired heavily. The core around which the piece was modeled is visible as a difference in color.

**Tall Munbaqa. Hinterteil 432 Mbq 30/30-53, Aleppo 71 MBQ 201** (Czichon, Werner, et al. 1998, Tafel 79). The figurine, recovered from Early Bronze Age strata, is reproduced in caudal and left median planes. The hindquarters are solidly founded, tail/hindquarters ratio is 1 : 3. There is a perforation in the left hindleg, as for a wheel. The tail protrudes from the rump; it is unclear how and at what length it was terminated.

### 2 *Ovis* TYPE I FOREQUARTERS AND NECK

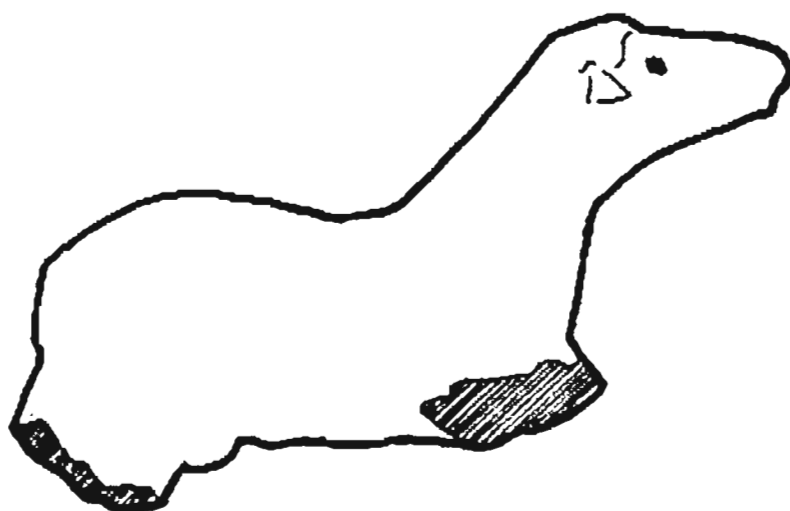
A1.156

Recovered from feature 86 stratum B12b • forequarters 3.68 • neck 2.35 • height 6.4 • measurement across break, leg to leg 5.09 • left foreleg, long axis 2.5 • left foreleg, short axis 1.4 • height measurement not diagnostic • Munsell reading 5Y 8/3 • color pale yellow • fabric chaff-tempered • preservation: forequarters and neck only

The musculature is precise and ties the torso and neck to forelegs. The neck is thrust forward. The body, judging from the break, is thick. A mane has been indicated by light pinching. There is a slight ridge up from the belly, passing through the forelegs to the neck. Inside, the forelegs form a slightly outcurving inverted V of 45 degrees. The forelegs are lozenge-shaped (oval) in section.

Equids share certain of these diagnostic traits. However, the angle at which the neck joins the torso and its thickness are never encountered amongst equids in the figurine corpus. Compare the pinching of the mane of *Ovis* 2 with the regular, controlled manner in which the mane of *Equus* 23 is executed.

The line of breakage makes reading this figurine fragment difficult. Examining other examples, say, *Ovis* 47 — a head that must have been seated low on the animal's neck — placement of this figurine amongst *Ovis* seems justified. The reconstruction below is instructive and is meant to mimic the attitude of a grazing sheep. Attaching an absent head to a body radically alters our perception of the representation.



*Ovis* RECONSTRUCTION TYPE I (head *Ovis* 47 on body *Ovis* 7). Note the way head, neck, and torso join, typically *Ovis*. The creature lifts its head high so it may see above grasses in which it grazes. To be compared with *Equus* stance and conformation. Scale 1 : 1. (rendering cw I706)

The object is modeled on a core, visible in a fabric difference at the torso break. The foreleg join is smoothed or has been firmly impressed with a flat blade.

### 3 *Ovis* TYPE I HINDQUARTERS AND TORSO

A1q474.1

Recovered from feature 95 locus 171 stratum 1A • length 7.55 • torso 3.125 • hindquarters 4.5 • tail 1.7 • height from tail to intact tip of leg 4.225 • length measurement not diagnostic • fabric fine with few gypsum inclusions • Munsell reading 10YR 8/2 • color very pale brown • Munsell color shift from 1975 to 1994, from “white” • conservation: carbon blackens the right hindleg and torso • preservation: hindquarters are torso only, broken at forequarters; perforation intact

The hindlegs are terminated with a tab perforated for a wheel shaft or axle. The perforation is high up and the tab itself substantial. If this were a wheeled object, the wheel diameter must have been large.

The guide hole was fashioned from a cylinder of clay pressed and applied under the belly, in front of the legs.

This added fabric at first appeared to be an udder. See as another example of this treatment *Ovis* 23.

The torso is lean; the musculature not so much indicated as a by-product of finger shaping. The fabric was wet when it was worked, as fingerprints remain every which way on the torso. The figurine is built up around a core.



*Ovis* 3 A1q474.1 TYPE I. Left median plane.

Scale 1 : 1.

(photograph V8a-eo163)

The tail is thick, and flat, although separate and raised above the hindquarters and carried high.

The fused buttocks are contained within an inverted U. Inside, the legs form an inverted open V and meet at an angle of 60 degrees (not visible in rendering). The hindlegs do not blend with the torso, but emerge with haunch itself as a separately articulated form.



*Ovis* 3 A1q474.1 TYPE I.  
view. Scale 1 : 1.  
(rendering cw F716)

Sándor Bökönyi was emphatic that no sheep would have this body form and so the animal was first classified amongst the carnivores. In later seasons (MZ10 and MZ11), however, we chose to emphasize that manufacture alters body form. This is a wheeled vehicle and, as with reconstructed *Ovis* 26, key characteristics of *Ovis* obtain but the shape of the torso is altered to accommodate the object's function as a vehicle.

**Tall Munbaqa. Hinterteil 432 Mbq 30/30-53, Aleppo 71 MBQ 201** (Czichon, Werner, et al. 1998, Tafel 79). Close parallels between the two exemplars, notably the perforated hindleg, as for a wheel axle, and the manner in which the tail is carried and broken.

**Nippur. Hindquarters with perforation in hindleg** (McCown 1978, Plate 139/2). The tail of the Nippur exemplar emerges from the torso, rather than sitting atop the rump as with the Urkesh figurine. McCown thinks that many of the figurines from Nippur are "carelessly" modeled (p.93); and for this reason identifies very few as to species. He does not recognize the skill required to model an animal form with the hands.

Any of the few Nippur figurines I have chosen as *comparanda* (especially **Figurine 11/Plate 139**: additional comments under *Ovis* 301) might be compared with **Plate 139/figurine 7**, "probably a ram"; or **Plate 140/figurine 9**, "ram with pellet eyes," both of which exhibit an unusual manner of modeling horns and muzzle; they appear to have been fashioned from the same mass of fabric. This technique may contribute to McCown's impression that the figurines are "crude." He conjectures that some of the figurines are symbols of gods, but distinguishes the sheep from other animal figurines as being "descendants of similar models of the remote historic past"; they "may reflect a survival of a primitive magic invoked to assure fruitfulness of flocks" (p 93). He refers to figurine 9 in Plate 140 as a "crude little model", yet it is over 10 cm. long, rather large by Urkesh standards.

See also INTRODUCTION *Comparanda* for further remarks about Nippur and identification of animal figurines.

4 *Ovis* TYPE I HINDQUARTERS AND TORSO MINIATURE

A1q558.1

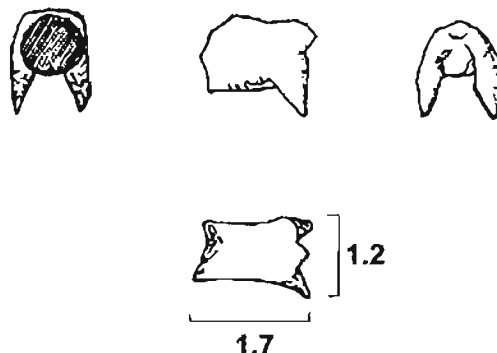
Recovered from feature 98 locus 5 stratum B8 • length from break to tip of tail 1.5 • torso 0.09 • hindquarters 1.12 • tail 0.42 • height at hindquarters measured from rump to left hindleg 1.5 • fabric fine, some inclusions • Munsell reading 7.5YR 7/4 • color pink • preservation: hindquarters and torso, both hindlegs terminated; tail broken

This figurine, representing a fat-tailed sheep, is indeed quite small (only 1.5 cm long), a **MINIATURE** in the Mozan corpus.

The hindquarters are contained within an open inverted U. The hindlegs meet in an inverted V (60 degrees) and they are intact and terminated.

The fact that there *are* legs on this figurine first led me to classify it as *Ovis* TYPE II — in spite of its diminutive stature, the figurine appeared “taller” in comparison with figurines with the legs broken off. In fact, the tail/hindquarters and torso/hindquarters ratios place it firmly in TYPE I.

The tail is prominent and hangs down. The legs define the rump, curving to meet the torso. The tip of the legs ends in a sharp taper on the inside only. This detail should be considered when thinking about termination on other figurines. The impressed fabric between the legs — fused buttocks — may be an udder.



*Ovis* 4 TYPE I A1q588.1.

Note that height and width of hindquarters are roughly equal, contained within a square.

Scale 1 : 1.

(rendering cw F725)

5 *Ovis* TYPE I FOREQUARTERS

A1q627.1

Recovered from feature 131 locus 67 • length neck to torso (break to break) 3.2 • forequarters across legs 4.4 • torso 3.4 • torso vertical dimension 2.8 • height dorsal break on torso to left foreleg 4.35 • note on measurements: breakage necessitates measurements for record only; none are truly diagnostic • fabric fine, heavy chaff-temper • Munsell reading 10YR 8/3 • color very pale brown • note on color: change in reading from previous Munsell edition • conservation: Wite-Out partially cleaned from left foreleg break • preservation: forequarters only; forelegs broken; core visible at break in torso

The neck is thick and fused with the torso. Compare the neck/body join with that in the **RECONSTRUCTION** above. The outside stance is foursquare, with the legs slightly bowed outward and not perpendicular to the ground (projected, they would meet at a 75 degree angle). Inside, legs meet in an open inverted U (45 degrees).





*Ovis* 5 A1q627.1. Cranial view.  
Figurine built on a core.  
Scale 1 : 1.  
(photograph V8b-e1711)

The torso is clearly built on a core, visible in section at the torso break, almost a vertical transverse section of the torso. Both forelegs may also be manufactured in this manner, although it may be that the left foreleg is heavily slipped on a small core of fabric, as opposed to being built up with a layer of clay. I do think this accounts for the way many of the larger figurines break -- almost never clean, but "undulating" and uneven due to the inner core around which many of them are built.

## 6 *Ovis* TYPE I HINDQUARTERS

A1q773.1

Provenance not noted • length 3.82 • torso 2.01 • hindquarters 2.9 • tail 0.86 • height at rump 3.05 • fabric medium • Munsell reading 10YR 8/2 • color very pale brown • note on color: 1994 Munsell changes not the hue, but the chroma reading; 1975 edition reads "white" • preservation: hindquarters broken; torso intact in vertical dimension

The hindquarters terminate in a fat tail that bends slightly to the left. The rump is rounded and the outside stance is an inverted U. There may be lightly impressed dots on the left flank at the break

The figurine should be compared with *Ovis* 1 hindquarters.



*Ovis* 6 A1q773.1 TYPE I.  
Caudal view. Scale 1 : 1.  
(rendering cw H721).

Tall Munbaqa. *Hinterteil* 432 Mbq 30/30-53, Aleppo 71 MBQ 201 (Czichon, Werner, et al. 1998, Tafel 79).

## 7 *Ovis* TYPE I TORSO (TEMPLATE)

A5q353.1

Recovered from feature 58 locus 20 stratum B 11 • length 7.2 • forequarters 4.27 • torso 3.2 • hindquarters 4.3 • height at forequarters 4.1 • height at hindquarters 3.8 • note on measurement: height not diagnostic • fabric medium chaff-tempered • Munsell reading 2.5Y 8/3 • color pale yellow • note on color: Munsell color change 1975-1994 pertains • preservation: all appendages broken; tail broken

This figurine is the very type of fat-tailed *Ovis*. Note the curve of the back, angle and length of the neck, leg, and torso joins. There is a lightly indicated breast ridge. The rump is rounded and smoothed, as are the buttocks.

The tail, a diagnostic element, is flat and rectangular, hanging down. The tail is fashioned from a separate piece of clay and inserted at the rump between the buttocks, which have been shaved or cut, then smoothed, to accommodate the tail.



*Ovis* 7 TYPE I A5q353.1.

The neck break is somewhat deceptive, being broken on an angle; this makes the join with the torso appear less heavy than it actually is.

Scale 1 : 1.

(photograph V8b-0834)

The ratio of the width of the tail to buttocks is approximately 1 : 3, with the rump divided evenly in thirds. The body stance outside is a gently incurving inverted U. Inside, a tight inverted V (30 degrees). The forelegs project forward slightly.

Bökönyi commented on the roundness of the body, which corresponds to a heavy wool coat and the fat tail. Wild sheep are leaner and their coats are less full than domesticated varieties bred, of course, for wool and meat and, to a lesser extent, for milk.

**Tall Munbaqa. Hinterteil 432** Mbq 30/30-53 Aleppo 71 MBQ 201. (Czichon, Werner, et al. 1998, Tafel 79). The slightly outcurving hindlegs are notable. The manner in which the tail is carried and seated between the buttocks differs.

## 8 *Ovis* TYPE I HINDQUARTERS MINIATURE

A5q790.3

Recovered from feature 111 locus 5 stratum B12A • length, tail to torso break 1.5 • hindquarters 1.4 • tail 0.0445 • fabric medium with gypsum inclusions • Munsell reading 5YR 4/1 • color dark gray • preservation: half of torso only; legs broken

The tail of this MINIATURE *Ovis* hindquarters is carried down and the rump is rounded. The buttocks are incised and the torso full. The hindleg gradually merges with the body. Outside stance of the hindquarters is a wide inverted V. The surface of the figurine is lightly scraped and modeled.

Compare hindquarters of *Ovis* 1 and the full, rounded rump of *Ovis* 3.

9 *Ovis* TYPE I HINDQUARTERS

A6q19.1

Recovered from layers above third millennium floors in the "kitchen" of the Service Sector • length, tail to torso break 3.2 • torso 1.68 • hindquarters 3.2 • tail 1.18 • height at hindquarters 3.75 • height at torso 1.55 • fabric medium fine, gypsum inclusions • Munsell reading 10YR 7/3 • color very pale brown • preservation: hindquarters only; tail and legs broken



*Ovis* 9 A6q19.1. Caudal view.

Scale 1 : 1.

(photograph V5b0820)

There are many fingerprints on this torso. The nature of the striations changes, however, on the underbelly, lower left torso; these may be cloth impressions.

The fabric above the leg was cut away or deeply impressed to create the leg/body join.

Compare leg joins of *Ovis* 3 and *Capra* 19, a hoof and leg with articulated knee joint; and *Capra* 30, a fragmentary leg and haunch.



*Ovis* 9 A6q19.1. Left median plane.

Note separation of leg from torso.

Scale 1 : 1.

(photograph V8b-e1710)

10 *Ovis* TYPE I HINDQUARTERS

A7.128

Recovered from feature 119 locus 13 • length 3.03 • torso 2.53 • hindquarters 3.03 • tail 1.38 • height at hindquarters from left broken leg to top of back 4.36 • fabric medium, some chaff temper, fine grit inclusions • Munsell reading 7YR 7/3 • color pink • preservation: torso, tail, and hindlegs broken

These *Ovis* hindquarters terminate a lean torso (see footnote regarding lean torsos amongst the *Ovis* TYPE I corpus in the DISCUSSION). The hindquarters stance is defined by a round inverted U. The tail is broad and flat, but may not be a fat tail; it is inclined slightly toward the left flank. The rump is rounded and joins the torso as if folded over and onto the back.

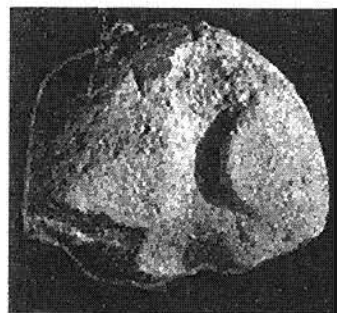
As with *Ovis* 3, the deeply recessed buttocks are formed not from an incision but by the hindlegs, which appear to have been added to the flat termination of the torso as separate pieces. Below the rump itself, somewhat lower, the torso is visible between the legs as a flat area with no incision. It appears not to have been modeled with the fingers, but perhaps cut. This is a striking detail of manufacture, perhaps to be taken as diagnostic. In those cases where the legs do not join, but rather lie upon a flat area that is the actual termination of the torso fabric, it could be taken for an udder.

11 *Ovis* TYPE I HINDQUARTERS

A7q16.1

Recovered in upper levels of sector • length from break to tip of tail 3.65 • torso 2.5 • hindquarters 3.6 • tail (negative impression) 1.255 • height at hindquarters 2.8 • height at torso 1.9 • fabric medium fine • Munsell reading 10YR 8/2 • color very pale brown • note on color: chroma description shifts from 1975 to 1994 • conservation: depositional adhesions make it difficult to read the surface of the object; adhesion is possibly some form of encrusted mineral salt that covers almost the entire object • preservation: hindquarters only; tail chipped away, legs missing; abraded

*Ovis* hindquarters, rounded with recessed buttocks contained within an inverted U. The buttocks are separated by a deep furrow, formed on one side by clay pushed, flattened, and folded over from the right buttock. The tail hangs down.



Compare with *Capra* 2, an exemplar that exhibits the same type of “protective” fold around the genital area. At least one *Canis* hindquarters from Khabur levels is manufactured with an exaggerated fold on either side of the rump.

Ovis 11 A7q16.1. Caudal view.  
Scale 1 : 1.  
(photograph V7b1621)

12 *Ovis* TYPE I FOREQUARTERS

A7q195

Recovered from feature 24 • length neck to torso break 4.2 • forequarters 2.69 • neck 2.34 • neck measurement narrow dimension 2.12 • neck measurement to include ridge 2.23 • torso 2.31 • fabric medium fine, some inclusions • Munsell reading 7.5YR 7/3 • color pink • preservation: forequarters only; head missing; clean breaks at neck and torso, legs broken; surface heavily abraded or chipped

On this *Ovis* forequarters, two areas low down between the legs have been heavily indented with the side of the thumb, possibly to form a breast ridge; discernable fingerprints have been smoothed away. There are markings above the right foreleg, visible for diagnostic purposes only with magnification. According to Julie Hruby (2001), it is difficult to see these markings as fingerprints, as the lines laid onto the figure are exactly parallel and finger modeling tends not to yield such marks. On the other hand, there are no intentional serrations this small. A possible explanation of the markings might be that a finger was dragged over the surface when the fabric was close to leather-hard, thus producing parallel lines.

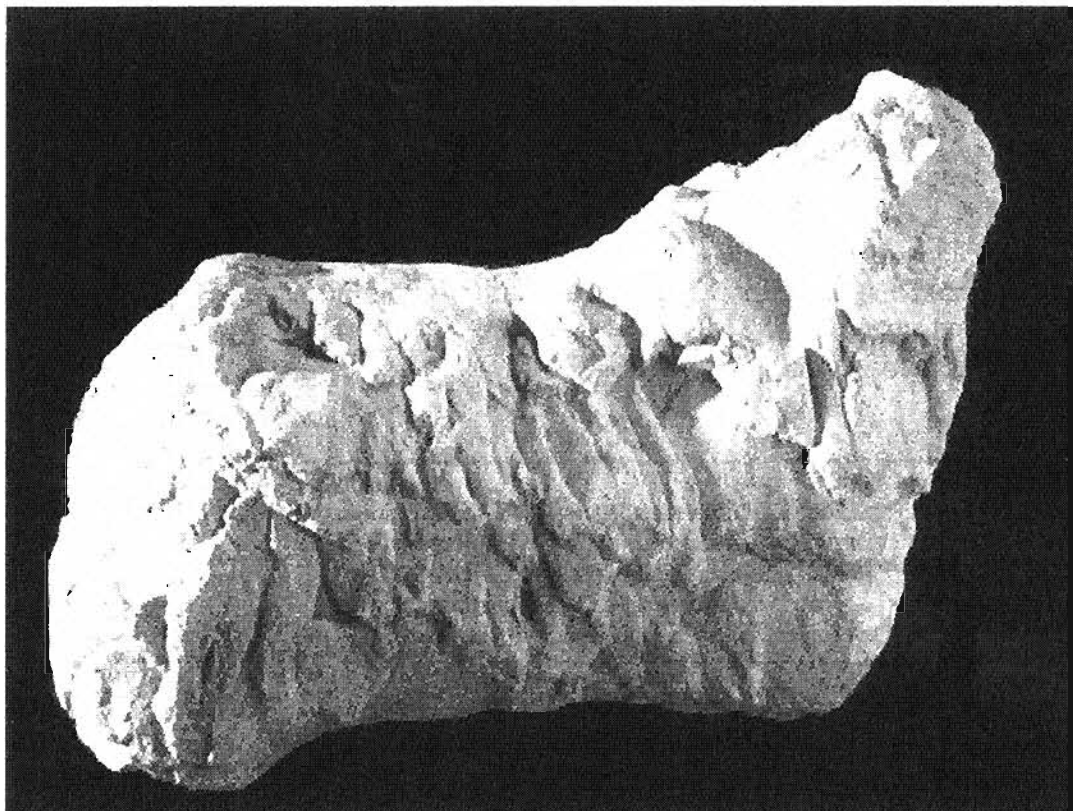
The stance is an inverted U solidly founded. Neck width is not quite four-fifths of the width of the forequarters measured in caudal frontal plane.

There is a hole at the center of the broken torso that appears to be intentional. All breaks are clean, as if cut. Is there a regular pattern of wear or chipping on the torso? Compare forequarters *Ovis* 7 and torso *Canis* 7.

13 *Ovis* TYPE I TORSO

A7.501

Recovered from feature 223 locus 21 • length (body) 10.765 • forequarters 5.855 • neck 4.42 • torso 5.03 • hindquarters 6.8 • tail 2.49 • thickness (pelt overlayer) 0.6 • thickness (pelt underlayer) 0.38 • length (pelt underlayer) 2.16 • length (pelt overlayer) 1.06 • height at forequarters (break to break) 8.45 • height at hindquarters (rump to break) 5.82 • transverse section, length (left foreleg, long dimension) 2.7 • transverse section, width (left foreleg, short dimension) 2.33 • note on measurement: body length, neck and tail width not diagnostic (pelt is irregular, some of it missing, thus compromising accurate measure); pelt measurements are averages and representative; foreleg measurement serves to represent the size of the legs of the animal, all of which are obloid in section • Munsell reading (hair overcoat) 10YR 7/3 • color very pale brown • Munsell reading (body) 7.5YR 7/3 • color pink • preservation: all appendages broken away



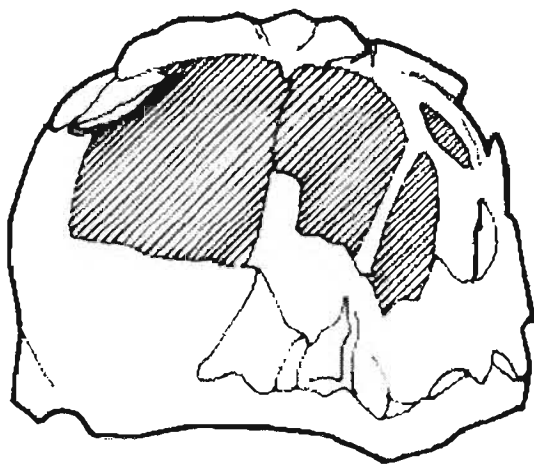
*Ovis* 13 A7.501. Right median plane.

Note overall blockiness of torso, and pendulous strips of clay applied as woolly overcoat.

Scale 1 : 1.

(photograph V13d6941 K727)

*Ovis* 13 was found inverted among stones in a pavement.

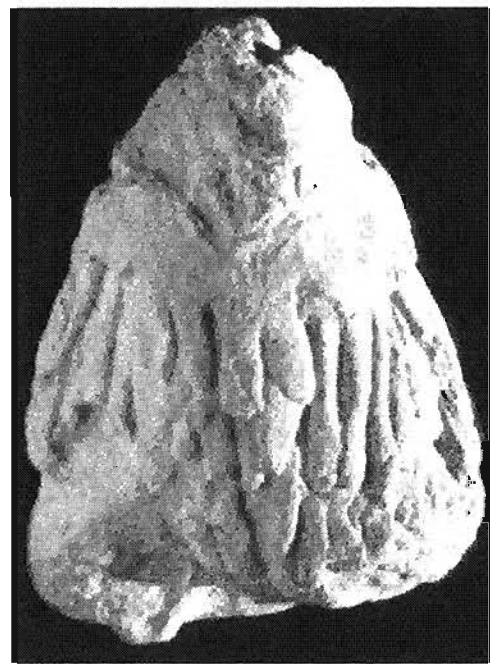


*Ovis* 13 A7.501. Caudal view.  
Note the typical rounded hindquarters.  
Conformation of tail uncertain.  
Scale 1 : 1.  
(rendering cw J704)

The forequarters are triangular in vertical cranial section. The vertical caudal section (hindquarters) is contained within a solidly founded inverted U. The hindquarters are heavy. The leg-body join is herbivore.

The scalloped arrangement of the overcoat of A7.501 invites comparison with "beards" affixed to the face of human-headed bulls of the Akkadian period, a rather abstract example being the **human-headed bull from Tell Brak (TB 11001)** (Oates 1991). The beard is limned by a tracery of two large bands of chevrons on a reductively sculpted pendant form, mimicking a facial appliance; here, pelt overlays are applied to an armature of clay.

The pelt has two layers, an undercoat of long thin "hairs" and an overcoat of thicker shorter "hairs." The overcoat and the fabric of the body yield different Munsell readings. The overcoat is broken away in places over the entire body surface, but enough remains to establish that the layering of strands was an overall body treatment. At the forequarters, four thick pendulous strands of hair remain; the rest have been broken away. There are twelve thin strands of hair in the undercoat across the forequarters. There may be as many as two undercoats of pelt. There appears to be an armature formed on the basic torso from which the strands of hair were hung; this armature — the term is not to be taken as final — forms the slightly raised backbone of the piece.



*Ovis* 13 A7.501. Cranial view.  
Note the two layers of pelt,  
laid both as a single piece (top layer)  
and the underlayer,  
appliquéd as separate strands.  
Scale 1 : 1.  
(photograph V13d6951 K727)

Comparative material recovered in fragments from Royal Palace G at Ebla is rather more instructive. Found scattered on the pavement of L.2764 and eventually reconstructed, a **bull statuette** overlaid with blackish-gray plaquettes of stone and laminated with gold foil serves to illustrate a popular icon of the period. A7.501 was also found on a pavement, although embedded amongst the stones, not lying atop them.

The applied beard, dissimilar in execution from the layered pelt of A7.501, nonetheless deserves attention for its manufacture. The plaquettes that form the beard are quite thin, concave on the reverse, so that they could be mounted on a core of wood, now lost. (Matthiae 1980 (1977)) While not being of clay, these steatite curls imitate the flexibility and supple application of the medium. A single scalloped piece of clay applied directly to the armature of A7.506 (following) also reflects the manner in which these stone plaquettes were applied.



**Human-headed bull Ebla Royal Palace G, L. 2764.** Black plaquettes and gold foil overlays on (presumed) wood support. Aleppo Museum. Scale 1 : 1. Photograph courtesy Dr. Paolo Matthiae. (Clusan 1993)

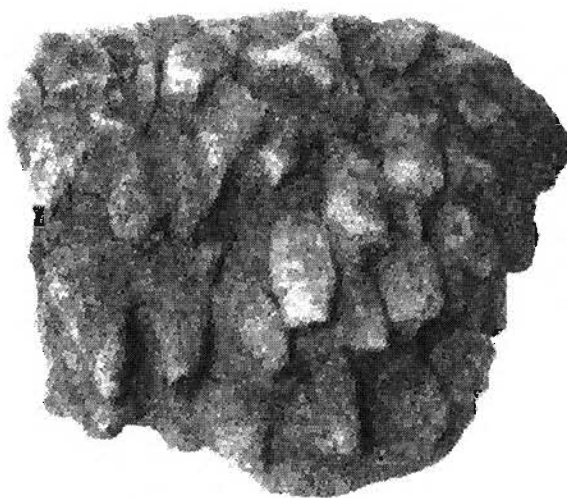
**Mari. M. 1340 (125, Fig. 71)** *Fragment of an animal with long pelt.* The piece is of limestone and represents a shallow incised and sculpted treatment termed *mèches-kaunakès*. While the effect of layered pelt is similar in the two objects, the Mari pelt is sculpted in the surface of the stone reductively, rather than being composed of identical pieces overlaid on one another.

**Assyria. BM 92989.** *Sheep, recumbent, with thick, ribbed horns* and notable for the treatment of its pelt. (van Buren 1939, Plate XVI/fig. 69, p. 67). The figure "is on the corner of what has been described as both a trough and a house-model. ... It is part of a large number of objects from Rassam's expeditions in Assyria, which were registered in 1879." Julian Reade has suggested that the object dates from EDIII/Akkadian times. (Collon 2004) The pelt is composed of a number of long, thick strands that depend from the neck and back-ridge. They overlay the entire body; there may be an undercoat.

**A fragment of a vessel** has been collected at Urkesh, which also has an overlay of regular pendant pieces (see below, *Ovis* 207). The Urkesh fragment and the fully realized animal representations (see also *Ovis* 14) may date from a slightly later time than the Assur find following, but the treatment of the pelt is similar.

**Schaf Assur Nr. 612 (Ass 19422b – VA Ass 3630)** (Klengel-Brandt 1978, Tafel 19) is a remarkable comparative fragment. The piece was dated by the excavators to Akkadian times. As Klengel-Brandt notes, it suggests an *Ovis* pelt, although this fragment could belong to almost any species with a spiny (?), irregular coat. Klengel-Brandt notes that *vielen zapfenartigen kurzen Tonstücken besetzt*. Indeed, one does sense an *orderliness in the disorder* to the application of the small clay “plugs.” A good deal of care must have gone into the fabrication of these objects. Note that I do not say “skill.” Yet this object from Assur must be described as more than workmanlike in its realization; the Urkesh vessel overlay is rather more studied.

Each of these objects representing woolly sheep must have had some importance — for where verisimilitude is in evidence, there is also *caring*. For what reason, we do not know. There must have been many such representations — *Ovis* 13 and *Ovis* 14 are rather large, as the Urkesh corpus goes. Since they were substantial objects, I wonder why more of them did not survive intact? Will these objects have served the same purpose as other representations in the corpus recovered in the Service Sector?

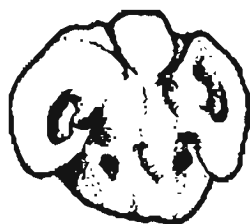


*Schaf Assur Nr. 612* (Klengel-Brandt 1978).  
Pelt, perhaps less layered than that of *Ovis* 13 and *Ovis* 14.  
Since there is damage, it is difficult to say exactly how the individual applied pelt fragments terminated.

## 14 *Ovis* TYPE I FOREQUARTERS

A7.506

Recovered from feature 417 locus 24 • length from torso to forequarters break 4.57 • cranial width horn-to-horn 3.3 • cranial length (snout break to thatch of hair down back of head between horns) 3.52 • neck 3.0 • height (crown of head to forequarter/torso break) 6.2 • forequarters (across break) 4.5 • note on measurement: only cranial depth and neck measurements are diagnostically valid • Munsell reading 10YR 7/3 • color very pale brown • preservation: forequarters only



*Ovis* 14 A7.506.  
Dorsal cranial view.  
Scale 1 : 1.  
(rendering cw J703)

The pelt treatment of *Ovis* 14 is similar to that of *Ovis* 13, although A7.506 may in fact have a different treatment of the forequarters and neck. Fragmentary as it is, the object seems markedly leaner than *Ovis* 13.

The pelt is overlaid in thin strips and possibly in two layers further down on the forequarters. As seen in right median plane, the strands of hair are laid on as a single separate layer of clay and then formed with an instrument, cut into scallops rather than being laid on as separate strands. Exception may be made for some strands laid on separately and a long thick strand that passes over the crown between the horns.



The object has had two fragments glued in place. The position of two other fragments is impossible to ascertain. Unfortunately, this breakage makes it difficult to determine the exact conformation of the animal; it would have been particularly useful to see the angle at which the neck joined the torso and the manner in which the forequarters terminated the torso. These matters are now impossible to ascertain.

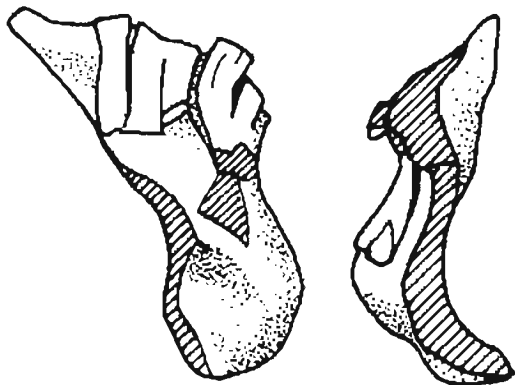
Also compare *Ovis* 14 to torso *Ovis* 202. Forequarters conformation and dorsal cranial section are nearly identical, lending credence to identification as TYPE I.

For the moment, then, I place *Ovis* 14 amongst TYPE I, and think the obvious similarities of pelt manufacture makes the identification somewhat more likely (heavy pelts are not encountered on the leaner TYPE II *Ovis*).



*Ovis* 14 A7.506. Right median plane.  
Scale 1 : 1.  
(rendering cw J703)

In excavation season 2003, a **fragment of pottery** bearing applied strands similar to the pelt of *Ovis* 13 and *Ovis* 14 was found amongst objects beings processed for delivery to Deir-ez-Zohr for safekeeping.



*Ovis* 207 A7q95.1.  
Fragment of theriomorphic vessel.  
Scale 1 : 1.  
(rendering cw N812)

The strands were cut from a single piece of clay, laid on the surface of the vessel and then separated slightly to give the impression of the natural disorder of an animal pelt, a technique encountered on the figurines. I think it unlikely that *Ovis* 207 were a hollow zöomorphie form, that is, an animal complete in itself. The curve of the thin wall is probably the base of a shallow vessel. Note that the fragment was retrieved earlier than the animal figurines within the same sector, A7, an area rich in striking artifacts and contemporaneous with Ur III strata.

**Tall Munbaqa.** *Architekturmodelle* Nr. 13 Mbq 16/12-13 (Czichon, Werner, et al. 1998, Tafel 16, 184). Fragment of *Hausmodell* roof with applied ram's head. The serrated horn curves down and back up over the crown onto the top of the head. Similar horn conformation is apparent in dorsal cranial view.

**Hammam et-Turkman.** *Theriomorphic vessel* 122:77 (Rossmeisl 1988). A fragmentary piece, the head serving as spout. The conformation of horns and crown are similar to the Urkesh forequarters, as seen in cranial transverse section.

**Assur.** *Schaf* Nr. 612 (Klengel-Brandt 1978). See remarks, *Ovis* 13.

**Mari. M. 1340** (125, Fig. 71) (Parrot 1956). Fragment of an animal with long pelt (see remarks *Ovis* 13).

**Ebla (Tell Mardikh)** *testa di specie non identificabile*, TML67.F.130 Q43T6M5b, Cat. 1099 (Tav. CLXII, 86) (Marchetti 2001). The manner in which this piece is displayed certainly invites comparison with *Ovis* 14, even though the manner of indicating pelt is here incised, and not applied. A small "tongue" (I take this to mean "strip" in this context) of medium has been applied to the forehead. The author remarks that either type of decoration is found more frequently on lions of the Middle Bronze, although he hesitates to make such an identification with this artifact. Rightly so.

## 15 *Ovis* TYPE I HINDQUARTERS

A7q622.1

Recovered from feature 171 locus 16 • length 3.6 • hindquarters 4.245 • tail 0.097 • note on measurement: length not diagnostic • fabric medium, many small inclusions • Munsell reading 5YR 8/3 • color pink • preservation: hindquarters only; tail and hindlegs broken

Outside stance is an inverted U. The inside stance is a very narrow slightly incurving inverted V. Buttocks are fused. Although the hindquarters are full, the tail is comparatively narrow. Contrast A7q860.1, which had an outside stance of an open inverted V, but was marked by what appeared to be a very wide tail.

There is a marked core that has pulled away from the envelope in firing; it is visible at the torso break.

## 16 *Ovis* TYPE I HINDQUARTERS AND TORSO

A7q667.2

Retrieved from feature 193 locus 23 • length 3.13 • torso 1.7 • hindquarters 2.15 • tail .0815 • note on measurement: length not diagnostic • fabric fine, light chaff temper • Munsell reading 2.5YR 7/3 • color light reddish brown • preservation: hindquarters and torso only; tail chipped, legs broken

If the torso break is just behind the forelegs, as seems likely, then this torso with its very thick neck join approaches some *Bos* examples, although the tail detail of *Ovis* 18 should be compared to the *Bos* corpus. Also, w2 : w3 ratio is not typical of the bovids in this corpus.

**17 *Ovis* TYPE I HINDQUARTERS****A7q860.1**

Recovered from feature 290 locus 25 • length 4.6 • torso 2.76 • hindquarters 4.18 • tail 1.5 • note on measurement: tail width difficult to determine because of heavy abrasion; length not diagnostic • fabric medium fine • Munsell reading 5YR 8/3 – 7/3 • color pink • conservation: depositional adhesions • preservation: hindquarters only; tail heavily abraded

The outside stance of this representation is an open, outcurving inverted V, almost an inverted U. The tail is carried rather high. Compare hindquarters *Ovis* 1.

**18 *Ovis* TYPE I HINDQUARTERS AND TORSO MINIATURE****A7q867.1**

Recovered from feature 261 locus 12 • length 1.9 • torso 1.255 • hindquarters 1.49 • tail 0.05875 • note on measurement: length not diagnostic • fabric fine, few inclusions • Munsell reading 5YR 7/2 • color pinkish gray • preservation: hindquarters and torso only; tail abraded, legs broken

The tail is wide; the outside stance is an open inverted U. The buttocks are fused.

**19 *Ovis* TYPE I HINDQUARTERS AND TORSO****A7q888.1**

Recovered from feature 297 locus 25 • length 4.49 • torso 1.96 • hindquarters 2.82 • tail 1.06 • fabric fine with fine grit (silica) inclusions • Munsell reading 7.5YR 8/3 • color pink • preservation: hindquarters and torso; right hindleg broken, tail chipped

The torso is lean; the tail is thick and carried high. The hindquarters outside stance is solidly founded on a rounded, slightly outcurving inverted U. The left hindleg is chipped, but probably terminated.

The hindquarters are definitely *Ovis*. The leanness of the torso is *Carnivora* (see footnote in *Ovis* DISCUSSION regarding leanness of certain of the TYPE I figurines). While there are sheep with lean torsos, there are no carnivores with rounded hindquarters and fat tails. Hence, this figurine finds its place amongst the sheep. *Ursus* does not have a lean body; although, as with *Ovis* TYPE I, the hindquarters may be rounded and the tail heavy, albeit short.

**20 *Ovis* TYPE I HINDQUARTERS AND TORSO****A9q112.2**

Recovered from feature 66 locus 4 • length 2.78 • torso 1.57 • hindquarters 1.59 • tail 0.46 • height from rump to termination, left hindleg 2.13 • note on measurement: height difficult to measure because of breakage, yet it is diagnostic, as the leg is terminated; length not diagnostic • fabric fine, light chaff temper • Munsell reading 5YR 7/1 • color light gray • preservation: torso and hindquarters only; left hindleg terminated; tail abraded; forequarters broken off; right foreleg partially intact

The left hindleg is terminated and tapers to a blunt point. When the figurine is oriented as if it were standing, it gives the impression of a more compact animal.

The classification of this object as TYPE I is at first unsettling, as the left hindleg is intact and gives the impression of a leaner animal. The tail nonetheless is wide and the torso full. The top of the rump is rounded. Consult comments on recessed vs. “fused” buttocks in DISCUSSION *Ovis*.

## 21 *Ovis* TYPE I TORSO

A9q148.1

Recovered from feature 76 locus 5 • length 3.63 • forequarters 3.5 • width across horns 1.76 • neck 1.69 • torso 2.24 • hindquarters (broken) 2.2 • height at forequarters 3.51 • height at hindquarters 2.05 • note on measurement: diagnostic measurements are representative, although entire object is heavily abraded; length, height, and width across the hindquarters not diagnostic • fabric fine, with some chaff temper • Munsell reading 10R 7/2 • color pale red • conservation: dark patina is likely the action of deposition, not the result of use when the object had an active life • preservation: neck and crown of head intact; legs broken off, hindquarters abraded; snout broken off, muzzle abraded; horns heavily abraded.

The torso is heavy. There is an incision down the back from the neck to the rump. There are roughly parallel incisions along the underside of the torso on the left side, as of hairs hanging down. The horn on the left side of the muzzle is heavily abraded but can be “read.” The object was lightly scraped with the side of the tip of a wooden skewer and brushed to reveal surface detail.

The hindquarters are rounded (insofar as they may be read.). The forequarters are solidly founded, contained within a narrow inverted U, slightly incurving.

*OVIS*

## TYPE I

## TENTATIVE IDENTIFICATION

**100 *Ovis* TYPE I HINDQUARTERS****A6.133**

Recovered from feature 177 locus 21 • length 2.245 • torso (break at rump) 2.15 • height from rump to hindleg 2.72 • hindquarter measurements either unable to be taken or not diagnostic due to breakage • fabric medium with fine inclusions • Munsell reading (fabric) 7.5YR 7/2 • color (fabric) pink • Munsell reading (patina) 7.5YR 5/1 • color (patina) gray • preservation: half of the hindquarters, a fragment only

The hindquarters are founded on an inverted U. The body is rounded and there is no indication of musculature.

*OVIS*

## TYPE I

## RELATED STRATIFIED FINDS

**200 *Ovis* TYPE I HINDQUARTERS****A2q223.1**

Recovered from Post-Palace layers • length 4.3 • torso 2.86 • hindquarters 4.2 • tail 1.57 • note on measurement: torso width measures 3.135 if taken vertically, but this is not a diagnostic measurement, as it is taken almost at the hindquarters • fabric medium, some chaff temper • Munsell reading 10YR 8/2 • color very pale brown • preservation: hindquarters only, tail broken

The hindquarters are contained within an inverted U. The legs join at approximately 35 degrees. There is a slight ridge along the top of the torso.

**201 *Ovis* TYPE I HINDQUARTERS****A2q243.1**

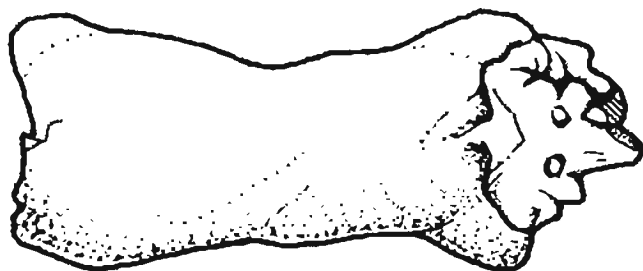
Recovered from feature 114 locus 151 • length 2.475 • torso 1.38 • hindquarters 2.04 • tail 0.076 • fabric fine, few inclusions • Munsell reading 10YR 8/2 • color very pale brown • preservation: hindquarters only; tail chipped

The hindquarters are contained by a rounded inverted U. The tail is carried high and is thick. The inside stance is an open inverted U.

202 *Ovis* TYPE I TORSO

A10.18

Recovered from feature 20 locus 5 • length 5.52 • forequarters 2.34 • neck 1.68 • torso 2.36 • hindquarters 2.88 • tail 1.05 • fabric medium fine, with some chaff temper • Munsell reading 2.5Y 8/2 • color pale yellow • conservation: Wite-Out on two appendages, cleaned with acetone. Number reapplied with several layers of nail polish and India ink, in this case on the left foreleg above the break. It will be visible in photographs, but does not alter the impression of the object nor does it obscure detail. Some Wite-Out remains in the grooves of the broken foreleg. • preservation: all appendages broken, head intact except for one broken horn and muzzle; tail chipped



*Ovis* 202 A10.18. Dorsal view.

Conformation of body type is very close to ideal, the length somewhat greater than twice the forequarters width.

Scale 1 : 1.  
(rendering cw I717)

Torso intact except for legs and with intact horn. The hindquarters are contained within a solidly founded inverted U. The tail hangs down and is tapering. The sexual parts are expressed. Forequarters are narrow, solidly founded. The leg/body join is 130 degrees.

The body type is somewhat misleading; it is close in form to *Canis*. Expression of the sexual parts contributes to this impression.

Compare with forequarters *Capra* 1 A1.44; the contrast is striking, *Capra* forequarters being triangular in cranial vertical transverse section.

The eyes are impressed with a thin bone or hollow reed, a piece of clay remaining at the center as a "pupil."

The horns meet atop the crown. They curve down alongside the muzzle, curving up to lie on the snout under the eye. The intact horn is wrinkled, expressed by regular and slanting indentations on the horn, in the manner of wild mountain sheep from Turkistan and elsewhere across Asia. Compare the back of the head/horn to A5.199.

The fabric is smoothed, with pinching to shape. The neck is slightly pinched on the back and so, raised; but there is no mane. The muzzle is pinched and triangular in section.



*Ovis* 202 A10.18 TYPE I.

Cranial/dorsal view.

The angle shows the conformation of the head to advantage, but falsifies the body length.

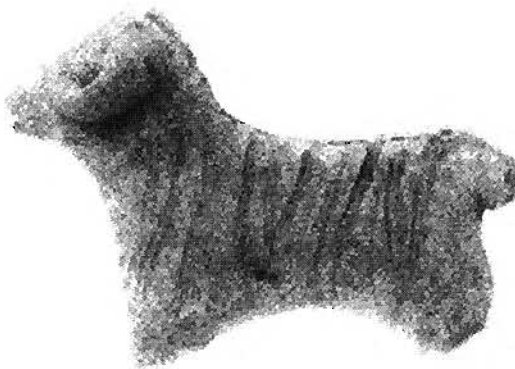
Scale 1 : 1.

(photograph MX7 B1719)

The body conformation of a comparative representation from Assur (*Schaf* Assur Nr. 605/Ass 23054 c – VA 3416) is similar to that of *Ovis* 202, particularly as seen in the left median plane (see rendering cw 1717). The modeling of the horn is unusual, not unlike *Ovis* 32 A1.303.

The Assur exemplar has applied disks for eyes; those of the Urkesh *Ovis* are impressed. The pelt of the Urkesh *Ovis* is indicated by smoothing and pinching; the Assur representation has striations, presumably to indicate an overcoat of coarser hair. There may be a tab affixed to the muzzle of the Assur *Ovis* (quite an odd detail), unless this is a photographic defect. The photograph in Tafel 19 (as with some others) appears to have been outlined for clarity. I have enhanced the photograph here to show striations in the pelt.

Klengel-Brandt sees a similarity between this exemplar and an *Ovis* from Sargonid levels at Brak, cited by Mallowan. The attitude is dissimilar, although the pelt is incised, albeit with more care than the *Ovis* from Assur (Mallowan 1947 [Spring], 1948).



*Schaf* Assur Nr. 605/Ass 23054 c–VA 3416  
(Klengel-Brandt 1978).

Reproduced here 1 : 1.

Striations are deep, made by the tip of a blunt instrument  
dragged across semi-hard fabric.

**Tall Munbaga.** *Architekturmodelle* Nr. 12 Mbq 35/28-23, Raqqa Nr.158 (Czichon, Werner, et al. 1998, Tafel 15). Ram's head applied to intact corner of *Hausmodell*. Horns curve around crown and down below eyes beside cheeks. Attitude reminiscent of fragmentary freestanding rams' heads at Urkesh. The Urkesh objects themselves may have been broken from such a model, although no remnants of houses or towers remain nor were recovered as such. Breakage of the Urkesh representations is horizontal and not vertical as from a wall.

**Tall Munbaga.** *Zwei Widderkopfe auf Hausmodellecken* Nr. 338 (= Nr. 12) Mbq 35/28-23, Raqqa Nr. 158 (Czichon, Werner, et al. 1998, Taf. 13-15, 184, 195). The crenellated horn, curving down alongside the muzzle, is similarly fashioned, if I can judge from the photograph. The rendering (Tafel 15) would lead one to think the horn was regularly incised and not indented with the fingertip or a blunt instrument.

*OVIS*  
TYPE I

## RELATED UNSTRATIFIED FINDS

**300 *Ovis* TYPE I HINDQUARTERS MINIATURE****A5q715.4**

Recovered from backfill • length 3.3 • torso 1.3 • hindquarters 1.8 • tail 0.87 • fabric fine with some inclusions • Munsell reading 7.5YR 7/3 • color pink • preservation: hindquarters and torso only; tail terminated, hindlegs broken

Although this object was recovered in excavation dirt, it was given a field number and entered in sequence amongst the finds in this sector. This *Ovis* torso is taken to be a MINIATURE (3.3 cm long). The tail hangs down and is terminated; it is quite large with respect to the buttocks, having a tail/buttocks ratio of 0.8 : 1.875; that is, 1 : 2.

The terminated tip of the tail is an important diagnostic element.



# *OVIS*

## TYPE II

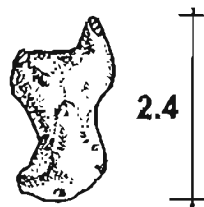
### 22 *Ovis* TYPE II TORSO MINIATURE

A1.16

Recovered from feature 16 relay 85 locus 117 • length 2.6 • cranial length (snout to back of head) 1.82 • length (snout to tail) 4.0 • forequarters 1.285 • neck 0.84 • torso 1.3 • hindquarters 1.38 • tail 0.27 • height at forequarters 2.35 • height at hindquarters 1.685 • fabric medium, some inclusions • Munsell reading 10YR 7/3 • color very pale brown • preservation: legs and horns broken; hindquarters abraded

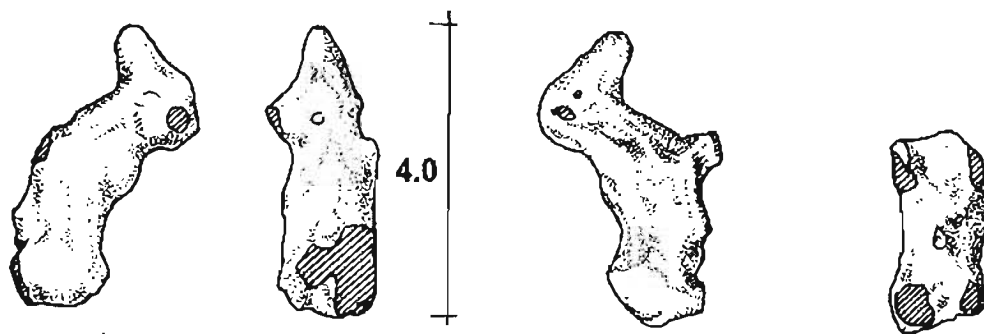
For some time, this figurine was classified amongst the goats, because of the narrow, tapering muzzle; it is almost triangular. There is surely no facial hair/wool on this example. The crown of the head is wide in rostral section at the horns, which, at least at the break, do not seem to curve down.

The eyes, ears, nostrils, and mouth are barely indicated. The neck is long and does not meld into the torso, inclining toward the body at a low (45 degrees) angle. The mane and chest ridge are indicated by light pinching. The head and muzzle of the figurine, both cranial and rostral sections, should be compared with *Ovis* 33 A1.479, a detailed ram's head "pull."

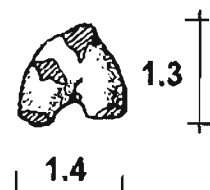


*Ovis* 22 A1.16.  
Scale 1 : 1.  
(rendering cw L725)

The sex is carried forward in the belly. But-tocks are recessed to carry the tail, and the hindquarters are contained within a wide inverted U, solidly found-ed in a foursquare stance.



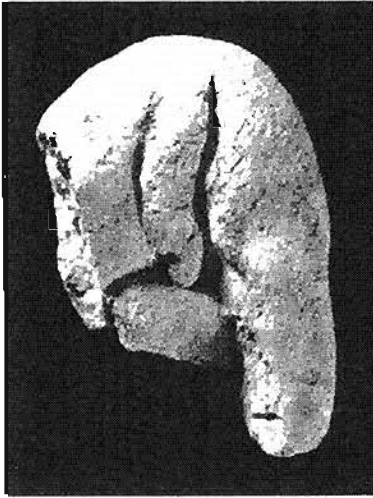
The body type therefore definitely reads as *Ovis*. The ratios and proportions amongst body parts bear out the type.



23 *Ovis* TYPE II HINDQUARTERS

A1.53

Recovered in layers above first floors in antechamber adjoining vaults, A1/A5 • length 6.42 • torso (break-to-break) 3.37 • hindquarters (across buttocks to break) 3.7 • tail 0.67 • height of hindquarters 5.9 • note on measurement: hindquarters width not diagnostic, due to breakage • fabric medium fine, with many inclusions, probably calcium carbonate • Munsell reading (fabric) 10YR 8/3 • color very pale brown • Munsell reading (core) YR 7/1 • color (core) light gray • preservation: hindquarters and torso both broken so as to obscure diagnostic measurements.; tail intact



*Ovis* 23 A1.53 TYPE II.  
Caudal view. Scale 1 : 1.  
The separate piece of clay  
impressed between the legs  
is clearly visible.  
(photograph V8a -e0526)

A separate piece of clay impressed between the legs and under this *Ovis* torso likely represents an udder. The thick tail is carried left and curves to the right, hanging down to touch the udder. The leg, rectangular in section, merges smoothly into the torso. The torso is solid, the rump rounded. The figurine is solidly founded at the hindquarters in a foursquare stance.

Note that the tail begins below the top of the rump. The tail is intact — a rare detail.

There is a hairline crack around a core, visible at the torso break, and this is a clue to the manufacture of the object. The torso is built around this core; a central protrusion at the leg break indicates that legs, too, may have first been fashioned schematically, then "fleshed out" with additional clay. Once fashioned, the leg was then cut away and on the upper left pulled forward slightly as if to enclose the genital area. Although the parallel is not exact, the attention to the hindquarters and the way legs and rump "protect" and enfold the caudal section of the animal may be studied in relation to manufacturing detail of the hindquarters of *Capra* 1 and also the hindquarters of *Capra* 2.

**Tall Munbaqa. Hinterteil 429 Mbq 30/28-7** (Czichon, Werner, et al. 1998, Tafel 79 ). The manner in which the tail is carried differs, although the tail of both examples is terminated and thus gives us an idea of the full length of the appendage when intact.

24 *Ovis* TYPE II HINDQUARTERS

A1. 91

Recovered in layers above the first floors of room adjacent to vaults in A1/A5 • length (rump to foreleg break) 5.18 • torso 2.18 • hindquarters (across "bow" of legs at slight indentation) 2.58 • tail 0.78 • tail (at base) 1.04 • height at hindquarters (left hindleg to rump) 4.22 • fabric medium fine, tempered with chaff and with gypsum inclusions • Munsell reading 10YR 8/3 • color very pale brown • preservation: hindquarters, legs terminated; tail chipped

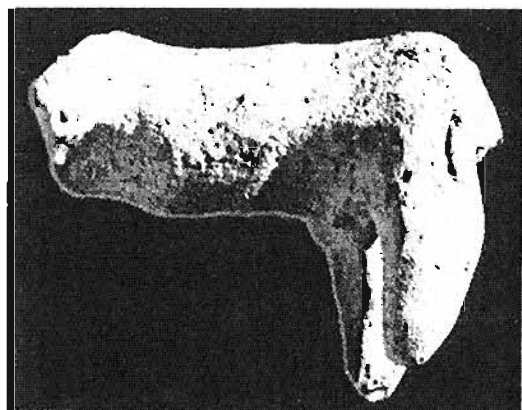
The tail of this fragmentary *Ovis* hindquarters hangs down, and although the body is lean, in no instance have I assigned a figurine exhibiting this detail to *Capra*; professional dairypersons all agree that a goat *never* displays a tail hanging down except when it is under stress or sick. As I have maintained that the observational powers of the Mozan artisans are keen, we cannot imagine that they would knowingly represent this unnatural detail on a representation of *Capra*.

Given my emphasis on veterinary procedures in the process of domestication, I might, at the extreme outside, maintain that artisans were seeking to represent a sick animal. Nonetheless, this seems unlikely.

It is for certain, however, that a salient characteristic of *Ovis* is rounded body contours, even if the animal appears, as with all *Ovis* II, not to have a “fat tail”. Almost without exception, the *Capra* corpus is angular in body contours, approaching the geometric.



*Ovis* 24 A1.91 TYPE II.  
Caudal view. Scale 1 : 1.  
(photograph V8b-e1315)



*Ovis* 24 A1.91 TYPE II . Left median plane.  
Underbelly outlined for clarity  
Scale 1 : 1.  
(photograph V8b-BZ24 [3032] ?)

It was to accommodate a growing number of figurines exhibiting a lean body, yet not assignable other than to *Ovis*, that we expanded the typology to include *Ovis* TYPE II, animals exhibiting a leaner body than TYPE I. Compare *Ovis* 7, the archetypal fat-tailed sheep, and *Ovis* 203, a leaner animal that is still indisputably *Ovis*. It is in this new category of sheep that *Ovis* 24 belongs.

The hindlegs of this figurine are complete, tapering to termination. They are rectangular in section. The hindquarters are contained within an inverted U, solidly founded. The tail is tapering; it has been applied as a separate piece, and it hangs straight down.

Compare *Ovis* 24 with torso *Capra* 1 and *Capra* 14 and also with hindquarters *Ovis* 9.

**Tall Munbaqa. Hinterteil 430 Mbq 30/28-8** (Czichon, Werner, et al. 1998, Tafel 79). The terminated hindlegs of the Urkesh figurine give us some indication of what the intact Munbaqa example would look like. They are more incurving than would appear to be the case for the Munbaqa example, and rather more solidly founded.

## 25 *Ovis* TYPE II HINDQUARTERS

A1.385

Recovered from lower floors locus 20 • torso 2.21 • hindquarters 3.06 • tail 1.02 • height at hindquarters 5.3 • note on measurement: height is a diagnostic measurement, because it has been taken to an intact termination • fabric medium, chaff-tempered • Munsell reading 10YR 8/2 • color very pale brown • preservation: hindquarters and tail broken; left hindleg intact and terminated; right hindleg broken

The stance of this fragmentary *Ovis* hindquarters is defined by a slightly open inverted U outside, nonetheless rather solidly founded. Inside, the stance is a narrow, slightly open inverted U. The hindlegs meet at a 50 degree angle. The tail is thick and hangs down; characteristic of *Ovis*, the ratio of tail width to hindquarters is 1 : 3.

Compare *Ovis* 25 with torso *Ovis* 7 and hindquarters *Ovis* 24. In contrast to the latter figurine, *Ovis* 25 is not foursquare nor solidly founded. Also, the rump is not flat, nor the execution so resolutely angular. This latter comment is somewhat impressionistic, but such an impression often does serve in a provisional manner to distinguish *Ovis* from *Capra*.

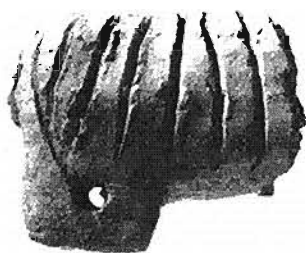
## 26 *Ovis* TYPE II TORSO RESTORED

A5q135.1/A5.199

Recovered from features 66 (A5) and 113 locus 20 (A1/A5) • length (breast ridge to hindquarters) 6.37 • forequarters 2.45 • neck 2.02 • torso 2.32 • hindquarters 2.55 • tail 0.65 • height at forequarters 5.85 • height at hindquarters 3.26 • fabric medium, uniformly fine grit inclusions • Munsell reading (A5.199) 10YR 7/2 • color (A5.199) light gray • Munsell reading (A5q135.1) 5YR 7/3 • color (A5q135.1) pink • note on conservation: some depositional dirt cleaned from break, MZ11, 1722 • preservation: torso intact except for muzzle

The forequarters and hindquarters of this *Ovis* torso, intact except for the muzzle, were found in two different excavation seasons. They were joined in a subsequent study season.

There is a deep chest ridge between the forelegs. The tail is intact, hangs down, and is formed from an attached piece, smoothed onto the surface of the rump. The pelt is heavily incised; there is a dividing line down the back, and the striped pelt falls onto either side of the torso. The pelt incisions are so very deep that I would not be surprised if they originally held hair or some fiber substitute therefor.



*Ovis* 26 TYPE II A5q135.1.  
Caudal fragment.  
Right median plane.  
Scale 1 : 1.  
(photograph V8b-e0136)

There are perforations in the neck and in thick tabs at the forequarters and hindquarters. This is a piece that must have had wheels.

Based on body type and the heavily striated pelt, Sándor Bökönyi at first tentatively identified the hindquarters of this figurine as a hyena. I confirmed this interpretation with measurements of the restored figurine.



*Ovis* 26 A5.199 TYPE II.  
Dorsal/caudal view.  
Scale 1 : 1.  
(photograph V8b-e1712)

Note the proportion w1 : w2 : w3; it is not typical of caprids in the corpus. The proportion of forequarters/torso/hindquarters is 2.45 : 2.25 : 2.5 cm, a blocky body form, typical of canids and even of cattle (except here torso length is not typically *Bos*).



*Ovis* 26 A5q135.1 TYPE II  
Caudal view.  
Scale 1 : 1.  
(photograph V8b-e0137)

For a number of seasons, I stuck to this interpretation; only with reluctance giving up the identification after realizing that the torso was raised on wheels, thus altering the proportions of the figurine. Seen in this light, the figurine obviously was more *Ovis* than not; the hindquarters particularly were *Ovis* TYPE II.

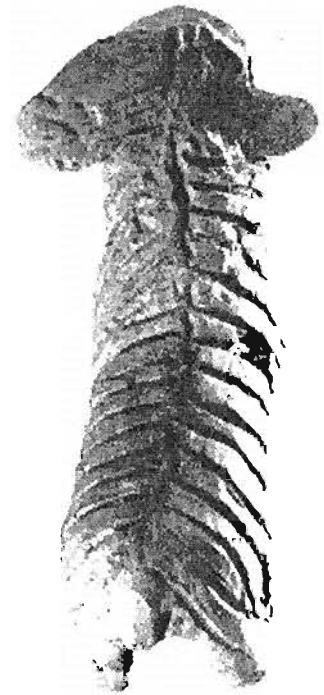
I decided the blockier body shape had more to do with an object that was pulled or rolled across surfaces and less to do with the animal in real life. Function had taken precedence over form.

I also revised my reading of the "left ear" of the restored "hyena" figurine by close examination first of the photo (the lighting hit the slightly raised horn impression just right) and then of the figurine itself. Close examination reveals what may be a coiled horn; on the right of the head is a small protruding tab, which may be the ear of the animal.

The coil of the horn is indistinct, partially obscured as it is by scraping (not pelt-hairs, as appears in the rendering), but may have been made from coils of clay pressed together, then flattened. Compare the details of horn and ear, both fragile appendages not usually found intact, with ram's head *Ovis* 33 and with a more stylized fragment, *Ovis* 41. *Ovis* 33 also has a neck perforation.



*Ovis* 26 A5q135.1/A5.199 TYPE II RESTORED.  
Left median view.  
Scale 1 : 1.  
(photograph V8b 0172)



*Ovis* 26 A5q135.1/A5.199  
TYPE II RESTORED.  
Oblique caudal/dorsal view.  
Scale 1 : 1.  
(photograph V8b 0173)

A stylistic parallel is found on one of the queen's seals (q2), in the impression of which S. Bókönyi has identified what may be a bezoar goat (*Capra aegagrus*), with striped pelt hanging down (see DISCUSSION *Ovis*).

Assur. *Schaf* Nr. 605/Ass 23054 c – VA 3416 (Klengel-Brandt 1978). Compare pelt treatment.

**Tall Munbaqa. Hinterteil 429 Mbq 30/28-7** (Czichon, Werner, et al. 1998, Tafel 79). Although the stance and conformation of the hindquarters is unclear, as the figurine is reproduced only in the left median plane, it is likely that these characteristics are similar to the restored Urkesh figurine. The Munbaqa example was repaired with bitumen in antiquity, a detail that would point to repeated usage.

**Tall Munbaqa. Hinterteil 432 Mbq 30/30-53 Aleppo 71 MBQ 201** (Czichon, Werner, et al. 1998, Tafel 79). The effect of adding wheels and elevating the torso of these two figurines would be striking and should be considered when analyzing the species that are represented.

**Tall Halawa A. *Shafe Rasse II* Nr. 89** (Meyer, Pruss, et al. 1994, Abb. 35). The hindquarters of the Halawa animal are bored through, which may indicate that wheels were once attached. The figure is somewhat diminutive to have been so used. It is also identified as being a wool-bearing sheep. Although the pelt of the Mozan representation is deeply and firmly incised, the Mozan representation is not an animal raised for its wool.

## 27 *Ovis* TYPE II HINDQUARTERS

A5.146

Recovered from feature 66 locus 18 stratum B12B • length (rump to torso break, at its greatest extension) 6.6 • torso 2.92 • hindquarters 3.84 • tail 0.9 • height at hindquarters 4.4 • height at torso break 3.175 • note on measurement: height not diagnostic • fabric fine, with considerable chaff temper • texture smooth • Munsell reading 2.5Y 8/2 • color pale yellow • note on color: Munsell revision in 1974 yields a reading of “pale yellow” and not “white,” a reading in fact more accurate (to the eye) • preservation: hindquarters only; legs and tail broken

The top of the rump of these *Ovis* hindquarters is flat and it blends smoothly into the torso. (See photograph adjacent.) The tail is rectangular and carried flat to the body. The buttocks are recessed to carry the tail; they do not join but are rounded and laid onto (either pressed or folded over onto) the body. Inside, the legs are defined by an incurving V. The buttocks are contained outside within a solidly founded inverted U.



*Ovis* 30 A5.146 TYPE II Left median plane.  
Scale 1 : 1.  
(photograph V8b0067)

Compare these hindquarters with those of the restored wheeled vehicle *Ovis* 26 and with other examples from the corpus, where the buttocks “contain” or otherwise wrap around the tail, as with several *Capra* representations.



*Ovis* 30 A5.146 TYPE II.  
Caudal view.  
Scale 1 : 1.  
(photograph V8b 0068)

**Tell Beydar *Ovis* mounted on a perforated cylinder** (LeBeau and Suleiman 1997, Pl. 1/1 169) (Quenet 1997). This is a most unusual object. First, the manner in which the animal is seated is reminiscent of certain *Bos* representations, notably those with human heads, recovered at several sites in northern Syria (Nagar [TB 11001], Mari [M. 1072] among them) and at Urkesh (*Bos* 7 forequarters MINIATURE BEARDED BULL [A6q569.1]). The pelt is detailed by regular, careful incisions on either side of the backbone. The tail/hindquarters ratio is 1 : 4, a diagnostic detail of *Ovis* TYPE II. Compare especially the hindquarters; also the pelt and hindquarters of *Ovis* 27 torso (restored) TYPE II (A5q135.1/A5.199). The object is shown in five planes, a most useful manner of documentation. The perforated cylinder might be a seating for a cart axis, but in fact, the object may have some other function, as it is difficult to see how the animal astride the cylinder would be carried; it would seem to pitch either front or back. It would be interesting to know if the cylinder itself were attached to another stable object.

**Tall Munbaqa. *Hinterteil* Nr. 430 Mbq 30/28-8** (Czichon, Werner, et al. 1998, Tafel 79). Tail is not seated between but rather on the buttocks. The manner in which the two figurines is founded is similar.

## 28 *Ovis* TYPE II HINDQUARTERS

A6q595.2

Recovered from feature 199 locus 21 • length (from tail to break in torso) 2.83 • torso 1.78 • hindquarters 2.38 • tail 0.58 • height at hindquarters 2.79 • note on measurement: length not diagnostic • fabric fine, uniformly fine inclusions • Munsell reading 2.5Y 6/2 • color light brownish gray • preservation: hindquarters only; torso fragmentary, tail abraded

This *Ovis* hindquarters is enclosed in a tight inverted U outside, with a shallow inverted V (45 degrees) inside. The tail is little more than a tab; the lower part is broken off, but a negative outline where the piece was attached defines the complete form of the missing termination. The tail was carried high.

There is an herbivore leg join with a lean torso. There is a fold of clay between legs. Is this an udder? See the udder and pendulous tail of *Ovis* 23 TYPE II.

## 29 *Ovis* TYPE II HINDQUARTERS

A7.137

Recovered from feature 63 locus 8 • torso 2.06 • hindquarters 2.96 • tail 1.02 • note on measurement: torso (only) not diagnostic because of breakage • height at hindquarters (from rump to right hindleg) 3.89 • fabric medium, many inclusions, chaff-tempered • Munsell reading 2.5YR 8/3 • color pale yellow • conservation: surface adhesions on the right hindleg and in the center of the break that can be removed only with difficulty • preservation: left hindleg broken, not terminated; hindquarters only

The tail hangs down, and amongst Caprids, this is an indisputable detail for the identification of sheep. Obviously, the contrast with *Ovis* TYPE I is that the body type is not as rounded as the “fat-tailed” variety, domesticated for sure and raised for its wool. *Capra* body type, by contrast, is more angular and approaches the triangular in vertical section

Here, the outside stance is a narrow, inverted and slightly outcurving U. The inside stance is an open inverted V (40 degrees). The tail hangs down and is incised to define where it lies over the rump. The right hindleg is intact and terminated. The tail/hindquarters ratio is 1 : 3, rather than 1 : 4. Is the stance rather more diagnostic than the tail/hindquarters ratio? In general, I think not.



*Ovis* 29 A7.137 TYPE II.  
Caudal view.  
Note that the tail is quite thick.  
Scale 1 : 1.  
(photograph V10e1415)

Compare with *Ovis* 24 TYPE II, an object that was once assigned to *Capra*, as was the case with A7.137. Also compare the hindquarters of *Ovis* 26 TYPE II.

**Tall Munbaqa. Hinterteil Nr. 798 Mbq 27/33-1** (Czichon, Werner, et al. 1998, Tafel 89). Although damaged, the tail of this animal would have been carried rather high, but the upper half of the animal, preserved here, leads me to identify it as *Ovis* hindquarters. The hindlegs would continue, incurving.

**Ebla (Tell Mardikh). (C)orpo con coda applicata. (. . .) TM.65.D.124 Q20M1a (Tav. CCIV, Cat. 1826, 116)** (Marchetti 2001). The hindquarters of this representation are rather narrow for *Ovis*, even TYPE II; however, the relationship of tail to hindquarters and the manner of application/insertion is of interest. All *Ovis* TYPE II figurines at Urkesh bear some resemblance to the Ebla representation (especially *Ovis* 23, 26, and 27). The author contrasts tails that are inserted between the buttocks and the tail that is applied to a rounded rump. I would not necessarily classify the Ebla figurines with raised, rounded rump as *Ovis* (see Tav. CCV of the Marchetti study).

### 30 *Ovis* TYPE II HINDQUARTERS

A7.370

Recovered from feature 222 locus 21 • length 6.11 • torso 2.92 • hindquarters 3.77 • tail 1.365 • tail 1.02 at intersection of frontal plane • tail (at tip) 0.053 • note on measurement: length not diagnostic • fabric medium with few inclusions • Munsell reading 10YR 8/2 • color very pale brown • preservation: hindquarters and part of torso only; tail chipped slightly; legs missing

The outside stance of the hindquarters is a flat inverted U, solidly founded. The buttocks are fused. The tail is mostly intact and carried high. The tail is pendulous and tapers somewhat. Note that the tail : hindquarters ratio is approximately 1 : 3.

The figurine shares *Bos* characteristics. The torso/hindquarters ratio does not hold for *Bos*, however; and particularly the tail/hindquarters ratio is not *Bos*-like.



# *OVIS* TYPE II

## TENTATIVE IDENTIFICATION

### 101 *Ovis* TYPE II HINDQUARTERS

A1q147.1

Recovered from feature 40 locus 120 • hindquarters (across buttocks) 2.8 • tail (negative impression) 0.69 • height at hindquarters 4.0 • thickness (tail fragment) 0.96 • length (tail fragment) 1.05 • fabric medium, chaff-tempered • Munsell reading 5YR 7/4 • color pink • note on color: Munsell chroma variance in reading from 1975 edition to 1994 edition • preservation: so eroded as to render any positive identification difficult; in two pieces; tail is of the same fabric as hindquarters fragment, but is not so heavily eroded

The hindquarters of this figurine are broken and eroded.

A modeled tail (?) accompanied the artifact from the field, but it is not clear if it is part of the figurine. A raised line has been traced around the emplacement of the tail, which was inserted between the buttocks. Inside, the stance is narrow, an inverted U.

### 102 *Ovis* TYPE II HINDQUARTERS

A7q379.1

Recovered from feature 115 locus 13 • length 6.275 • torso 2.75 • hindquarters 4.02 • tail 0.098 • note on measurement: length not diagnostic • fabric medium with heavy chaff temper • Munsell reading 10YR 8/2 • color very pale brown • preservation: hindquarters and torso only; tail chipped, legs broken

The stance outside is a rounded V. The stance inside is an incurving V. The buttocks are recessed and there is an udder or sexual parts on the hind part of the torso between the legs. The tail is rather narrow and hangs down, lying to the left. After application as a separate piece of clay, the tail has been rather heavily incised along the edges to separate it from the rump. The torso is quite lean.

Compare the heavy curve of the buttocks in profile with other examples from the corpus, particularly *Carnivora/Felis* where the rump curves down to meet the hindleg and some examples of *Canis*, where the parallel is less clear and has more to do with the curve of the back.

Two pieces of clay have been pushed together to form the buttocks, not unlike those examples in the corpus (as an example, hindquarters *Ovis* 1) where there is a flap of clay that folds over the genital area. However, here, where the two pieces meet may have been cut away, then smoothed to form the hindquarters on which the tail lies. More frequently, with *Ovis* TYPE II, the tail may be contained *within* the hindquarters, as with *Ovis* 23, *Ovis* 24, and *Ovis* 26 (less so) and *Ovis* 27.

103 *Ovis* TYPE II FOREQUARTERS (WHEELED)

A10.1

Recovered from feature 5 locus 5 • length (pull to torso break) 8.59 • forequarters 3.44 • torso 3.92 • thickness (at axle-hole, where body expands to provide surer support for the axle) 4.9 • note on measurement: thickness differentiates axle/base from animal • fabric fine, heavy and uniform chaff temper • Munsell reading 10YR 8/3 • color very pale brown • preservation: right side of muzzle broken; hindquarters missing

The pelt is represented by long incisions, both fine and deep (approximately 0.02 cm). Varying pressure on the incising instrument creates various types of incisions, from quite fine (presumably, the instrument was held at a slight angle) to moderately shallow to deep where head and legs meet torso, giving the impression that the pelt is thick in these areas. Compare this pelt detail with the lion sculpture found in Temple BA (B1.164) and on the "sheep/hyena," *Ovis* 26 A5q135.1/A5.199. The pelt of the latter object is more regular and deeper. *Ovis* 103 has a greater variety of incisions that overlap and follow the contours of the body than the comparative figurine.

The incisions appear to have been made with a reed, for the same tripartite pattern — edge/flat surface bounded by thin incisions on either side/edge — covers the surface of the object. The instrument must have been blunt, while cut at an angle. It would have been dragged along the surface to make the incision and sometimes tilted to one side or the other to create a finer line.

The front axle-hole is intact, as is a pull in the breast ridge. The breast ridge is pronounced and continues between the forelegs onto the torso.

The figure may originally have had horns, but if so, they were not impressed into the sides of the head, but rather were a separate structural element. To the back of the head on either side, a deep cut has been made; if there were horns, they were excised.

If this object does represent the genus *Ovis*, the body form is like that of *Ovis* 26 and shares characteristics with other genera, particularly *Canis*. I wonder if this object and its counterpart among the comparative material do not share characteristics of a leaner body type because of the mechanics necessitated by movement, by being pulled along. *Techniques of manufacture may hold precedence over a true representation of body type.*

# *OVIS*

## TYPE II

### RELATED STRATIFIED FINDS

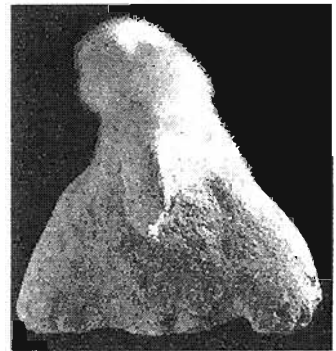
#### 203 *Ovis* TYPE II TORSO TEMPLATE

A10.20

Recovered from feature 59 locus 5 • length 4.86 • forequarters 2.36 • forequarters (muzzle, side to side, break to break) 1.98 • neck (at midpoint) 1.79 • torso 2.1 • hindquarters 2.59 • tail (base, at rump) 0.068 • height at forequarters (crown to breast ridge) 4.45 • note on measurement: muzzle width not diagnostic • fabric fine, some inclusions • Munsell reading 10YR 8/3 • color very pale brown • preservation: all appendages broken; tail intact and terminated; muzzle and right horn broken off; left horn chipped

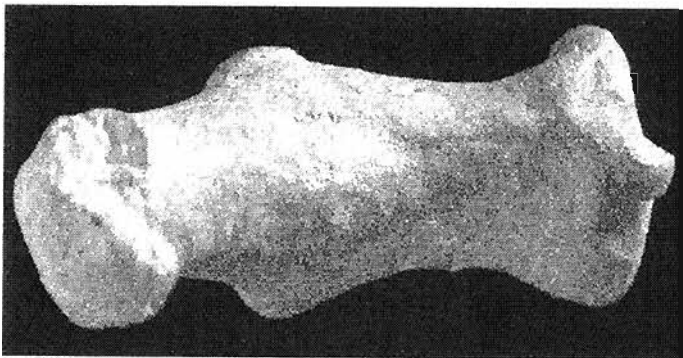
At first glance, the tail and hindquarters of A10.20 might be taken for *Ovis* TYPE I; but given the length and leanness of the torso, and the open inverted V of the buttocks, this animal is more likely a relative of the “long fat-tailed sheep” (*udu-kun-gid*) (Steinkeller 1995) and *Ovis* 24.

The neck is long, at first equal to the torso in width, then tapering to the muzzle. There is a breast ridge, the forequarters wide. The tail is flat, wide, intact, and terminated. It hangs down and is cut on a slant from right to left and shaped to a point. The body is scraped and then smoothed; the fabric is fine with some inclusions.



*Ovis* 203 A10.20 TYPE II.  
Caudal view.  
Scale 1 : 1.

(photograph V13-1200 D2778)



*Ovis* 203 A10.20 TYPE II. Dorsal view.  
Scale 1 : 1. (photograph V13-1200d2785)

The horns are wide; they sweep back and then down (although they are not terminated, the crown is broad at this point, as if to support the horns).

The hindquarters outside stance is an out-curving, open inverted V. The buttocks are fused. The sexual parts may be indicated.

By the right hindleg there is a groove that pierces the hindquarters parallel to the torso but not entering it, as the hindquarters are wider than the torso. Although the forequarters are cut away from the torso, rather than shaped, there is no indication that the groove continued the full length of the body to the forequarters.

The manufacture of this piece is rather complex; it is formed of a number of pieces, folded over and blended, cut, then smoothed, scraped, and smoothed. It bears study. For example, the left hindleg has been formed of a folded piece of clay, then smoothed (visible in the fabric). There is a fingerprint on the neck, just above the torso. Both tail and horn are applied in the same manner, as a separate piece of clay, then blended with body and shaped. See heavily eroded *Ovis* 105 where what appear to be horns have been applied as separate pieces to the side of a "head."

**Tall Halawa A. Shafe, *Rasse 1* Nr. 79** (Meyer, Pruss et al. 1994, Abb. 35). The long neck extends forward at an angle of approximately 65 degrees to the body, slightly more extreme than the Mozan sheep. Length/forequarters ratio  $\geq 1 : 2$ . The manufacture of the two objects is equally complex, but in different ways: the Halawa example is finely incised overall; the Mozan example is complex in manufacture. The outside stance of the Halawa figurine is considerably narrower than that of the Mozan sheep. Horn conformation may be similar.

The author of the present study and Pruss and Link would agree that this is not a sheep raised for its wool.

## *OVIS* TYPE II

### RELATED UNSTRATIFIED FINDS

#### 301 *Ovis* TYPE II HINDQUARTERS

Z1.93

Found on surface of Tell • length 4.77 • hindquarters 5.16 • tail 1.5 • note on measurement: length not diagnostic • Munsell reading 10YR 8/2 • color very pale brown • preservation: hindquarters only with intact perforation; tail abraded (broken off?)



Left median caudal plane.  
Scale 1 : 1.  
(photograph V7b1604)

There is a perforation for a shaft/axle in a tab that serves as the leg. (There are no legs to speak of, and the object terminates below the perforation.)

The torso is heavily incised. The hindquarters are not incised and the buttocks are fused. There may be an incision under the tail to separate it from the hindquarters. The tail may in fact be quite short and terminated, not broken. Compare *Ovis* 26 (restored). The color of the fabric is of the same hue as A5.199, the hindquarters of the restored wheeled artifact.

The fabric is fine with inclusions and the hindquarters have been smoothed with cloth (?) while the fabric was still wet. Admittedly, this method of smoothing the fabric is further to be investigated; I find it difficult to imagine that the smooth surfaces we encounter in the figurine corpus at Urkesh have been accomplished solely with the fingertips. A tightly woven fabric soaked in a slip from the medium itself or some other fabric used for slip seems more likely.

Warren MacKenzie, noted American potter, tells me that any smooth hard surface can be used to smooth or compress the surface of clay — a “rib” or a stone (a technique encountered amongst North American Indian ceramists, for instance; see the introduction to this volume).

The incisions around the tail and in the pelt and the smoothing of the hindquarters speak to the speed of manufacture of the object and the multiple usage of a single instrument in manufacture.

It will be important to study how function influences body type when the animal represented is obviously of a certain genus.

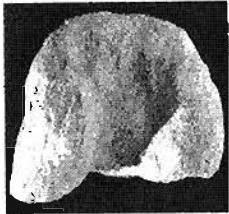
**Nippur *Ovis*** (McCown 1978, Plate 139/11). Regular vertical incisions simulate pelt in left median plane. A horn appears to have been applied as separate piece to side of muzzle and then drawn back, curving down. The body is modeled as a block, although the leg/body join is not clear. The tail is pendant. The comparison is made here because of the blocky form, which still manages to convey species. See also remarks about the nature of the modeling under *Ovis* 3.

### 302 *Ovis* TYPE II HINDQUARTERS

Z1.324

Found on surface of Tell • length 2.59 • torso 1.5 • hindquarters 2.16 • height at hindquarters 2.1 • tail ("slot," outer edge of remaining medium) 0.073 • note on measurement: height and length not diagnostic • Munsell reading 10YR 7/2 • color light gray • preservation: hindquarters only, tail missing.

The outside stance of this representation is an inverted U. The back of the hindlegs tapers inward below the buttocks accounting for what, in some examples, has been taken to be an inward curve of the hindquarters. In this case, the leg has broken just above a knee-joint (plausibly). Compare examples from *Canis*.



*Ovis* 302 Z1.324.  
Caudal view.  
Scale 1 : 1.  
(photograph V13-1100  
d0016)

The fabric is fine with some inclusions. The hindleg has been smoothed by scraping, not with the flat edge of a stick, but with the tip of a reed or bone.

The interest of this object is substantial, as the tail has dropped off, leaving only a negative impression where the tail once may have been inserted. It appears that the small appendage was modeled from a separate piece of clay and then applied to the body. Here, it would have been inserted under the overhanging ridge of clay. Elsewhere in the corpus, the rump fabric has been cut away to allow the insertion of the tail. Although it is debatable, there remain signs of the slip used to attach the tail to the hindquarters.

## OVIS

### NOT IDENTIFIED BY TYPE

## OVIS

### FRAGMENTS & RELATED OBJECTS

#### 31 *Ovis* INTESTINAL ACCRETION

A1.249

Recovered from feature 113 locus 20 stratum B12A • height 2.2 • width (long dimension) 1.1 • width (short dimension) 0.5 • Munsell reading 5Y 7/2 • color light gray • preservation: intact

This hard, shiny teardrop-shaped object is the residual component of the digestive process of *Ovis*. Sándor Bökönyi identified this mysterious object during discussions about the figurine corpus. An animal byproduct, it is found in the digestive tract of other herbivores as well.

One might more appropriately consider this object a sample, cataloguing it amongst *Varia* rather than here amongst human-made objects. The regularity of the object, however, led to its inclusion here in the first place; we thought it was handmade. Instead, it is a result of natural animal processes.

#### 32 *Ovis* HORN

A1.303

Recovered from feature 137 locus 20 stratum B12A (?) • note on recovery: Abdul Karim, excavator, by doorway (A5 f68?) • 2.65 curve of horn to break • thickness (short dimension, tip) 0.029 • thickness (long dimension, tip) 0.0575 • thickness (vertical dimension where broken from head) 1.45 • fabric fine, many small inclusions • Munsell reading 2.5Y 8/2 • color pale yellow • note on color: a shift in Munsell chroma from 1975 to 1994 • preservation: horn only



*Ovis* 32 A1.303. Horn.  
Ventral, left, and right median views.  
Scale 1 : 1.  
(rendering clh/cw H722)

This *Ovis* horn curves down and is brought forward, twisting back on itself. One side is smoothed, in contrast with opposite side; therefore, it is likely that this horn is right front. The join at the head is triangular in section. The tip is ovoid in section.

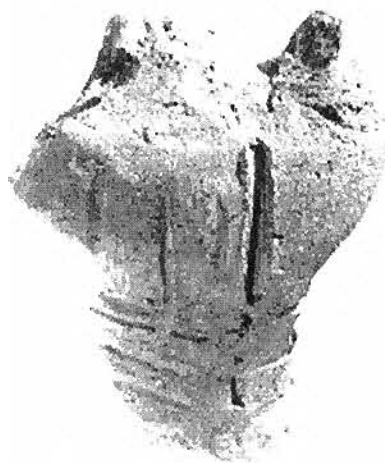
The fabric was dry when this object was modeled; the clay is creased at the first bend. The fabric is fine — a necessity for an object modeled at this small scale. There are many small inclusions, most burned out by firing.

See **COMPARATIVE TABLE 4 APPENDAGES HORNS (*Ovis* & *Capra*)**.

33 *Ovis* HEAD WITH PERFORATED RING ON NECK

A1.479

Recovered from feature 113 locus 20 stratum B12A • note on recovery: South sector • height (crown to middle of break ) 3.9 • thickness (across horns) 4.5 • thickness (curve of neck to snout) 4.82 • thickness (by pull at vertical axis) 1.8 • thickness (pull, inside of extruded fabric) 0.055 • fabric TYPE I, fine • Munsell reading 5YR 6/8 • color reddish yellow • preservation: head only; right ear intact but chipped; horns missing; right side of pull missing



*Ovis* 33 A1.479. Rostral view.  
Scale 1 : 1. (photograph V8b0831)

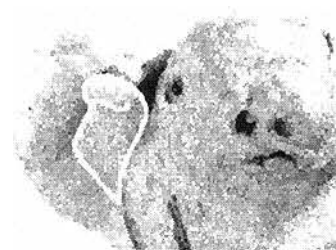
The snout curves slightly to the right. The silhouette of the muzzle gently arcs downward and is typical of the genus. Compare this detail with a ram's head of a much earlier time, from 'Obeid levels at Tepe Gawra, a theriomorphic attachment to a vessel. As for *Ovis* 33, with its "pull," it also is a fragment of a larger object, although it is unclear whether the body would continue as a zoomorphic form or terminate as a vessel or even on a cart of some sort.



*Ovis* 33 A1.479. Right median plane.  
Scale 1 : 1.  
(photograph V8a F157 [?])

The animal's pelt is indicated on the neck by heavy incisions. The instrument was definitely applied to a wet fabric. There is a heavy vertical incision, dividing the pelt along the spine and cutting deeply into the flattened crown of the head where the horns meet. The nostrils and mouth were apparently applied by this same (pointed) instrument. Eyes also are deep and pressed into the side of the head.

The ear is contained by the horn, which is wrapped around the outside of the ear. The ear appears to be a clay pellet modeled separately and then applied to the head, where it is cushioned inside the curving horn, next to the head. With its flattened end pushed forward, the ear is not dissimilar to other small fragments we identified early in typological studies as legs, or *crochets*/hooks. As time went on, we began to be able to differentiate legs from tails, from horns, and from — a very few, but distinctive — ears.



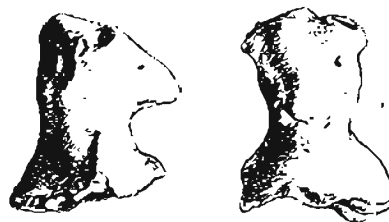
*Ovis* 33 A1.479. Cranial view.  
The ear is applied as a separate piece of clay. It is flattened against the muzzle and is enfolded by the horn, which curves up, in, and down along the face.  
Scale 1 : 1.  
(photograph V8b0829, DETAIL)



Compare also the form of the ear with the curve of horns from the corpus. Horns, in the case of our terra-cotta sheep, are pulled down and folded back upon themselves (as in real life). Note that the horn is obviously a separate piece of clay, lightly modeled and then applied to the head.

See **COMPARATIVE TABLE 5 APPENDAGES Ears** (*Capra • Ovis*).

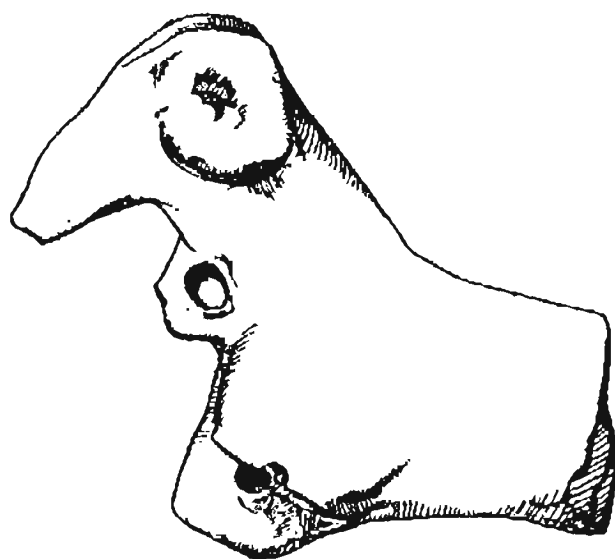
Tepe Gawra, 'Obeid levels.  
*Ovis* head  
 from theriomorphic vessel.  
 Scale 1 : 2.  
 (Speiser, Cross, et al. 1935,  
 Plate CLIV/13)



The manner in which the *Ovis* head and muzzle are modeled has changed little over the millennia. See, as a very early (and unique) example, an *Ovis* head from a theriomorphic vessel recovered from Level XVIII at Tepe Gawra — the silhouette of the muzzle is unmistakable. It is possible that the snout is eroded smooth, of course, unless this is an effect of stylization. I rather opt for the latter; traces of red paint were found on this object when it was retrieved, implying care in manufacture.

A figurine strikingly similar to *Ovis* 33 was recovered at Tell Brak from levels "not earlier than Early Dynastic III" (Mallowan 1948). This "ram" (Mallowan) has a pull as well, in approximately the same place as our figurine. The excavator says that it was originally on wheels; note the perforation in the forelegs to carry an axle.

Mallowan compares this piece to an example of *Bos*, a zoomorphic vase on wheels with a pull excavated by Wooley at Ur — U.14461 (Woolley 1934, plate 188a and page 389). The example may be contemporaneous, but in execution it bears little resemblance to the contained and elegant example from Brak.



*Ovis*, wheeled figurine  
 with perforation in tab for "pull."  
 Recovered from fill in Naram Sin's Palace  
 and "probably goes back to the same period."  
 Date ca. 2500–2400 BC  
 Scale app. 1 : 2.  
 (Mallowan 1947 [Spring], Plate LIV/18,  
 also Mallowan 1948)

### 34 *Ovis* FOREQUARTERS

A1q696.1

Recovered in layers above first floors, storeroom in Service Sector • length 4.74 • cranial length (snout to back of head) 2.39 • forequarters 3.33 • torso 2.9 • note on measurement: thickness and length not diagnostic • fabric chaff-tempered with some gypsum inclusions • Munsell reading 2.5Y 8/2 • color pale yellow • preservation: forequarters only; muzzle chipped, forelegs missing; surface heavily abraded

These *Ovis* forequarters are heavily abraded, yet some diagnostic details can be read. The outside stance is a narrow, slightly outcurving inverted U.

### 35 *Ovis* TAIL

A1q963.28

Recovered from feature 113 locus 20 stratum B12A • length 3.17 • thickness (top, below tapered wedge) 1.2 • thickness (above tip) 0.079 • fabric fine with few inclusions • Munsell reading 5YR 7/3 • color pink • preservation: tail only, small break at top

This long rounded object is an *Ovis* tail. The object is circular in section at the top, ovoid at the midpoint and circular again at the small tip. It has only a small break at the tip. This piece was formed separately from the body to which it was attached, then wedged in between the buttocks of the animal. Its manner of attachment is similar to that of *Ovis* 50.

Although the fabric is fine with few inclusions, it is inconsistently mixed, so there are many surface cracks, as if the piece were formed when dry. If the piece is not baked — and this seems likely — the cracks could be due to drying and possibly to depositional damage. Compare this object with tail *Ovis* 26 and tail *Equus* 204 A10.79.

The object is illustrated amongst similar pieces in **COMPARATIVE TABLE 5 APPENDAGES TAILS** (*Capra, Canis, Felis, Ovis*).

### 36 *Ovis* HORN

A1q975.2

Recovered in layers overlying first floors in Service Sector • height 2.02 • thickness (midpoint) 0.023 • fabric medium fine, inclusions • Munsell reading 10YR 8/2 • color very pale brown • preservation: tip of horn only

This fragmentary *Ovis* horn is thin and has a slight twist. The upper and middle parts of the horn are missing. The surface of the object is smoothed, as with a cloth, and the tip is rounded

The object is illustrated amongst similar pieces in **COMPARATIVE TABLE 4 APPENDAGES HORNS** (*Ovis & Capra*).

37 *Ovis* TAIL

A1q1008.18

Recovered from feature 113 locus 20 • length 1.76 • thickness (below upper wedge) 0.057 • thickness (above tip) 0.0029 • fabric fine with inclusions • Munsell reading 10YR 7/4 • color pale red • preservation: tail only

Wedge-shaped at body join as are other tail examples in corpus; it, too, tapers to a blunt point. The piece is circular in section below wedge, ovoid at tip. It has been rolled to shape between fingers. There are striations near the tip. Compare this fragment with hindquarters and tail *Ovis* 26.

38 *Ovis* LEG TERMINATED IN A "HOOK"

A1q1045.3

Recovered from feature 113 locus 20 stratum B12A • note on recovery: Sector 8 (Abd' al-Rachman, excavator) • length (height) 2.4 • thickness 1.1 • fabric fine with small inclusions • Munsell reading 7.5YR 6/2 • color pinkish grey • preservation: leg only, hooked termination intact

*Ovis* leg terminated in a "hook" or, as we have called the detail, a *crochet*. The fragment is flattened on one end and the fabric has been pulled to make a *crochet*/hook, twisted slightly along length. It would have joined the body of the animal of which it is a part in the manner of herbivores.

The object does become narrower at the hoof/foot, but it does so in an irregular, organic way, not a smooth taper to termination, as with most horns and many other animal legs (for example, those of the equids in this corpus). In A1q1045.3, the knee joint may be expressed.



The shaft is also "modeled", curving as opposed to straight, full as opposed to *gracile* (Sándor Bökönyi terminology), a piece that has been truly "worked." Compare with *Capra* 104 A1q495, which has also been variously categorized, but the latter more closely resembles a manufactured object, rather than an animal form. Think of this in the context of figurine manufacture. That is, some objects appear to have been made according to a preconceived model, idiosyncrasy reduced to a minimum. Here, A1q1045.3 appears to have been freely modeled, as by an individual artisan working expressively.

*Ovis* 38 A1q1045.3.  
Right median plane (assuming  
the appendage is a left foreleg).  
Scale 4 : 3.  
(photograph MZ8A B1734)

Caprid hooves from the Mozan corpus have much to teach about the way legs terminate, and this object should be compared to them. All Capridae have a nail that is a hooklike protrusion at the base of an irregular cylinder. This piece does not, however, exhibit any division across the base, as if it were a hoof.

See **COMPARATIVE TABLE 6 APPENDAGES Legs (*Ovis*)**.

**39 Ovis RIGHT HINDLEG****A1q1048.3**

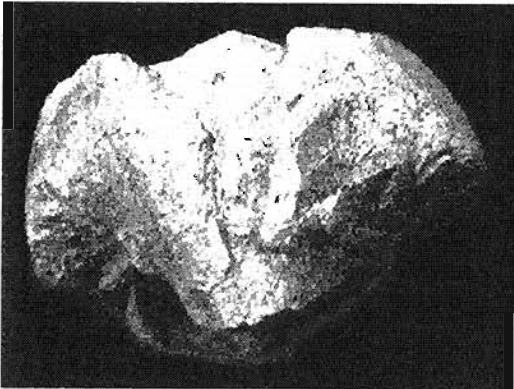
Recovered from feature 113 locus 20 • height 0.3 • thickness (thick top) 0.7 • thickness (tip) 0.7 • fabric medium fine • Munsell reading 2.5YR 7/3 • color light reddish brown • preservation: leg only

This *Ovis* right hindleg tapers to termination at midpoint; the tip is rounded, not blunt

Fold marks are visible in the fabric; the object was not reduced from a cylinder. Compare horns *Ovis* 32 and *Ovis* 44 for stress marks on the fabric.

**40 Ovis HEAD WITH LARGE HORNS****A5.26**

Recovered high up in excavation unit • height 4.0 • forequarters (horns) 4.6 • torso (at neck-join) 2.3 • cranial length (snout to mane) 3.3 • vertical cranial section (across horns) 4.5 • fabric medium, chaff-tempered with many tiny open "pockets" as a result of firing • Munsell reading 2.5Y 8/2 • color pale yellow • conservation: eroded • preservation: head with horns and muzzle broken; ears broken



This *Ovis* head is endowed with large horns, wide and curving up over the crown and down onto the muzzle. They are broken, yet outside termination (edge) of both horns is intact. The horns are applied to the crown, leaving a deep ridge low down onto the muzzle. Compare the treatment of ram's head *Ovis* 33. The eyes are appliquéd lozenges.

The head is wide and it sits solidly on the neck. The head is exactly twice as wide as the neck ( $4.6 : 2.3 = 2 : 1$ ).

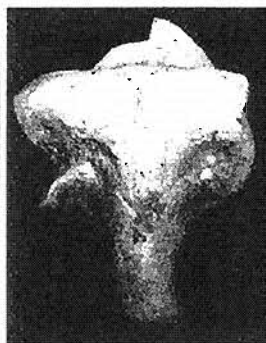
*Ovis* 40 A5.26. Dorsal cranial view.  
Scale 1 : 1.  
(photograph V5b0820)

**41 Ovis HEAD****A5q171.1**

Recovered from layers above first floors, storeroom in Service Sector • cranial length (snout to horns) 3.455 • length (ear) 0.073 • thickness (ear, outer edge) 0.016 • thickness (ear, attachment to head) 0.047 • thickness (snout, vertical long axis) 1.08 • thickness (snout, horizontal short axis) 0.086 • note on measurement: cranial length (snout to horns) is diagnostic; ratio between this measurement and other body-parts has not been established • note on measurement: difficult to measure ears directly, as they are attached to the head and curve • fabric coarse with many inclusions • Munsell reading 7.5YR 8/3 • color pink • preservation: head only; horns broken, one ear flap intact

The snout of this *Ovis* head is long and narrow, pinched, pulled out and curved slightly to the left. The muzzle is rectangular in vertical section, triangular in horizontal section. In profile, rather than overhead section, the muzzle of *Ovis* 41 is blunt and curves down, like a sheep's. Compare, for example, head *Ovis* 33.

The ear of this *Ovis*, an appliquéd lozenge-shaped piece of clay pressed onto the head, is pinched very thin, thicker at the base where it attaches to the head, triangular in section. Compare this ear with that of *Ovis* torso/wheeled vehicle *Ovis* 26 A5.199/A5q135.1 and contrast the attachment with horns that curve and twist.



*Ovis* 41 A5q171.1.  
Cranial fragment, dorsal view.  
Scale 1 : 1.  
(photograph V5b0820)

The horns meet in a gentle curve at the top of the crown. At the break, they likely turn down, to curve about the side of the head. This aspect is particularly apparent in the rendering reproducing a number of heads of Capridae in the corpus See **TABLES 2 & 2A The way horns join at the crown of *Ovis* & *Capra***. We created these comparative drawings as study aids, hoping to see some species differentiation.



*Ovis* 41 A5q171.1.  
Cranial fragment, left median plane.  
Scale 1 : 1.  
(photograph V5b0820)

As a matter of fact, horns join in two distinct manners at the crown — either in a gentle arc as *Ovis* 41 or in an open V as with *Ovis* 53. Both figurines have horns that curve down around the head, one important diagnostic detail contributing to their identification as sheep. Other representations, however, have horns joining in an open V and these figurines (or figurine fragments) have been identified as *Capra*.

It may simply be that the manner in which horns join is not diagnostic of species and we are pursuing a path that will not lead to meaningful comparison. It certainly is true that we had difficulty deciding exactly where to make the transverse section for illustrative purposes; this alone may have blurred a meaningful distinction.

**Hammam et-Turkman 122:77. Part of a theriomorphic vessel, the head serving as spout** (Rossmeisl 1988). The conformation of horns and crown are similar to the Urkesh head, as seen in cranial transverse section, as is the curving muzzle, right median plane.

## 42 *Ovis* RIGHT HINDLEG

A5q260

Recovered from layers above first floors, storeroom • height 1.96 • thickness (join, long dimension) 1.22 • thickness (join, short dimension) 1.01 • thickness (above tip) 0.83 • Munsell reading 2.5Y 7/2 (surface patina) • color light gray (surface patina) • note on color: to the eye, the piece has a greenish cast • fabric medium, inclusions, small chaff temper • Munsell reading (fabric) 5YR 7/3 • color (fabric) pink • preservation: tip only

If this tip of an *Ovis* right hindleg is held in a vertical plane, the resulting stance defines a slightly rounded inverted U and the inner surface of the leg would intersect the left hindleg at an angle of 60 degrees. Section of body join is oval; the leg tapers to a blunt point, circular in section.

Although the fabric has a somewhat greenish cast, this is not kiln waste; the artifact is modeled and baked.

See **COMPARATIVE TABLE 6 APPENDAGES LEGS (*Ovis*)**. Compare hindquarters *Ovis* 26 A5q135.1, *Ovis* 4 A1q558.1.

**43 *Ovis* HORN****A5q713.3**

Recovered from first floors, storeroom in Service Sector • height 2.23 • thickness (tip) 0.35 • thickness (short axis, body attachment) 0.95 • thickness (long axis, body attachment) 1.63 • fabric medium fine, small inclusions • Munsell reading 10YR 8/3 • color very pale brown • note on color: Munsell 1975–1994 chroma shift • preservation: horn only

This *Ovis* horn — likely carried on the right side of the head — was first modeled, then twisted to form; there are wrinkles in the fabric. Compare to other horn fragments, *Ovis* 32 A1.303, *Ovis* 48 A6q968.1, and to leg fragment, also with wrinkled fabric, *Ovis* 39 A1q1048.3.

See **COMPARATIVE TABLE 4 APPENDAGES HORNS (*Ovis* & *Capra*)**.

**44 *Ovis* RIGHT FORELEG****A5q719.2**

Recovered from feature 93 • height 2.02 • thickness (body join) 1.35 • thickness (tip, long dimension) 0.96 • thickness (tip, short dimension) 0.90 • fabric medium fine, with inclusions • Munsell reading 2.YR 7/2 • color pale red • preservation: leg only

This is an *Ovis* right foreleg. There is a light incision on the blunt end running parallel to the torso. There may be an articulated knee joint, with a taper from body to midpoint of the leg. The body join is triangular in section.

See **COMPARATIVE TABLE 6 APPENDAGES Legs (*Ovis*)**.

**45 *Ovis* TYPE I (?) LEFT HINDLEG, WITH ARTICULATED KNEE****A5q842.2**

Recovered from feature 49 locus 5 stratum B1 • height 5.36 • thickness (midpoint of hindquarters) 2.58 • thickness (tip, short axis) 0.91 • thickness (tip, long axis) 1.27 • fabric fine, many gypsum inclusions • Munsell reading 10YR 7/2 • color light gray • preservation: leg only

The knee of this *Ovis* left hindleg is articulated and the leg melds with the body in the manner of all herbivores. The hindquarters would have been solidly founded in a foursquare stance. The leg terminates differently than with *Capra*, often modeled with a hoof or spur.



*Ovis* 45 A5q842.2.  
Left hindleg.  
Scale 1 : 1.  
(photograph V5 b8E41)

46 *Ovis* FORELEG

A6.268

Recovered from feature 220 locus 22 • height 2.28 • thickness (long break, long axis) 1.8 • thickness (long break, short axis) 1.2 • thickness (short break, short axis) 0.098 • thickness (short break, short axis) 1.01 • fabric medium with large gypsum inclusions • Munsell reading 7.5YR 7/2 • color pinkish gray • preservation: upper portion of leg only; break at knee joint

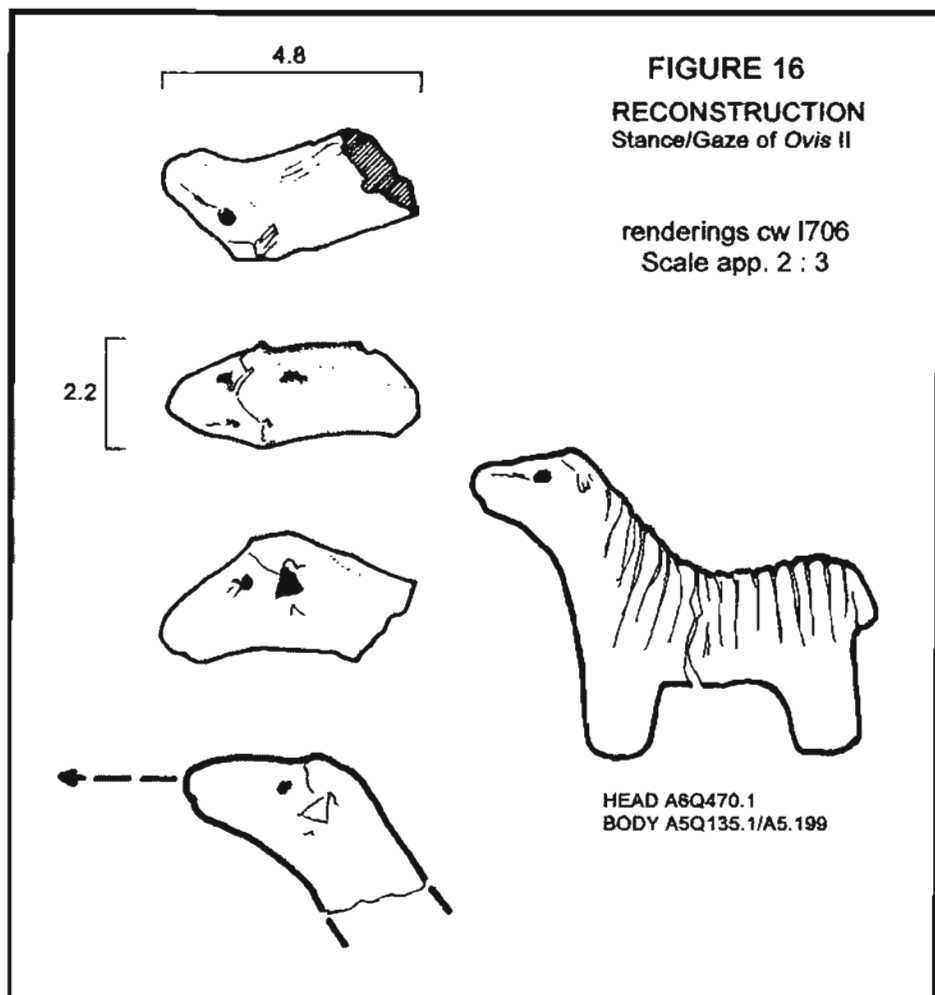
The body join is perpendicular, solidly founded. The join is oval in section, as is the leg down to the lower break. The leg obviously does not form one side of the buttocks, so it must be a foreleg.

See **COMPARATIVE TABLE 6 APPENDAGES Legs (*Ovis*)**.

47 *Ovis* MUZZLE

A6q470.1

Recovered from feature 160 locus 218 • length (crown/head to break) 4.77 • thickness (snout) 0.95 • thickness (top of head/ears) 2.06 • thickness (break/neck at smaller dimension) 1.84 • thickness (break/neck at longer dimension) 2.2 • fabric fine, light chaff temper • Munsell reading 7.5YR 8/3 • color pink • preservation: head only; surface abraded overall



This *Ovis* muzzle is short, blunt, rounded. The animal likely carried its head up, as if it were grazing. The muzzle merges with the neck, in a manner that recalls the bovids. The right eye is deeply impressed from the front, the left eye less so. The ears are small flaps, wide-spaced on either side of head.

Note the “tripartite incision” — the grooved line made by a hollow reed that is cut at an angle, leaving the marks of either side and the forward cut of the “top” of the instrument. — from each ear to the middle of the muzzle, down the muzzle to the snout, and from the snout (on right) back toward the eyes.

The surface is smoothed, probably with cloth. Note a probable cloth impression under the muzzle. There is a fingerprint above the right ear.

The RECONSTRUCTION overleaf gives an impression of how such an animal might move through tall grasses, surveying the outlying steppe. Note that the angle at which the figurine fragment is held drastically changes the impression one has of the animals' body conformation. Here, Claudia Wettstein affixed *Ovis* 47 to the body of *Ovis* 26, giving an impression of how TYPE II might have looked as seen by the artisan in real life. The work we have done here is the fruit of some study; the fragment has to be turned 'round and over in the hands so it can be properly "read" and so that it might tell us all that it can.

## 48 *Ovis* HORN

A6q968.1

Recovered from feature 403 locus 31 • length (break to outside fold) 2.55 • thickness (head-join long dimension) 1.675 • thickness (break below fold near tip) 0.057 • Munsell reading (fabric) 2.5YR 6/3 • color (fabric) light reddish brown • Munsell reading (patina) 10YR 6/2 • color (patina) light brownish gray • preservation: horn only, broken at head join; tip entirely broken off, chipped on the underside

This *Ovis* horn is probably from the same animal figurine as *Ovis* 50. The horn curves outward and hangs down, as with other examples in the corpus. The break below the fold is a rounded rectangle in section.

Composition and texture of the fabric are a little difficult to see since the label covers entirely the break at the tip. It looks as if the medium is the same as that of *Ovis* 50, found in the same locus in association with the same feature. The break at the head join may exhibit more inclusions. There are creases in the fabric.

See **COMPARATIVE TABLE 4 APPENDAGES Horns (*Capra* & *Ovis*)**.

## 49 *Ovis* TAIL

A6q968.2

Recovered from feature 403 locus 31 • length 4.11 • thickness (tip) 0.048 • thickness (tip, long dimension) 1.08 • fabric very fine, no inclusions • Munsell reading (fabric) 2.5YR 6/3 • color (fabric) light reddish brown • Munsell reading (patina) 10YR 6/2 • color (patina) light brownish gray • preservation: horn only, broken attachment

This tail was recovered from the same feature as *Ovis* 49. It is indented in a curve on one side, long and flowing, and does not taper to a point. The object is not twisted, as a horn. There is a ridge of clay along one side where the fabric has been pushed back.

The point of attachment to the body comes to a point, as is seen in other figurines where separate pieces have been applied between wedges of fabric forming the buttocks. The object is rectangular in section at the point of attachment, teardrop (oval tapers to sharp edge) in section at the tip. The object does not taper to a point.

It is rendered in **COMPARATIVE TABLE 5 APPENDAGES Tails (*Ovis*, *Canis*, *Felis*, *Capra*)**.

See for comparison *Equus* 204 TYPE I; also *Ovis* 7 hindquarters. And see particularly *Ovis* 23 hindquarters, with possible udder. Compare also horn *Ovis* 32.



**50 *Ovis* HORN****A6q973.1**

Recovered from feature 412 locus 31 • length 2.55 • thickness (head-join, long axis) 1.06 • thickness (head-join, short axis) 0.087 • thickness (tip, short axis) 0.0375 • thickness (tip, long axis) 0.055 • Munsell reading 7.5YR 7/3-6/3 • color pink-light brown • conservation: consolidated FRAGILE! • preservation: horn (only)

This *Ovis* horn curves out and down. It is thick and folds on itself very tightly, almost melding into a solid piece. The tip of the horn is not elongated by pulling, but remains rather thick, coming to a blunt point rather than being curved and thin as with most other examples from the corpus. The fabric is coarse, unbaked.

The object is illustrated in **COMPARATIVE TABLE 4 APPENDAGES Horns (*Capra* & *Ovis*)**.

**51 *Ovis* FOREQUARTERS****A7.107**

Recovered from feature 9 locus 10 • forequarters 2.07 • thickness (across horns/ears) 1.68 • cranial length (snout to back of head) 1.93 • neck 1.39 • height (crown to right terminated foreleg) 3.3 • note on measurement: thickness across horns not diagnostic • fabric fine, few inclusions • Munsell reading 10R 5/3 • color weak red • preservation: forequarters only

The crown of the head is large with horns that meet at the back of the head, curve down, and are folded back. The muzzle is lightly curved and tapering, the snout a blunt point. The neck/body join is thick, with the back of the neck parallel to the torso. There is a prominent breast ridge. The left foreleg is thrust forward. The body is full, with some defined musculature along neck/head join.

The stance outside is an inverted U (Orientation is important to see this diagnostic detail.). The leg/body join is readable, intact, and useful diagnostically.

The figurine is not baked; there are many fingerprints.

There are, all told, few realistic (that is to say, “readable” in some manner) details. The body does conform to type; otherwise, the blunt snout is rendered in the same manner as the leg termination. I mean to say that this is one of the few examples of formulaic modeling in the Mozan corpus. It was possible to identify forequarters and a right foreleg amongst the six pieces and dust to which this figurine had been reduced. The object was reassembled in the conservation laboratory.

**52 *Ovis* HEAD****A7.302**

Recovered from feature 141 locus 15 • height (top of head to neck break) 2.6 • neck 1.48 • cranial width (across horns) 3.01 • thickness (across snout) 0.57 • cranial length (back of head to snout) 3.07 • note on measurement: height is not diagnostic • fabric fine, uniformly fine chaff temper • Munsell reading 10YR 7/4 • color very pale brown • preservation: head only; horns, right horn, and left ear partially intact

The eyes of this *Ovis* head are impressed at the beginning of the muzzle taper, which is marked. The nostrils, too, are impressed. The muzzle is rectangular in section and the horns curve down from the crown around the side of the head and project forward parallel with the muzzle. The muzzle is flat.



*Ovis* 52 A7.302.  
Cranial fragment, dorsal view.  
Scale 1 : 1.  
(photograph MZ8 VB10-0231)

This head was originally assigned to the *Capra* corpus and certainly the taper of the muzzle is, seen from above, goatlike. Other details are encountered in the *Ovis* corpus, however — the impressed nostrils and eyes (see *Ovis* 33) — and, most particularly, the way the horns meet on the crown of the head and curve down on either side (Compare *Ovis* 41 A5q171.1).

My edited notes refer to “ear-flaps” — as seen in the adjoining photo — on the right (markedly) and left of the muzzle. I think now, however, after review, that these are likely to be ears in front of the horn or the tips of horns where they are broken off; these broken projections could be either and the present photograph does not permit closer analysis. I should note also that in this same editorial review, I referred to the “left ear” in my notes on preservation.

The texture is smooth. There may be a slip overall, although there is depositional damage that roughens the surface of the object.

**Tell Halawa. *Schafe* Nr. 84** (Meyer, Pruss, et al. 1994, Abb. 35). The two examples are strikingly similar in form. No indications are given as to technique.

### 53 *Ovis* MUZZLE AND FRAGMENTARY HORNS

A7.308

Recovered from feature 148 locus 13 • height 4.77 • cranial width (horn to broken horn opposite) 3.74 • thickness (width of horn at lower break) 1.68 • thickness (left horn where it joins lower muzzle) 0.07 • thickness (muzzle, vertical axis) 1.66 • thickness (muzzle, horizontal axis) 1.32 • fabric medium fine with few inclusions • Munsell reading 75YR 8/3 • color pink • preservation: head only, horns intact except for tips; muzzle broken; ears broken off



*Ovis* 53 A7.308.  
Oblique rostral view. Bitumen repair  
at neck break clearly visible.  
Scale 1 : 1.  
(photograph V7b1711)

The horns of this *Ovis* head are wide and sweep out and down from a join at the crown.

The eyes are appliquéd disks with a central impressed pupil. Ears are indicated, but both are chipped. The muzzle is rectangular in vertical section.

In a detail rarely encountered, but not to be undervalued, the head has been repaired with bitumen at the neck.



*Ovis* 53 A7.308. Cranial view.  
Scale 1 : 1.  
(photograph V10e1607)

Tall Munbaqa. *Architekturmodelle* Nr. 13 Mbq. 16/12-13 (Czichon, Werner, et al. 1998, Tafel 16, 184). Note raised eyes and indented pupils; also conformation of horns.

## 54 *Ovis* HEAD IN THE FORM OF A SPOUT

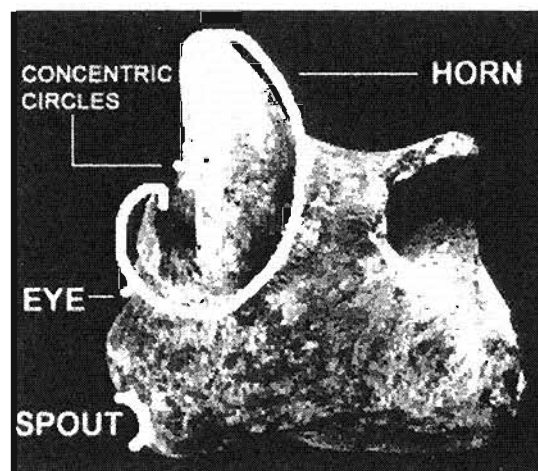
A7.340

Recovered from feature 188 locus 21 • height (top edge of upstanding horn to below spout/muzzle) 5.6 • thickness (horn, midpoint near crown) 1.57 • thickness (width of horn at tip before break) 0.67 • thickness (width of horn at middle of crown) 2.06 • fabric medium fine, chaff-tempered • Munsell reading 2.5YR 6/2 • color pale red • conservation: much depositional stain • preservation: head only, one horn intact; part of pipe intact; spout chipped



*Ovis* 54 A7.340.  
Cranial view.  
The spout is at  
bottom of picture.  
Scale 1 : 1.

(photograph MZVII B1701)



*Ovis* 54 A7.308.  
Schematic rendering to show functional  
relationship, body-parts to spout.  
Scale 1 : 1.  
(photograph MZ7 B1703)

This *Ovis* head does double duty as a spout. The head itself terminates a pipe for which the mouth is the spigot. There are two nostrils impressed above the mouth opening. The eyes are appliquéd half-rounds with deeply impressed pupils. The left horn, nearly intact and very wide, rises high on the head, and curves downward to rest on the crown of the head above the eye. The outer edge of the horn is marked by a number of lightly impressed — now, abraded — hatch marks (0.04 cm apart).

There are two concentric circles impressed on the carapace of the horns above the eyes. The smaller circle in the center is raised slightly. There are six hatch marks along a breast ridge below the muzzle. A dot begins the series.

Could the depositional stain be in fact residual bitumen, applied so as to create a water-impermeable surface? Parrot discusses the usage of bitumen in the third millennium at Mari as a waterproofing agent for some installations and as a fixative for inlays in statuary (Parrot and Dossin 1968, 132). The substance was sometimes also used as a sculptural medium in itself.

It appears that the termination of the spout at the muzzle is not much abraded, so this must be the approximate depth of the spout when the object was made. The “throw” of the pipe or of the vessel cannot have been great.

## 55 *Ovis* HORN

A7q349.1

Recovered from feature 89 locus 10 • length (tip to tip) 3.1 • thickness (tip) 0.48 • thickness (head-join, from flat side to curved side) 1.22 • fabric fine, few very small inclusions • Munsell reading 10YR 7/2 • color light gray • preservation: point chipped

*Ovis*, horn, carried on the left. There is a “flat” side, but it is concave, almost a groove down the center. By contrast, cattle exhibit a flat upper horn, usually smoothed. Here, it is the rounded opposite side that is “finished.” The upper surface curves and twists, tapering to a point; the inner surface makes a right angle with the flat side of the horn. This intersection at 90 degrees may prove to be diagnostic.

The head join is triangular in section, the tip is ovoid. Contrast this example with scimitar-like horns of domesticated and early forms of nondomesticated goat.

See rendering of *Ovis* 55 A7q349.1 in **COMPARATIVE TABLE 4 APPENDAGES Horns (*Capra* & *Ovis*)**.

## 56 *Ovis* HEAD, ONE HORN

A7q603.1

Recovered from feature 150 locus 15 • height 2.64 • thickness (across horns) 2.8 • thickness (snout to back of crown) 1.83 • fabric medium uniform temper • Munsell reading 5YR 7/2 • color pinkish gray • preservation: head and horns only; muzzle broken; left horn partly intact, the other broken

*Ovis* head, one horn partly intact. The horns curved gently in a horizontal plane to meet at a slight indentation on the crown. The horn makes a wide curve and comes down, turning up at the tip against the muzzle. The tip of the right horn is visible on the muzzle.

Compare horns *Capra* 100 A6q594.1 and horn attachment *Ovis* 52 A7.302. The way the horns meet at the back of the head in a gentle curve is similar. Also, there appear to be indentations for eyes high up and back on the muzzle.

## 57 *Ovis* MUZZLE AND HORNS (BROKEN)

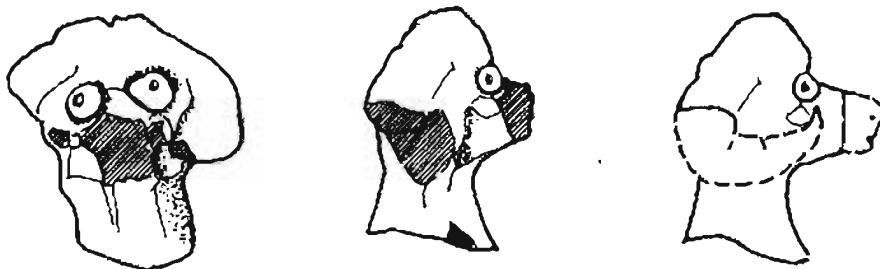
A7q918.1

Recovered from feature 302 locus 25 • height 4.1 • thickness (muzzle to back of head) 2.3 • thickness (horn to horn) 2.62 • fabric fine, few inclusions • Munsell reading 5YR 8/2 • color pink • note on measurement: thickness (horn to horn) is diagnostic of the original piece because the horns are intact at this point and opposite each other; heavily abraded • conservation: depositional stain or carbonization on the front of the object • preservation: muzzle broken, horns chipped and heavily abraded; ears broken

*Ovis* muzzle and horns (broken) The eyes are appliquéd, an unusual detail for an animal corpus that is in the main realistic. The detail can be found amongst the caprids and on one bovid head.

Compare with “monster” (as the figurine was described) found early in Excavation Season 10, *Ovis* 53 A7.308.

The horns meet at the crown, curve down, and hold tight against the head. Here, the ear flaps are broken off at the base on both sides, although the one on the right is more complete. The neck is rather thick as compared to the crown of the head. The body join must have occurred at the break.



*Ovis* 53 A7.308 RECONSTRUCTION.

When broken, certain physical attributes appear more salient than when the object is intact.

This is the case with the eye orbits of A7.308.

Scale app 3 : 4.

(rendering cw 1719)

It is difficult to visualize the exact bodily proportions of this piece, but we must assume it was rather more naturalistic than fantastic, for this would be atypical of the corpus. Compare quite a naturalistic torso, *Ovis* 202 A10.18. If it were broken in the same manner, the effect of grimacing “monster” would certainly be heightened.

The applied eye detail alone ties the technical vocabulary of Urkesh craftspeople to **contemporaneous anthropomorphic figurines** — as, female figurines of Akkadian type and Ur III type at Tell Asmar (Frankfort, Lloyd, et al. 1940, Fig 108, Fig. 109) and **an animal figurine** (Fig. 119/g), particularly, referred to by Frankfort as one of several “sacrificial animals.”

*OVIS*

## NOT IDENTIFIED BY TYPE

*OVIS*

## FRAGMENTS &amp; RELATED OBJECTS

## TENTATIVE IDENTIFICATION

104 *Ovis* TAIL

A1q942.1

Recovered from feature 113 • length 2.48 • thickness (body join) 1.3 • thickness (tip) 0.8 • fabric medium, with gypsum inclusions • Munsell reading 5YR 7/6 • color reddish yellow • preservation: tip of tail chipped, almost to the extent of the end designated as the “body join”

This *Ovis* tail does not taper appreciably. There is a slight curve at one end, which may begin tapering to termination.

There are fingerprints; apparently, the piece was modeled in long strokes, as when a piece is scraped with a flat, thin instrument to define musculature. It is possible that this fragment may have been scraped only, with appreciable work afterwards with the fingers. Consider the remarks of Chris Kimbrough, our visiting textile expert (MZ11), about the way finger modeling terminates at the end of a pass/stroke.

Compare *Ovis* 104 with the tail of *Ovis* 23 and with other examples in **COMPARATIVE TABLE Appendages Tails 5 (*Ovis*, *Canis*, *Felis*, *Capra*)**.

105 *Ovis* HEAD, ERODED

A6q361.1

Recovered from feature 107 locus 217 • height 5.44 • thickness (midpoint) 3.32 • thickness (base) 3.26 • fabric medium, with inclusions • Munsell reading 2.5YR 8/3-7/3 • color pink – light reddish brown • note on color: difficult to distinguish depositional damage from fabric • preservation: heavily eroded object, possibly originally modeled as a head

Little remains that is identifiable on this figurine. A vaguely triangular shape, it can stand alone on one side. At the top, there are two oblong rounded forms that adhere to the sides, as with horns. To one side, there may be a muzzle, now barely discernible.

The oblong pieces may have been attached on either side of the core of the object. It is unlikely that there is further modeling discernible, unless the knobs that are on the bottom represent appendages of some sort. Rather, they may be the remnants of breakage from a larger piece; they seem to follow the circular outline of a modeled form.

However, this unpromising object may in fact hold a key to manufacture and to the assemblage of a composite, complex object from clay. Rather than being formed subtractively, it is modeled additively from separate pieces of rolled medium. This is an area to be explored.

In a subsequent season, namely Excavation Season 12, a substantial number of humanoid figurines were recovered from strata coeval with the animal figurines from Royal Building AK. Most were of complex manufacture, formed of separate pieces of clay, first rolled or kneaded to shape, then pressed together and further smoothed and molded.

We must entertain the thought that, after all, A6q361.1 may only be a piece of kiln waste, perhaps overfired fabric.

## 106 *Ovis* HINDQUARTERS

A7.23

Recovered in upper layers, western side of the Tell • hindquarters 2.17 • torso 1.61 • height at hindquarters 2.72 • note on measurement: height at hindquarters not diagnostic (broken) • fabric some inclusions, consistent in quality (sand?) • Munsell reading 10YR 7/4 • color very pale brown • preservation: all appendages broken; hindquarters only

These *Ovis* hindquarters are contained within a tight inverted U, deeply but not widely recessed; the stance is foursquare and diagnostic, accounting for the inclusion of this figurine with *Ovis* exemplars. Torso is lean, but resembles *Ovis* 1 A1.52. The legs join the body flat; there is no expressed musculature; rather, the body is smoothed and rounded.

The body has been formed from one thick piece of clay, folded over and partially fused. The hindlegs have been smoothed on the inner face with fingers. The fusing of the torso is complete, so it may be that the hindquarters were drawn back and in, from a single cylinder of clay. This manner of forming appendages is to be investigated further with a present-day artisan.

## 107 *Ovis* CLAY ARTIFACT, POSSIBLY AN *Ovis* HEAD

A7.170

Recovered from feature 141 locus 15 • height 2.21 • cranial length (from back of "head" to tip of "muzzle") 1.78 • fabric fine, uniformly fine inclusions • Munsell reading 7.5YR 7/2 • color pinkish gray • preservation: object crumbling

The chipped areas on either side of the "head" may have terminated in horns. Other facial features are vaguely defined, making this identification even more tenuous. The artifact is not baked.

## 108 *Ovis* LEFT HINDLEG, HERBIVORE

A7q624.1

Recovered from feature 169 locus 15 • height 3.65 • thickness (break, long axis) 1.59 • thickness (break, short axis) 1.17 • thickness (knee-joint) 1.7 • thickness (*crochet*/hoof, long axis) 0.082 • thickness (*crochet*/hoof, short axis) 0.059 • fabric fine, uniformly fine chaff temper • texture lightly burnished • Munsell reading 10YR 7/4 • color very pale brown • preservation: leg only, lightly abraded at tip

The body join is oval and flat to the torso and continues straight down to the knee joint, where the piece begins to taper to the hoof, indicated by a "crochet." The leg remains oval in section to the hoof.

As the leg is full, rather than *gracile*, I have catalogued it amongst representations of this genus.

**109 *Ovis* LEG, MINIMALLY ARTICULATED KNEE JOINT****A10q200.1**

Recovered in layers above first floors, Service Sector near southern perimeter wall • length 3.48 • thickness (break, short axis) 1.27 • thickness (break, long axis) 1.5 • thickness (tip short axis) 0.73 • thickness (tip long axis) 0.785 • fabric medium with inclusions • Munsell reading 5YR 7/2 • color pinkish gray • preservation: leg only, tip chipped on both sides; not much taper to this appendage, which is oval at break and continuing so in section from top to bottom

Fingerprints trace the manufacture of this fragment. Compare long tails in corpus, as with *Ovis* TYPE II. Compare *Ovis* 108 A7q624.1



*OVIS*

## NOT IDENTIFIED BY TYPE

*OVIS*

## FRAGMENTS &amp; RELATED OBJECTS

## RELATED STRATIFIED FINDS

**204 *Ovis* HEAD, SNOUT INTACT, HORNS BROKEN****B1.93**

Recovered from third millennium layers near Palace gate (feature 120, field number 86.603) • height 4.4 • neck 1.02 • neck (long axis) 1.92 • width (taken at horns) 2.4 • thickness (at break above leg) 2.7 • cranial length (snout to mane) 2.9 • thickness (snout, long axis) 1.145 • thickness (snout short axis) 0.069 • fabric medium fine, heavily chaff-tempered • Munsell reading 10YR 6/2 • color light brownish gray • preservation: head only; snout intact, horns broken

The neck is thick and short, and the neck ridge comes over the top of the head. Note that the ratio of horns/snout to mane is approximately 1 : 1.

The piece is built up from a series of appliqués pinched together, as with the horns and ears and separate pieces, as the cylinders, which form the horns. The crown is formed of a separate piece of clay, pulled up and over, tapered and applied between the horns. The horns also are separately applied, extending out from the head above the ears. The snout is pinched to form and changes from rectangular section to triangular section in the vertical plane.

Compare *Ovis* 33 A1.479 and *Ovis* 40 A5.26.

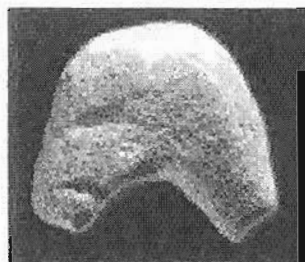
**205 *Ovis* HEAD AND NECK WITH PERFORATED TAB****A2q404.1**

Recovered from feature 149 locus 151 • height 8.3 • cranial length (snout to back of head) 3.6 • neck 3.01 • cranial width (ear to ear) 2.23 • thickness (base) 4.43 • diameter (perforation) 0.37 • note on measurement: neck and perforation diameter diagnostic, otherwise no diagnostic measurements • fabric coarse, heavy chaff temper • Munsell reading 10YR 7/2 • color light gray • conservation: heavily abraded • preservation: head and neck only; muzzle broken, left side missing; marks on right horn; torso or termination broken; pull chipped

*Ovis* head and neck, with a perforation in a tab at the lower neck. The raised outline of the down-curving right horn, although heavily abraded, remains. The pelt incisions, if there were any, have all been abraded away. The musculature of the neck is similar to the torso of *Ovis* TYPE II 203 A10.20. Breakage at the right side of the muzzle is similar to *Capra* 5 A6.166, which sat in a moist stratum, at least in recent times.

**206 *Ovis* wedge-shaped lithic artifact****A6.245**

Recovered from layers above first floors, "kitchen" in Service Sector • height (tips to rounded part of object) 2.75 • width (tip to tip) 3.23 • thickness (rounded part of object opposite the two terminated tips) 1.51 • fabric sandstone (?) • Munsell reading 5YR 6/4 • color light reddish brown • preservation: intact, some gouges and strikes; tips of "legs" chipped, one perhaps purposefully



*Ovis* 206 A6.245.  
Caudal view (?).  
Scale 1 : 1.  
(photograph MZ7 B1626)

This piece is obviously worked as a crescent with no hard edges. The form is reminiscent of *Ovis* hindquarters, except the tips of the wedge are widespread. All the edges are rounded.

There are two long strikes on one side at the upper left (holding the piece with the tips down) and two deeper gouges taken from the face on the lower left on the side opposite.

The tips may be adventitiously chipped, but one of them (under the two deeper gouges) appears chipped away on either side, so as to leave a raised line across the face of the tip, parallel to the body of the object as it is held flat.

How might one determine if this were a model of some sort?

**207 *Ovis* FRAGMENT OF THERIOMORPHIC VESSEL****A7q95.1**

Recovered in unit contemporaneous with Ur III strata • height (full extension) 5.27 • width (at bowl/base of curving section) 3.87 • thickness 0.56 (at midpoint, as in ceramic measurement) • Munsell reading 10YR 7/3 • color very pale brown • preservation: fragment

The object was encountered amongst artifacts being prepared for delivery to Deir ez-Zohr Museum in Excavation Season 16. The similarity to the overcoat/pelt of *Ovis* 13 A7.501 and *Ovis* 14 A7.506 was immediately apparent and included here as a comparative artifact. The technique is singular, as noted in the discussion of A7.506, although that three-dimensional animal representation is notable for the variety of techniques applied to convey the sense of a realistic woolly pelt.

**208 *Ovis* LEG, TIP****A8q174.1**

Recovered from feature 69 locus 4 • length 1.94 • thickness (base) 1.39 • thickness (base short axis) 1.16 • thickness (above tip) 0.76 • thickness (above tip, perpendicular to preceding measurement) 0.78 • fabric medium • Munsell reading 7.5YR 8/2 (fabric) • color pinkish white • preservation: tip of leg only

The leg is ovoid in section. It tapers quickly to a blunt termination.

**209 *Ovis* MUZZLE AND SNOUT WITH HORNS****A10.88**

Recovered from feature 135 locus 9 • height 3.72 • length (snout to crown) 2.03 • thickness (across horns) 3.31 • thickness (snout, short axis) 0.81 • thickness (snout, long vertical axis) 0.9 • neck 1.8 • note on measurement: height not diagnostic • fabric medium, chaff temper visible at the surface; some silica throughout • texture rough • Munsell reading 7.5YR 7/3 • color pink • conservation: surface abraded overall • preservation: head only, one horn chipped, one ear missing

This *Ovis* muzzle has horns that join above and slightly behind the crown in a straight line; they curve forward in the same plane, rather high, behind the (one intact) ear and then lie atop the horn itself. Seen from behind, the join is quite smooth, a thin ridge above the crown itself, blending smoothly with the neck.

The muzzle curves down to a flat snout. The snout is lightly indented vertically, in the manner of *Ovis* 33 — a rather naturalistic “twist.” Also, the muzzle is indented by light pinching to accept the ears, which are applied as a separate piece of clay. Although the left ear is heavily abraded, it appears to have the characteristic form (visible from below).

The piece is broken at the neck, perhaps intentionally. A heavy incision/strike is visible just above the break on the left side of the neck.

*OVIS*

## NOT IDENTIFIED BY TYPE

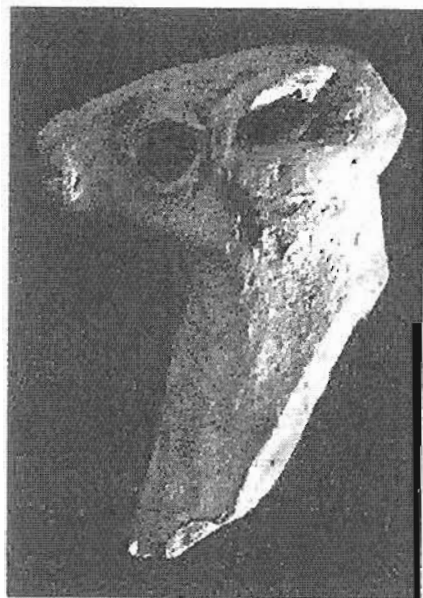
*OVIS*

## FRAGMENTS &amp; RELATED OBJECTS

## RELATED UNSTRATIFIED FINDS

**303 *Ovis* HEAD WITH INTACT HORNS AND PERFORATION IN MUZZLE****Z1.94**

Recovered from surface • height 6.83 • thickness (snout, vertical dimension) 1.14 • cranial length (snout to crown, between horns) 4.44 • thickness (tip of horn) 0.032 • thickness (base of horn at crown) 1.39 • thickness (rim to rim breaks at base) 5.012 • Munsell reading 5YR 8/3 • color pink • preservation: head only; perforation in muzzle; horns intact



The horns hang down and, tapering, curve back upon themselves behind the perforation that serves as "eyes" on either side of the muzzle. The muzzle is square in section. There are two flat dots applied on the crown of the head, inside the horns. The way the horns are applied needs further study, particularly at the back of the head, where it appears they are "laid on" the crown, then smoothed.

Fabric is medium, uniform chaff temper with some gypsum inclusions. There is extruded fabric at the rim of the perforation on both sides of the muzzle. There may be a spot of bitumen on the right horn. Is this depositional stain?

See **COMPARATIVE TABLE 8 HEADS** with perforated muzzle or tab (*Ovis*).

*Ovis* 303 Z1.94.  
Left median plane.  
Scale 1 : 1.  
(photograph V7b1631)

Tall Munbaqa. *Architekturmodelle* Nr. 12 Mbq 35/28-23, Raqqa Nr. 158 (Tafel 13-15, 184), *Zwei Widderköpfe* 338 (Tafel 195) (Czichon, Werner, et al. 1998). With proper orientation, the Urkesh head might be taken as broken from an architectural model of some sort.

**304 *Ovis* HEAD WITH PERFORATION AT BASE OF NECK****Z1.275**

Recovered from surface • height 6.26 • width (horn to horn) 3.54 • neck 2.84 • cranial length (snout to back of head) 3.9 • note on measurement: height and horn to horn width not diagnostic • Munsell reading 5YR 7/3 • color pink • preservation: head only; horns broken off, ears abraded; perforation intact

The incised pelt respects the contours of musculature. The curving snout and muzzle are intact. The horns are broken off, the ears abraded. The nostrils and eyes are impressed from the front. The muzzle is rectangular in the vertical plane.

The angle of the instrument making the incisions was vertical, except at the neck where there are some “tripartite” incisions, indicating that the instrument was applied obliquely to the wet fabric. The fabric is fine with much fine chaff temper, few gypsum inclusions. The surface appears to be burnished; this may be due to a second stage of manufacture in which the leather-hard clay figure was smoothed. Then the incisions were made in yet a third stage of manufacture. Since the clay fabric is fine, the surface would require little working in order to appear smooth. However, it might have happened that the second and third stages of manufacture were reversed; the incisions themselves seem to be “weathered” somewhat, as if smoothing were actually done after incising. This may be depositional action.



*Ovis* 304 Z1.275. Right median plane.  
Scale 1 : 1.  
(photograph V7b1602)

Compare this *Ovis* head with perforation for “pull” of *Ovis* 33. See also **COMPARATIVE TABLE 8 HEADS with perforated muzzle or tab (*Ovis*)**.

Tall Munbaqa. *Architekturmodelle* Nr. 12 Mbq 35/28-23, Raqqa Nr. 158 (Tafel 13-15, 184), *Zwei Widderköpfe* 338 (Czichon, Werner, et al. 1998, Tafel 195). Similar conformation of muzzle.

Ebla (Tell Mardikh). Testa di Bovide T.M.72.B.364 Q20TA3b (Marchetti 2001, Tav. CCIV, 116). The author does indeed identify this head as a bovid, meaning, I assume, of the family *Bovidae*. The carriage, length of neck, and downcurving horns invite comparison with the Urkesh corpus, although there is no perforation as with the Urkesh exemplars in this section. The manner of finishing — possibly wiped with a cloth to smooth and afterwards finished with a slip. The simplicity of the modeling and the conformation of the snout (although seen at an angle from the right median, the effect is anomalous — the muzzle appears pointed) invite comparison with muzzle *Ovis* 47.

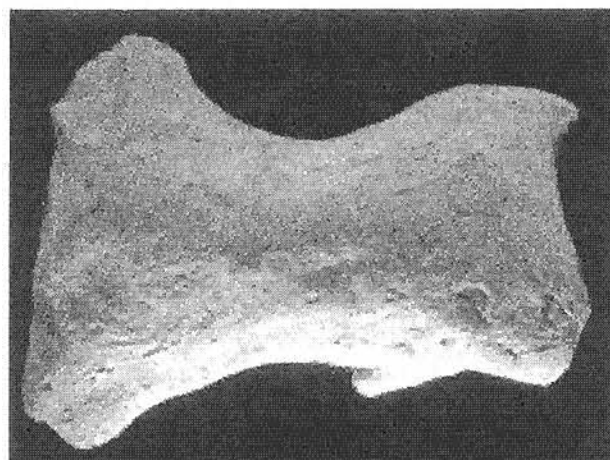
For investigation regarding function — if the animal figurines were counters (representational docks, essentially) — could the supposed “pull” have facilitated the attachment of a cord to a vessel, box or other container related to the “count” of animals? The idea of a pull-toy in this context is unsettling, unless one posits the presence of royal children in the storehouse.

ANIMAL REPRESENTATIONS  
IN TERRA COTTA  
FROM ROYAL BUILDING AK  
AT URKESH (TELL MOZAN)

ORDER CARNIVORA

FAMILY CANIDAE

GENUS *CANIS*

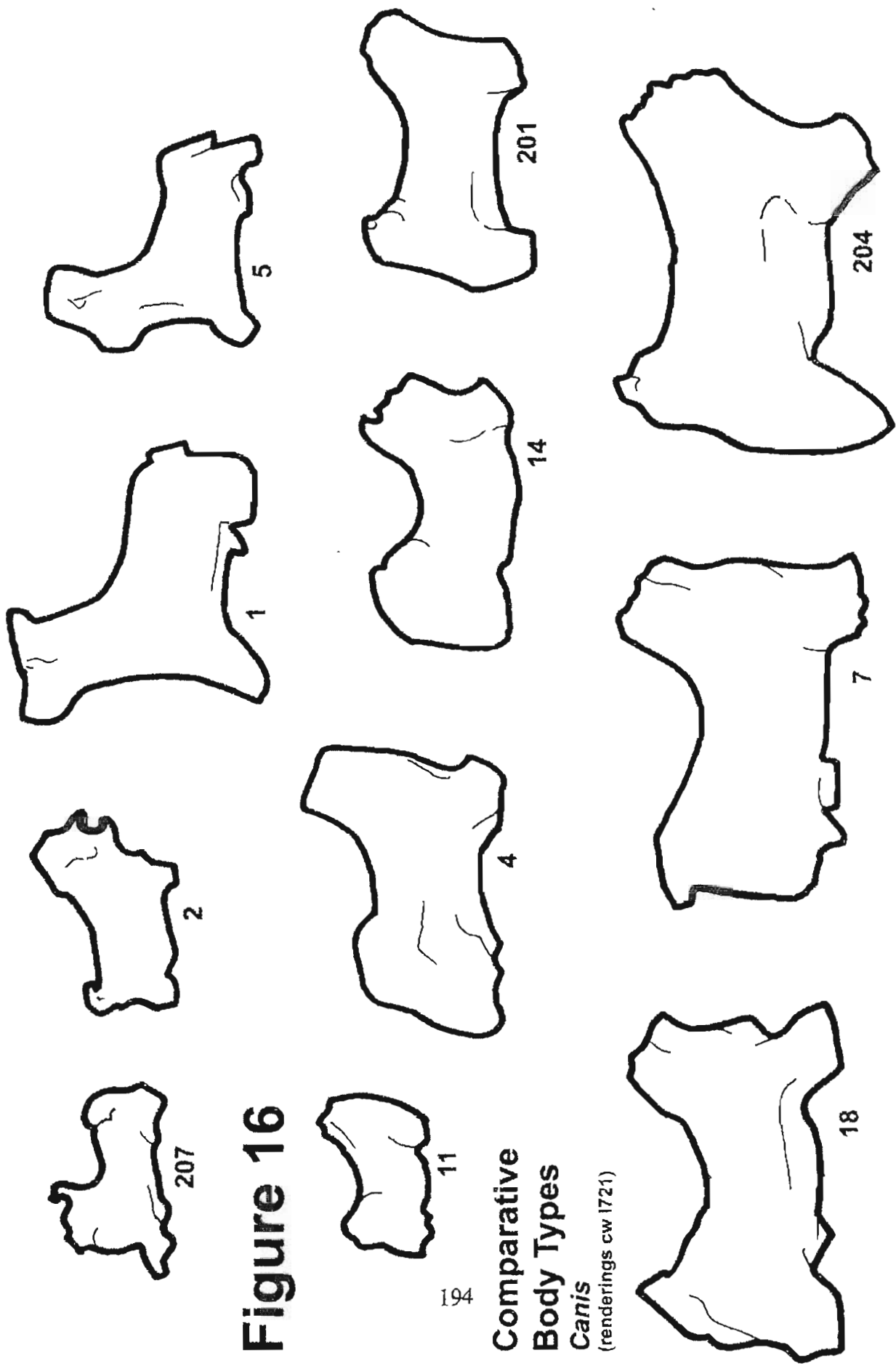


DISCUSSION

The Genus

CATALOG

The Urkesh Corpus



**Figure 16**

**Comparative  
Body Types  
*Canis*  
(renderings cw 1721)**

## *Canis* DISCUSSION



***Canis*. Modern spitz type.** Although this Japanese *akita* has only been known for a little over 300 years, the breed is related to a venerable and ancient species of dog. Attitude, tail and conformation make it a good exemplar for the genus as seen in the figurine corpus from ancient Urkesh. We could only wish for a deeper curve to the back. The *chow chow*, a *spitz* whose origins are lost in antiquity, would conform even more closely to type. Today, however, this ancient *spitz* is bred for extravagant hair and a lionlike mane, characteristics that obscure the lines of the body, making it difficult to “read” as our *Canis* TYPE. From *Working Dogs* in DOGS, p. 228. H 53–61 cm, weight 28–48 kg (McGreevy 1999).

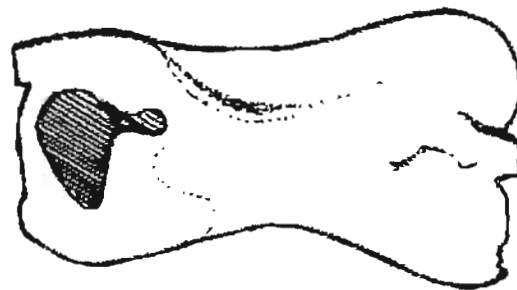
### The canid body type

The canid body type, too, shares characteristics with other animal representations in the corpus. For example, the dog's blocky body type is found with some modification among representations of cattle at Urkesh. The *Canis* torso as it is represented in the Urkesh figurine corpus might indeed be mistaken for the *Bos* torso, but it is not quite so blocky.

It is slightly leaner than the *Ovis* torso.

Dogs have been domesticated for millennia. Palegawra cave in northeastern Iraq yielded a *Canis* mandible, of a size unlikely to have come from a wild wolf. Unlike wolves, the specimen had closely spaced teeth and was smaller in size than modern wolves of the region. It was retrieved from a deposit dated to 10,000 B.C., although Davis notes that Uerpmann (1982) doubts the stratigraphic provenance, citing possible contamination from later periods; he sets the date of the Palegawra dog as late as the seventh millennium B.C. (Davis 1987, 139) Little has been added to the discussion since then, but Tchernov and Valla (1997) have taken a harder look at the evidence and propose that the jaw is “an isolated find with no domestic dog-like remains in closely associated stratigraphic levels” and is likely an “atypical wolf”, not a dog. (Brewer 2001)

The genus was present in ancient Urkesh. Two intact *Canis* skulls were found on the mound. Wild types frequented the steppe as well, including hyenas, of which faunal remains were found. Hyenas are not dogs, however, appearances to the contrary; and they also share characteristics with other undomesticated wild species. On the basis of comparative anatomy, their closest relatives are the *Viverridae* (civets), a diverse assemblage of mostly catlike carnivores (MacDonald 1984, 154, 136).



*Canis* 5 A5q82.1 TYPE.

This dorsal view is helpful in defining the body type.

Forequarters/torso/hindquarters ratios  
are consistent and typical.

Scale 1 : 1.

(rendering cw F722)



Comparative relationships of canid forequarters/torso/hindquarters are expressed like this:

$$w1 \leq w3$$

The width of the forequarters is less than or equal to the width of the hindquarters.

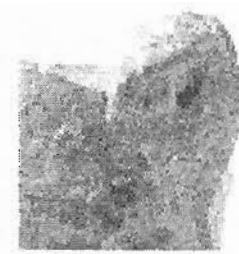
$$w2 \geq 3/4 w3$$

The torso is greater in width than or 75 percent as wide as the hindquarters.

$$w1 \geq w2 \leq w3$$

The torso is less wide than either the forequarters or the hindquarters.

For excavators, however, a more telling detail has always differentiated the domesticated dog from its wild wolf relatives: the domesticated dog sports a tail that does not lie flat, but curls up and over, sometimes lying down onto or aslant the back. This has been true since the “surely conclusive” examples from Jarmo excavated by the Braidwoods (the judgment is Sonia Cole’s in *Animals of the New Stone Age* 1972, 29). Vivian Broman Morales, in “Jarmo Figurines and Other Clay Objects,” one of a series of analytical articles on the three seasons of excavation at the prehistoric site, cites a personal communication from Charles A. Reed to the effect that “only dogs can have tails curled up; wolves definitely do not” (Braidwood, Braidwood, et al. 1983, 372). Morales is referring to the family D1 of the much-reproduced animal figurine illustrated in Fig. 150/5. She might be describing certain *Canis* from the Urkesh corpus, and it is well worth quoting her at length:

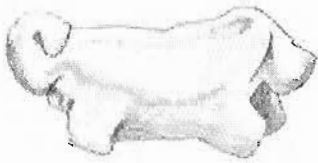


*Canis* 2 A1.118.

A fine example of a curly tail  
from the Urkesh corpus.

Scale 2.7 : 1.

(photograph V8b008/9)



Jarmo. *Canis*, a classic example  
of the “curly-tailed dog”

from proto-Neolithic levels.

After Morales in Braidwood 1983

(Fig. 150/5).

Scale 1 : 1.

Type D1, which I have called “curly-tailed dogs,” is represented by only 8 examples, 4 more or less whole and 4 fragmentary. Seven have a pinched-up spine. A whole animal with a smooth back has a long slightly arched neck. The remaining 3 more or less whole examples have short necks. The head of this type is small with a short, rounded nose; the ears are out and forward. . . . The tail is up and curled around clockwise, resting on the right flank. On one back-end fragment, the tail rises straight up over the back and touches down on the spine, forming a sort of handle. (Morales 1983, 372)

In *Animals in Archaeology*, Sonia Cole calls this figure “a charming caricature of the original Fido” (1972, Figs. 13, 29). She’s not wrong; a good many figurines possess the power to charm or fascinate — and not only because of their diminutive size. And she has identified a quality that is present in some of the Urkesh *Canis* examples: the *attitude* is striking and characteristic. We have called it “alert” — jaunty, if you must. Morales catalogs other examples equally striking in a later volume (Morales 1990, especially Plate 1, Figs. e, f, i, and j); they have much to teach about how dogs have been represented over the millennia.

Zeuner, in his classic study about domestication and its effects, tells us why the tail of the dog curls over — it is the result of uneven growth rate. He calls it an “abnormal twisting of the tail . . . and occasionally also oblique fusion of the vertebrae” (Zeuner 1963, 69). The Egyptian greyhound — an animal whose tail hangs down rather than up, as is the case with many early domesticated breeds of *Canis* — nonetheless has a tail that curls; Zeuner says it has to do with some structural modification of the tail vertebrae. Clark notes (Clark 2001, 68) that the tail of the *saluki*, a canid represented with some frequency in the third millennium at Susa and Gawra and elsewhere, can be carried low; but when the *saluki* is in hunting pursuit, the tail curls up and arches over the back, as can be seen on the much-reproduced Susa beaker (see below, this DISCUSSION).

That we may lend credence to the way animals are in general represented in antiquity and, specifically, that we may have confidence in how some domestication procedures are depicted is made stunningly clear by the juxtaposition of a mastiff on a stele from Babylon and a modern photograph of two *salukis*. Each of the animals is in a double slip, a restraining mechanism where the dog is controlled both by a rope lead and by a strap around the loins (Clark 2001, 56). When the representation goes against what we know of animal behavior, there is a reason that can be discovered, given a certain credulous spirit and persistence on the part of the investigator.

A **long-tailed dog amulet**, probably Elamite in origin and dating from the end of the fourth millennium (but possibly later), exhibits quite a spectacular curly tail, this time held up. Kozloff cites Susian parallels for this “voluminous curling tail,” as well as other examples throughout the ages, in almost every time and place (Kozloff 1981, 19/3, also color plate XVIII).

Note also the cowl-like shield (“collar”) that passes through the neck of the dog amulet. Kozloff says that the collar is “deeply gashed”, perhaps indicating a twisted rope. I had simply overlooked this detail — surely not the ears, fused together? — until publication of the same object in *Out of Noah’s Ark*, yet another remarkable compendium of objects from the Mildenberg Collection (Zahlhaas 1997 [original German edition 1996], color plate object 67, 183).

Probably Elamite, end of the fourth millennium, but possibly later. *Canis*, a **long-tailed dog amulet**. Note the odd “Elizabethan collar”. From Kozloff 1981 (Fig. 3 and Pl. XVII). Kozloff measurements: H. 2.4 cm, W. 1 cm, L. 3.1 cm, reproduced here about two times larger than life size.



See also (over) a **terra-cotta dog**, not at all similar in style, from **Mohenjo-daro** (Kenoyer 1998, Fig. 7.11, cat. no. 163, 228, also 130). Kenoyer allows as how dogs accomplished a range of activities “from hunting and fighting to performing” and surmises that “several types of dogs were bred in the urban centers.” He thinks the collar protected the animal, preventing it from harm in fights (conversation with the author and *ibid.*), as in some modern contexts. The figurine is from Early I levels (early second millennium) (Ardeleanu-Jansen 1993, 233, Tafel 24).



**Mohnejo-daro. *Canis* with collar,**  
a sure sign of human intervention.

From Kenoyer 1998, cat no.163;

also Tafel 24/DK9426

in Ardeleanu-Jansen.

Kenoyer measurements:

H 4.5 cm, L 6cm.

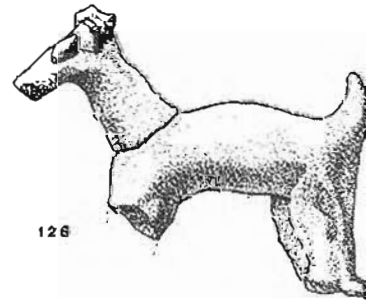
Mark Goodell, a Minnesota veterinarian who specializes in the *shar pei* — a present-day version of the *spitz* type — exclaimed that this “almost looks like an Elizabethan collar!” (2000) He was speaking of a type of protective device fastened around a dog’s neck to prevent the animal from doing itself harm by twisting and biting.

This form of veterinary intervention — commonly used today — correlates nicely with other techniques documented at Urkesh that have to do with domestication and taming. Even if the collars are no more than decoration, decking the pup out for presentation, the collar surely marks an early sign of human intervention to control an animal population.

**Dogs with collars** were found with some frequency in **late third to early second millennium levels in Mohenjo-daro** (Mackay, Guha, et al. 1937, especially LXXIX/6 and 12, LXXVIII/7 and LXXVII/18). In two cases, the raised collar is compared with what might be the ruff of the mane of a feline. Mackay’s method of analysis is descriptive and he bases himself on contemporaneous observed examples of the species. He surmises in a footnote on page 286 that the collars may have been intended to protect dogs from roving panthers, still encountered at that time in India.

Ardeleanu-Jansen follows essentially the same method of observation as Mackay. Noting the lack of comparative examples and rejecting analogy, she says, “the answers must be sought, first and foremost, in the relevant archaeological assemblages and in the representations themselves” (Ardeleanu-Jansen 1993, English introduction, 7).

As something of a caveat from a Late Bronze/Early Iron Age site in Israel, Horvat Qitmit, animals with curly tail have been identified as ibexes (*Capra ibex nubiana*) native to the Negev (Beit-Arieh 1995, 127-129, 3.83/No. 122 and 3.84/No. 123). None, except possibly for the heads of animals, appear to have been freestanding, but were theriomorphic attachments to stands, not unlike those in animal procession scenes from Tell Chuera in northern Syria (Moortgat 1965, 19-23, Abb. 7-11). The creatures from Horvat Qitmit all appear to have either long horns or long upturned ears.



**Horvat Qitmit. *Canis* (?) from the Judæan Negev.**

From Beit-Arieh 1995 (Fig. 3.87/126).

Scale 1 : 1.77.

Other theriomorphic (but fully modeled in the round) **figurines with upturned tails have been identified provisionally as dogs** (Fig. 3.87 Nos. 126, 127 and 128). One example in question, with an upturned tail (No.126), exhibits a body type similar to greyhound/*salukis* encountered in late fourth/early third millennium levels at Tepe Gawra.



Horvat Qitmit. *Capra* (?).  
The silhouette of the muzzle  
is not dog-like;  
yet the tail curls over, and  
in some fragmentary heads of dogs,  
upturned ears may in fact be horns.  
From Beit-Arieh 1995 (Fig. 3.83/122).  
Scale 1 : 1.88.

### ***Canis* at Assur**

When first I saw the dogs from Assur (Klengel-Brandt 1978), my impression was that they represented a substantial canid corpus and that they deserved extended discussion here. Now, after having spent some time with the entire corpus at Qal'at Scherqat, I feel that of those illustrated, there may be only three, possibly four, canid exemplars.

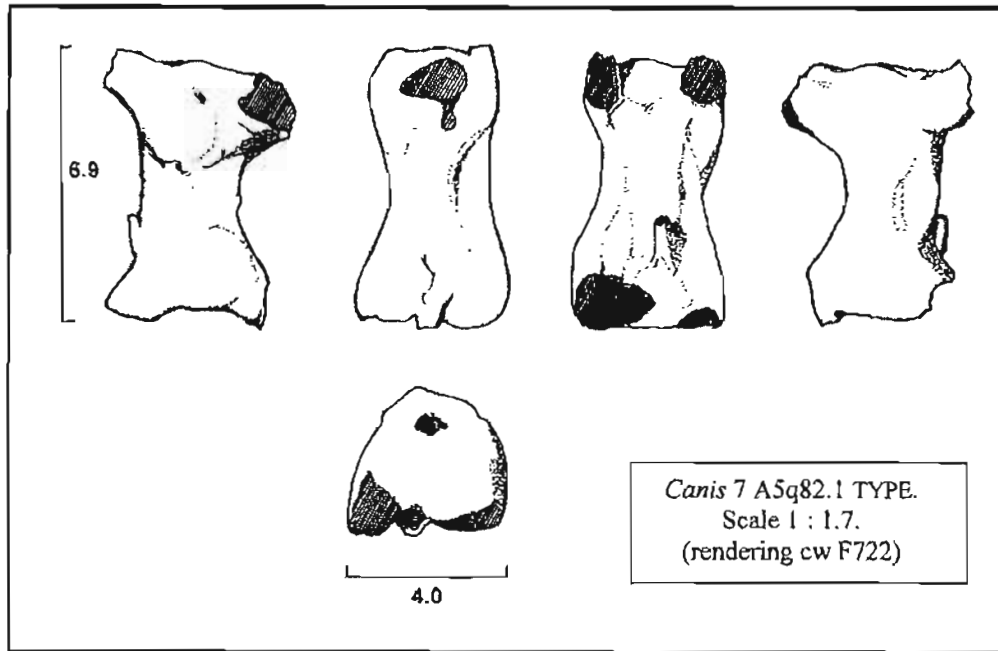
Attitude tells part of the story.

**Nr. 660** (compare *Canis* 18 A7q975.1) and **Nr. 675** exhibit the canid attitude and they also have the erect tale of the species. **Nr. 661** is solidly founded and clearly does have an erect short tail (compare *Canis* 204 A8q12.3, somewhat later than canids from the Service Sector) and the representation is stocky and solidly founded; so it is not likely that the object is an example of *Capra*. **Nr. 662**, even though the tail folds onto itself and lies on the back, is most likely an example of *Capra* (compare *Capra* 1 A1.44). Other representations suggest attribution elsewhere, amongst other species. Only precise measurements in all planes would tell the full story.

### **The *spitz* type**

One dog body type has been found repeatedly amongst the animal representations at Tell Mozan. This is the *spitz* type, identified by Bökönyi in 1993. This animal not only carries its curly tail high, it also exhibits a deep curve to the back. After the curly tail, this diagnostic feature is the most salient among examples of the genus. Our *Canis* TYPE is of this species.

As Clutton-Brock cautions, true *breeds* of dog as we understand them today were probably definitively developed by the Romans (Clutton-Brock 1981, 44), although certainly different body types are known from Susa (the greyhound/*saluki* at the end of the fourth millennium), from Egypt (the mastiff, "from at least 2000 B.C."), and now, the *spitz/chow* type from Tell Mozan in the third millennium. It is unclear, Clutton-Brock tells us, whether these modern types have come down directly to us more or less unchanged over 4,000 years of breeding or whether the same type of dog is bred repeatedly in different times and places for the same need.



Adding to our summary list, then, here are additional characteristics of *Canis* figurines in the Urkesh corpus that, taken in combination, contribute to my current typology.

As we have noted, the forequarters are somewhat less wide than the hindquarters, greater in width than the torso, which is itself  $\frac{3}{4}w_3$  or equal to the hindquarters in width.

Additionally,

$lg \leq 2w_3$

Body length is less than or equal to twice the width of the hindquarters.

The body type is therefore stocky, not so very different from the body silhouette of sheep (if  $w_1 = 1$ , then  $w_3 = 2$ ) and invariably more so than the lean silhouette of equids ( $lg \geq 2w_3$ ).

$w_1@neck \leq w_1$

Neck width is a little less than the width of the forequarters.

The neck joins the body smoothly and is somewhat smaller than the body at the join. As an example, the neck/body join of *Canis* 7, our TYPE figurine, is 1 : 1.2 (see CATALOG below). This ratio accounts for the triangular forequarters exhibited by the dogs when taken in transverse vertical cranial section.

## ATTITUDE AND OTHER CHARACTERISTICS

### THE HEAD IS CARRIED HIGH

A diagnostic stance or “attitude” for the genus.

### THE HEAD IS BLOCKY AND SOMEWHAT FLAT

A characteristic to be contrasted with the dog’s wild progenitor, the wolf.

### THE BACK IS DEEPLY CURVED

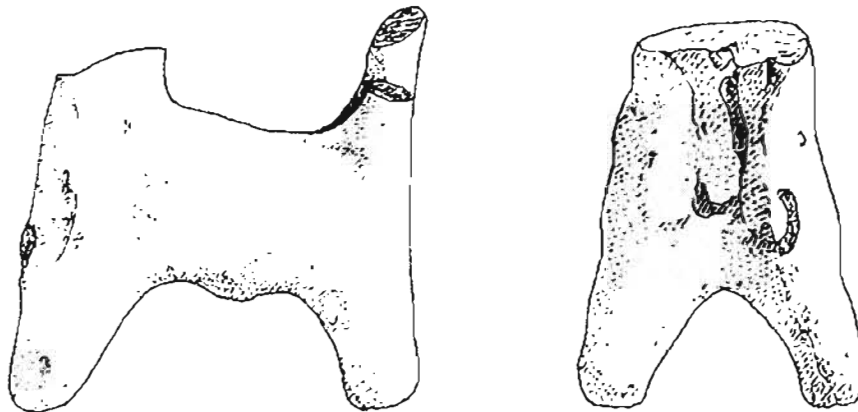
### THE TAIL, TOO, IS CARRIED HIGH

Some of the figurines are certainly curly-tailed dogs, a sure sign of canid domestication.

### SEXUAL ORGANS ARE EXPRESSED

— and they do not meld with the belly.

The stance of the domesticated dog poses problems of interpretation worth noting. Amongst our figurines, we have not been much concerned with whether the animal is standing still or ready to leap forward. Because of the leg/body join, one might say that *Canis* 4 A1q760.1 and *Canis* 7 A5q82.1 are poised to leap, and it is likely that *Canis* 2 A1.118 is standing stock still. The stance does not seem to offer much diagnostic help.

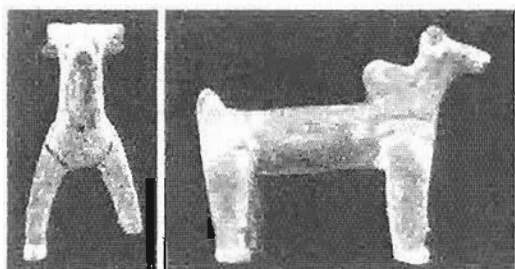


Tall Munbaqa Nr. 591 Mbq 4/13-64 *Vierbeiner (Hund?)* Taf.86  
(Czichon, Werner, et al. 1998)  
Scale 1 : 1.

In the absence of a typology that would confine speculation to certain categories and be a dependable guide to the researcher, secondary characteristics such as stance can sometimes help to classify animal figurines according to species.

This is the case with a figurine from later Bronze Age levels at Tall Munbaqa. The researchers tentatively identify Abb. 591 as a **dog with broken “upright tail”** (Czichon, Werner, et al. 1998) and it must be admitted that the piece does bear a certain perky similarity to our *spitz* TYPE. It would be remarkable if the narrow appendage extending upwards from the (presumed) hindquarters were curled, in the manner of the fourth millennium Elamite metal figurine described earlier. The rendering seems to show *two* broken upright appendages, which are not explained.

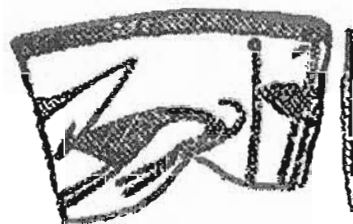
Rather, I see formal echoes in figurines from Munbaqa itself, namely, the various solidly founded lean cattle such as Abb. 103 captioned *Terrakottafigur eines Zeburindes* (Werner, Busch, et al. 1998), also identified as Nr. 443 *Buckelrind* in Tafel 80 (Czichon, Werner, et al. 1998). The *zebu* is nearly five times the size of the smaller dog representation, yet stance and the manner in which the figurines are founded are identical.



Tall Munbaqa Nr. 443 Mbq 26/25-83 Raqqa Nr. 167 (Taf. 79, 80, 1998)  
(Czichon, Werner, et al. 1998)  
Compare stance and conformation with Mbq. Nr. 591, a possible dog.  
(L 26 cm); not to scale, reproduced for reference only.

Were we to take the smaller figurine as *Bos*, then the horizontal break at the neck could have occurred below the *zebu* hump; it is thick in the manner of the *Bos* neck/body join. The rendering documents a slight irregularity in the belly of the Munbaqa “dog,” which might be taken as vestigial sexual parts, as with many Urkesh *Bos*, which carry the sex forward in the belly. Also, the forequarter stance of the Munbaqa “dog” and *zebu* is similar, forelegs joining in a moderately wide inverted V. And, startlingly, the tail of this *zebu* is upright!

In other contexts, we note that stance is a matter of differing interpretations. Depending upon the observer, the *salukis* on a ceramic vessel at Susa are either “bounding” (Aynard 1972, 57) or “reclining”— they “lie in repose” in similar traceries on a bowl and they are “lying at the edge of a pool” on another beaker (Harper, Aruz et al. 1992, 32, 37-8, Frank O. Hole). Susa’s excavators remark on the schematic manner in which the greyhound/*saluki* was traced, noting that with a body scarcely thicker than the head, there is “an impression of speed”. On one remarkable fragment, LeBreton thinks that a galloping greyhound may be restrained by a leash. (Mecquenem, LeBreton, et al. 1947, 206-207, Fig. 49/13 and others)

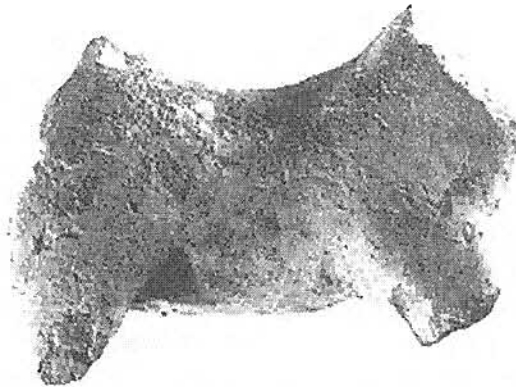


Susa. *Canis*, a greyhound/*saluki* restrained by a leash, as proposed by LeBreton in Mecquenem et al 1947, Fig. 49/13. Scale slightly greater than 1 : 2.

Of course, the stance of the *salukis* painted on the Susa vessels can be interpreted differently; it is the *marking* of the stance that is important. As Kozloff points out, “the galloping canid’s gait is depicted in a mode which precedes the ‘flying gallop’ of the second millennium and onwards” (Kozloff 1981, 16). We should attempt to regularize our view of the *Canis* stance as we review the corpus — or at least be alert to defining attributes of stance.

The type seems to “hold true” throughout AK, its associated rooms and some overlying deposits. A find in excavation unit A8 (*Canis* 204 A8q12.3) from the early second millennium exhibits undeniably strong canid characteristics, yet the hindquarters deviate from the typology. We have catalogued the object amongst the *Canis* figurines.

The hindquarters of another find (*Canis* 201 A2q389.1) in A2 “post-Palace occupation” strata — that is to say, occupational layers following the abandonment of the Palace as a building and thus somewhat later in time — are manufactured in the same way.



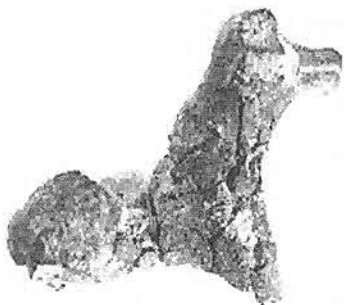
*Canis* 204 A8q12.3 demonstrates that the manner of representing the dog body has changed little over time.

Scale 1 : 1.

(photograph V10e0613)

Three other figurines (a carnivore and two examples of goats) contained within the walls of AK exhibit this manner of executing the hindquarters. These latter figurines are all from third millennium layers.

As we investigate further the Royal Buildings at Urkesh, we will want to pay special attention to manufacturing techniques, isolating characteristics that remain constant or change over time.



*Canis* 9 A5q797.1 MINIATURE.

This photograph does not include a loose fragment, which could not be attached during consolidation.

This contributes to the impression that the torso is lean.

Scale 1.46 : 1.

(photograph V6e1212)

We should note here that amongst the Urkesh dogs, there are a number of MINIATURES, almost all executed in a dark, fragile medium (seal impression WARE IV, in the range 5YR 4/1 - 7.5YR 3/2). These artifacts are quite possibly overfired. Almost all have required or will need consolidation.



### **Domesticated Dogs**

World literature has long celebrated the dog as faithful companion to humans, a loyal, obedient pal. Add “tough” to the list of characteristics for the domestic dog at Urkesh. Sándor Bökönyi found that ribs of the Urkesh dogs were often fractured — breakage caused no doubt by a well-placed human kick.

In a later time, at Kish under the floor of the “House of Writing”, **three clay “models” of seated dogs** were found (van Buren 1931, Pl. XX/Fig.40, Ashmolean Museum 1924.302-304). They form compact right triangles, hypotenuse serving as animal back; a tightly wound curly tail may adorn one of the figurines. They served as foundation deposits and returned protection for their masters’ favors — one can make out some color on one and inscriptions on two of the figurines — “Biter of his enemy” and “Consumer of his life” (van Buren 1931, 71-72). In this instance, a figurine can reasonably be imagined to have a ritual function.

Here we have artifact tied to text, a situation Postgate would celebrate; and there is a concrete, real-world reference that informs interpretation (Postgate 1994). In the case of Kish dogs, incantation rituals must surely carry one key to their function. Even without coeval texts, the findspot of the artifacts provides a clue to function and attests to the importance of the diminutive representations in the lives of their makers and masters.

Clearly, a dog — the terra-cotta representation of a dog — can be something more than a dog, faithful pet.

### ***Canis* in ancient Urkesh**

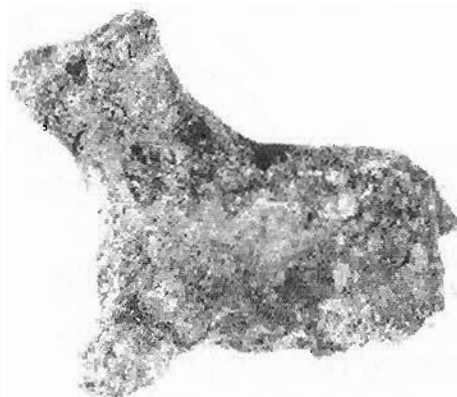
Eighteen examples of the *Canis* body type have been found in the rooms of the Royal Storehouse at Urkesh, and eight other figurines have been tentatively identified as belonging to the genus.

An additional eight related exemplars have been retrieved from stratified layers within or in close proximity to the service areas. One of these, *Canis* 203, is a tiny **MINIATURE** no bigger than the nail of one’s little finger and is made of ivory. A surface find completes the Urkesh *Canis* corpus.

Each provides significant information about the genus.

**CANIS****1 *Canis* TORSO****A1.62**

Recovered from f43 (relay 293) • length 4.61 • forequarters 2.44 • neck 2.0 • torso 2.67 • hindquarters 2.65 • tail 0.053 • height at forequarters 4.67 • height at hindquarters 2.63 • fabric fine, with small inclusions • Munsell reading (dark deposit) 10YR 5/1 • color (dark deposit) gray • Munsell reading (opposite side) 10YR 7/3 • color (opposite side) very pale brown • preservation: legs broken, tail chipped



*Canis* 1 A1.62. Left median view.

Note the modeling of the forequarters and of the body overall. This treatment is to be contrasted with other canids; for example, *Canis* 7 A5q82.1 (smoothed) and *Canis* 18 A7q975.1 (scraped).

Scale 1 : 1.

(photograph V8b1714)

Both the foreleg and the muzzle of this *Canis* body are intact. The foreleg on the left is further extended than that on the right (140 degrees vs. 85 degrees), which appears, despite breakage, to fold under slightly. The body is blocky and the torso swells outward slightly (See photograph of the dorsal view, below); the head is carried high, the muzzle out and up, bending a bit to the left.

The lower part of the muzzle curves upward to join the snout, itself rounded and blunt. The muzzle is pinched slightly. Ears are alert, extended outward from head. There is a depositional stain (?) on the right side of the torso (visible in photograph V8b1713). The forequarters are slightly indented, under the muzzle.

The musculature of this figurine is not defined by scraping, but is rather smoothed and rounded overall. The body proportions of *Canis* 1 — w1 : w2 : w3 — are not so very different from those of *Bos*. Here, attitude counts for a lot. If not determinant, it should be considered when seeking to assign an animal representation to a specific genus.



*Canis* 1 A1.62. Caudal view.

Hindquarters contained within a solidly founded inverted U.

Scale 1 : 1.

(rendering cw F723)

The belly of A1.62 is slightly convex and the sexual parts are expressed. The penis is fashioned of a separate part of clay and affixed to the belly near the tail. The tail hangs down and there appears to be an incision at the tip. The termination of the hindquarters is flat.

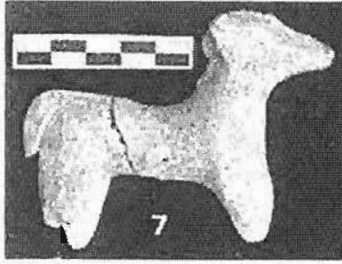
The rounded rump of *Canis* 1 is encountered elsewhere in the corpus, as *Canis* 4 A1q760.1, *Canis* 7 A5q82.1, *Canis* 18 A7q975.1. This treatment is to be contrasted with the divided hindquarters of *Canis* 201 A2q389.1 and *Canis* 204 A8q12.3, exemplars from strata overlaying Service Sector AK and dating to the beginning of the second millennium.



*Canis* 1 A1.62. Dorsal view.

Scale 1 : 1.

(photograph V8b1715)



*Canis*, Tepe Gawra, "dog" from Early Dynastic strata. The body type is rather lean and contrasts markedly with the Urkesh corpus. Note that the tail hangs down. The ears are quite large and held back, contributing to the impression that there is a crest atop the muzzle (not rendered) (Speiser 1935 Pl. LXXVII/4 [rendering]).

At Tepe Gawra, from upper strata, Sargonic/Early Dynastic Levels, a small figurine (Pl. XXXIV/c10), identified as a sheep, exhibits the typical *Canis* body attitude of *Canis* figurines from Urkesh. The hindquarters appear to be similar in manufacture to *Canis* 204 A8q12.3, an exemplar from levels above the Service Sector and thus somewhat later in date. Another figurine in the same Gawra group (Pl. XXXIV/c7) is identified as a dog, but the body type is quite different from the Mozan corpus; more lean, and the muzzle pointed and sleek, at least in the photograph. The rendering in PLATE LXXVII/4, taken from a different angle, depicts a somewhat stockier animal with elongated muzzle and tail.

The Susa dog could conceivably pass for the greyhound/*saluki* breed with its long narrow muzzle. This sleeker canid is encountered frequently in Egyptian excavations and in formulaic renderings, as Mécquenem said (Mécquenem, Breton, et al. 1947), on early Susa ceramics (see the *Canis* DISCUSSION). Speiser describes the figurine as being "well-fired, as is the case with nearly all animal figurines from Str. VI, and made of grey ware" (1935).

Tall Munbaqa. *Hund* (?) 463 Mbq 30/31-6 (Czichon, Werner, et al. 1998, Tafel 82). Attitude alert.

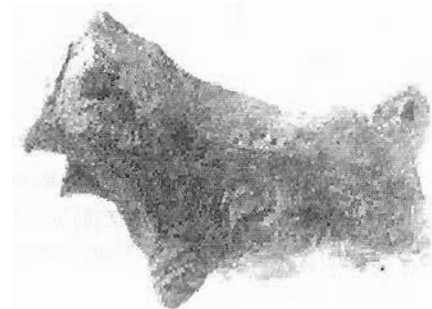
## 2 *Canis* TORSO

A1.118

Recovered from upper layers of the excavation unit • length 3.02 • forequarters 1.475 • neck 1.35 • torso 1.575 (measured at bend) • height at forequarters 2.875 • height at hindquarters 1.875 • fabric fine, few inclusions • Munsell reading 7.5YR 7/4 • color pink • visible markings include some signs of wear at the perforation • preservation: right portion of hindquarters broken away; ears chipped, perforation at mouth broken

This *Canis* example, body largely intact, has a curly tail atop the hindquarters; it curls up and over the back. In vertical plane, the tail is triangular in section. The transverse plane of the tail is rectangular. A photograph of the tail appears in the introductory discussion of the *Canis* corpus. Compare the tail to that of related figurine *Canis* 207 K3.8 (tail folds over onto the back) and contrast with *Canis* 5 A1q798.1 (tail hangs down and is pointed) and to other examples of the genus as seen in **TABLE COMPARATIVE BODY-TYPES** *Canis*.

The body is stocky. The torso bends slightly left. There are a number of strikes on the object and some of the appendages appear to have been cut away. It is unlikely this is excavation damage. An unusual feature is an extremity that at first glance appears to be a muzzle or mouth; in fact, it is a perforation that is broken.

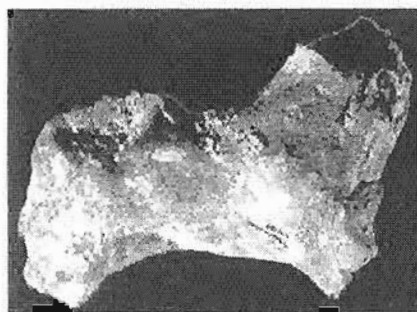


*Canis* 2 A1.118. Left median view.  
The figurine has been finished by cutting or scraping overall. Striations may be due to light burnishing.  
Scale 1 : 1.  
(photograph V8b0088)

3 *Canis* TORSO

A1.323

Recovered from feature 113 excavation locus 20 stratum B12A • excavator Abd' El-Rachman (S2) • length 4.7 • forequarters 1.37 • neck 1.04 • torso 1.27 • hindquarters 1.37 • height at forequarters 1.9 (measured from neck to left foreleg) • height at hindquarters 1.35 • fabric fine, few inclusions • Munsell reading 5YR 4/1 • color dark gray • conservation: fragile and flaking • preservation: all appendages broken



*Canis* 3 A1.323. Right median view.  
Fingerprint visible high on rump,  
right inner edge of concavity.  
Scale 1 : 1.  
(photograph V8b0104A)

This canid is stocky, the hindquarters/forequarters ratio being 1 : 1. The ratio of neck to torso width is 1 : 1.25. Note the curve of the back, the neck/body join and the attitude — alert, head held high. I have deliberately adjusted the angle at which we view this figurine toward the horizontal. Originally, the figurine was displayed with forelegs 10 degrees higher than in the illustration at left. This favored a reading as *Canis*. Now other secondary characteristics of *Canis* 3 assume as much importance as attitude. Compare with *Canis* 7 A5q82.1 and especially *Canis* 4 A1q760.1, for which a similar argument about attitude could be made. Yet see the “horizontal” display of this latter figurine in **Figure 16 COMPARATIVE BODY TYPES *Canis***.

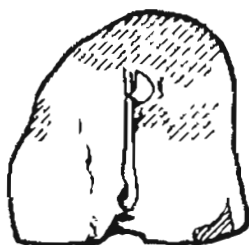
The underbelly describes a shallow concave arc, while the legs are slightly detached from the body and project forward and back (rather than being perpendicular to the ground). The penis is possibly expressed, but breakage makes this uncertain. The right rear body-join is particularly high. The hindquarters are fused, the stance is foursquare.

The musculature is indicated by scraping and smoothing. Note also that a rather thick layer of fabric has flaked away all around the neck. The artisan may have revisited the piece, encasing it in something more than a slip. Was the tail carried high and curled over, modeled and then pressed onto the torso? It was in any event broken or twisted away before firing. A fingerprint visible in the right median view, inside the upper edge of the concavity on the rump, may be a sign of subsequent pinching and remodeling of the torso fabric.

4 *Canis* TORSO

A1q760.1

Recovered from the first floors of storeroom • length 5.6 • forequarters 2.7 • neck 1.57 • torso 2.35 • hindquarters 2.9 • height at forequarters 3.92 • height at hindquarters 3.0 • fabric medium, chaff temper with some gypsum inclusions • Munsell reading 2.5YR8/3 • color pale yellow • conservation: depositional adhesions on half of the object • preservation: all appendages broken



*Canis* 4 A1q760.1.  
Caudal view. Scale 1 : 1.  
(rendering cw K721)

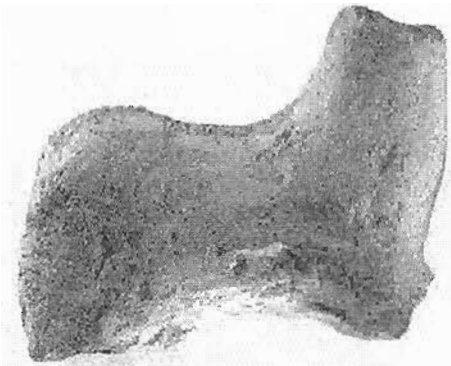
The buttocks are fused, and a shallow vertical line indicates the division of the hind legs. This vertical groove in the hindquarters was made in a wet medium, pushing clay to one side along the groove. There is an indentation to the right side of the vertical groove in the hindquarters; it has been cleaned and measures 0.029 cm across. It appears no less accidental than the groove itself.

This is a detail seen on the shoulders of some humanoid figurines and also on some equids. I interpret this indentation as the anus rather than a place of attachment for a tail, as it is carefully modeled and meant to be seen. The hindquarters are contained within an inverted U.

Forequarters/hindquarters ratio is 1 : 1. The neck/body ratio is 1 : 1.5. The sexual parts are prominent, and eroded, visible in photo V8b0821 and in rendering of the torso as seen in the same right median plane.

Note the rise of the hindquarters and the deep curve of the back. Note the way the right foreleg joins the body.

The musculature is scraped (visible on right flank in photograph V8bE1313 and in photograph V8b0821, here illustrated). The manufacture of this figurine should be studied further — is the modeling accomplished solely with the fingertips? Or is a flat instrument used? The modeling of musculature on both legs is clear. There are fingerprints on both hindlegs.



*Canis 4 A1q760.1. Right median view.  
Scale 1 : 1.  
(photograph V8b0821)*

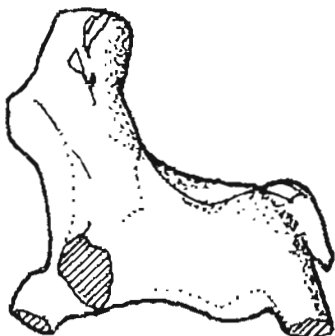
A gypsum wash covers the figurine; the feel of the object is chalky. Only at the neck can the thickness of the wash be seen; it is 0.0425 cm thick.

**Tall Munbaqa. Hund (?) 463 Mbq 30/31-6** (Czichon, Werner, et al. 1998, Tafel 82). The attitude is alert. The back is curved.

## 5 *Canis* TORSO AND HEAD

**A1q798.1**

Recovered from the first floors of storeroom • length 3.23 • forequarters 1.67 • neck 1.47 • torso 1.53 • hindquarters 1.89 • tail 0.054 • height at forequarters (crown to right foreleg) 4.15 • height at hindquarters (not diagnostic) 2.04 • fabric medium, some inclusions • Munsell reading 10YR 8/3 • color very pale brown • preservation: torso and tail intact; appendages and muzzle broken



*Canis 5 A1q798.1. Left median view.  
Compare snout and muzzle  
with Canis 1 A1.62.  
Scale 1 : 1  
(rendering cw H722)*

The body is short; the top of the head is flat and sits atop a long neck. Were the muzzle intact, continuing the line of the flat crown, the representation could be more easily “read.” Compare the stance and attitude of *Canis 2 A1.118*.

There is some indication of musculature. There may be a slight breast ridge carried to the right of the neck. The tail, carried out from the rump, hangs down and tapers.

As with A1.62, there is disequilibrium in modeling between the two sides of the forequarters, resulting in a more realistic, less four-square stance. The leg/body join is 130 degrees on the right; the left is not measurable. Stance of hindquarters is foursquare, being an inverted U.

The hindlegs are projected to the rear of the animal, a diagnostic detail that is not often encountered with this genus. In this case, the angle at which the legs join the torso is approximately the same as the forelegs. Compare the attitude with *Equus* 22 TYPE II A5.10, a solidly founded braying equid. Also compare the stance with *Capra* 1 TYPE A1.44.

## 6 *Canis* FOREQUARTERS

A1q1058.9

Recovered from feature f113 locus 20 • length 2.73 (not diagnostic) • forequarters 1.8 • neck 1.24 • torso 1.57 • height at forequarters 2.37 • fabric medium, chaff temper • Munsell reading 10YR 7/4 • color very pale brown • preservation: forequarters only, appendages broken

The neck is erect. The outside forequarter stance is contained within a narrow inverted U. There is a neck ridge and a perforation in it. The legs project forward (estimated 135 degrees; a difficult measurement because of breakage).

## 7 *Canis* TORSO TEMPLATE

A5q82.1

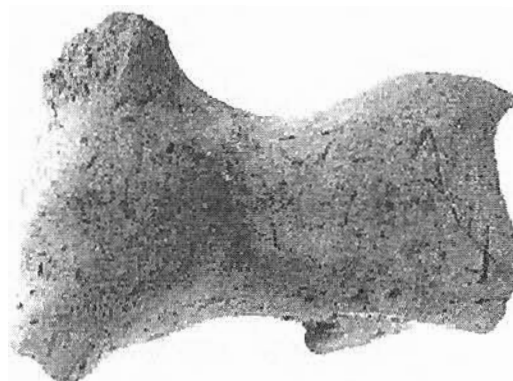
Recovered from feature f27 locus 19 stratum B3 • length 6.56 • forequarters 3.23 • torso 2.76 • hindquarters 3.57 • height at forequarters 4.97 (measured from neck break to right foreleg, not diagnostic) • fabric medium fine with heavy chaff temper; some gypsum also apparent • Munsell reading 10YR 8/3 • color very pale brown • preservation: all appendages broken; tail broken, penis chipped

This *Canis* torso provides a TEMPLATE — the holotype, if you will — for the genus, an ancient forebear of today's chow or *spitz* breed. The deep "sway-back", according to Sándor Bökönyi, is diagnostic. The belly, as it joins the leg, makes a reverse curve that accentuates the depth of the dip.

The right foreleg may have been modeled as a cylinder, then joined to the body mass (see photograph V10b1708 [?], not illustrated here).

The buttocks are fused, smooth at the juncture of the hindlegs. The buttocks are contained within an inverted U. The sexual parts are expressed, not buried in the belly, as with the herbivores. Both head and tail are carried high, with the neck being nearly vertical. There is no breast ridge, but the chest swells outward slightly before joining the belly.

There is a long scratch on the left hindleg visible in photograph V8b0185 (above). Two triangles are incised at the beginning and end of this line; this may be fortuitous, the result of excavation damage during retrieval. There are strikes on the upper right and lower left of the hindquarters, visible in both photograph V8b0179 (over, caudal view) and in photograph V7b2707 (not included here). The former markings extend onto the top of the rump above the presumed tail and must be an indication of the manufacture of the figurine. The lower left strikes are less certain in origin, although they are very regular and not likely to be exposed chaff temper. It is possible that the tail and rump immediately surrounding it have been smoothed after modeling, as with a rough cloth.



*Canis* 7 A5q82.1. Left median view.  
TEMPLATE for this genus,  
notable for the deep "sway-back".  
Scale 1 : 1.  
(photograph V8ab0185)

The medium would not have been very wet when this process was accomplished. See photograph V8b0179 (right).



*Canis 7 A5q82.1.*

Dorsal view. TEMPLATE.

Note w1 : w2 : w3 ratios and the neck/body join.

Scale 1 : 1.

(photograph V8b0177)

Although depositional damage over time has roughened the surface, it must once have been quite smooth, perhaps heavily slipped. The appearance of a “core” could be the result of a relatively heavily chaff tempered fabric, slipped with a finer clay wash. Gypsum (calcium carbonate) inclusions are visible as white dots in the caudal view of the figurine.



*Canis 7 A5q82.1.*

Caudal view. TEMPLATE.

Scale 1 : 1.

(photograph V8b0179)

**Tall Munbaqa. Hund (?) 463 Mbq 30/31-6** (Czichon, Werner, et al. 1998, Tafel 82). The back is deeply curved and the tail carried high, although it does hang down. The attitude is alert and invites comparison with several other Urkesh *Canis* figurines. There is a raised ring laid high on the shoulders, the usage of which is uncertain; although the Mohenjo-Daro figurine, cited comparatively in the DISCUSSION, may afford an answer.

**Ebla (Tall Mardikh). Corpo di equide con coda rialzata. TM.72.N.214 Q21T2Am1a** (Marchetti 2001, Tav. CLXXIX, 100). I cannot say this figurine is particularly dog-like, even given all we know of the *saluki* in this time frame. I include it here because of the deep curve to the back and because of other parallels I have drawn in the INTRODUCTION, specifically referencing animal representations from Horvat Qitmit and Tall Munbaqa.

Rightfully, the author calls attention to the cylindrical section of the muzzle, quite an odd detail; none of the terracotta animal representations at Urkesh are manufactured in this manner. I am startled that the author identifies this artifact as an equid — the ears, triangular, indeed as noted and the tail (!) are erect. The parallel rests more with the canids and *Bovidae* of Ekalte or the canids and *Caprinae* of Horvat Qitmit, so be it; here the Ebla artifact deserves attention for secondary characteristics more than for body proportions that would tie it to the Urkesh corpus.

## 8 *Canis* RIGHT FORELEG

**A5q529.1**

Recovered from middle floors of the locus • height 3.76 • thickness (at break, long dimension) 2.44 • thickness (at break, short dimension) 1.96 • thickness (above tip, long dimension) 0.09 • thickness (above tip, short dimension) 0.072 • torso 2.76 • fabric medium fine, with many inclusions • Munseil reading 2.5Y 7/2 • color light gray • preservation: leg only, termination intact



A portion of the torso remains where it joins the leg. This somewhat stumpy appendage tapers only slightly from the join with the torso to the blunt termination at the tip of the leg. One side of the leg in vertical orientation is slightly curved. The forequarters, judging from this piece when it is held vertically, were contained within an inverted and splayed-out U. The body/leg join is 130 degrees to 140 degrees. The leg is oval in section where it joins the body.

Compare *Canis* 1 forequarters A1.62 and *Canis* 204 hindquarters A8q12.3. Also see **COMPARATIVE TABLE Legs *Canis* & *Felis***.

## 9 *Canis* TORSO AND HEAD, CURLY-TAILED DOG MINIATURE

A5q797.1

Recovered from feature 101 locus 5 stratum B12A • length (not diagnostic) 2.64 • note on measurement: although the figurine is joined at the torso, regluing has forced one side of the body out, thus rendering diagnostic measurement impossible • forequarters 1.43 • neck 1.14 • hindquarters 1.155 • height at forequarters 2.68 • height at hindquarters 1.2 • snout to back of head 1.43 • thickness of snout, vertical long axis 0.53 • thickness of snout, short axis 0.5 • fabric medium fine with many inclusions • Munsell reading (exposed fabric) 5YR 3/2 • color (exposed fabric) dark reddish brown • Munsell reading (surface) 5YR 3/1 • color (surface) very dark gray • conservation: partially carbonized; outside layer flaking; very fragile; conservation lab consolidated the piece on July 7, 1997 • preservation: 3 pieces, breakage at right ear



*Canis* 9 A5q797.1.  
Right median view.

Proportions appear not to be typical in this photograph due to a missing piece that was not attached to the object. This flat slice belongs atop the torso and hindquarters and would complete the stockier *Canis* body type.

Scale 1 : 1.  
(photograph V8b-e1212)

The body is blocky and contained, not elongated. Head shape is blocky. Tail is carried high and begins to fold back (questionable). The snout is elongated yet quite blunt, the ears alert and rounded. The snout is a rounded rectangle in section. The manner in which the snout was modeled is indicative of technology — likely squaring off with the fingertips — before carbonization or deterioration in soil; carbonization and this manufacturing detail are both visible in photograph V8b-e1210 (right).

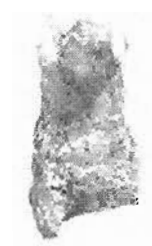


*Canis* 9 A5q797.1.  
Right cranial view,  
before restoration and consolidation.  
The fissured fabric visible here  
was flaking off.  
Scale 1 : 1.  
(photograph V8b-e1210)

Note the smooth, long join of neck and forequarters. Note breakage at right ear that evidently protruded. This is not likely to be a horn, although the ridge across the back of the head might indicate that. The left ear is not broken, however, nor does it protrude, as would a horn.

This fabric corresponds to WARE 4 of the sealing corpus; it is of medium consistency and it contains uniformly fine inclusions. The piece itself is quite fragile and has been reglued several times. Breakage and repositioning of the fragments falsifies the body shape somewhat. The piece is so very fragile that it was difficult to photograph and sometimes the angle is deceiving, causing foreshortening. Later photographs do not include a third piece of the object, the upper torso, contributing to the impression that the torso is lean.





*Canis* 9 A5q797.1.  
Cranial view.  
Scale 1 : 1.  
(photograph V8be1211)

Orientation of the object, particularly because of breakage, was problematic. For the reasons noted here and because no figurine in the corpus is terminated at the legs as is the presumed snout of *Canis* 9, the pictured orientation was accepted. Also, when the figurine is viewed straight on in the vertical cranial plane, the forequarters appear typically *Canis* (see photograph left). Also see **FIGURE 7A** *Canis* forequarters.

## 10 *Canis* HINDQUARTERS

**A6q327.1**

Recovered from feature 103 locus 217 • length (torso break to attenuated line down left hindleg) 4.5 • torso 2.31 • hindquarters 3.01 • height at hindquarters (top of rump to tips of feet) 4.3 • fabric medium, light chaff temper, some gypsum inclusions • Munsell reading (perimeter at torso break) 2.5YR 8/3 • color (perimeter at torso break) pink • Munsell reading (fabric, center of torso break) 2.5YR 7/3 • color (fabric, center of torso break) light reddish brown • manufacture: firing "bloom" on underbelly and on sexual parts • preservation: hindquarters and partial torso only; left hindleg broken and abraded, right hindleg missing; rump broken where there might have been a tail

These *Canis* hindquarters are contained outside within a wide, inverted V; the inside stance is also defined by a wide, inverted V. The buttocks are divided and the legs are defined by a sharp edge, almost a "flap" that extends over the top of the body to the tips of the feet. See *Capra* 2 A1q577.1 (although this is a foursquare stance).



*Canis* 10 A6q327.1.  
Caudal view.  
Note leg/body join.  
Scale 1 : 1.  
(photograph V10e0710)

This manner of manufacture was rare enough to have at first been considered anomalous. The technique — in this combination of characteristics, at any rate — has been encountered more frequently in early second millennium strata.

The legs are triangular in section and join the body in the manner of herbivores. The appendages and body appear to have been built around thin sausages of clay. See the break at the torso; there is a subtle difference of color in the surface fabric (or slip), the value increasing in intensity.

The right hindleg flap is broken on the inside, giving the impression that the buttocks are more clearly divided than is the case. The tail is carried high.

The sexual parts are expressed here, and separate from the belly. The penis extends to the right, as with *Canis* 1 A1.62.

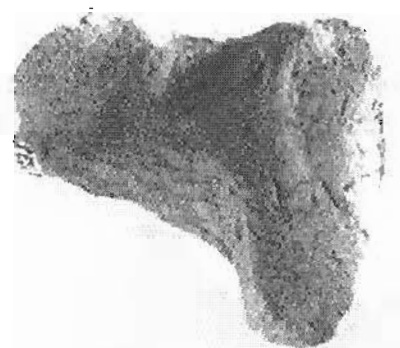
What significance can the position of the sexual parts possibly have? Likely a small piece of clay is simply easier to lay onto the torso from the thumb or finger this way. In fact the sexual parts appear to have been impressed by the thumb after having been applied to the torso.

Scraping has been employed to define musculature, although the main action has been with the tips of fingers with smoothing afterwards by fingers and water. There are many fingerprints.

In other examples from the AK corpus, divided and recessed hindquarters led me to classify the artifacts amongst caprids (third millennium levels, Areas A1 and A5 in the AK storehouse.).

In excavation season MZ10, however, a dog was found (*Canis* 204 A8q12.3) with these same hindquarters; it is definitely from Khabur levels. According to the excavator of Area A6, Raju Kunjamman, the levels where A6q327.1 was found are early second millennium, not yet into third millennium levels; that is to say, contained within the walls of Royal Building AK. Final strata assignment will determine whether this find from what may have been the kitchen of Service Sector AK affords a link with figurine manufacture of Palace layers and that of later occupation.

Two other examples of similar manufacture were recovered from Area A2, strata superposed directly atop the Royal Storehouse; because of body type they were assigned to *Capra*.



*Canis* 10 A6q327.1.  
Left median, partial caudal view.  
Scale 1 : 1.  
(photograph V10e0710)

## 11 *Canis* TORSO MINIATURE

**A6q344.1**

Recovered from feature 105 locus 217 • length 2.9 • forequarters 1.195 • torso 1.85 • hindquarters 1.195 • height at forequarters 2.0 • height at hindquarters 1.65 • fabric medium fine, inclusions • Munsell reading 2.5YR 7/3 • color light reddish brown • preservation torso only, all appendages broken

The curve of the back is diagnostic. Note body ratios. The belly is carried low. There may be a slight breast ridge extending down the neck between legs. Compare torso with other examples from the corpus in **FIGURE 16 Comparative Body Types (*Canis*)**.



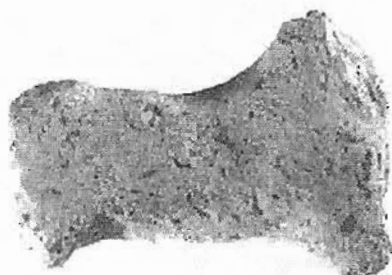
*Canis* 11 A6q344.1.  
Right median view.  
Scale 1 : 1.  
(rendering cw G718)

**Tall Halawa A 166** (Meyer, Pruss, et al. 1994, Abb. 40). The exemplar has an upturned tail and a deep curve to the back.

12 *Canis* TORSO

A7.35

Recovered from feature 49 locus 8 • length 5.05 • forequarters 2.45 • neck 1.7 • torso 2.02 • hindquarters 2.50 • height at forequarters 3.80 • height at hindquarters 2.85 • fabric medium, heavily chaff-tempered • Munsell reading 10YR 8/4 • color very pale brown • preservation: depositional damage overall; all appendages broken



*Canis* 12 A7.35 Right median view.  
Note the overall depositional damage  
to the surface of the figurine.  
Scale 1 : 1.  
(photograph V10e1112)

In a smooth curve, the back joins a neck that is about as wide as the forequarters. There is a rounded breast ridge that descends onto the belly.

A possible indentation remains from a tail-hole. The stance of the hindquarters is a solidly founded, inverted U. Compare *Felis* 8 torso A5.25.1. Also compare the surface treatment. The marks of scraping, front to back, are apparent on *Canis* 12. Compare *Canis* 4 forequarters Alq760.1.

13 *Canis* HINDQUARTERS

A7.89

Recovered from feature 49 locus 8 • length 3.15 • torso 2.83 • hindquarters 3.28 • height at hindquarters 3.36 • note on measurement: neither height nor length are diagnostic; other measurements difficult because of breakage • fabric medium, light chaff-temper • Munsell reading 10R 6/4 • color pale red • preservation: hindquarters only, possible cut in antiquity on torso at the break

The hindquarters are contained within an open inverted U.

Was the object cut or sliced on top of the torso in antiquity? Could such a cut have caused the break in the torso? That is, was it an intentional cut? The cut is abraded as if by depositional activity. After analysis in the conservation laboratory it was determined that the slice at the break on top of the torso could have been made in antiquity.

There are four adhesions from the middle of the rump, descending to the inside of the left hindleg. In the first instance, I posited that they might possibly be dollops of bitumen. In fact, conservation analysis on July 13, 1998 showed the “dollops” to be “hard and clay-ey” as noted by Sophie Bonetti, conservator. I suggested that the adhesions might be kiln waste.

14 *Canis* TORSO, SPITZ TYPE

A7.235

Recovered from feature 124 locus 12 • length 4.045 • forequarters 2.53 • neck 2.26 • torso 2.33 • hindquarters 3.59 • tail 0.05 • height at forequarters 3.25 • height at hindquarters 2.98 • fabric medium, some temper • Munsell reading 2.5Y 4/1 • color dark gray • conservation: fragment broke off in brushing; restored by conservators on July 12, 1998 • preservation: depositional damage on surface, all appendages broken, tip of tail broken off



*Canis* 14 A7.235.  
Left median view.  
Scale 1 : 1.  
(rendering cw L725)

There is a deep curve to the back. The buttocks are slightly recessed. The hindquarters are contained within an inverted U, slightly incurving.

The hindquarters are rounded, slightly recessed; the tail is carried high and hangs down. Longer than it now appears, the tail probably was extended by a thin piece of medium pressed onto the rump. The preserved part of the tail is triangular in section. Compare with curly-tailed *Canis* 207 K3.8.

There is a perforation through the neck. What do we make of the serrated ridge, visible here in the rendering, yet not noted during analysis? No *Canis* exemplars exhibit anything like a mane.

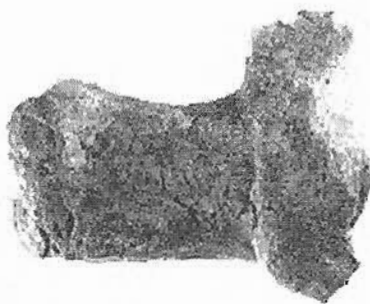
The fabric, probably unbaked, is very dark inside (visible when the object was broken in brushing); it almost appears carbonized.

**Nippur. Figurine 14.** (McCown 1967, Plate 139). Solidly founded, incurving back, "curly tail." Attitude alert. It is worthwhile comparing this exemplar with Urkesh *Capra*; and with the manner in which *Canis* and *Bos* are founded at Assur.

15 *Canis* TORSO

A7.259

Recovered from feature 155 locus 12 • length 4.81 • forequarters 2.39 • neck 1.21 • torso 1.97 • hindquarters 2.4 • height at forequarters 3.78 • height at hindquarters 2.43 • fabric fine with some inclusions • Munsell reading 5YR 5/3 • color reddish brown • conservation: fragment of upper right hindquarters broke off in cleaning and was glued back on by conservators; depositional stain on underquarters may be carbonization • preservation: neck intact but broken off before muzzle; right foreleg intact



*Canis* 15 A7.259. Caudal, right median, and cranial views. Note hole, possibly for a tail, in the caudal section and the way the right foreleg joins the body and its separation from the torso (visible in the cranial section).

Scale 1 : 1. (photographs left to right, V7b2402A, V10e1108, V10e1109)

There is a perforation through the neck at the break and a possible tail hole. There may be sexual parts. The hindquarters are contained outside within an inverted solidly founded U. The forelegs are separated from the body in the manner of carnivores, not herbivores. The separation of the legs from the torso should be studied. See for example, *Canis* 207 K3.8.

The back curves deeply, the neck is carried vertically, alert. There is an unusual breast-ridge, applied as a thick band of clay between the forelegs. The forelegs, too, seem to have been applied separately and in bands not so different from the applied breast-ridge in width and thickness. Compare the stance of *Canis* 7 forequarters and hindquarters.

The torso is burnished, possibly carbonized as a result of burning. The musculature on the neck is indicated by scraping. Scraping finishes the surface overall. Along the top of the right flank there are wide marks of scraping, fine hairline incisions that go front to back on the animal. It is likely that a flat blade or rather finely sharpened reed made these marks.

The orientation of this object has been problematic; at first, it was held vertically and seen as a head, leading to some anomalous entries. (Turn this volume on its side to see this reading, noticing especially the view in the right median plane.) Other researchers have brought similar pieces to me in the field at Mozan, having oriented the artifact in a manner that falsified diagnostic measurement. In some instances, only measurement can provide a clue to species identification.

## 16 *Canis* TORSO MINIATURE

A7.365

Recovered from feature 141 locus 13 • length 2.64 • forequarters 1.07 • neck 0.86 • torso 0.95 • hindquarters 1.07 • height at forequarters 1.67 • height at hindquarters 1.36 • note on measurement: height not diagnostic • fabric fine, some inclusions • Munsell reading 10R 7/3 • color pale red • preservation: torso only, all appendages broken

The hindquarters are triangular in section and the tail is carried high. Curly-tail? Compare the forequarters of *Canis* 7 A5q82.1 and of *Canis* hindquarters from second millennium strata in excavation units A2 and A8.

There is a fingerprint on the right foreleg. The musculature along the torso is lightly indicated, possibly with the fingernail of the artisan.

## 17 *Canis* TORSO MINIATURE

A7q432.1

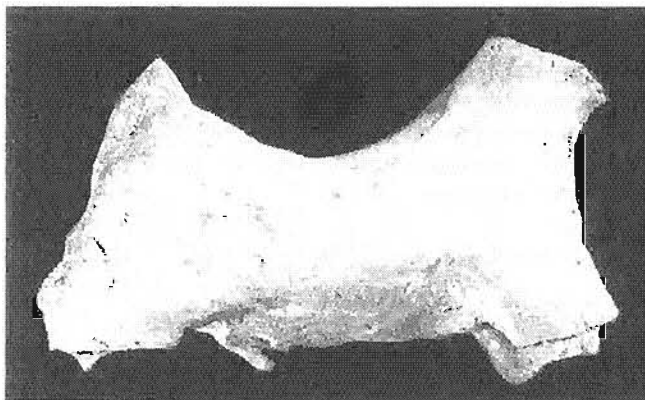
Recovered from feature 155 locus 12 • length 2.65 • forequarters 1.02 • torso 1.06 • hindquarters 1.41 • height at hindquarters 1.06 • Munsell reading 5YR 6/3 • color light reddish brown • preservation: torso only, all appendages broken

There is a deep curve to the back and the tail is carried high. The hindquarters are heavy, as may be seen from the proportion  $w1 : w2 : w3 = 1 : 1 : 1$ . The forequarters are only slightly wider than the neck —  $w1@neck : w1 = 0.85 : 1.02 \sim 1 : 1$  — a typical feature of *Canis* and, incidentally, of many other *Carnivora*.

18 *Canis* TORSO, CURLY-TAILED, *SPITZ* TYPE

A7q975.1

Recovered from feature 337 locus 25 • length 6.39 • forequarters 3.13 • neck 1.96 • torso 2.47 • hindquarters 3.44 • tail 0.058 • height at forequarters (to top of neck break) 4.39 • height at hindquarters 3.89 • fabric fine, few inclusions • Munsell reading 10YR 7/3 • color very pale brown • preservation: all appendages broken, but enough remains to provide diagnostic references on stance, attitude, and manufacture; tail broken, but very useful diagnostically

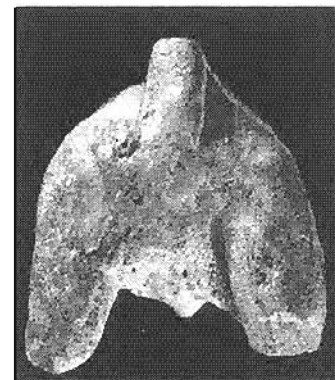


*Canis* 18 A7q975.1. Right median view.  
Note leg join of both hindquarters and forequarters.  
Scale 1 : 1.  
(photograph V7b1910)

The tail is carried high and curls over onto the torso. The forelegs project forward and are mirrored by the hindlegs (on the right flank, the forequarter/body join is 120 degrees, the hindquarter/body join is 125 degrees). The forequarters are solidly founded and contained, the stance being — outside — a slightly rounded inverted V. Inside, an inverted U is terminated by the breast ridge.

The hindquarters are — outside — an inverted solidly founded U and inside, a terminated inverted V. There are sexual parts. All four legs are lozenge-shaped (forequarters) or ovoid (hindquarters) in section.

Some musculature along the torso is defined by scraping. Some of the marks may indicate regular and sustained smoothing with a fingertip, ending finally with a slight depression that contains the fingerprint itself. Examine the top of the torso and the tail of this object; the marks that remain from the manufacture of this object provide a clue to the way the figurine was made. Compare *Equus* 23 A5.30 forequarters.



*Canis* 18 A7q975.1.  
Caudal view.  
The preservation of the tail is notable.  
Scale 1 : 1.  
(photograph V7b1923)

**Tall Munbaqa. *Hund* (?) 463 Mbq 30/31-6** (Czichon, Werner, et al. 1998, Tafel 82). Compare the curve of the back and the tail, either carried high and hanging down or terminating in a curly tail.

**Tell Halawa A *Hunde* Nr. 159, 162 and 166** (Meyer, Pruss, et al. 1994, Abb. 40). The alert attitude, deeply curved back, and upturned tail characterize canids in the Mozan corpus. However, the hindquarters of 159 are not at all doglike, as compared to the Mozan canids. Also no example at Mozan has a hole in the hindquarters where a 'tail' might be inserted; this may represent the anus, and not be a way of attaching a free-flowing tail. Indications of sexual parts are rare, but have been counted — as many as one of every four cattle and dog figurines, although which exemplars bear sexual parts is not noted in the catalog. The manner of rendering eyes and mouth does not appear to be species-specific. The muzzle of Mozan figurines *Canis* 1, 2, 5, 9, and the theriomorphic vesse! *Canis* 206 may be usefully compared to the Halawa examples. The forelegs of Nr. 160, judging from a view in median plane, do not jut out from the body, as do so many of the Mozan dogs; the actual angle of the body join is not readable in cranial view.

**CANIS****TENTATIVE IDENTIFICATION****100 *Canis* TORSO MINIATURE****A5.155**

Recovered from feature 66 locus 18 stratum B12B • length 3.5 • forequarters 1.6 • neck 1.31 • torso 1.5 • hindquarters 1.92 • tail 0.655 • height at forequarters, measured from left foreleg to break 2.65 • height at hindquarters, measured from left hindleg to rump 1.735 • note on measurement: height not diagnostic • fabric fine, chaff-tempered • Munsell reading 5YR 7/2 • color light gray • preservation: all appendages broken; tail broken, muzzle missing

The back curves deeply; the musculature is lightly indicated. There is the beginning of a mane. Forequarters and hindquarters are doglike, although the tail, carried to the right, hangs down and is thick.

**101 *Canis* FOREQUARTERS MINIATURE****A5.167**

Recovered from feature 113 locus 20 stratum B12A • length 2.1725 • forequarters 1.75 • neck 1.365 • torso 1.38 • height at forequarters (tip of right foreleg to break) 2.85 • fabric medium, few inclusions • Munsell reading (fabric) 7.5YR 7/1 • color (fabric) light gray • Munsell reading (patina) 5YR 3/1 • color (patina) very dark gray • conservation: Wite-Out label removed July 8, 1997 • preservation: forequarters only, right foreleg terminated

The neck/body join is blocky and approaches the vertical. The legs project forward. There is a slight breast ridge. The leg curves down on its outer edge and tapers to a point.

**102 *Canis* HINDQUARTERS, CURLY-TAILED (?)****A5q706.2**

Recovered from layers above the first floors of storehouse • length 1.575 • torso 1.14 • hindquarters 1.335 • tail 0.043 • height at hindquarters 1.42 • note on measurement: length and height not diagnostic; width of torso questionable • fabric fine • Munsell reading 5YR 4/1 • color dark gray • preservation: hindquarters only, tail chipped

The hindleg projects out and back and the stance is an inverted U. Inside, the stance presents a narrow truncated inverted U. An incision divides the buttocks. Leg join is 45 degrees. The animal depicted is possibly curly-tailed. Compare the manner in which the tail is applied to the hindquarters of *Capra* 2 A1q577.1.

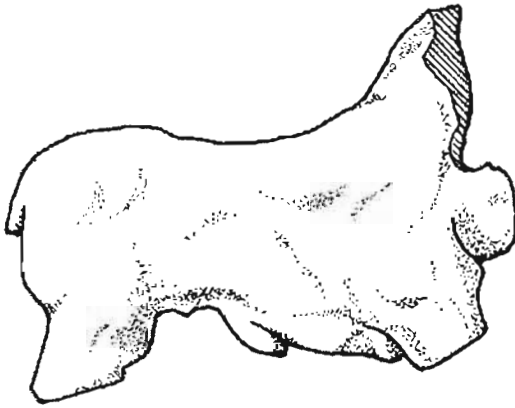
**103 *Canis* TORSO****A7.166**

Recovered from feature 141 locus 15 • length (exclusive of breast ridge flap) 6.34 • forequarters 2.88 • neck 2.19 • torso 2.39 • hindquarters 3.15 • tail (at rump) 0.082 • height at forequarters 5.38 • height at hindquarters 3.84 • thickness (breast ridge flap) 0.025 • fabric medium, many uniform inclusions, including some gypsum • preservation: all appendages broken; tail broken; sexual parts intact except for testes; breast ridge and flap intact



The tail emerges from the rump, tapers, and hangs down, out somewhat from the body. The sexual parts are expressed.

There is a deep curve to the back. There is an attenuated breast ridge that emerges as a thin vertical flap at the forequarters. It continues on to the belly in a deep curve and ends at the sexual parts.



*Canis* 103 A7.166. Right median view.  
Note breast ridge and  
sexual parts carried forward in belly.  
Scale 1 : 1.  
(rendering cw L727)

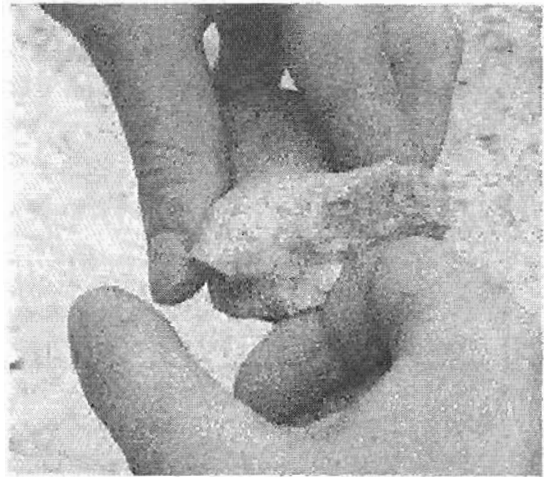
This detail is unusual in the corpus; the *Bos* breast ridge ends in the sexual parts, but they are never fully modeled in the corpus. Here, they are and the sexual parts are carried forward, as with *Bos*; the penis even continues the curve of the breast ridge into the body.

There is of course a flap of skin that hangs down in front of the forequarters of the *zebu*. This anatomical detail is not represented in the Urkesh corpus.

Yet the details chosen by the artisan to emphasize on this figurine are striking. Are they direct representations of physical reality, applied on a body type ordinarily not associated with these details?

The fabric is of medium consistency, as noted, with inclusions that give the fabric body. The very thin breast ridge would have had to be modeled with a cohesive, malleable fabric. Musculature is indicated by finger modeling on a wet fabric.

The photograph right documents a relationship between the human body and the figurine form that asks for further analysis. Here, the first two digits of the index finger press against the forequarters of *Canis* 103 and define the caudal conformation of the animal representation. The thumb is poised to move in and pinch out the breast ridge. In this case, the flap of clay remained on the figurine. We wonder if this were meant to be, as the detail is unique in the Urkesh corpus? Ordinarily, the flap would have been twisted off and smoothed back into the body.



*Canis* 103 A7.166. Field demonstration.  
(photograph Julie Hruby and the author,  
not entered in roster)

The record shows that A7f141 — the feature in which this figurine sits — is contemporaneous with the first floors of the AK building, as A1f113. This is of interest as there are **several examples of *Canis* exhibiting similar manufacture that come from the very end of the third millennium or the beginning of the second millennium.** The attenuated breast ridge is reminiscent of the manufacture of the canid hindquarters from Khabur levels in A8 and A2. This figurine provides another clue to the developing manufacture of the canid body type.

**104 *Canis* TAIL, CURLY (?)****A7q370.1**

Recovered from feature 63 locus 7 • length 2.15 • thickness at base 0.068 • thickness at base, long axis 0.085 • thickness (at fold) 0.08 • thickness (at fold, short axis) 0.64 • fabric fine, few inclusions • Munsell reading 10YR 7/3 • color very pale brown • preservation: tail only, abraded on one side of fold

This small columnar object is oval in section, with a curl at one tip where the medium either folds over or has been added and smoothed to create the impression of a “curl.” This fold is indented in the center. The top of the fold is rectangular in horizontal section. There are two small strikes on the upper left of the added piece of clay.

The length of the object is surprising, but not if one compares it to domesticated dogs of today, whose tails are rather long and curl back and curl over. The greater numbers of Mozan dogs have a tighter curl to the tail; many are MINIATURES and this form of the appendage would not break off so easily.

See **Comparative TABLE 5 Appendages Tails.**

**105 *Canis* SEXUAL PARTS, PENIS AND TESTES****A7q417.1**

Recovered from feature 148 locus 13 • length 2.375 • thickness at tip 0.057 • thickness at testes 0.077 • shaft 1.38 • fabric fine • Munsell reading 2.5YR 7/4 • color light reddish brown • preservation: sexual parts only, break at place of attachment

The point of attachment is small and argues against the identification. The object curves to one side, as do many examples in the corpus.

Other examples of sexual parts in the corpus are impressed against the underbelly of the animal. See, as comparative examples, torsos *Canis* 103 A7.166 and *Canis* 7 A5q82.1, TEMPLATE for dogs as found at Urkesh.

**106 *Canis* MODEL****A7q715.1**

Recovered from feature 218 locus 23 • length 5.2 • height vertical axis, end A 3.12 • thickness (horizontal axis, end A) 2.53 • height (vertical axis, end B) 3.15 • thickness (horizontal axis, end B) 2.53 • height (vertical axis, indentation) 2.3 • thickness (horizontal axis, indentation) 2.26 • fabric fine, some inclusions • Munsell reading (fabric) 5YR 8/8 • color (fabric) pinkish white • Munsell reading (medium range, patina) 5YR 5/2 • color (medium range, patina) reddish gray • note on color: surface colors change in value throughout range indicated • preservation: intact, except for grooved abrasions on terminated ends and chip around hole on one side; shallow hole on the other side

Can this clay artifact be a model for *Canis*? It is a smoothed, featureless clay cylinder indented at the center with abraded or scraped grooves at either end. The ends are terminated and slightly concave. Depending upon the orientation, the object represents rather well the body-type for *Canis*. Compare with the “blanks” that appear to have been used as models for heads in the *Equus* corpus.

There is a hole on one flank that does not appear to go through the object. Breakage around the hole appears modern, but hole is smaller than the tip of the small excavator’s pick. On the opposite side, at approximately the same height but further back, there is an indentation/chip that may mark the beginning of a hole.

This is possibly a loom-weight.

**107 *Canis* FOREQUARTERS****A9q112.5**

Recovered from feature 66 locus 4 • length 1.83 • forequarters 1.46 • neck (?) 1.14 • height at forequarters 1.8 • note on measurement: height and length not diagnostic; neck width questionable • fabric fine with some inclusions • Munsell reading (fabric) 5YR 8/3 • color (fabric) pink • Munsell reading (patina or depositional stain) 7.5YR 4/1 • color (patina or depositional stain) dark gray • preservation: forequarters only

There is a sharp breast ridge. The outside stance is a narrow, slightly rounded, inverted V. The two sides of the forequarters are modeled differently, as if the left side were more forward. Compare other examples from the corpus, several of which give this same impression.

*CANIS*

## RELATED STRATIFIED FINDS

200 *Canis* FRAGMENTARY TORSO

A2q244.2

Recovered from feature 108 locus 150 (?) • length 2.42 • forequarters 1.17 • torso 1.43 height at forequarters (neck break to tip of left foreleg) 1.41 • note on measurement: forequarter width and torso width are diagnostic • fabric medium, few inclusions • Munsell reading 5YR 7/2 • color pale red • preservation: partial torso only; all appendages broken

It is very difficult to read this fragmentary object. If the most intact appendage is taken as the left foreleg, then the body type approaches that of *Canis*. The body/foreleg join is 140 degrees. There is an appreciable dip to the back of the torso, as with *Canis* 7 A5q82.1, and the outside forequarter stance is an outcurving narrow V. Other details are impossible to read.

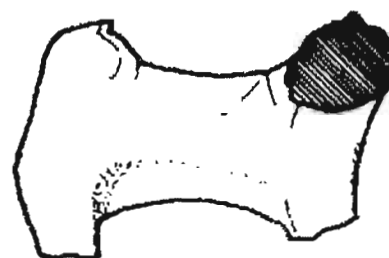
201 *Canis* TORSO

A2q389.1

Recovered from feature f149 locus 151 (second millennium layers) • length 5.006 (not diagnostic) • forequarters 2.0 • torso 1.74 • hindquarters 2.49 • height at forequarters 2.83 (not diagnostic) • height at hindquarters 3.27 (not diagnostic) • fabric fine with few inclusions • Munsell reading 2.5Y 7/2 • color light gray • preservation: all appendages broken; hindquarters intact, but chipped forequarters intact; breast ridge chipped; flap to right of hindquarters broken away

This is a lean *Canis* torso, the forequarters a narrow inverted V outside and a truncated (by breast ridge) inverted V inside. The neck and the forequarters are equal in thickness, at least so far as is visible given the breakage.

The rump curves up from the hindlegs in the manner of some canids. The tail is carried high. The hindquarter outside stance is a narrow, slightly outcurving, inverted V, solidly founded. The hindquarters exhibit a sharp ridge from tail to sexual parts.



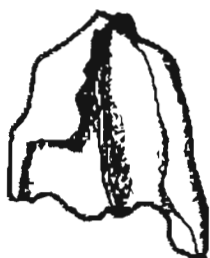
*Canis* 201 A2q389.1.

Right median view.

Recovered from post-Palace occupation levels, at a time when Royal Building AK was no longer in use — ignored and unknown.

Scale 1 : 1.

(rendering cw I712)



*Canis* 201 A2q389.1.

Caudal view.

Scale 1 : 1.

(rendering cw I712)

On either side, as we have seen in several other animal representations in the corpus — for example, *Capra* hindquarters, *Capra* 1 A1.44, *Capra* 2 A1q577.1 — the buttocks are drawn backward into two flaps that approach one another, as if to enclose the hindquarters. Also see hindquarters *Canis* 204 A8q12.3, which exhibits the same hindquarters treatment and also comes from post-Palace occupation strata (Khabur).

These rear flaps are “crumbly.” While not seeming to adhere, they are intact. It appears that these flaps were added as separate pieces of clay, then smoothed into the torso and pulled backward over the hindquarters. The fabric itself is fine with few inclusions and the fabric of the two hindquarter flaps appears to have dried while in assembly or to have been drier than that used to execute the body.

The surface of the torso is smoothed. There are light incisions coming down from the neck, as with *Felis* torso 14 A6q106.1.

In the final analysis, it was the body type and incidence of the hindquarter treatment — the attenuated “flaps” — that led to the classification of this object amongst the dogs.

Tall Halawa. *Hund A 166*. (Meyer, Pruss, et al. 1994, Abb. 40) Uprturned tail, deep curve in the back.

## 202 *Canis* TORSO, IN PROCESS OF MODELING

A2q437.1

Recovered from feature 203 locus 150 • length 4.35 • forequarters 2.0 • neck 1.37 • torso 1.5 • hindquarters 2.2 • tail 0.8 • height at forequarters 2.5 • height at hindquarters 2.88 • note on measurement: height not diagnostic • fabric fine, with uniformly fine inclusions (grit?); also gypsum inclusions • Munsell reading 7.5YR 7/3 • color pink • preservation: all appendages broken; head missing; tail broken; sexual parts broken

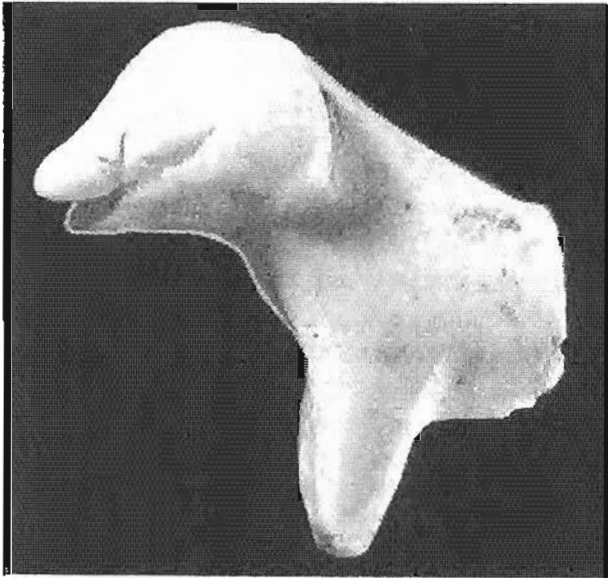
The musculature is modeled by the fingers of the artisan, but not smoothed overall. On the right flank, for example, the medium has been pulled forward and down, but not integrated into the torso; a “shelf” of clay remains. Neither is the tail integrated into the rump, but awaits smoothing.

The forequarters are narrow and flat, the neck erect. The prominent breast ridge is contained within a tight inverted V, solidly founded. The hindquarters are wide, contained within an open inverted U. The tail is thick and hangs down from the rump, unless it curves back to lie atop the rump. The leg join is truncated by the torso at the top. The sexual parts are prominent, modeled from a separate piece of clay.

The lean torso body type is *Felis*, were one not to take account of the quarters. The forequarters are quite narrow, in the manner of *Equus* TYPE I; the hindquarters are wide enough and the tail broad enough for *Equus* TYPE II. Prominent sexual parts and stance, along with the perforation in the neck, account for the identification. Also, the tail is carried high. It is unlikely that the tail curved down and then back up to meet the lump of clay that is its base atop the rump, but the manner in which the tail is carried is doglike.

**203 *Canis* HEAD AND FOREQUARTERS, PROBABLY IVORY, MINIATURE****A6.274**

Recovered from feature 358 locus 22 • length (snout to torso break) 1.5375 • forequarters 0.575 • neck (just under ears) 0.49 • torso (body) 0.525 • height of forequarters (crown of head to termination) 1.46 • cranial measurement (snout to back of head, curve of neck) 0.85 • thickness (snout, short axis) 0.215 • thickness (snout, long vertical axis) 0.28 • thickness (ear to ear) 0.64 • fabric hard and white, as ivory • preservation: head intact; tip of left foreleg broken off, left foreleg itself chipped • Munsell reading (approximate) 2.5YR 8/2 • color (approximate) pinkish white



*Canis* 203 A6.274.

Left median, partial cranial view.  
Manufacturing details are visible in this photograph,  
showing reductive cutting,  
as opposed to additive modeling.

The object was recovered in strata inside the walls of Royal Building AK, and is therefore coeval with the figurines catalogued in this volume. It is, however, outside the present typology because of the substance from which it is made. The object is analyzed here as a representational figure, most likely *Canis*.

The forelegs are articulated in the manner of some Urkesh human figurines with a light incision to indicate the separate members. No animal figurine is modeled in this way. The forelegs do not meld with the torso, but are in fact separated from it by a deep carved incision, subsequently smoothed. This detail argues for a carnivore, not a herbivore.

The muzzle is slightly concave and curves down rather sharply to the snout.

These details invite us to “read” the animal as a species other than *Ovis*; the snout is not blunt, as might be expected with sheep. The ears are large and tapering, lozenge-shaped. If the medium were clay, they would be applied; here they are carved in high relief. The eyes are large, in the manner of the “bird/humans” on Urkesh scalings A5q704.1, A1.500+. See especially sealing A5.178 for an example of the almond-shaped eye. The eyes are here outlined by shallow incisions and are less worked on the left side of the muzzle than on the right side of the head and not smoothed or deepened as are the mouth, ears and legs.

Very few of the Urkesh figurine corpus are carved reductively, as is this small piece, although some pieces are shaved and then formed additively from cylinders or flat pieces of clay. The medium of ivory, of course, is vastly different from clay and imposes different sculptural techniques. See torso *Bos* 8 A6q626.1, in the very process of extraction from a larger piece of clay. Also see *Humanoid* A7q52.1 for an example of leg delineation.



***Canis* 203**

*Canis* 203 A6.274.  
Scale 1 : 1.  
(rendering cw J702)



The object appears to have been drilled through, in the manner of cylinder seals, from both the top and the bottom of the torso. The bottom part of the perforation is drilled in two or three passes, as ridges remain. Both top and bottom of the perforation taper inwards, as if drilled from either end to center with a tapering bit.

The surface of this diminutive object was abraded to a smooth finish; light scratches remain on the surface and are visible under the magnifying glass.

The color is indicative, if not diagnostic. The material (as opposed to the fabric of terra-cotta figurines), appearing dull white to the eye, is really not measurable on Munsell charts; a close approximation might be given as Munsell color 2.5YR 8/2, pinkish white as read on the Munsell soil color charts 1994 Revised Edition. The prior Munsell edition cast the color as very pale brown, which actually more closely captures apparent value and hue of the material.

If this object were to be an ancient artifact in carved bone, we would expect it to be much more orange-yellow to the eye, probably documented on Munsell charts in the "reddish yellow" range of Munsell hues (5YR to 7.5YR). Hippopotamus ivory that survives to the present day often tends to a deep brown-orange in color. At Mozan, Bökönyi documented the presence of hippopotamus (a canine fragment), an animal having to do "neither with food consumption nor herd protection" (2001, 2). This tusk fragment may have come from the "uppermost reaches of a . . . Levantine population." It may, however, have been imported, rather than living on the steppe; its existence at Mozan may point to Egyptian contact. (Bökönyi, 1994 and 2001).

The makers prized hippopotamus ivory for its whiteness (Moorey 1994, 115) and A6.274 is striking for that quality. Other supposed examples of hippopotamus ivory I have seen have suffered from depositional damage and range in color from dark orange-brown to deep gray. In the latter hue, I am thinking of a plaque fragment of a lion-headed figure from Acernhöyük in Central Anatolia, ca. 18th century B.C., Metropolitan Museum of Art Registration Number 36.70.14/37.143.4.

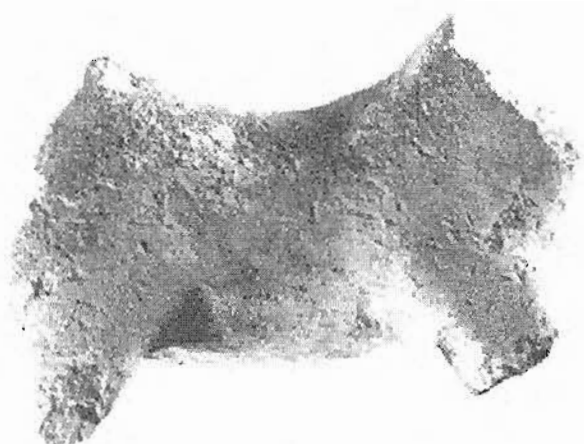
The hardness of this type of ivory had to be reckoned with; interior surfaces were more likely to be easily carved, as the enameled surface of the tooth was quite hard. The leg division of A6.274 appears almost to have been sliced or chipped away in a sliver, rather than carved; and the details of the muzzle seem to have been "worn into" the surface, as by repeated and prolonged abrasion, rather than by actual carving. Both these observations point to a recalcitrant, hard medium, not easily worked.

Moorey says there is no evidence for the existence of the animal in Mesopotamia (Moorey 1994, 115), although he does cite some Late Bronze Age ivory artifacts from Tell Brak. Bökönyi, in the works cited, notes many examples where evidence of the animals has been found, even as late as the Iron Age.

## 204 *Canis* torso, SPITZ TYPE

A8q12.3

Recovered from feature 9 locus 4 • length 6.4 • forequarters 3.3 • neck 2.4 • torso 3.0 • hindquarters 4.0 • tail 0.058 • height at forequarters 4.6 • height at hindquarters 4.5 • note on measurement: width of forequarters and hindquarters and the height of each are not diagnostic due to breakage; reasonable measurement of width can be taken in anterior and posterior section above the breaks • fabric medium, uniformly fine chaff temper • Munsell reading 2.5YR 8/3 • color pale yellow • preservation: all appendages broken; tail chipped; left foreleg and hindleg broken high into body

*Canis* 204 A8q12.3.

Right median view.

The body stance is typical of the corpus.  
The hindquarters, however,  
differ markedly when seen in caudal section.

Scale 1 : 1.

(photograph V10e0613)

*Canis* 204 A8q12.3.

Caudal section.

Fingerprints visible.

Scale 1 : 1.

(photograph V10e0616)

Even in the field, before lab examination and analysis and even with the striking treatment of the hindquarters, it was obvious that this figurine was a representation of a dog. Since we do place this figure in the *Canis* corpus, we must observe that the technique of manufacture has varied little over a period of some 400 years. The strata and the building from which this figurine was recovered date to Khabur, Old Babylonian times — from Phase 4 or at the latest Phase 5 layers at Urkesh.

It appears that the rounded ridge between the buttocks was applied as a separate piece of fabric and then further modeled to shape. Fingerprints remain. See photograph MZ9(?), VE100615.

Other figurines from the corpus exhibit variants of hindquarters finished in the fashion of A8q12.3. One — *Canis* 201 A2q389.1 — was recovered from early second millennium layers, that is to say, either from strata within the Royal Building but of a different occupational nature than those of the first floors; or from levels immediately above the Palace walls, from a time when the occupants were unaware of the nature of the building that lay below.

Other notable parallels from the AK corpus — recovered from strata within the Royal Building and not from Post-Palace occupational levels — are *Capra* 1 torso for a good approximation of the recessed hindquarters and caudal treatment, *Capra* 2 A1q577.1 for an unusual variant on the hindquarters with protective “flaps,” and *Felis* 32 A1.48 torso TYPE II for the expressed sexual parts.

## 205 *Canis* TORSO

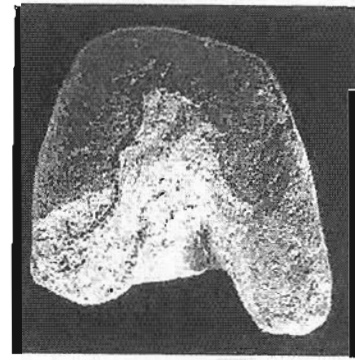
A10q146.2

Recovered from feature 67 locus 3 • length 6.75 • torso 2.74 • hindquarters 3.96 • fabric medium, many fine gypsum inclusions • Munsell reading (gypsum wash) 2.5Y 8/2 • color (gypsum wash) pale yellow • Munsell reading (fabric) 7.5YR 6/3 • color (fabric) light brown • conservation: fragile • preservation: all appendages broken, except left hind leg which may be terminated



There is a deep curve to the back. The hindquarter stance is a slightly open inverted U on the outside, an inverted V inside. Hindlegs meet at 60 degrees.

The remains of a gypsum wash adhere to the buttocks indentation. The coating is also apparent on the left foreleg and flank, the left hindleg, and the underbelly. There is a contrast in color and there are many fine gypsum (or calcium carbonate) inclusions in the fabric. It is usually the case that the hue of the presumed slip and the fabric of the artifact is the same; this would indicate that the slip is in fact a dilute mixture of water and the original fabric. With *Canis* 205, what must be a "gypsum wash" was likely mixed and applied in a separate and later stage of manufacture from the wedging of the fabric and the modeling of the figurine.



*Canis* 205 A10q146.2

Caudal view.

The gypsum wash adheres to the buttocks, but has largely been chipped away.

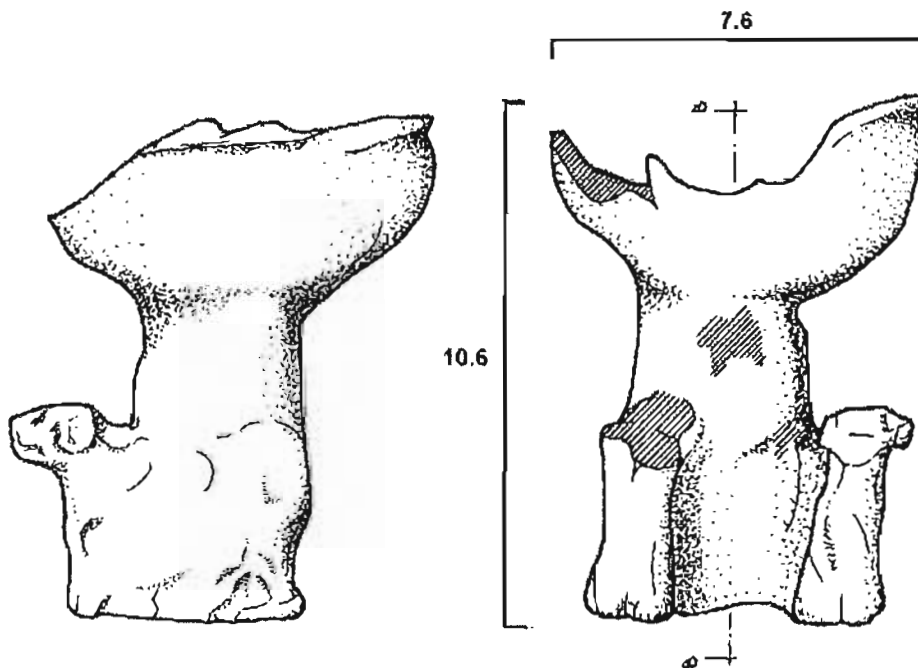
Scale 1 : 1.

(photograph V7b2012)

## 206 LONG-STEMMED VESSEL WITH TWO DOGS AT THE BASE

A10q719.1

Recovered from feature 298 locus 28 • height (lip of bowl to base) 10.6 • diameter (of bowl, long dimension) 7.8 • diameter (of bowl, shorter dimension) 7.6 • fabric coarse, pebble-tempered; many inclusions, including silica • Munsell reading 2.5YR 6/6 • color light red • conservation: fragile • preservation: bowl fragmented, *Canis* theriomorphic figures at base heavily abraded



*Canis* 206 A10q719.1.

Left median and cranial (frontal) views.

Scale 1 : 2.

(rendering cw J801)

The canids are on either side of a pedestal holding a bowl/cup and they stand out in front of the object, providing footing and support for the piece as well as framing a sort of “protected” space at the foot of the object. One thinks of the rampant animals of various species flanking palace gates, attested as early as the lion orthostats and entrance supports for the Palace of Kapara at Tell Halaf. (Dornemann 1997, 260-462, figures 2 and 3) In both instances, the monumental and the utilitarian, the animals have adopted a static posture, posed and solid, indicative of the material mass from which they were fashioned and of the attitude or function of the beasts. The hindlegs of the Urkesh canids might suggest a recumbent position. Without this attachment, the object could be taken for a goblet, a pedestal with a shallow bowl atop it.

There has been some discussion amongst staff regarding the identification of the animals on this footed vessel. Certainly, the very heavily abraded back legs are catlike — *Felis* in type — but both attitude and the relationship of body part to body part places these animals amongst the canids (carnivores, to be sure).

The fabric is quite red, coarse, tempered with tiny pebbles. Finer inclusions are also present, as, silica. The interior of the shallow bowl is black at the break, as if the object had been inadequately fired, similar to coarse cooking ware. Marilyn Kelly-Buccellati acknowledged this observation while noting that this was possibly a ceremonial object and not a vessel destined for use in domestic surroundings.

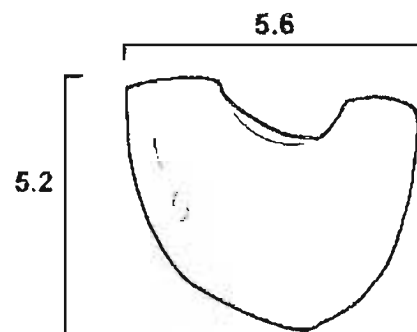
The object, when recovered, had leached salts to the surface. The surface flaked off when cleaning was attempted. The object was consolidated.

It will be important to study this object with several other objects that are iconographically similar, but which are not obviously theriomorphic in intent. A small bowl, A10.216 — possibly founded on feet or with projecting “arms” — was recovered in contemporaneous levels (A10k28 f300). The fabric was described in the field notes as “bricky, not burned” and the object itself was provisionally described as an “andiron”.

Seen from above, in dorsal section, its form was like the present object. It was removed from the ground — the feet or projecting “arms” were destroyed in excavation — and taken to the dig house. It was photographed *in situ* — fortunately — for it was dropped and shattered in a lab move. The fabric was the same as that of *Canis* 206 A10q719.1, never too solid in any event.

Geometric designs often reflect animal form. Two sherds have been recovered in these same levels bearing designs that are reminiscent of the “protective” or enfolding projections of vessel A10q719.1. A sherd with bitumen drippings or tracings, A10q742.1, may depict a horned animal whose schematic torso and legs are not unlike a table — feet solidly founded under a flat surface (See a discussion of bitumen usage in *Carnivora*).

Whether or not the maker intended to emphasize contained space, the design, open on one side, is unlikely to be accidental.

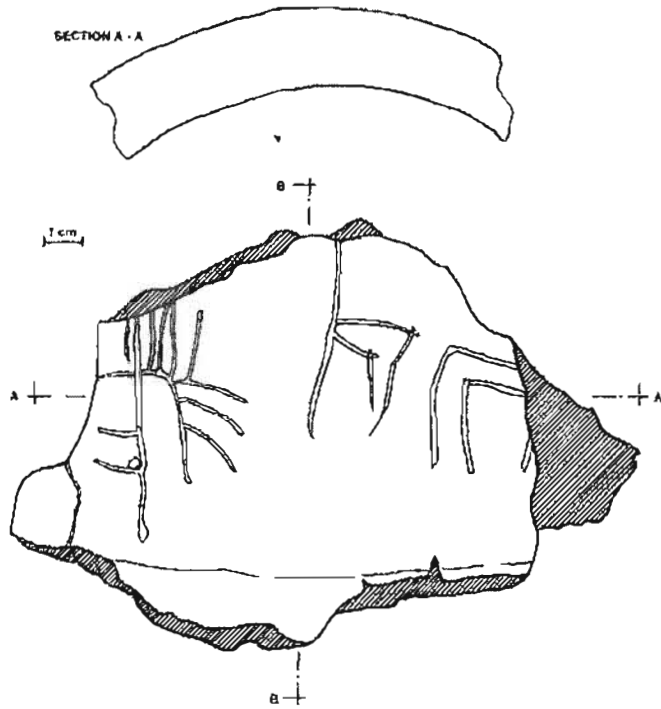


*Canis* 206 A10q719.1.  
Base of long-stemmed vessel.  
Scale 1 : 2.  
(rendering cw J01)



*Geometric Object* A10q742.1.  
Dripped, daubed or painted  
tectiform or cervid  
on ceramic sherd.  
Scale 1 : 2.  
(rendering cw J730)

Yet another large curving sherd bears several animal-like designs struck into what must have been wet clay. Each of the sketches on this sherd seems to represent a different animal; one, the simplest of those surviving on the sherd, is reminiscent of *tectiformes* found on the walls of Paleolithic caverns. This is no hut, but may represent an animal or — more to the point here — an open hearth not unlike the straightforward graphic outlines of A10.216, the solidly founded animal form of A10q742.1 or the open arms of *Canis* 206 A10q719.1.



A10q715.1.

Ceramic sherd bearing possible animal sketches and, on the right, a solidly founded "protective" form.  
(rendering cw J802)

While these objects are vastly dissimilar in function, they seem to hearken to a similar impulse. It is rather more likely that they may in fact cluster about some ritual function; whereas we have been unable to establish such usage for the AK figurine corpus.

The layers in which they were found are within the walls of AK, or in the case of *Canis* 206 A10q719.1, embedded in or very near the wall of the Royal Residence, excavated late in MZ12. I take these levels to be late third millennium and to be associated with the Palace occupations; in this case, perhaps the juncture of the Service Building AK and the Royal Residence. At the end of the season of excavation (MZ13), we assigned them to late Phase 4 or early Phase 5 strata.

## 207 *Canis* Torso, CURLY-TAILED MINIATURE

K3.8

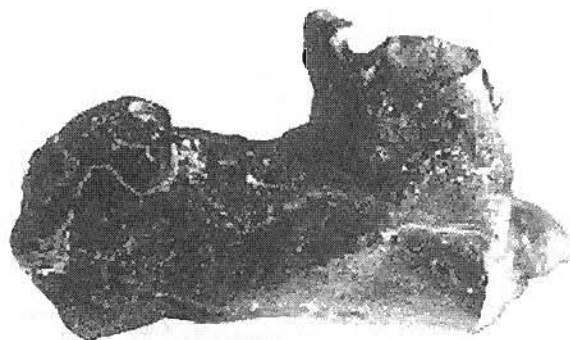
Recovered from third millennium stratum near the city gate, excavation season MZ1 • length 3.21 • forequarters 1.425 • torso 1.125 • hindquarters 1.5 • height at forequarters 2.025 • height at hindquarters 1.5 • fabric fine, with uniformly fine inclusions (grit?) • Munsell reading (fabric) 5YR 7/2 • color (fabric) pinkish gray • Munsell reading (depositional stain) 5YR 4/1 • color (depositional stain) dark gray • preservation: perforation broken; bottom half of left foreleg broken off, right foreleg broken off; head missing; tail intact

The body is stocky, compact (the ratio  $h_1 : w_3 = 1 : 1$ ). There is a deep curve to the back. The neck merges with the torso, yet is carried high. Forelegs are extended forward. Buttocks fused and recessed. The hindquarters are clearly doglike, contained within a solidly founded inverted U. The tail is carried high and curves up and back onto itself. Sexual parts are possibly indicated under the tail.

There is a perforation through a raised ring where the neck joins the torso. The breast ridge is indicated; it terminates in belly. This detail is elsewhere diagnostic of bovids.

The attitude is striking in this figurine, as if the animal were running or leaping. Legs are extended straight out in front, a detail frequently seen among *Felis*.

The figurine is smoothed, slightly scraped.



*Canis* 207 K3.8.  
Right median view.  
Scale 2 : 1.  
(photograph V9e0213)

Tall Munbaqa. *Hund* (?) 463 Mbq 30/31-6 (Czichon, Werner, et al. 1998, Tafel 82). Compare alert stance and the manner in which the tail — carried high — is rendered.

*CANIS*

## RELATED UNSTRATIFIED FIND

**300 *Canis* FOREQUARTERS****Z1.298**

Surface find • length 4.62 • forequarters 2.73 • neck 1.94 • torso 2.36 • fabric fine, with uniformly fine chaff temper • Munsell reading 2.5Y 8/3 • color pale yellow • preservation: fragmentary forequarters, heavily abraded

The forequarters are triangular in vertical section (see photograph V10e0815.). The torso is lean, with musculature indicated by scraping. The legs project forward. The curve of the back is deep. The penis is expressed in the belly.

The appendages and the torso of the figurine are built around a core visible at both foreleg breaks and seen in contrast of color and as a slightly raised core (photograph V10e0814). Two holes, vertically aligned and visible at the torso break, may align with the right outside edge of the core.

It is likely that the manufacturing process was additive, cylinder applied to cylinder, rather than modeling from a single piece of clay. In this case, the appendages would have been extruded or pulled outward from clay in the body mass and no core would therefore be visible.



*Canis* 300 Z1.298.  
Left median view.  
Scale 1 : 1.  
(photograph V10e0814)

ANIMAL REPRESENTATIONS  
IN TERRA COTTA  
FROM ROYAL BUILDING AK  
AT URKESH (TELL MOZAN)

ORDER Carnivora

FAMILIES

Felidae • Ursidae • Mustelidae

GENERA

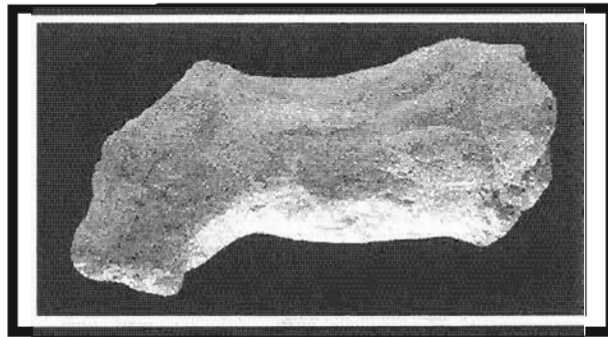
*Felis* • *Ursus* • *Mellivora*

ORDERS (SUBORDERS)

Insectivora • Rodentia (Hystricognathi)

FAMILIES

Erinaceidae • Hystricidae

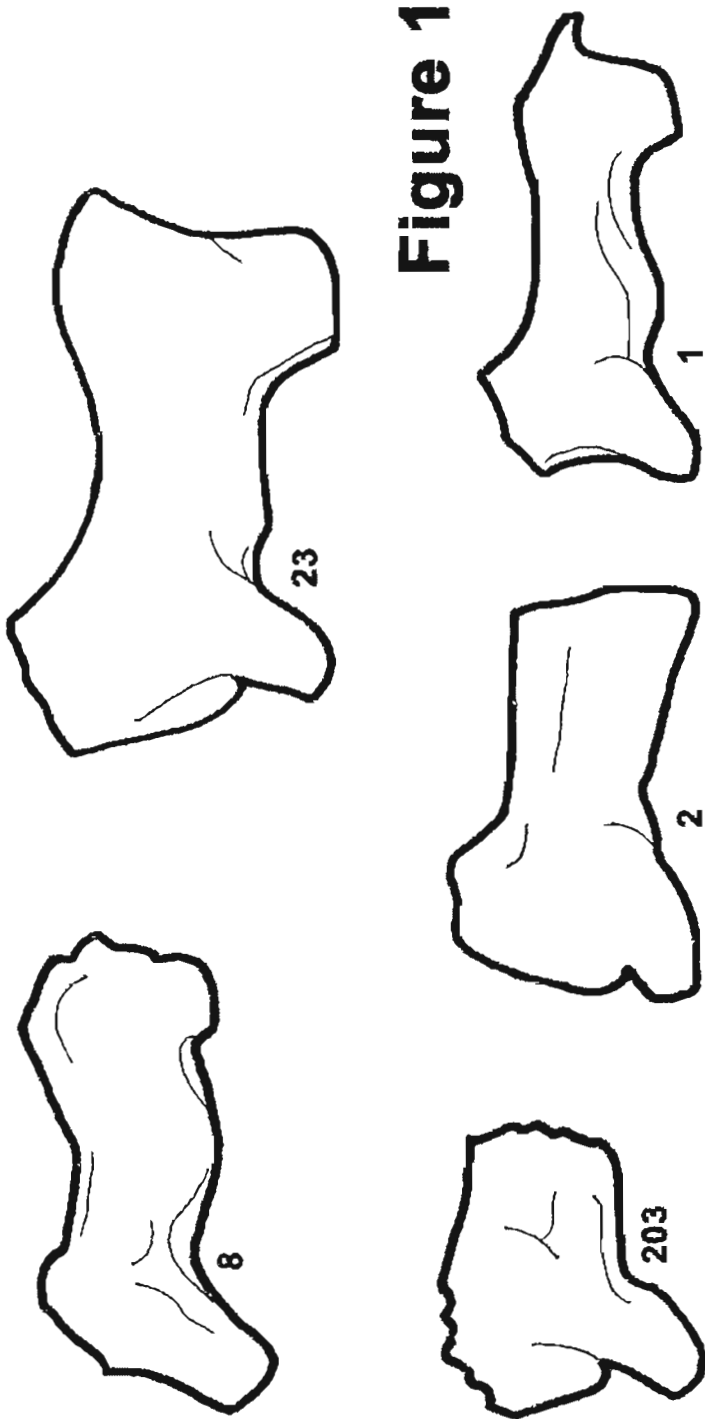


DISCUSSION

The Genera

CATALOG

The Urkesh Corpus

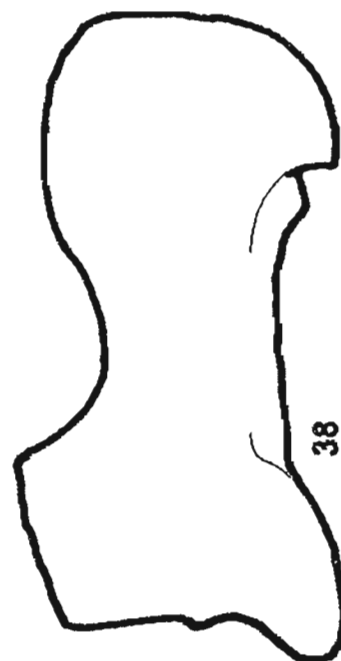
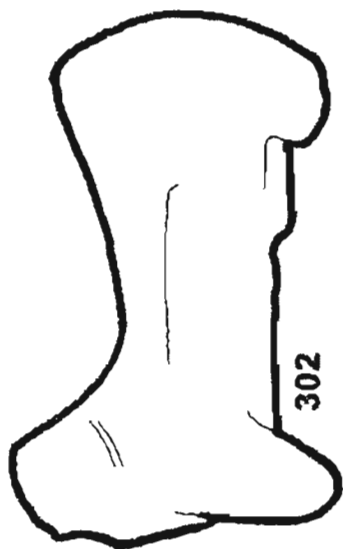
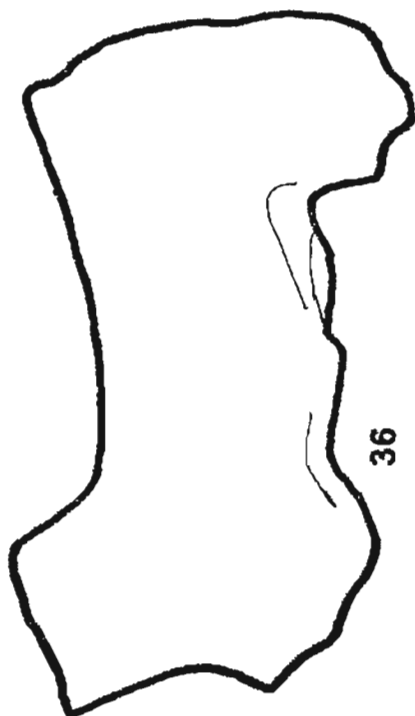


**Figure 17**

**Comparative Body Types**

***Felis* TYPE I** (renderings cw l724 [?])

The foreleg/body join of *Felis* TYPE I is on the order of 140 degrees; the torso is lean and the musculature is clearly modeled. The legs do not meld with but are separate from the torso, as would be typical of all carnivores. There is no sign that these cats were domesticated.



**Figure 18**

## Comparative Body Types

*Felis* TYPE II (renderings cw 1724 [?])

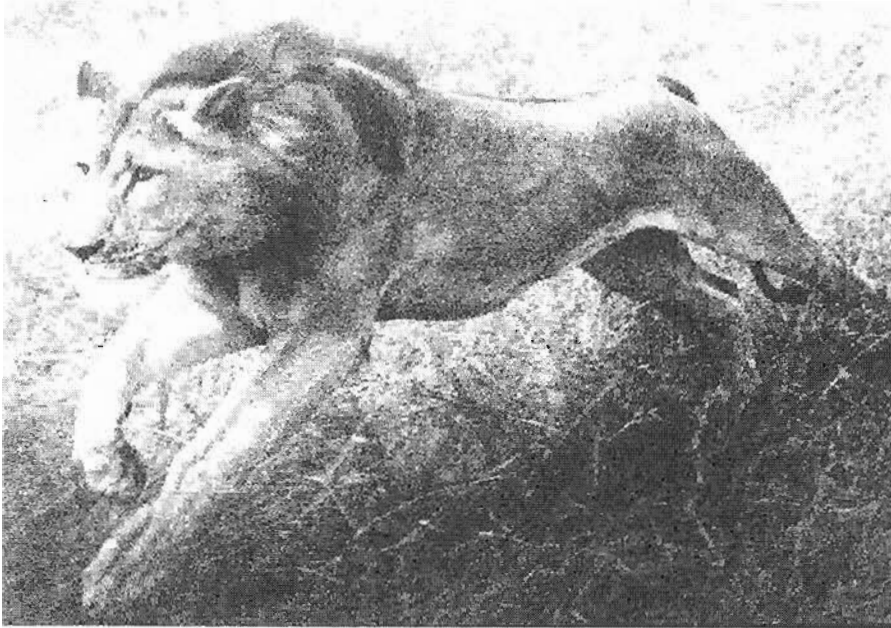
In general, *Felis* TYPE II figurines are somewhat less lean than their TYPE I counterparts and they display a heavy neck/body join. Some similarities amongst *Felis* TYPE II figurines are immediately apparent, such as the prominent rounded buttocks; but the most telling attributes, the penile strap and caudal band, are not visible in median section. This feline is likely the lion of Urkesh and a possible candidate for domestication.



## CARNIVORA

### *FELIS* AND OTHER NONDOMESTICATED SPECIES

#### A Type Apart



*Felis panthera leo*, a present-day counterpart of large cats that once roamed the Syrian steppe. Aspects of body type that are encountered in the Mozan/Urkesh typology are: lean torso with defined musculature, extended legs that do not meld with body, mane, blunt square muzzle, short pointed ears, and the tufted thin rat tail. Photograph by Nicholas Brandt, courtesy of the photographer.

Clearly, domestication is a major force in the maintenance and form of animal species. With each genus, there are changes in body conformation that come with domestication and are already well established by the third millennium in the Middle East.

Save one. The animals of the order Carnivora were not successfully domesticated at this time nor would they likely ever be with much success; although Agnès Benoit, in a catalog to a collection of objects from Susa, does refer to the domestication of the bear "by the beginning of the 4th millennium B.C." (1992, 67)

Although dogs are meat eaters and of the order Carnivora, they are not included in this category. Their body type is different, and so they are grouped together as a type unto themselves. By rights, the hyena should be here, too; yet were we to find an example in the corpus, as we have amongst the faunal remains, it would join the dog, which it resembles, in a separate category.

Other animals may share some of the characteristics of Carnivora, in most cases because of a lean body type. Neither are they domesticated. *Ursus* — the bears — for example, are *omnivores* as well as being carnivorous, and they have been grouped here. Although the body type is stocky, as are cattle, *Ursus* shares a long torso with other carnivores. Mustelidae are represented by a single example — the lean silhouette of *Carnivora* 402 A1.33, a third millennium ancestor of *Mellivora capensis*. Most weasels, badgers, and their like are completely carnivorous. They destroy vermin, especially rodents, and some occasionally take poultry (Bertin, Burton, et al. 1967).

At least one fragmentary example of a hedgehog has been recovered, *Carnivora* 400 A5q743 — Order Insectivora Family Erinaceidae. It is included here as an example of a nondomesticated mammal. As do most insect-eating mammals, the hedgehog also eats meat — mollusks, reptiles, worms, and small rodents, rendering the family of great utility (Bertin, Burton, et al. 1967).

A somewhat stylized model of a hedgehog has been recovered at Susa from a deposit in the temple of Inshushinak (thirteenth to twelfth century B.C.); it was carved from limestone, fully modeled in the round and sits atop a small cart of bitumen compound (Harper, Aruz, et al. 1992 object 202). The Urkesh example is most likely a fragment of a theriomorphic attachment for a vessel.

### Lions at Urkesh

Lions — “beasts,” van Buren liked to call them — capture the imagination. Regal, roaring, wild exemplars of our pussycats, the genus has cast its elegant shadow across art history from the very earliest days of the breed’s domestication.

The majority of the carnivores represented in the Urkesh corpus are feline. Of the large cats — of course, not domesticated, except perhaps by Tupkish himself — in the Mozan region, two were most frequent, the panther and the lion. No distinction has been made as to the representation of body type between these two large cats, unless the provisional distinction between *Felis* TYPE I and *Felis* TYPE II addresses the difference. Yet, the clarity of form of Carnivora and the number of good examples that have survived, albeit in fragmentary form, speak of the importance of the beasts in the Urkesh pantheon.

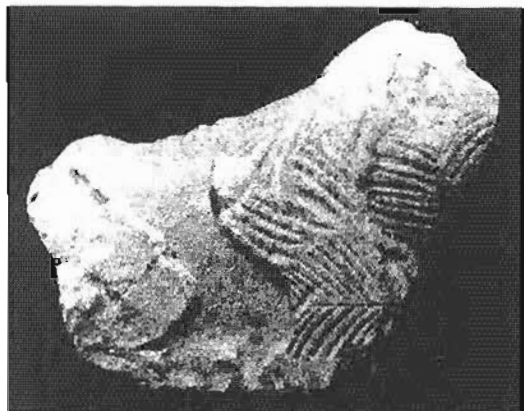


Mozan. Lion Foundation Peg 495.  
Photograph courtesy of the Metropolitan Museum of Art.

Now of course, domesticated species can be observed close-up and on a daily basis. We might expect accurate detailing, such as we encounter with the large tails of the fat-tailed sheep or the human-made harness of horses. With wild animals, by contrast, direct observation cannot play such a large role leading, one might think, to idealization, simplification of details at the expense of naturalistic rendering.

The opposite is true. If anything, *Felis* representations at Urkesh are remarkable for the realistic detail and verve of individual pieces. The best known of the images, the twin lion foundation pegs, one at the Metropolitan Museum of Art, the other at the Louvre, have been taken as “Hurrian.” This is so first because of incised cuneiform signs on the plaque (Metropolitan) and the stone tablet (Louvre) beneath the lions’ feet that relate the objects to “Tish-a-tal, ruler of Urkesh” and not at all because of their artistic treatment.

Oscar White Muscarella, in his catalog of ancient Near Eastern artifacts in the collections of the Metropolitan Museum of Art is categorical about the manufacture of the lion paws. He says “the (Metropolitan) piece exhibits no features that may be called Hurrian, as opposed to general Near Eastern” (Muscarella 1988, object 495 illustrated on pages 375–6) (Buccellati and Kelly-Buccellati 1988, 93–99, especially 98). Some fifteen years later, Schwartz and Akkermans, in an otherwise exemplary study of archaeology in Syria, repeat the common wisdom: “It is unlikely, in any event, that a distinctive Hurrian art or ‘culture’ can be distinguished from the other manifestations of material culture in third-millennium Syro-Mesopotamia” (Akkermans and Schwartz 2003).



Mozan. Lion Sculpture from Temple BA  
At Urkesh (B1.164), atop the High Mound.  
(Kelly-Buccellati 1998, Fig. I/III.1)  
Commentary and description  
in Kelly-Buccellati 1990.

I will find reason to differ with Muscarella’s analysis. No other exemplars of “Hurrian art” were known, after all, at the time of the appearance of the lion paws on the antiquities market. But we will also take issue with Akkermans and Schwartz. And with the publication of the present volume, we also may respectfully respond to Moorey, who says in the third of the Schweich Lectures of the British Academy that “whereas bulls are listed amongst published zoomorphic terracottas, lions do not seem to be” (Moorey 2003). Now, we have such examples, solidly dated to the middle and end of the third millennium and from stratified layers at Tell Mozan, ancient site of Tish-a-tal’s city.

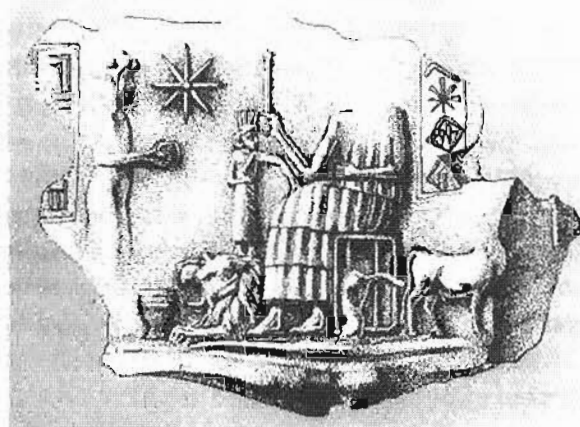
I will also take issue with Moorey’s statement that

Naturalism would not generally appear to have been uppermost in the modeller’s mind except with exotic forms . . .

But Moorey is remarkably astute and rightly cautious. He added a qualifier —

— if the given identities are reliable. (Moorey 2003)

Now we know that these artifacts are linked by the naturalism with which they are rendered. First recovered at the site was the lion sculpture from Temple BA atop the high mound at Tell Mozan. Marilyn Kelly-Buccellati remarked that the disordered rendition of the hair in the lion’s mane gives the impression that the artist “was trying to represent a lion he had actually seen in person” (1990b, 127, Plate 9.1 and above). Elsewhere, speaking of a carved stele found in a disturbed and eroded area near Temple BA, she emphasizes the artisan’s concern with individuality, “natural and typical poses” that “may be a general characteristic of Mozan art” (1990a, 154 ).



King’s seal k2  
from the Royal Storehouse AK at Urkesh.

Muscarella seems to say that the lion peg in the Louvre is executed more summarily than is the Metropolitan Museum exemplar; the “mane hair is not rendered as tufted layers,” and the rendition of the shoulder muscles is less detailed (in Buccellati and Kelly-Buccellati 1988). At Urkesh, the lion’s mane may be subject to diverse treatments but is always rendered with a nod to reality. From strata of a somewhat later time than Temple BA, in the Royal Storehouse, the lion’s mane is rendered realistically — *Felis* 24 A7.125 and *Felis* 109 A5q790.1 (see **TABLES 1 & 1A Pelts & Surface Decoration**) — by incised flowing lines, sometimes intersecting, but never far from the animal model — the realistic template, as it were. We have also recovered an impression of the king’s seal (see previous page); here, the lion’s mane is rendered realistically, flowing, the mark of a real animal, not an abstraction.

From coeval strata at other southern third millennium sites — notably Nippur, possibly Ur and Kish — artisans devote special attention to the lion’s mane, yet not in the same manner as at Urkesh. The mane is carefully rendered and regular, not to say abstract, in its execution. At Nippur, for example, the mane is a repetitive series of parallel lines in ranks; at Ur/Kish (?) it becomes a series of incised zigzags (van Buren 1930, Plates XLI-XLIII). Although van Buren does not make much of the stylization of the rendering of these artifacts, the plates support Kelly-Buccellati’s observation that “none of the Earlier Dynastic lions give the impression that a lion was actually seen in person” (1990b, 127). Only two millennia later, at Nippur, is there a freestanding lion sculpture (a panther?) from Nippur that echoes the vitality of the Urkesh corpus (notably, *Felis* 8 A5.25.1); from strata some 300 years earlier, two molded lion plaques depict the animal with a naturalistic stride, legs extended back and distinct from the torso, as are the Urkesh examples (van Buren 1930, 205, Plate LXIII/fig. 206).

These carefully observed and naturalistically rendered figures are protagonists in an imagined setting as seen in the sealing corpus at Mozan. This case is made most impressively by the lion with jaws agape seated next the throne of Tupkish, ruler of Urkesh. Is that a royal hand stretched out to pet the lion? Can that be the prince standing atop the roaring beast, feet buried in its mane? The answer is yes on the latter count in a sealing impression of the “king’s seal” k2 (Buccellati 1996; Buccellati and Kelly-Buccellati 1996), where just such a scene is depicted. The same naturalistic detail is encountered in a rampant lion on the seal of the son of the King — obviously his chosen symbol.

This projection of a real animal that lived on the northern Syrian steppe in the mid-third millennium into an imagined dynastic reality is unique among the animal species recovered at the site. The beast itself is changed, domesticated by the very presence of the king and his progeny. In effect, the artist’s hand tames the beast, completing a real-world domestication experiment (see discussion below). By contrast, the ram and calf (?) present in the royal sealings are naturalistic, reflecting types commonly seen in the real world of animal husbandry at Urkesh; their presence is as if reported, neither commented upon nor transformed at all.



Mozan. Seal impression A7q853.2, *dumu endan*, the king’s son and his chosen symbol.  
(rendering by Pietro Pozzi)

However one might quantify or characterize the “naturalism” of the Urkesh corpus, it is undeniable that an artistic will is at work. The Urkesh figurines are, with notable frequency, crafted with care. They are the result neither of accident nor of inadvertence, small *sculptures*, modeled by a firm and sure hand hewing close to a model either held in hand or in mind.

Frankfort remarked late in his career that the prehistoric period was a “‘somewhat monotonous’ prelude to the florescence of Mesopotamian and Egyptian civilization in the fourth millennium B.C.” (cited in Wengrow 2003). Wengrow generously takes the “rudimentary understanding of Neolithic life in the Fertile Crescent” as contributing cause.

Less easily explained away is Frankfort’s pronouncement about *all* clay figurines. It is perhaps time to reevaluate his dismissive judgment.

The prehistoric clay figurines of men and animals do not differ in character from similar artless objects found throughout Asia and Europe. A history of art may ignore them, since they cannot be considered the ancestors of Sumerian sculpture. (Frankfort 1970)

I have noted that something of a countermovement is in the making. Some commentators simply do assume that figurines belong to the same world as monuments. See for example, Jean Evans’ reasoning for the attribution of a small striding lion cast in copper alloy. She assigns the artifact to Anatolia or Syria in the mid-first millennium, *because* it resembles monumental stone reliefs of the period (Evans Fall 2003). One may assume she would reason similarly were the object to be molded from clay. An incisive essay by David Wengrow (2003) on the neglected clay figurines of the Neolithic plays out arguments that diminutive terra-cotta objects carry cultural information that should not be ignored. He encourages us to factor in context and symbolic meaning in our analysis of these artifacts.

The study in hand relies upon the internal coherence of measurement and secondary characteristics to make the argument that figurines are artifacts worthy of sustained consideration. In the same way that the muscled, graceful torso and stance of *Felis* 8 is echoed in small sculpture at Nippur halfway through the first millennium, the attention to detail and form of much of the Urkesh figurine corpus finds sympathetic expression in contemporaneous sculpture, both on a small scale (the Urkesh royal seals) and in freestanding sculpture (the AK lion). We unravel the precious weave of historical meaning if we dismiss these diminutive art objects.

### **Carnivores and Herbivores at Mozan**

At a glance, when the excavator encounters a fragmentary figurine fresh from the ground, a number of distinguishing characteristics help to identify *Felis* and other carnivores. Most notable, first off, is the length of the torso, a lean body. The torso is between two and three times as long as it is wide.

Almost as telling, the forelegs of *Felis* do not meld with nor blend into the torso, but are clearly separate from the body and stand out from it. In real-life anatomical terms, the pectoral (shoulder) girdle has “lost its rigid attachment to the rest of the skeleton and ‘floats’ within muscles outside the rib cage” (Davis 1987):

This both increases gait and reduces the amount of head jarring suffered when forefeet hit the ground. (Davis 1987 Fig. 2.12)

In the typology of Carnivora at Urkesh, the hindlegs are similarly articulated. In real life, the hindlegs, attached to the pelvic girdle, provide thrust for the animal in its forward motion by way of the vertebral column and a series of fused vertebrae called the sacrum. Sacrum and pelvic girdle are attached.

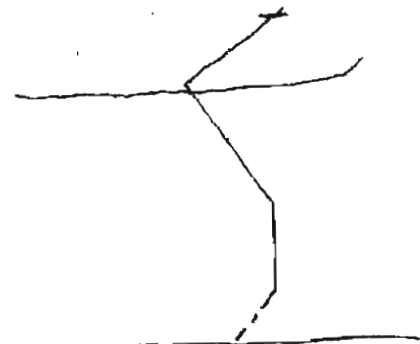
The Carnivora paw also is articulated — only the toes are in contact with the ground. The metapoidals (“ankle”),

usually somewhat elongated, are now functionally part of the limb, and hence make it longer which increases the stride. (Davis 1987 Fig. 2.12)

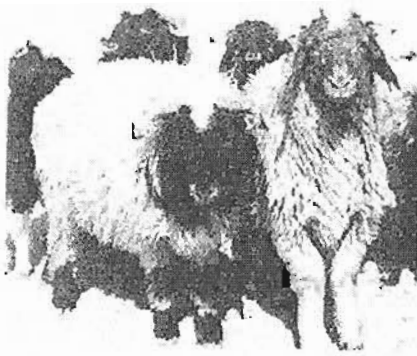
Both skeletal particularities would be an advantage when the animal is pouncing or slashing at a prey:

The body of the cat is built for agility, climbing, pouncing, jumping, and short bursts of speed after prey that is smaller than itself.” (Clutton-Brock 1993)

The sketch (right) by Sándor Bökönyi, taken from a field notebook, illustrates this type of body join and, incidentally, the elongated metapoidals, although they were not the subject of the discussion (Bökönyi and Hauser 1993, 10). The leg construction is also visible in Nicholas Brandt’s photograph of the pouncing lion reproduced at the beginning of this discussion.



Carnivora leg/body join (and articulated paw)  
as sketched by Sándor Bökönyi  
in discussions about  
the typology of figurines found at Urkesh.



Mozan. *Ovis* — fat-tailed sheep  
from the steppe in present-day Syria.  
Note the way  
the body is founded on the legs,  
a typical herbivore body join.  
(photograph by the author)

In contrast to the haunch of *Felis* and other meat eaters (“the hip, buttock and upper thigh in . . . animals,” according to *The American Heritage Dictionary*), the upper leg of a herbivore is “contained in the body” (Sándor Bökönyi locution) at the point where it joins the body. The hoof is a hard extension of the leg, not a tool for slashing. The animal is heavier, slower moving, so the legs are used for support, rather than allowing the animal to impel itself forward. Frisky herbivores — the young ones and the agitated ones — jump straight up and not out, as if shot from a cannon. These real-life details are represented in the figurines from the Royal Storehouse at Urkesh. Even in fragmentary state, the herbivores at Mozan contrast markedly with the carnivores in the corpus.



### The Typology

Here is a preliminary list of diagnostic features for *Felis* — the wild cats — and, with some modification, other nondomesticated animals at Urkesh.

$$lg \leq 3w2$$

Body length is the same as or slightly less than three times torso width.

$$lg \geq 2w2$$

Alternatively, body length is the same as or slightly greater than two times torso width.

$$w3 \geq w1$$

Hindquarters are slightly larger than or equal in width to the forequarters.

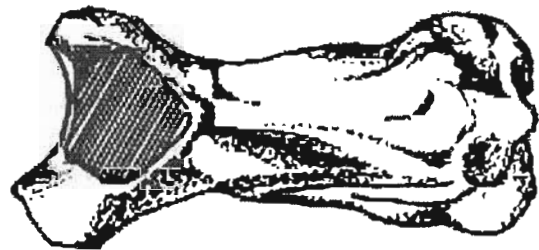
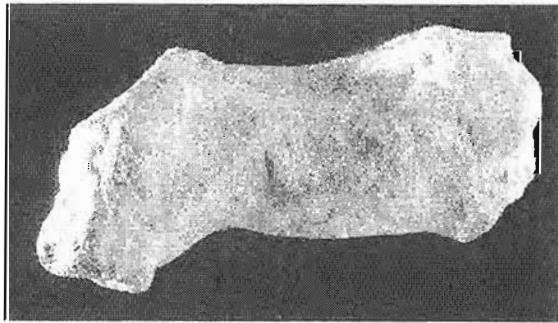
$$w2 \leq 4/5w1$$

The torso is slightly less than 80 percent of the width of the forequarters.

$$\text{forequarters} : \text{torso} : \text{hindquarters} = 1 : 0.8 : 1$$

$$w1@neck \leq w2$$

The neck is less than or equal in width to the torso.



*Felis* 8 A5.25.1 TYPE 1. Left median plane (photograph), dorsal view (rendering).

Diagnostic details are exceptionally clear on this fragmentary carnivore torso.

This stance — the extension of the legs forward and back — is not to be encountered again amongst Mesopotamian terra cottas until almost two millennia later, at Nippur ca. 450 B.C. (van Buren 1930).

Scale 1 : 1.

(photograph V13\_1100d2985, rendering cw F714)

Additionally, Carnivora at Urkesh may exhibit some and not infrequently all of these characteristics:

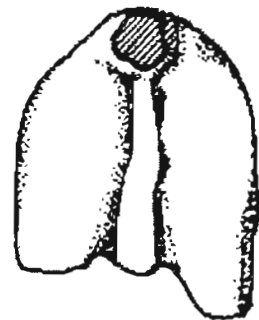
**THE UPPER PART OF THE LEGS (OR "HAUNCH") STANDS OUT FROM AND DOES NOT MELD INTO THE TORSO .**

**MUSCULATURE IS CLEAR, WELL DEFINED AND STRONG.**

**BUTTOCKS ARE FUSED.**

**SEXUAL PARTS ARE EXPRESSED.**

**IN THE CASE OF CERTAIN CARNIVORES, THERE IS A PENIS STRAP, SOMETIMES ASSOCIATED WITH A THICK BAND THAT GOES FROM TAIL TO SEXUAL PARTS, DIVIDING THE BUTTOCKS.**



*Felis* A7q684.2. Caudal view. The band linking tail and anus to sexual parts is evident. (rendering cw I724)

### ***Felis* TYPE I and TYPE II**

As a tentative observation, there appear to be two different types of carnivore torso. TYPE I is lean and muscled, as would be the panther, mountain cat, or leopard (see *Felis* 8 above).

TYPE II is also feline, but has rounded, prominent buttocks often divided by a line or even sometimes by a raised band. *This would appear to be the lion of Urkesh.* Often the buttocks curve down to meet the hindlegs. This second type displays a heavy neck/body join. The torso/body length ratio is not quite as long as TYPE I; with TYPE II, the ratio is expressed thus:  $lg \geq 2w2$  (in length, the torso is greater than or equal to twice the width of the transverse section taken vertically at the midpoint of the torso). This means that the torso of this large cat is in fact still lean as compared with other animal torsos in the corpus. *Equus*, for example, displays a similar body length ratio, but based on the hindquarters, not the torso.

This observation must be taken as provisional until more evidence has been collected, perhaps from adjacent sites in coeval strata.

### **Domestication of the Wild Cats**

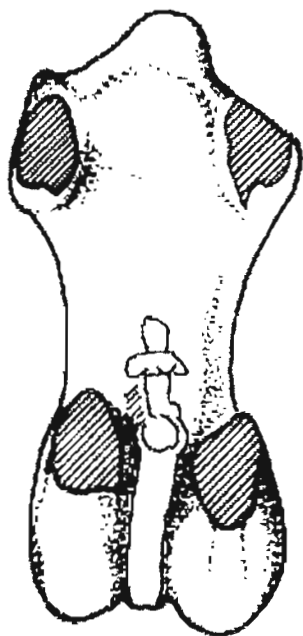
Domestication of *Felis* has always been an iffy proposition, perhaps providing an experience of fleeting success but doomed to eventual failure. Even *Born Free* ends badly, with the authors wistful for some Eden-like state where humankind and savage animals could live side by side.

Clutton-Brock calls the cat a “solitary hunter”, borrowing a page from Rudyard Kipling’s lexicon — “The Cat that Walked by Himself” — and she remarks that the cat is the only household animal (perhaps excluding the mouse) that is entirely free-ranging. Its breeding is therefore uncontrolled by humans and the processes of artificial selection of types have not radically altered the genus; in fact, *Felis* remains in type fairly close to the wild progenitor. The breeds that distinguish the household and show pet we know today emerged over the last 100 years or so (Clutton-Brock 1993).

Although an example of a domesticated cat mandible may have been recovered in Neolithic Cyprus (ca. 6000 B.C.), (Davis 1987, Fig 6.5), domesticated *Felis* must wait until the Middle Kingdom of Egypt for pictorial representation and until the New Kingdom to emerge as a fully domesticated species and to be installed as a sacred animal. This is, as Clutton-Brock notes, “remarkably late” amongst domesticated species. By contrast, there is evidence for caprine herders in a “narrow zone along the front of the Zagros Mountains around 9000-10000 cal. B.C.” (Hole 1989).

A recent discovery may push evidence for cat domestication earlier, however. In the spring of 2004, researchers from the CNRS (Centre d’Anthropologie Scientifique de Toulouse) reported the discovery on Cyprus of a complete cat skeleton forty centimeters from a human burial dating to the ninth millennium B.C. (Rincon 2004). The similar states of preservation and positions of the burials in the ground suggest that the person and the cat were buried together.





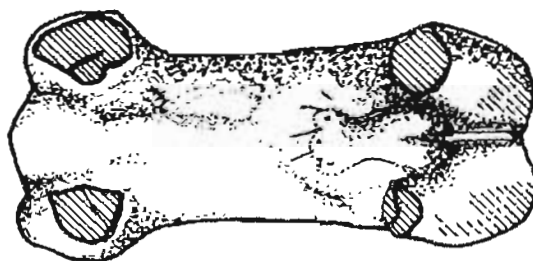
*Felis* 37 A7q684.2 ventral view.  
The penis strap is clearly indicated,  
as is the band  
connected to the sexual parts.  
(rendering cw I724)

At Urkesh, we are able to identify carnivores amongst the animal representations, as noted in this introduction to the genus. And we have identified with certainty the trappings of domestication for *Equus* — halters, bridles, reins and tethers, possibly even bit models. What is also equally certain is that some of the carnivores at Urkesh were outfitted with trappings that must have had to do with domestication, control through animal husbandry. A dozen Carnivora figurines are outfitted with a strap across the penis; most of these animal representations also exhibit a wide band coming down from below the tail or from the anus to expressed sexual parts.

I think that there can be no doubt these animals played a part in an experiment related to domestication. Its aim was to tame, subjugate, or render docile these wild animals. For what purposes, we must await further testimony. We may for the moment only imagine the uses to which a domesticated wild cat might be put. We would probably not be far amiss if we were to say that it would be in the interest of the kings of Urkesh to tame an animal invested metaphorically with imperial power. The king's seal recounts, if not the reality, then the will to tame the wild beasts that roamed the steppe below the ancient city.

There is a metaphorical dimension to this argument, although it is unsupported to this date by textual material. We have, however, artifactual material that attests to the importance of the large cat at Urkesh. One find is unstratified. The body type, however, belongs clearly to *Felis*. The penis of this creature is splayed out in a clover shape; from each leaf, as from the clawed pad of a large cat, an incision is drawn.

One other figurine amongst the carnivores exhibits deep holes around the tip of the penis (*Felis* 35 A7.11), although there is no sign of claws; they may have been abraded away, as this figurine was heavily encrusted with depositional matter. Only cleaning revealed the holes.

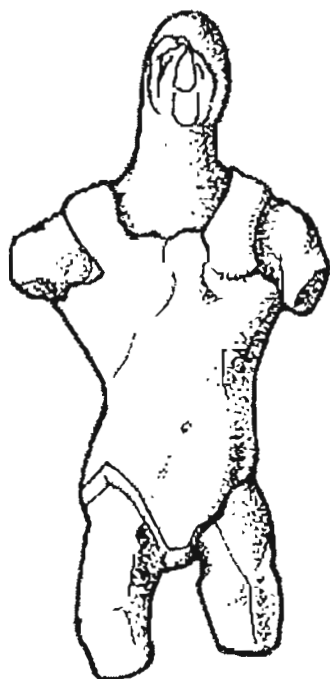


*Felis* 302 Z1.203.  
The clover-shaped clawed penis  
is linked to the anus by a thin band,  
visible here and in caudal plane.  
See PLATES.  
(rendering cw I727)

A claw rendered in the same manner can be seen on a garment, evidently an animal skin, draped about the shoulders of an anthropomorphic figurine recovered in third millennium strata immediately outside the Royal Residence. The skin was thrown over the shoulders and hanging down like straps were two paws, incised in the manner of the clover-shaped penis. Apparently, carnivores were not only slated for domestication, but were harvested and husbanded, too — at least for the warmth and *panache* afforded by their skins.



A12.48 Detail, claw on man's garment  
from strata near the Royal Residence.  
Photograph from videotape records.  
Scale app. 1.5 : 1.  
(Hauser 1999)



Mozan. A12.48. Cranial view.  
Anthropomorphic figure  
with animal skin cloak.  
Scale 1 : 1.  
(rendering cw J802)

### Taming Lions

The question is all too apparent — can one ever expect completely to *tame* a lion? Domestication for the great cats is simply a matter apart. Clearly, the animals are not herded. They roamed the plains in prides, one assumes, never in great flowing flocks, as do the herbivores. Nor was the genus unalterably changed by contact with humans; it's just not a question of breeding, selective management in order to control the animals. Nor does the lion ever become unalterably dependent upon its human host.

Even Tupkish's lion is none too happy — unless he is yawning contentedly, as some commentators have conjectured (Buccellati 1999). He may be a royal symbol, yet the mantle rests uneasy. He roars his discontent, as the young crown prince buries his toes in his mane (a precarious situa-

tion several times repeated in ancient iconography — two examples only, millennia apart — *Ishtar Guerrière, portée par le lion* [Amiet and Arnaud 1980] and a cylinder seal from Achæmenian times representing a *king standing on a lion* [Ghirshman 1964, 440]).



Iran. *Bust of a Median (sic)*.  
Fifth to fourth century B.C.,  
Teheran and Cleveland Museums.  
Courtesy Cleveland Museum of Art

Millennia later, the Medes were still trying to tame the savage beast. Ghirshman, in describing a bust executed in lapis lazuli, conjectures that the lion cub the man is carrying is a royal pet, not an offering. He says:

Full-grown animals that were offered were naturally confined in the royal parks, but a lion cub might well have been allowed into the palace as a pet for the young princes. (Ghirshman 1964, 245, Fig. 295 and frontispiece)

One might hypothesize that the lion cub would not *happily* have come into a human habitation. Witness the sculpture ("jaws agape . . . paws disproportionately large" intones Ghirshman [*ibid.*, 245]). The object is entitled "Median (*sic*) lion strangler" in the collections of the Cleveland Museum of Art.<sup>1</sup>

An earlier representation of the same subject matter from a Khorsabad monumental alabaster is no less "realistic," the body of the lion cub contorted as it pushes against its captor, the muzzle wrinkled in a snarl. The musculature of the body is overtly detailed, reminiscent of the Urkesh terra cottas. (Parrot 1969, 378 [*documentation iconographique*]) Here the bearer is Gilgamesh himself, giving rise to the thought that the representation might be iconic rather than real.

### Dancing Bears

Van Buren, in her compendium, *The Fauna of Ancient Mesopotamia as Represented in Art* tells us that representations of *Ursus* were not common in the ancient Near East. Her study nonetheless convinces us that *Ursus* was a ubiquitous presence throughout the history of the region. She presents us with examples from Uruk to Parthian times. Her annotations convey the impression that *Ursus* was closely observed, for a number of the objects from Jemdet Nasr times are "skillfully carved."



Nimrud. *Ursus*.  
Repoussée, from a bronze bowl.  
(van Buren 1939)

She juxtaposes a "remarkable" cylinder seal from Jemdet Nasr levels at Khafajeh with a bronze bowl in *repoussée* from Nimrud that conveys "precisely the same attitude" — a bear grasps the branches of a tree in an idyllic mountainous countryside (van Buren 1939 Figs. 23, 24).

Although van Buren is seeking to demonstrate neither domestication nor a close tie with human communities, she supplies in another volume what is a possible example of tame *Ursus* — a begging bear from Susa. The animal holds its forepaws aloft "in the attitude of one praying" (1930). Van Buren refers also to what she terms the magical, "prophylactic" use of the animal at Ur and by inference at Susa.

<sup>1</sup> Another observer (Edith Porada) has referred to the piece as "the lion *cuddler*!" (K. J. Bohac 2001). Conversation with the then assistant curator of Egyptian art regarding pelt treatment and the lions of Urkesh as compared to CMA holdings. R. Hauser. Saint Paul, Minnesota.

One of these examples is illustrated in an exhibition catalog accompanying Susian artifacts from the Louvre (see photograph below for reference.). Benoit, the commentator, chooses not to emphasize the reverential in this animal portrait, but underlines instead the naturalistic, even playful rendering of an animal ancestor of the “tractable brown bear” that still lives in the Zagros mountains.

She delightedly details the “comfortable” posture of the bear drinking honey from a pot and takes special note of the artisan’s “faithful rendering” of the bear’s “gluttonous concentration” (Benoit, in Harper 1992, 67).

A bear (?) has been recovered in a domestic context at Nippur from Akkadian or Ur III levels (McCown, Haines, et al. 1967, Plate 141 object 13/2N, 255). Another figurine (Plate 140 object 8/2N 696) from the time of Isin-Larsa depicts a seated bear (?), arms pendant, with applied clay on sides and under part of the neck, reminiscent of certain *Ovis* pelts from Mozan (see particularly *Ovis* 13 A7.501 and *Ovis* 14 A7.506). The arms are the mirror image of the Susa example, and the head is held up, the snout blunt, the visage open.

Another cheery (much later) example of a seated bear can be found in Seleucian Parthian deposits from Uruk (Wrede 1990 Tafel 30/104a-b). The animal may have wielded a tambourine — the circular impression of the instrument remains on the animal’s belly.



Susa. *Ursus*.  
“Tame” drinking bear,  
ca. 3300 B.C.  
Scale 1 : 2.  
(Harper, 1992, 67, Fig 38)

In contrast to the huge cats, *Ursus* was perceived not as a threat, and certainly not ferocious, but rather cuddly — the Pooh bear of the ancients. The animal is repeatedly seen in humanizing posture and situations; the archetype is the musician bear engraved on shell recovered from the Royal Cemetery at Ur (Woolley 1934, pl. 105 U10556). This much-reproduced creature is dancing, Woolley says, to the music of a lyre, strummed by a donkey.

With the Ur bear, it is worth noting the curve of the humped back and the erect ears atop a tapering muzzle, characteristic details found repeatedly that may prove diagnostic. These details are encountered in the Urkesh corpus, although they are indicated only, not fully rendered (see, as examples, *Ursus* 403 A1.79, *Ursus* 404 A5.32, *Ursus* 405 A6q487.1, and others). In the case of the Urkesh omnivores, it is body proportions that define the animal.

Holly Pittman, in her essay on the bear figurines recovered at Brak, suggests that the “meaning” of the *Ursus* representations she references should not be sought in “a powerful image of the wild animal,” but rather

it is their similarities to humans that may lie behind their symbolic meaning during the Uruk and proto-Elamite periods. Among the large mammals, bears share more formal attributes with humans than any other apart from primates. (Pittman 2002)

She goes on to discuss iconography that “blends the traits of animals and humans in the art of early village communities.” What follows in her study is an incisive survey of the distinctive place of *Ursus* in the iconography of the period.

Whether the animal was seated or standing seems to have some import (bears in skirts vs. bears on haunches at Brak), although of course some human activities would require the executant to be standing (supporting a lyre, as an example). None of the Urkesh Ursidae are seated; all are freestanding quadrupeds, with the exception of *Ursus* 406, which depicts a muzzle and snout.

Assuredly, whatever their friendly aspect, none of these animals were *domesticated*, as Agnès Benoit seems to have us believe when she discusses the alabaster drinking bear from the middle fourth millennium Susa described earlier. I might be pushed so far as to call this creature *tame* — at least until irritated.

### Carnivora: A Beginning Alternative Typology

In the absence of a detailed typology, a researcher must rely on common sense observation and comparisons with animals observed in the real world. As regards the **figurines from Susa I levels** at the great tell, Louis LeBreton makes some observations that could serve as first elements of a defining typology (Mecquenem 1947, Figs. 43/29, 43/47). He notes, for example, that two figurines otherwise quite dissimilar in form have appendages articulated, whereas others of the corpus have thick fused legs.



Susa I. Torso, carnivore.  
LeBreton notes that all four legs  
are articulated.  
Scale 1 : 2.  
(after Mecquenem 1947, Fig. 43/29)

Fig. 43/29 has been marked with spots overall; the torso is lean in the manner of Carnivora from the Mozan corpus. Musculature appears to be articulated, shown on the rendering by thin parallel lines laid on the underbelly. LeBreton identifies (rightly, to my mind) this animal representation as *un carnassier au corps tacheté*.

He identifies another meat-eater — Fig. 43/47 — the animal's torso is full, rounded; the snout tapers to a blunt point, the ears are rounded and small. A pelt is indicated by what I take to be fine incisions that may also help to define musculature. LeBreton notes only that *les 4 pattes (sont) figurées séparément*, a characteristic shared with Fig. 43/29. We might assume that LeBreton, basing himself on observations from life, took this animal representation to be a bear — carnivore/omnivore.



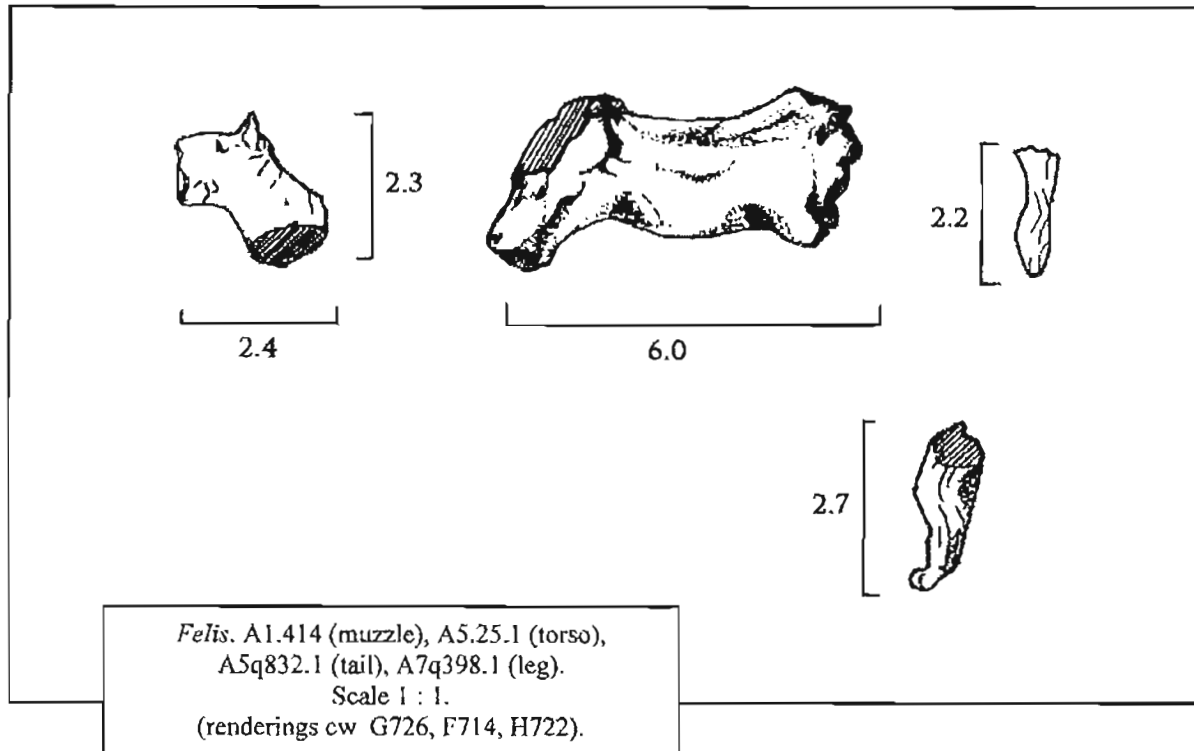
Susa I.  
Torso and forequarters, carnivore.  
Diagnostic details point to a bear.  
LeBreton noted  
separately articulated paws.  
Scale 1 : 2.  
(after Mecquenem 1947, Fig. 43/47)

LeBreton groups another wild animal — Fig. 43/46, “a boar” — with the two examples above; it, too, has appendages articulated, although they are broken off clean at the rotund torso.

Had LeBreton and his colleagues taken more detailed measurements of the Susa figurines, a meaningful typology — applicable beyond the specific instance — might have emerged.

### Incomplete Figurines and Fragments

Some of the objects listed here as *Carnivora/Felis* are not finished figurines; or at least they are not represented in enough detail to be certain that they were meant to represent an animal. Nonetheless, these objects may share characteristics with the animal figurines and these characteristics are noted. The identification is regarded as tentative. See, as examples, *Ursus* 403 A1.79, *Ursus* 404 A5.32, *Ursus* 405 A6q487.1, and others — *Felis* 101 A1q808.1, .2, .3, *Felis* 104 A1q809.2, *Felis* 108 A5q638.1.



Relatively few fragments of lions and panthers have been found at Mozan; this in spite of the fact that we have recovered a good many *Carnivora/Felis* torsos.

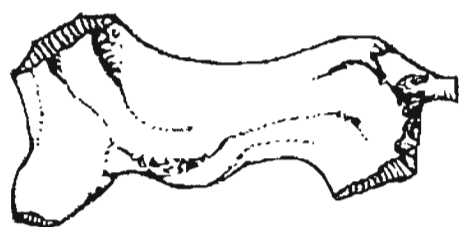
Those fragments that have been found can be identified with some certainty; because they are few, I have not segregated them in their own category, but have listed them as part of the catalog that includes catlike bodies. That they exist at all is both surprising and satisfying. These tiny terracotta models contribute to the developing picture of the importance of the genus *Felis* to the Hurrians.

## CARNIVORA

*FELIS* TYPE I (OR NOT DESIGNATED BY TYPE) INCLUDING FRAGMENTS1 *Felis* TORSO

A1.19

Recovered from feature 44 relay 104 • length 5.12 • forequarters 2.10 • neck 1.6 • torso 1.74 • hindquarters 2.13 • height at forequarters (broken) 2.8 • height at hindquarters 2.125 • fabric fine, chaff temper • Munsell reading 7.5YR 6/4 • color light brown • preservation: torso, all appendages broken; tail protruding from body, broken



*Felis* 1 A1.19. Left median plane.

Note musculature.

Scale 1 : 1.

(rendering cw F713)

This carnivore torso has an extended “rat-tail” (as Bökönyi would have it), tapering and carried high, but not complete. The hindlegs are contained in an open inverted U; they meet in an angle of 90 degrees. The neck is thick where it joins the body.

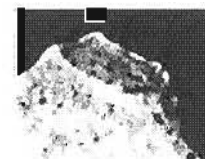
The body *skeleton* may be expressed in this figurine. A shallow but expressed curve on either side of the torso starts high (particularly on the left of the torso) and curves down to meld with the belly; it may trace the outline of the rib cage. The foreleg of carnivores, as we have learned, “floats” outside the body skeleton; with *Felis* 1, the join of the foreleg with the body is defined by a sculpted curve that appears, then, to be anatomically correct.

The sexual parts are not expressed.

The tail was applied as a separate piece. There are fingerprints under the tail, made as the artisan pushed to raise and separate it from the body. The legs were pushed out, splayed in the same manner. The leg has an applied “slip” or surface coat. This is also apparent at the neck break.

This thin layer seemed at first to trace the outlines of a core upon which the figurine is built. It is true that the left upper flank is smooth, so this outer “coat” may have been applied to cover chaff temper visible in the surface.

The usual word for this element of “second-stage manufacture” is *slip*, as it is understood in modern pottery production. Here, however, it is too thick to be merely dilute medium. It must have been applied in a separate pass, painted on, as it were; the figurine would not have been dipped in the dilute medium. It is visible, where it is flaking away, at the left foreleg body join and particularly at the break in the left hindleg and across the hindquarters. These considerations lead me to say that this “outer layer” seems rather to be another layer of fabric applied for second-stage modeling.



*Felis* 1. A1.19.

Neck in transverse section.

Slip visible as raised ring.

Scale 1 : 1.

(photograph V6b2312)

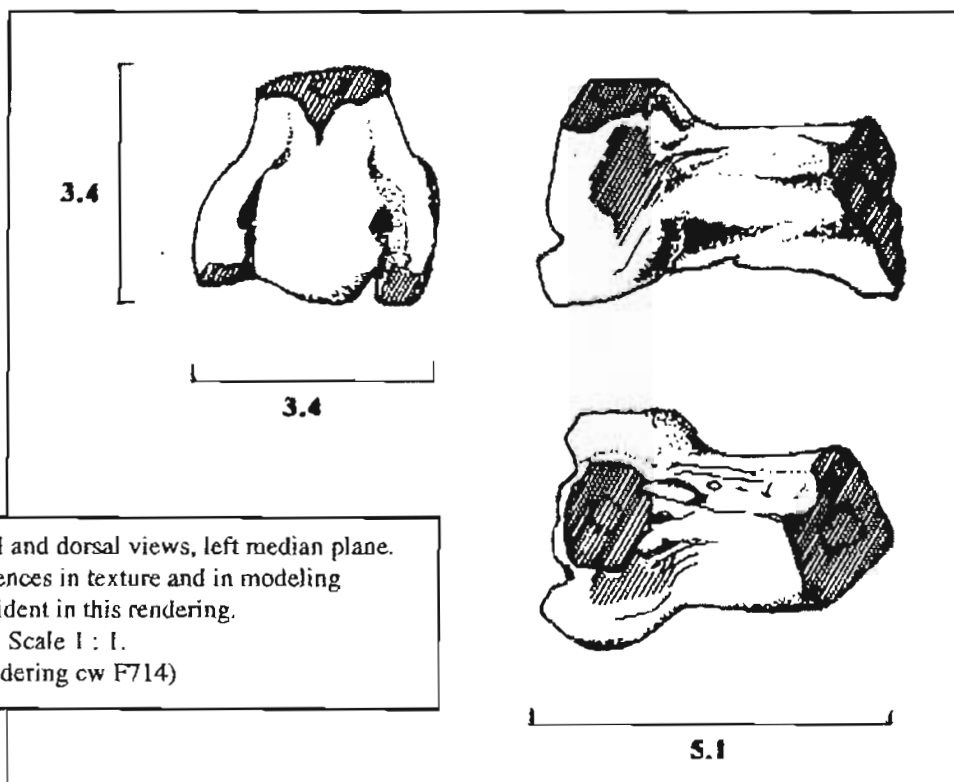
The surface texture is smoothed on the left flank by a stick or a scraper or by action of fingerprints dipped in a dilute medium. There is a "raked" appearance on the upper right at the neck break, but this is likely depositional action. This type of depositional abrasion is also seen on carnivore torso, *Felis* 14 A6q106.1. On the right flank, there are fingerprints that seem also to have played a part in the smoothing of the surface of this figurine.

**Mari. 577/Plate LXIX** is the most striking example of various animal figurines Parrot documents in this volume (Parrot 1956, 577, Plate LXIX). I reference it here for its *differences* as much as for its similarities to animal representations at Urkesh that I might have identified as Carnivora. Parrot calls this animal representation a *lionne*, and judging from the snout, one would certainly think so. The tail is not feline; however, the torso, as I measure it from the photograph, is 3.2 times the torso width (w2) and thus easily within the body/torso ratio of feline/carnivores at Urkesh. The artisan has given scant attention to musculature. The pelt is indicated around snout and head by thin incisions. The leg termination seems unlikely for a carnivore, as is the body join; most of AK *Felis* figurines are in motion, legs outstretched and separate from the torso cylinder. This stance can hardly be characterized as *rugissant*, as Parrot writes. It is downright placid.

## 2 *Felis* FOREQUARTERS

A1q48.1

Recovered from feature 39 locus 119 • length 4.6 • forequarters 2.85 • neck 1.73 • torso 2.35 • height at forequarters 3.05 • fabric heavy chaff temper, with some gypsum inclusions • Munsell reading (slip) 7.5YR 7/4 • color (slip) pink • Munsell reading (fabric) 5YR 7/3 • color (fabric) pink • note on color: hue of slip moves towards the yellows, but does not vary much in saturation or value from fabric • preservation: forequarters only, legs broken, head missing, breast ridge abraded



*Felis* 2 A1q48.1. Cranial and dorsal views, left median plane.

Attitude and differences in texture and in modeling are all evident in this rendering.

Scale 1 : 1.

(rendering cw F714)





*Felis* 2 A1q48.1.

Left median plane, seen from above.

Note forward projection  
of foreleg from torso.

Scale 1 : 1.

(photograph V6e5411)

Carnivore forequarters. There is an incision along the backbone to the base of the "mane." The musculature is scraped and smoothed; a very good example. This detail is particularly noticeable on the left foreleg. The forelegs are possibly applied, as they emerge, slightly detached, from the torso. The mane, by contrast, is "pinched out" of the torso. This detail is barely visible in the photograph to the left.

The surface is lightly polished (not to say burnished) and may have some applied slip, different in color from the fabric itself. There is a possible torso core, visible as a slight difference in color and texture, particularly on the left foreleg.

See **LEGEND design conventions** (INTRODUCTION) for differences in pen stroke and drawing style to illustrate palpable differences of surface texture and manufacture.

### 3 *Felis* HEAD

A1.414

Recovered from feature 113 • height 2.36 • cranial width (across ears) 1.11 • cranial length (back of neck to snout) 2.57 • cranial width (muzzle) 1.03 • Munsell reading 2.5YR 6/6 • color light red • conservation: piece has been consolidated using B72, to prevent further deterioration • preservation: head only, right muzzle; damaged on right side by depositional action

Carnivore head. The muzzle is terminated in a clean, straight cut and triangular in vertical section. The muzzle is flat on both sides, meeting in a sharp edge at the snout. The eyes are indicated by an impressed dot. The ears are sharply defined and pointed. The head is thrust slightly forward. Note the neck join and the angle of projection of the muzzle (100 degrees). Irrespective of this angle, the impression given by the animal head changes radically depending on the angle at which it is held; since the body is missing, this can have an influence on interpretation.



*Felis* 3 A1.414.

Left median plane.

Note the pricked ears  
and short, blunt muzzle.

Scale 1 : 1.

(photograph V10e0501)

This is one of four artifacts identified as "heads" in the *Felis* corpus. One, A5q928.8, is broken midway through the muzzle obscuring diagnostic detail; the artifact does not figure in this catalog and no further documentation is available. Two others, *Felis* 18 A6q607.1 and *Felis* 111 A7.357, are problematic and may in the end prove not to be three-dimensional renderings of *Felis* heads.

Yet this representation of a muzzle, taken with other fragmentary pieces — tail *Felis* 11 A5q832.1, mane *Felis* 24 A7.125 and paw *Felis* 28 A7q398.1 — and seen in combination with torso *Felis* 8 A5.25.1 conveys quite an accurate representation of the genus. That no complete three-dimensional representation survives is a loss.

The muzzle has been shaped by fingers. There are fingerprints on the left muzzle at the neck. This same detail is visible on A5q928.8 (not represented here). The fabric is fine, with some inclusions. The figurine fragment, now consolidated, may have been unbaked; although the impression of disintegration may have come during cleaning, when red depositional dirt, similar in texture and composition to the fabric, sloughed off. When this piece was irrigated with water, a large quantity of red earth washed away, prompting the excavator to think the piece was unbaked and disintegrating under the brush. In MZ10, conservators examined the piece under the microscope and determined that the piece was fired, and that the damage on the right side was depositional in nature.

Compare the damage on *Capra* 5 A6.166. The fabric is similar. Is this the interaction of water and this fabric as it lay in the earth?

Iran (?). Lion-demon, L48.7.9. Proto-Elamite period ca. 3,000 B.C. Crystalline limestone or magnesite. Collection of Robin B. Martin, on loan to the Brooklyn Museum. This celebrated example of a lion's head atop an idealized human body is instructive. Note the blunt muzzle, the pointed ears, and the manner in which the cranium joins the body. Holly Pittman (in Harper 1992, Figure 30, 69-70) notes shared characteristics within the "stylistic range of Proto-Elamite imagery." Noting the "linear definition of forms," she comments that the lion-demon may have been "conceived in two rather than three dimensions." Shared characteristics, it seems, may extend to objects rendered in humble materials such as clay.

#### 4 *Felis* TORSO

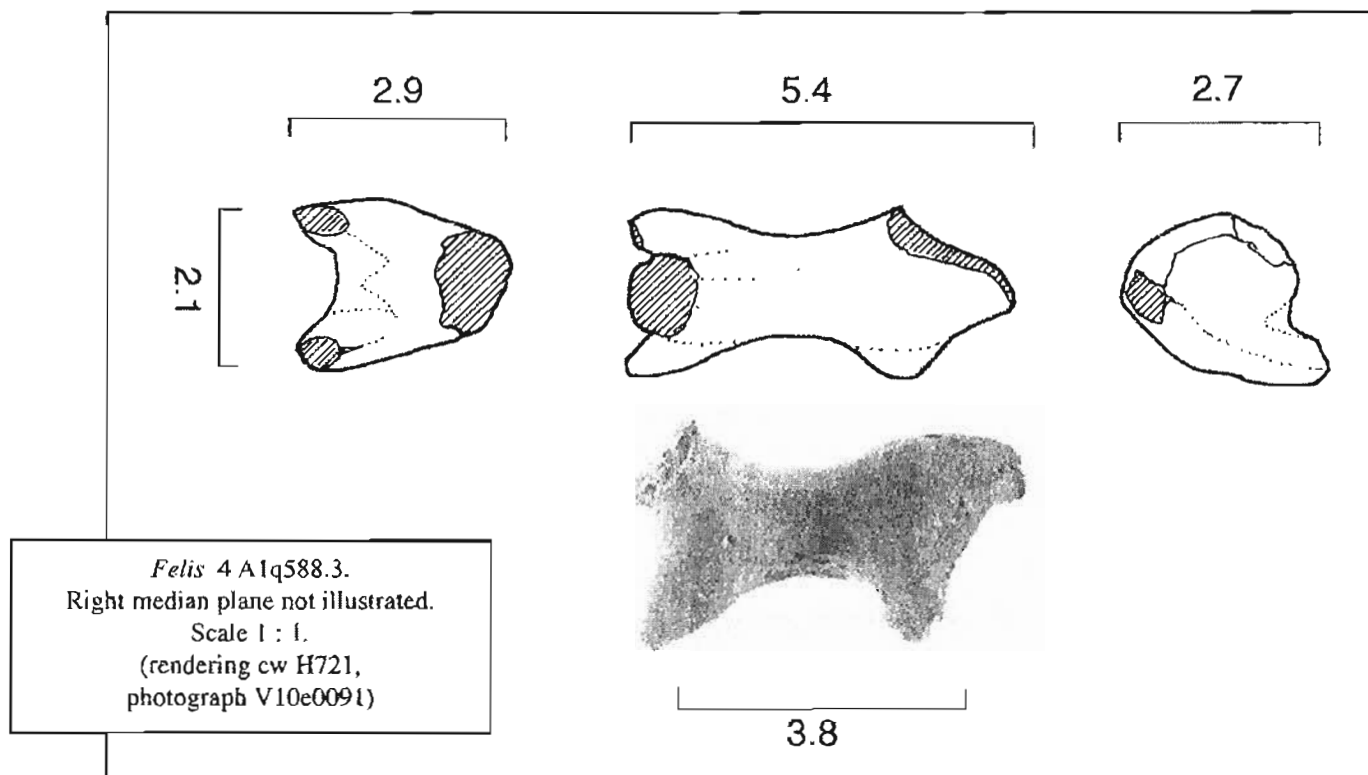
A1q558.3

Recovered from topsoil locus 117 • forequarters 2.02 • neck 1.45 • torso 1.5 • hindquarters 2.19 • height at forequarters 2.82 • height at hindquarters 2.42 • fabric fine, some inclusions • Munsell reading (fabric right foreleg) 7.5YR 7/3 • color (fabric right foreleg) pink • Munsell reading (depositional discoloration) 7.5YR 5/2 • color (depositional discoloration) brown • conservation: carbon or dark deposit along back • preservation: all appendages broken; tail broken

Carnivore torso. There is a deep, gentle curve to the back. The undercarriage of the belly curves up, rather than being horizontal or slightly convex. Compare these details with torso *Equus* 200 K3.17. The way the artisan differentiates between rib cage (presumably) and belly bears comparison with the treatment of the torso and the manner in which forelegs join the body in *Bos* torsos in the Urkesh corpus.

The buttocks are rounded, more so than the forequarters. The tail is carried high, extending over the buttocks, which are fused and concave.

Forequarter stance is a narrow inverted U outside, a truncated inverted V inside. Compare this form with hindquarter stance *Capra* 2 A1q577.1 and with the somewhat narrower hindquarters of a representation from another family, Mustelidae — *Carnivora* 402 A1.33.



Compare the forequarter stance with *Equus* 23 A5.30 and with *Felis* 14 A6q106.1 for the overhanging curved tail. If there are differences here, they may prove to be diagnostic. For instance, how is the wide, solid forequarter stance of *Equus* with its prominent breast ridge diagnostically different from *Carnivora* forequarters?

The musculature is scraped and smoothed and the figurine may be built on a core. See photograph above for breakage where a particularly heavy slip is visible. Fabric at the center of the neck is raised, as if there were a cylinder around which the modeled object was built. There are strikes visible on the flank and rump; these may be from the excavation tool, but may also be residual gas bubbles rising to the surface of a fine fabric.

## 5 *Felis* FOREQUARTERS

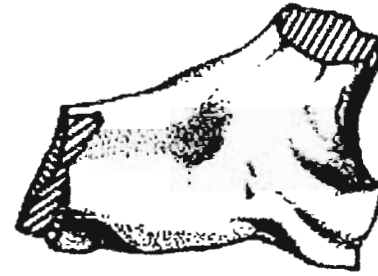
A1q581.1

Recovered from feature 124 locus 167 stratum 12A • length 3.72 • forequarters 2.12 • neck 1.40 • torso 1.74 • height at forequarters 3.04 • fabric fine with some inclusions • Munsell reading 10YR 8/2 • color very pale brown • note on color: 1975–1995 Munsell chroma shift from “white” to “very pale brown” • conservation: depositional adhesions, left flank • preservation: forequarters only; all appendages broken

Carnivore forequarters. The musculature is clear and diagnostic.

The right foreleg is rectangular in section, the left foreleg triangular in section. A visible example of variation within a type. The difference in section between the two forelegs must not have any purport beyond the fact that the appendages were modeled differently.

There is possibly an applied slip (visible at break). There are some pieces of fabric still adhering to the surface of the object on the lower left flank.



*Felis* 5 A1q581.1  
Right median plane.  
Note extended foreleg.  
Scale 1 : 1.  
(rendering cw F708)

## 6 *Felis* forequarters

A1q637.1

Recovered from feature 125 locus 167 • length (break to break) 5.56 • forequarters 2.72 • torso 2.125 • height at forequarters 3.64 • height at torso 2.2 • height at hindquarters (at break) 3.075 • fabric medium, with chaff temper • Munsell reading 2.5Y 8/2 • color very pale yellow • preservation: forequarters only intact; surface abraded; all appendages broken

The forward-projecting stance of the left foreleg and the musculature are diagnostic. There is a heavy breast ridge. The buttocks swell outward from body. The short body length does not conform to typology.

The torso is built on a core (visible at break).

Note the scraped musculature on right foreleg at body join. Leg/body join is 140 degrees. The breast ridge appears to have been defined with the edge of a rounded instrument on either side, lifting the body fabric to form the crest, leaving a flap of clay on the left.

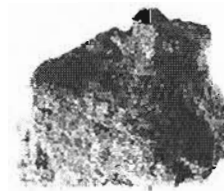
## 7 *Felis* forequarters

A1q1058.9

Recovered from feature 113 locus 20 • forequarters 1.92 • neck 1.15 • torso 1.5 • height at forequarters 2.05 • fabric medium fine with inclusions throughout, including a large piece of what appears to be gypsum • Munsell reading 7.5YR 7/2 • color pinkish gray • conservation: consolidated • preservation: forequarters, partial torso; legs broken off

There is a perforation slightly larger than a pinhole low on the neck; a raised area at the base of the neck accommodates the perforation. There is the broken lower half of a larger perforation immediately above the smaller hole.

Compare the neck join of *Equus* 36 TYPE III A5q815.1.



*Felis* 7 A1q1058.9.  
Right median plane.  
Scale 1 : 1.  
(photograph V10e0803)



*Felis* 7 A1q1058.9.

Right median plane at neck,  
enlarged considerably to show perforations  
and possible impressed dots.  
Other markings on the torso are assuredly  
the result of depositional action.  
(photograph V10e0803)

There are two dots seemingly marked, but not impressed on the left foreleg, four around (?) the neck and possibly elsewhere on the body. These dots may be the sole result of depositional action. They do not occur in a fixed pattern.

The forequarters are wide. The left foreleg joins the body at an angle of 140 degrees.

The figurine is unbaked.

## 8 *Felis* torso TEMPLATE

## A5.25.1

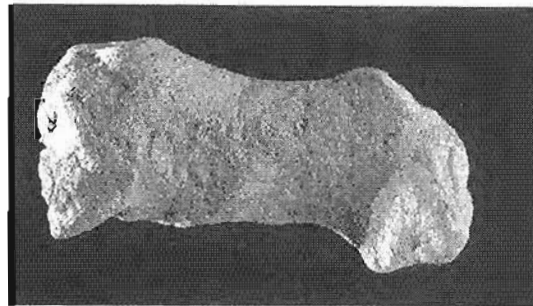
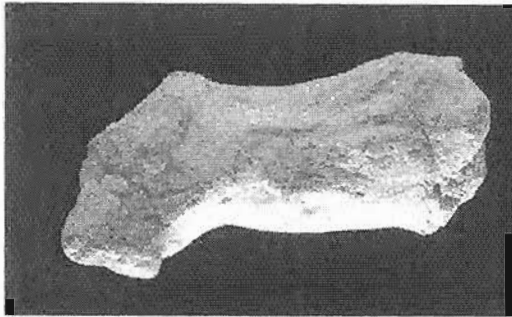
Recovered from feature 54 stratum B9 • length 5.85 • forequarters 2.23 • neck 1.76 • torso 1.75 • hindquarters 2.54 • height at forequarters 2.70 • height at hindquarters 2.66 • note on measurement: hindquarters  $\geq$  w1, torso  $\geq$  4/5w1, neck/torso lg  $\geq$  3w2 • Munsell reading 7.5YR 8/3 • color pink • note on color: Munsell chroma shift from 1975 to 1994 edition is "pinkish-white" to "pink" • preservation: all appendages broken

The field note says that this figurine is "heavily abraded", one response to the characteristic fabric of several of the AK figurines — many inclusions and irregularities due to oxidation of temper. I have elsewhere called this texture "nubby," thinking that the texture was the result of incomplete mixing of the fabric. As I write this catalog, the impression remains; but the actual texture is due either to the action of time and depositional processes or to the nature and quantity of the additive. Some years after excavation, in study season MZ11 and having had the benefit of repeated observation, I characterized the fabric as having heavy chaff temper with some gypsum inclusions. The surface, however, is clearly worked as by scraping and not smoothed with the fingers.

The musculature is pronounced and carries the neck into the body and to the hindquarters. The body is lean, elongated. The tail is carried rather high. The sexual parts are fashioned from a separate piece of clay.

Forequarters extend the body in a forward lunge — originally designated *élanés en avant* (that is, thrust out, projecting forward) in my provisional notes and still a useful characterization. Note particularly the join of foreleg and body with a deep curve into the undercarriage of the torso. Note the sharp body join of right hindquarters and the leg. Note scraping, middle torso above belly.

Sándor Bökönyi referred to this figurine as an *Arslantepe* type (“The Lion Mound” on the Malatya plain, Anatolia, some 300 kilometers from Tell Mozan), a reference to a site where extremely rare lion and leopard bones (also wild cats) have been recovered. We surmise that the steppe is littered with the faunal remains of nondomesticated carnivores. They are rarely found in stratified deposits — the large cats were simply too dangerous a prey to kill as a routine matter and while iconic, they were seldom tamed (Bökönyi 1993, 353; Bökönyi and Hauser 1993, Part I).



*Felis* 8 A5.25.1. Left and right median plane.

Lighting the undulating musculature is always difficult under field conditions, yet the digital prints above are strikingly modulated and most diagnostic details can be read.

The left median plane is reproduced several times in this volume and each iteration is meant to be scrutinized in a different manner.

Here, both median views are reproduced in the same horizontal plane, oriented as one might read the actual artifact in three-dimensional space.

Scale 1 : 1.

(photographs reference numbers prior to entry in global record:  
VDK 726 1100/DSCN2990, left; VDK 726 1100/DSCN2984, right)

In fact, *Felis* 8 is the very carnivore body TYPE (read “TEMPLATE”) as it is found at Urkesh (Tell Mozan).

**Ebla/Tell Mardikh. A recently published figurine from Middle Bronze strata, TM.65.B.85/Q13M1a** (Marchetti 2001, 98-99, Tav. CLXXV, CLXXVI), reproduces rather nicely the conformation of this *Felis* body type. Although the torso is clearly modeled, attention to musculature does not appear to have been a prime factor in the execution of the artifact. The forward lunge of the animal is the most notable aspect of the representation; the tail is carried quite high. This figurine is taken as one of a group of fragmentary quadrupeds, none identified as to species. Some echo body conformation and attitude of the Urkesh *Felis* corpus.

Compare **TM.65.D.163/Q13M1a** with *Felis* 38 A7q826.1 torso TYPE II, noting the curvature of the hindquarters to hindleg and the thick neck/body join.

Only the two exemplars noted here can comfortably be assigned to *Felis*.

9 *Felis* FOREQUARTERS

A5q172.1

Recovered from feature 34 locus 21 stratum B3 • length 4.24 • thickness (slip or slightly raised area around torso at break.) 0.09 • forequarters 3.26 • neck 1.78 (measured below neck ridge) • height at forequarters (neck to left foreleg) 4.15 • note on measurement: forequarters width, length and height not diagnostic • fabric medium fine, with chaff temper • Munsell reading 10YR 7/3 • color very pale brown • preservation: forequarters only

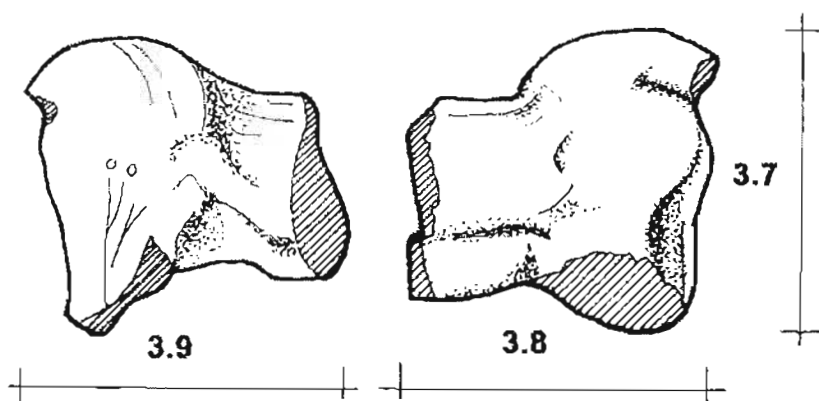
There is a prominent breast ridge. The forelegs meet in a very wide V (80°). The neck is thick and thick and fused to the forequarters.

The texture is smooth, as if the figurine were slipped. If so, the slip is not visible at the fracture.

10 *Felis* HINDQUARTERS & TORSO

A5q656.1

Recovered from feature 43 locus 18 stratum B9 • length 3.64 • torso 2.62 • hindquarters 3.45 • tail 1.33 • height at hindquarters 3.44 • note on measurement: height not diagnostic • fabric medium, small chaff temper; some gypsum inclusions • Munsell reading 10YR 8/2 • color very pale brown • note on color: Munsell chroma name change and variance between 1975 edition and 1994 edition; the latter reading pertains • preservation: hindquarters only; torso intact to midpoint



*Felis* 10 A5q656.1. Right and left median planes.

The tail, carried high, hangs down and at slightly less than one-third the hindquarter width

■ does not qualify as a "rat-tail."

• Scale 1 : 1.

(rendering cw K703)

Musculature is clearly indicated. The hindquarters are contained within an inverted solidly founded inverted U. The hindquarters curve out and down to the hindleg. Compare hindquarters *Felis* 35 A7.11, *Canis* 4 A1q760.1, *Canis* 207 K3.8 and *Canis* 1 A1.62.

The surface is finished in the manner of carnivores, as regards both the shaping with fingers and scraping with an instrument. The tail is carried high on the right, and it curves left. There is a rather deep curve to the back, in the manner of dogs.

The buttocks are fused. The sex may be indicated by a bulge (abraded) that descends from under the tail between the legs. A fine incision outlines the tail underneath. The figurine is modeled on a core, visible in both texture and color.

Sándor Bökönyi identified this figurine as a carnivore and it is true that the musculature is well defined and typical of the species. The lean body, too, argues for identification as a cat. Yet dog traits are telling — the curve of the back is deep and typical of *Canis* as defined in this typology. The tail is carried high and the hindquarters are typical of many other dogs in the corpus. However, manufacture and a lean body not typical of canids are telling. A5q656.1 stays amongst the cats.

11 *Felis* TAIL

A5q832.1

Recovered from feature 107 locus 5 stratum B12A • length 2.29 • transverse section (body join) 0.84 • transverse section (tip) 0.65 • Munsell reading 5YR 6/3 • color light reddish brown • preservation: tail only

The tip is lightly incised with lines, The shaft also has some light lines, perhaps indicative of pelt. The body join is clear.

If this is indeed a tail, it explains why we retrieve so few — they are thin and delicate. Question: Would they be this rigid? Not curved or undulating? Compare with tail of *Bos* 202 BH.15 (*zebu*); the tip swells at end and terminates, like a tuft of hair on a lion's tail; "rat-tail", as Bökönyi says. The medium is folded over.



*Felis* 11 A5q832.1. Tail.  
The artifact is lightly incised,  
contributing to the realism of the object.  
Scale 1 : 1.  
(rendering cw H722)

The fabric is fine. There are carbon deposits on the object.

See **COMPARATIVE TABLE 5 Appendages: Tails (*Capra*, *Carnivora*, *Ovis*, *Canis*)**. It is instructive to review the several tables that deal with other appendages, such as ears, legs, and horns. A number of characteristics led to the classification presented, including, most importantly, the pattern of breakage and then the appendage taken in transverse section; but it is undeniable that how an artifact "looks" — for which there is no actual typological category — has a bearing on classification.

12 *Felis* TORSO MINIATURE

A5q929.11

Recovered from AK storeroom (A1/A5) • height 1.6 • forequarters 1.23 • fabric medium fine, gypsum inclusions (quite a large chunk at hindquarters) • Munsell reading 5YR 7/3 • color pink • preservation: all appendages broken; half the torso only

Only the dorsal section remains, rising to the neck.

The object is scraped to shape, in deep, regular slices on one side; fingerprints to shape on the side opposite (left flank). The object is very useful as a diagnostic tool for figurine manufacture and the finishing of surfaces.

*Felis* at this scale are rare in the corpus.



13 *Felis* HINDQUARTERS

A6.77

Recovered from feature 113 locus 169 • length 3.85 • torso 2.47 • hindquarters 3.77 • tail 0.056 • height at hindquarters 3.28 • note on measurement: height and length not diagnostic • fabric fine, light chaff temper; some gypsum inclusions • Munsell reading 10YR 8/3 • color very pale brown • conservation: lightly abraded overall, some root markings on rump • preservation: hindquarters only, tail intact and chipped slightly; legs broken off

The outside stance is a rounded inverted U, slightly incurving. The rump is rounded to meet the hindleg, which meets with the body but does not meld with it. The buttocks are only slightly indented. The thin tail ("rat-tail"?) hangs down. The sexual parts are expressed and are between the legs, not forward in the belly. The rump is round and smooth and curves down to meet the hindleg.

Note a chip, excavation damage, on the left flank at the break. Here one may see the thickness of an applied slip.

The tail has been applied as a separate piece of clay on an area between the two buttocks that has been sliced away, but at no great depth. The legs, too, appear to have been applied to the torso as a separate piece of clay. The inside leg join on either side of the rump has not been smoothed. It appears to be a definite "cut," or perhaps only deeply impressed with a round instrument. This detail is not represented elsewhere in the corpus.

The musculature is somewhat defined by scraping. Compare *Felis* 35 A7.11.

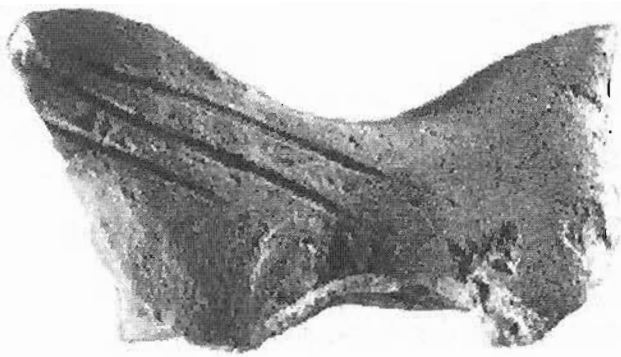
One journal entry has this object sitting in A6f114. The findspot was retriangulated at my request. See photograph A6v62. I was thinking of guard dogs found almost 2,000 years later in the library at Kish. The emplacement of *Felis* 13 was just inside a door, south of the door socket and at the head of a corridor leading to an inside room in front of the easternmost vault. The provenance and context of similar objects at Nineveh, first thought to be the "king's hunting dogs", then later presumed to have apotropaic purposes, prompted me to have this done. (van Buren 1930, 230)

14 *Felis* TORSO

A6q106.1

Recovered from feature 205 locus 219 • length 7.025 • forequarters (across legs) 3.025 • neck 1.69 • torso 2.1 • hindquarters (across legs) 3.5 • height (tail to broken hindleg) 3.7 • height at forequarters 4.7 • note on measurement: measurements were taken in a manner different from that now used; that is, across the widest extension of the legs. We now measure at the midpoint. Inferential measurements can certainly be derived from the drawings. Renderings are 1 : 1 • fabric medium, medium chaff temper, with many gypsum inclusions visible on surface • Munsell reading (fabric) 5YR 6/4 • color (fabric) light reddish brown • Munsell reading (fabric visible in chip on underbelly) 5YR 7/6 • color (fabric visible in chip on underbelly) reddish yellow • preservation: all appendages broken; right foreleg partially intact; neck ridge not abraded nor are the striations which create the "mane" along the neck ridge and down on to the torso

The tail is carried high; outside hindquarters stance is an inverted V (30 degrees); the deep curve from the tail continues to and is carried on by the neck ridge/mane. Both hindquarters and forequarters are triangular in vertical section. The buttocks are fused. The forequarters meet at an estimated angle of 45 degrees, the hindlegs at an estimated angle of 60 degrees. Strong striations on both sides flowing from the neck on to the torso.



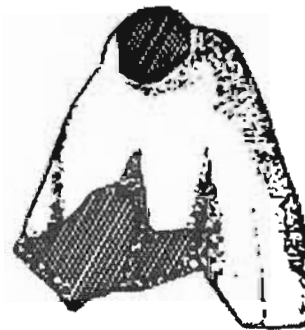
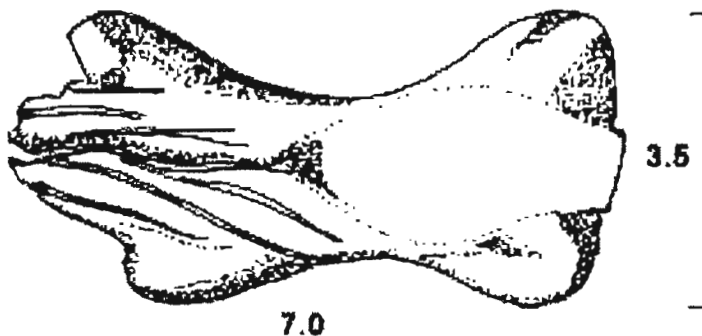
*Felis* 14. A6q106.1. Left median plane, dorsal & caudal views.

The firm, deep gashes of the mane are visible in the photograph.

The renderings document form and in the case of the dorsal view, the mane spilling over shoulders and down the neck of the animal.

Scale 1 : 1.

(photograph V8Be9004, rendering cw)



We are faced here with a problematic piece, for which there is no exact parallel. The identification has been made for a number of reasons: (1) the tail is carried high and hangs over the forequarters, (2) the striations seem to indicate a powerful mane, (3) neck/body join is 1 : 1, and (4) the buttocks are fused. For the body shape of comparative material from coeval strata, see forequarters *Felis* 2 A1q48.1, hindquarters and tail *Felis* 1 A1.19.

Arguing against the identification is that the body is rather stocky, less than the projected body length of carnivores. But see torso *Ursus* 403 A1.79 and other examples of the heavier bear body type in the corpus. The curve of the back is quite deep, not unlike *Canis*; this rather more symmetrical dip bears some comparison with the deep curve of the back of *Capra* 1 A1.44; and indeed for a while we categorized this object with the goats. As for the mane, study *Capra* 1 torso A1.44 for firm, sure treatment of the dark long hairs that overlay the kemp of the coat.

The fabric visible at a chip in the surface of the underbelly reads considerably lighter in value than the surface of the object — reddish yellow as opposed to light reddish brown. It is unlikely that this chip is a piece of slip that has been lost. The color reading taken on the surface of the figurine is less intense in chroma, but deeper in hue value. This variation must then be due to the long-term staining effects of depositional action.

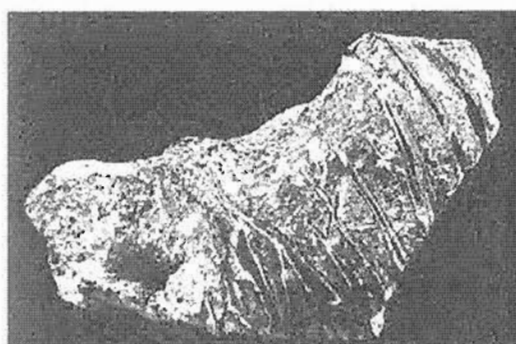
How usage during the active life of the object has contributed to a deepening (darkening) of value is a question worth considering. In the case of "smears" of color or patches on the surface, the figurine may have been left next to decaying organic material. Other effects of being buried in the ground are not so clear. In all likelihood, the figurines of the corpus as a whole should be read in the lighter values.

See **COMPARATIVE TABLES 1 & 1A Pelt Treatments.**

## 15 *Felis* TORSO (UPPER HALF ONLY)

A6.129

Recovered from feature 176 locus 21 • length 3.06 • torso 1.74 • transverse section (neck) 1.14 • note on measurement: only the torso is diagnostic, because the rest of the figurine is broken • fabric medium, inclusions • Munsell reading (fabric) 10YR 7/2 • color (fabric) pale red • Munsell reading (patina) 10YR 5/1 • color (patina) reddish gray • preservation fragment, torso? pelt incisions intact and readable



*Felis* 15 A6.129. Right median plane. Compare the form of this small figurine with the lion sculpture from Temple BA and the incised pelt with *Felis* 14.

Scale 2 : 1.

(photograph V7b2104)

Fragmentary carnivore torso, possibly the upper half, slightly curved. The pelt is indicated by a number of deep incisions, almost slashes, crisscrossing and disordered, as is the mane of the lion sculpture from Temple BA. These incisions are not made in the manner of those on torso *Capra* 1 A1.44, for example, but rather are slashed, as if with a sharp instrument. They vary somewhat in width, and seem to follow the contours of this "body," however fragmentary.

Also see **COMPARATIVE TABLES 1 & 1A Pelt Treatments.**

## 16 *Felis* HINDQUARTERS

A6.146

Recovered from feature 205 locus 219 • length (hindquarters to break) 6.05 • torso 2.84 • hindquarters 4.49 • note on measurement length not diagnostic • fabric is medium fine, with heavy chaff temper; gypsum inclusions visible on the surface of the object. • Munsell reading 5YR 7/4 • color pink • conservation: surface adhesions on lower right flank; heavy encrustation on belly, sexual parts and right hindleg • conservation: firing bloom on rump • preservation: hindquarters (only); hindlegs broken; incised line between buttocks abraded

Carnivore hindquarters contained outside by an inverted U, defined inside by a narrow V. The buttocks are indented, divided by an abraded incised line from tail hole to sexual parts, expressed. There is a slight ridge along the back that cannot easily be seen but can be felt with the fingers. The torso is lean.

There is a shallow indentation for the tail above the incision between the buttocks. After hindquarters were formed from a single piece of clay, portions were sliced away to form buttocks, then lightly incised.

The hindquarters curve down to the hindlegs. This is an important diagnostic detail, not yet analyzed in depth.

This object is not unlike carnivore torso *Felis* 36 A7q231.1, where the tail is carried high; but it also is not unlike hindquarters *Canis* 1 A1.62, the genus where this object was first assigned, albeit uneasily. The present typology points to the difference between the carnivore and the *Canis* torso as compared to forequarters and hindquarters. The forequarters of both cat and dog are invariably somewhat less wide than the hindquarters. With the large cat and its relatives, the torso is less than 80 percent as wide as the forequarters. The dog body type is stockier, not unlike *Bos*, and the torso is about 75 percent the width of the hindquarters. In plain language, this means that cats are leaner than dogs, at least as we have defined them in this corpus.

## 17 *Felis* forequarters

A6q502.1

Recovered from feature 172 • length 2.69 • neck 1.92 • forequarters 2.57 • torso 2.01 • fabric fine, few inclusions • Munsell reading 10YR 7/2 • color light gray • conservation: surface weathered, particularly at neck • preservation: forequarters only; all appendages broken

The legs project forward (*élancées en avant*). The musculature is defined by scraping. Compare carnivore torso *Felis* 8 A5.25.1. Suggestion (only) of breast ridge.

Original notes included this mention: “There may be a strike on the right side of the neck, which would indicate that the head had been struck off.” I am on this date (1713) unable to find this mark; and certainly the orientation of the piece is difficult enough to ascertain. One break is clean, as if sliced off (at the torso) (first noted on 1712), and the other is as if weathered, indicating that the object existed headless for some time before the break at the torso which has acquired no depositional accretion. A matter for speculation — was the head struck off and the object discarded, then the headless torso sliced in two at a later time?

At the break in the torso, a core may be just visible to the eye. Under the microscope (on H708), the neck break showed some differentiation of texture around a central “core.” What is certainly true is that there are other objects from the corpus much more apt to demonstrate the difference between a core medium and an overlying slip. I infer either different fabrics — such as a slip — or a two-stage fabrication over time — if the piece were built up additively around a central core cylinder of medium.

No difference in evaporation rate was perceived between the (presumed) two fabrics, however, when acetone was applied across the surface of the break. Thus the medium is consistent throughout the body of the figurine. This could of course mean only that the slip or surrounding fabric was applied as a slightly dilute solution of the fabric used to construct the object.

The surface is smoothed in the manner of the carnivore corpus, although depositional action has roughened the surface.

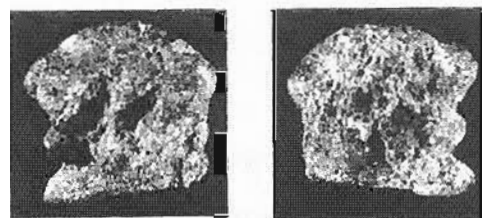
18 *Felis* HEAD

A6q607.1

Recovered from feature 204 locus 219 • cranial length 1.66 • transverse section (base) 1.59 • cranial width (snout) 0.62 • cranial width (crown) 1.34 • height 1.46 • fabric medium fine, few inclusions • Munsell reading 2.5Y 5/1 • color gray • note on color and conservation: value falls consistently in the 5/1 range (gray), but hue is uncertain, because of excavation dirt that adheres to surface; object has been only lightly cleaned • preservation: heavily eroded, but presumably intact

The object may be a lion's head, terminated at the base. The figurine can stand alone. The rim of the base is slightly rounded and slightly concave. The base is indented by a finger, but different in manufacture from the tokens and humanoid figurines in the AK corpus. The top of the muzzle, from head to crown, comes down in a smooth curve.

The muzzle is rectangular in section, having been formed by the pressure of fingers from top and sides. The mouth is indented, upper and lower jaw meeting at an angle (15 degrees from the vertical). The lower jaw is heavy; the lips curve up and back, as if in a snarl. The eyes are impressed from the front with a small, hollow (?) reed, or with a small, blunt stick. The snout is blunt and tapering. There are nostrils, less heavily marked than the eyes. Is there a whisker, on the right cheek, descending left to right? Probably not; this is likely a straw inclusion only.



*Felis* 18 A6q607.1.

Left and right median planes.

Scale slightly larger than 1 : 1.

(photographs V7 b2314A and V7b2317A)

19 *Felis* TORSO MINIATURE

A6q614.1

Recovered from feature 211 locus 22 • length 3.6 • forequarters 1.53 • torso 1.3 • hindquarters 1.76 • tail 0.03 • height at forequarters 2.02 • height at hindquarters 1.74 • fabric fine, few inclusions • texture smooth • Munsell reading 2.5YR 8/4 • color pale yellow • preservation: all appendages broken; rump intact, tail broken

Hindquarters solidly founded on a rounded inverted U. The tail, carried high, is thin and hangs down. There is an incision from tail to underbelly. The rump curves out and down to join the hindleg. There is a neck ridge, and the neck melds with the torso. The forequarters are wide; there is a breast ridge. The underbelly is slightly convex. The legs do not meld with the belly, but are modeled as separate from it (visible on right flank).

20 *Felis* FOREQUARTERS

A6q758.1

Recovered from feature 326 • length 3.67 • forequarters 2.78 • torso 2.2 • height at forequarters 3.1825 • size (approximate length of incisions/strikes) 0.008 • fabric fine, some inclusions • texture smooth • Munsell reading 2.6YR 7/4 • color light reddish brown • preservation: forequarters only; head missing; strikes abraded on right flank



*Felis* 20 A6q758.1.

Oblique cranial ventral view.

Bitumen repair is visible as dark patches on the forelegs and on the neck (top).

Scale 1 : 1.

(photograph V7b2034A)

The neck melds with the torso, the musculature is indicated, and the forelegs project forward (*élançées en avant*). The breast ridge continues as a raised line onto the belly.

A row of short incisions passes from foreleg to foreleg over the torso at the base of the neck.

The piece was repaired with bitumen in antiquity at the neck and both forelegs. On the inside of the left foreleg, the bitumen spills over onto the breast ridge. In spite of its fragmentary state, we may assume that the piece had some value for the Hurrian artisan who made it; otherwise, why repair it?

## 21 *Felis* HINDQUARTERS

**A6q1090.1**

Recovered from feature 454 locus 21 • length 3.51 • torso 2.14 • hindquarters 3.38 • tail 0.057 • height at hindquarters 4.11 • fabric medium fine, some chaff temper • Munsell reading 10YR 8/3 • color very pale brown • preservation: hindquarters and partial torso; tail and sexual parts broken

The tail is carried high, and there is a thin tail hanging down; a deep incision divides the buttocks from the tail to the sexual parts, which are expressed. The torso is lean. The hindlegs are almost rectangular in section. The rump curves out and down to join the hindlegs. The hindquarters outside stance is an inverted U. Compare hindquarters *Felis* 36 A7q231.1 and expressed knee joint *Ovis* 9 A6q19.1. The surface texture is smooth. The hindleg has been cut to shape, then smoothed.

The artifact was misplaced after cataloguing and has not yet been located.

## 22 *Felis* HINDQUARTERS

**A7.23**

Recovered from feature 42 locus 6 • length 3.85 • torso 1.78 • hindquarters 2.5 • height at hindquarters 2.57 • fabric medium • Munsell reading 10YR 8/3 • color very pale brown • conservation: surface heavily abraded • preservation: hindquarters only; left hindleg broken off, right hindleg broken; torso partial

Carnivore hindquarters and partial torso. There is a deep cleft between the buttocks, the medium possibly sliced through to mark the separation. There may be the fragment of a tail. Hindquarters outside stance is solidly founded on a narrow inverted U.

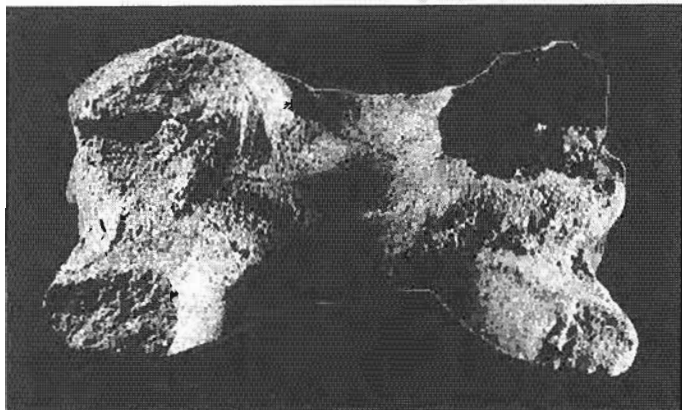
Compare the color of hindquarters *Capra* 2 A1q577.1 (“reddish yellow to brown”) and the form — a flat rump, solidly founded on a lean torso.

23

*Felis* TORSO

A7.83

Recovered from feature 93 locus 7 • length 6.39 • forequarters 2.87 • neck 2.43 • torso 2.56 • hindquarters 3.23 • tail 0.095 • height at hindquarters 3.75 • height at forequarters 3.675 • fabric medium, chaff temper, large piece visible in surface on right hindleg • Munsell reading 10YR 8/3 • color very pale brown • conservation: lightly abraded overall, some surface adhesions • preservation: all appendages broken; tail abraded or broken

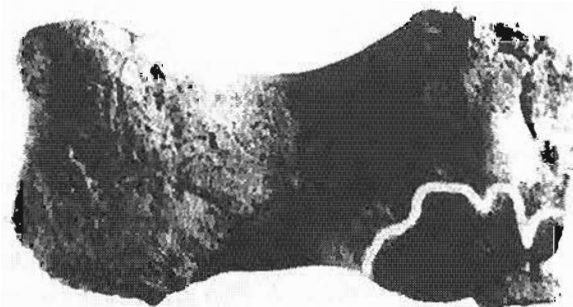


*Felis* 23 A7.83. Ventral view.  
Bitumen on right foreleg.  
Scale 1 : 1.  
(photograph V7b2406A)

The right foreleg has been heavily daubed with bitumen all 'round. The object was repaired in antiquity. If this figurine were repaired, it is a sign that these small animal representations were retained by the owner, whether functionary or artisan, and that they were not necessarily made to be thrown away, as is sometimes claimed. This is an important find.

The figurine is scraped, lightly, to model and to indicate musculature.

There is a pronounced breast ridge that continues on to the belly, terminated by pushing with fingers. The legs are rectangular in section. Forelegs project forward at 135 degrees. There is a shallow curve to the back. Outside stance is a slightly open, inverted U. Inside stance is an open, inverted V. The tail is carried high. Tail is wide.



*Felis* 23 A7.83. Right median plane.  
Bitumen daubing at foreleg break has been outlined.  
Scale 1 : 1.  
(photograph V10e1408)

24

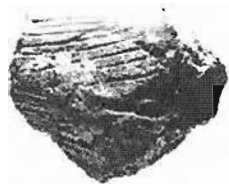
*Felis* FOREQUARTERS (RIGHT MEDIAN ONLY)

A7.125

Recovered from feature 89 locus 10 • length (neck to torso break) 2.33 • torso 1.7 • transverse section (along foreleg to neck/mane) 1.17 • fabric medium fine; inclusions and gas bubbles throughout • Munsell reading 5YR 5/1 • color gray • preservation: fragmentary, part of torso, neck, and forequarters; fragment requires study to determine orientation

Fragmentary, yet clearly forequarters (object is oriented so the oval break is to the left.). There is a raised mane. The pelt is incised and falls along the left side of the head and from torso to foreleg. There are ten incisions along the leg; eight along the neck. They are approximately 0.018 cm apart and not deep.





*Felis* 24 A7.125.  
Right median plane.  
Scale 1 : 1.  
(photograph V10e1611)

The treatment of the two groups of incisions is slightly different, the pelt being finer, the mane made with a thicker incision.

See the "lion plaque" from Temple BA at Mozan (Kelly-Buccellati 1990, Plate 9/1) for a similar treatment of the pelt. Note particularly the different directions of the hairs and how they interrupt and cross one another.

The surface is polished, as this term is commonly understood in ceramic production. That is, there is not a high gloss, due to many passages of brush or cloth. There is rather a reflective sheen to the surface of the object.

I owe the retrieval of this artifact to Marilyn Kelly-Buccellati, who transmitted it to me after it was found amongst ceramic sherds.

## 25 *Felis* TORSO MINIATURE

A7.135

Recovered from feature 89 locus 10 • length 3.13 • forequarters 1.33 • neck 1.12 • neck (short axis) 1.06 • torso 1.28 • hindquarters 1.54 • tail 0.52 • height at forequarters 2.13 • height at hindquarters 1.66 • fabric fine, uniformly fine inclusions • Munsell reading 2.5YR 5/1 • color reddish gray • preservation: all appendages broken; left hindleg intact except for tip

The pelt is incised with lines. The tail is carried high and curves over. It is thick with respect to hindquarters. The torso is lean.

There are six vertical lines on the right flank, terminated at top and bottom as if in a box. A deep incision divides the right from the left flank. The incision along the back is heavy; it divides at the tail. The six incisions on the right flank are deeper and spaced further apart (0.15 cm) than on the left. On the left there are eighteen incisions, some crossing over others; they are lighter and similar in treatment to *Felis* 24.

Musculature is indicated on the underbelly, probably modeled with the fingers.

Hindlegs are thrust back and out; the angle of leg/body join is the same at hindquarters and forequarters (130 degrees). Compare torso *Ursus* 403 A1.79.

Note the pattern of fingerprint under the muzzle; the medium seems to have been impressed lightly and repeatedly. There are fingernail marks on the legs of the left side.

The breakage at the neck appears not to be accidental. At least two hatch marks are present, similar in depth and style to the incisions on the torso, as if the animal had been "hacked" as well as marked with regular incisions. In general, patterns of breakage deserve further study; we need better to understand intentionality and to distinguish willful breakage in its various manifestations from depositional action.



*Felis* 25 A7.135,  
right median plane.  
Scale 1 : 1.  
(photograph V10e1101)

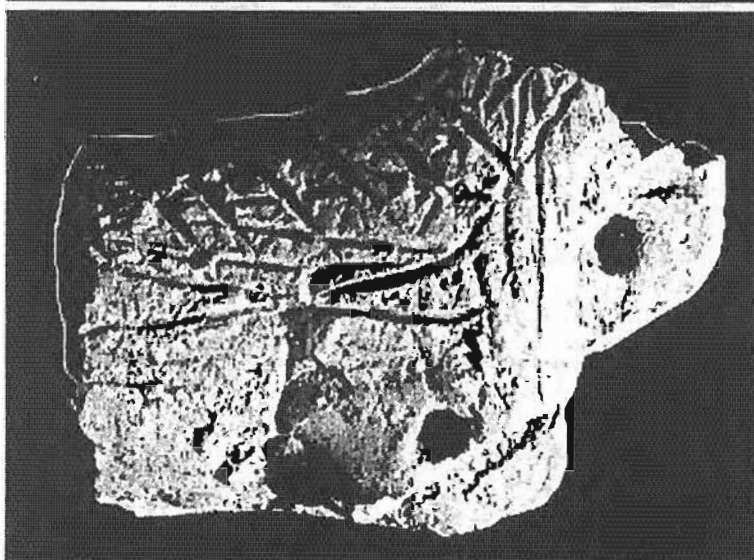


Patterned incisions contained within regular geometric boundaries upon or around the torso are found infrequently amongst the Urkesh animal figurines. One example is surface find *Bos* 301 ZI.164. See also **COMPARATIVE TABLE Pelts, Surface Decoration & Treatment Animal Figurines at Urkesh (including Aves)**. At what point does regularity of incision become geometric pattern as opposed to pelt representation? It is not clear that the incisions on the bovid torso are meant to represent a girth or a blanket — the markings do not meet on the back, but rather pass under the ventral section of the bovid. Are we then led to some symbolic meaning an investigator may eventually impute to the markings? I am certain that the dorsal incisions on *Felis* 25 are meant to represent the pelt, although it is somewhat unusual amongst *Felis* that the marks cover the entire dorsal section from forequarters to hindquarters, as with *Ovis* or *Capra*.

## 26 *Felis* forequarters WHEELED

A7.142

Recovered from feature 123 locus 10 • length (from perforation tab to torso break) 7.67 • forequarters 4.11 • neck 3.17 • torso 4.11 • height at forequarters 5.55 • fabric medium fine, fine grit, some gypsum inclusions • Munsell reading 5YR 8/2 • color pale yellow • conservation: some surface adhesions at top of torso break • preservation: hindquarters and part of torso only; axle broken on left side



There is a perforated tab for a pull at the base of the neck in a raised area that might pass for a "pronounced breast ridge". There is an axle hole for wheels. There may be a collar; see the manner of breakage in the dorsal view of the creature.

There is nothing of the sheep in this object, although it was originally classified as such. The disordered, highly detailed pelt bears comparison with the disordered (but much more regular) pelt of the third millennium lion sculpture from Temple BA. With the sculpture, the mane is indicated by intersecting parallel lines. With this small wheeled vehicle, the treatment is different but related; parallel incisions are cut by perpendicular lines across the back of the animal. The pelt treatment seems to stop about halfway down the right flank (see photograph). A real female lion's mane is thick as it lies atop the nape of the animal's neck, and is somewhat reduced in volume under the muzzle, at the throat.

*Felis* 26 A7.142.  
Dorsal view, right median plane.  
Scale 1 : 1.  
(photographs V7b2132, V7b2135)

Compare the treatment of the pelt with the multiple-step manufacture of the mane, neck, and fragmentary muzzle *Equus* 36 A5q63.1. In the case of *Felis* 26, there are six parallel incisions slanting forward along the top right flank. These lines contain zigzags that separate the first four slanting lines. A horizontal x or part of a diamond pattern (broken) crosses over the lines lower on the flank.

Four light vertical incisions are on the right foreleg. The left flank has deep "tripartite incisions." They cross over one another and curve about the contours of the left foreleg and torso.

The manner of incising the pelt is similar to the long hairs of wheeled figurine *Ovis* 26 A5q135.1 (caudal)/A5.199 (cranial), much more regular as it is laid out across the back and along the flanks, and to the patterned incisions on *Felis* 24. For pelt treatment, compare the way the hairs of the mane follow the line of the neck on carnivore torso *Felis* 14 A6q106.1. See **TABLES 1 & 1A Comparative Pelt Treatments**.

The way attached wheels would raise the torso from the ground and change body ratios must be considered. In fact, this figurine fragment was originally classified as *Canis*, just as the joined wheeled vehicle *Ovis* 26 A5q135.1/A5.199 was first classified as a hyena, a doglike body.

Other wheeled vehicles having the form of animals have been recovered at Urkesh. They will be treated in a subsequent article. The style of decoration ranges from abstract and geometric to naturalistic, as, **wheeled theriomorphic vehicle A7.258** (not catalogued here), where the flowing mane is treated in a manner similar to that of *Felis* 14.

## 27 *Felis* TORSO

A7.335

Recovered from feature 49 locus 8 • length 5.54 • neck 1.93 • forequarters (broken) 2.68 • torso 2.05 • hindquarters 2.96 • note on measurement: forequarters width not diagnostic • Munsell reading 10YR 7/3 • color very pale brown • preservation: all appendages broken; diagnostic details can be read

The hindquarters are heavily eroded and fused, contained within an inverted U. There is a mane at the base of the neck. The musculature is defined by scraping. The tail is carried high, but flattened, as if by a finger (break?). The proportion of forequarters to torso to hindquarters is 3 : 2 : 3. The ratio of neck width to torso width is 1 : 1. Sexual parts are not expressed. There is a breast ridge.

## 28 *Felis* LEG AND INTACT PAW

A7q398.1

Recovered from feature 141 locus 15 • height (full extension) 2.7 • transverse section (body join) 1.91 • transverse section (knee) 1.08 • transverse section (back of leg to tip of paw) 0.87 • fabric fine • Munsell reading 10YR 5/2 • color grayish brown • preservation: leg and paw only

The break at the body join makes it difficult to determine the nature of the join itself; the leg appears not to meld with the body, but in fact to be separate from it.

There are fingerprints covering the object; they seem almost to indicate a pelt.



*Felis* 28 A7q398.1. Leg and intact paw.  
Scale 1 : 1.  
(rendering cw H722)

29 *Felis* TORSO

A7q841.2

Recovered from feature 283 locus 25 • length 7.02 • forequarters 3.45 • torso 2.54 • hindquarters 3.46 • height at hindquarters 2.96 • height at forequarters (to bottom of break) 3.13 • note on measurement: length not diagnostic • fabric medium fine, with chaff temper • Munsell reading 5YR 8/3–7/3 • color pink • preservation: all appendages broken; legs completely missing

The torso is lean. The buttocks are solidly founded on an inverted rounded U. There is a raised ridge that goes between the legs to the sexual parts, perhaps expressed (if so, they are heavily abraded). There is a hole for a tail. The right foreleg is smoothed and slightly indented. Compare torso *Felis* 35 A7.11.

The left flank retains traces of what might have been a slip.

30 *Felis* TORSO

A7q871.5

Recovered from feature 148 locus 13 • length (breast ridge included) 7.9 • forequarters 3.46 • neck 2.42 • torso 2.565 • hindquarters 3.59 • tail 0.0815 • height at forequarters 3.93 • height at hindquarters 3.67 • fabric medium fine, with some inclusions • Munsell reading 10YR 8/2–7/2 • color very pale brown-light gray • preservation: all appendages broken; left hindleg chipped, tail broken

The outside forequarter stance is an incurving, inverted U. There is a breast ridge. The torso is lean. The tip of the tail hangs to the left. The outside hindquarter stance is a slightly incurving inverted U.

The surface is smooth, but roughened slightly by depositional action. There may be a light slip overall, and it is in this fabric that some hairline impressions remain.

This object is like an encyclopedia of surface markings. There may be many repeated strikes in the same place on the upper right flank, back of the torso. It is unlikely that this is the result of depositional action, nor is it excavation damage. The same sort of hatching is also on the lower right flank behind the foreleg. Claudia Wettstein, having handled the entire Urkesh corpus for her renderings, felt that the animal had been intentionally “wounded,” that the scratches seem to be laid down in a pattern, as if with a comb. I felt that the fabric gouged out of the surface was not so regular as that.



*Felis* 30 A7q871.5.

The “repeated strikes” referred to in the text.  
By contrast, the “network of raised ‘wrinkled’ lines” is very subtle,  
an overall surface pattern, here shown by black lines.  
(photograph V7b1202)

On the right flank, there is a network of raised "wrinkled" lines, as if the figurine, recently slipped, had been laid on a cloth before firing. The pattern — if pattern it is — is extremely tight, raised rather than impressed, left in the surface slip when the figurine was lifted from the cloth. Only high magnification under the microscope might pick out the possible tight weave of the cloth, if cloth pattern there be. A preliminary examination with microscope did not isolate traces of thread on any of several details.

There are many fingerprints at the junctures of appendage and torso, and some abrasions that seem regular. Under the hindquarters, there is a regular pattern of raised lines that likely was made by the side of the palm or thumb (a larger portion of the hand, not the fingers). Are any of these cloth impressions?

### 31 *Felis* TORSO WITH INCISED COLLAR

A7q966.1

Recovered from feature 334 locus 25 • length 6.73 • forequarters 3.06 • neck 2.4 • torso 2.225 • hindquarters 3.32 • tail 0.275 • height at forequarters 3.34 • height at hindquarters 3.57 • fabric coarse, with chaff temper • Munsell reading 2.5Y 8/2 • color pale yellow • conservation: surface is abraded overall • preservation: all appendages broken; head missing

The forequarters are wide, with a breast ridge contained within an outcurving inverted V. The foreleg/body join is 110 degrees.

There is a heavy incision at the base of the neck, passing over the torso and intersecting another incised line that goes from the tail hole in the rump to the middle of the base of the neck. If this latter line is made with the same instrument, it may have been made with the other end, for it leaves a tripartite incision, indicating that the tip was slanted. It may have been turned in outlining the collar, as there seems to be a point of entry at the base of the neck. The line closes on itself, then opens again over the torso.

The hindquarters are flat and solidly founded, contained within a rounded inverted U. There is a tail hole that emerges on the rump. The tail hole was perforated from below at an angle and there is medium adhering to the exit hole on the rump. It has not been smoothed away.

# CARNIVORA

## *FELIS* TYPE I

### TENTATIVE IDENTIFICATION

#### 100 *Felis* TORSO & HINDQUARTERS (FOREQUARTERS?) MINIATURE

A1.55

Recovered from feature 107 relay 258 • length 3.375 • torso 1.0 • hindquarters 1.2 • note on measurement: length not diagnostic • fabric medium fine • Munsell reading 7.5YR 7/2 • color pinkish gray • preservation: all appendages broken, rendering identification difficult

If the figurine is held vertically rather than horizontally, it suggests an equid form, leading to the original identification as such. Orientation is crucial in the proper identification of these small animal representations. Appendages often are attached to the main body part — neck or torso — in a similar manner; when dissimilar body parts are broken off or fragmentary, they can resemble each other. See the discussion of a bird on a pedestal and remarks about breakage in the introduction to *Aves* (article forthcoming). For purposes of discussion, the orientation has been taken to be horizontal. This confirms and/or permits analysis by diagnostic details.

The body is extremely long and lean, the belly convex. The torso (the part that, when the figurine is held vertically, appears to be the neck of a long-necked animal) is smoothed. Note the incised detail where the “head joins neck” on the left. The curved side is abraded, as if by the rough edge of a reed or other scraping instrument.

An objection to identification as a lean-bodied carnivore is that the body would then “bow out” to the right; this position does, however, afford a ridged line along the backbone.

The hindleg is fashioned from a separate piece of clay and pressed into place on the torso. Compare knee detail and body join with *Ovis* 9 A6q19.1, a very unusual expressed knee joint, left hindleg, but in an herbivore. The hindleg does not meld into body, but is expressed at the join. The legs are broken. The join of the leg to the torso is expressed; the stance would be a flat U (the leg join inside is a wide inverted V/100 degrees).

#### 101 *Felis* TORSO

A1q808.1

Recovered from feature 113 locus 118 stratum B12A • length 2.37 • height at forequarters 1.69 • height at hindquarters 1.24 • fabric fine, with chaff temper • Munsell reading 5YR 7/3 • color pink • preservation: torso only, hindquarters and forequarters; contour only remains

Fragmentary torso, cylindrical in form, shaved, both ends broken. There is a rise at the neck. The hindquarters are contained within an inverted U outside.

**102 *Felis* TORSO, POSSIBLY VENTRAL PORTION MINIATURE****A1q808.2**

Recovered from feature 113 locus 118 stratum B12A • length 1.58 • forequarters 1.055 • thickness 0.04 • fabric medium fine, many inclusions • preservation: bottom of torso only

A flat fragment that appears to join well with *Felis* 103 A1q808.3. Compare fabric with *Felis* 101 A1q808.3. The artifact bears a cloth impression. The threads are only visible in one direction. This is either because the fabric is woven in one direction only, so threads are visible in one direction only; or the impression is shallow, so the cross-threads are not visible. The threads are 0.05 cm thick (approximately 5 mm). It is possibly “z-spun,” but this is unclear.

I owe this evaluation to Chris Kimbrough, who visited Tell Mozan in excavation season 11.

**103 *Felis* TORSO, POSSIBLY DORSAL PORTION MINIATURE****A1q808.3**

Recovered from feature 113 locus 118 stratum B12A • length 1.81 • torso 1.36 • transverse section (midpoint) 0.083 • transverse section (impression 1) 0.054 • transverse section (impression 2) 0.030 • transverse section (impression 3) 0.033 • transverse section (impression 4) 0.035 • fabric medium fine, many inclusions • Munsell reading (fabric) 7.5YR 5/1 • color (fabric) gray • preservation: top of torso only

The artifact is lozenge-shaped and fits with *Felis* 102 A1q808.2. Compare fabric with *Felis* 101 A1q808.3.

Summary notes were taken by Chris Kimbrough. The artifact bears light parallel lines, as of a cord, most likely leather (see also *Felis* 102 A1q808.2). There is no twist, and the impression is fairly smooth and curved. The impression is similar to those on sealings in the Mozan corpus. There are four lines; the piece is wrapped.

I note that similar impressions can be made by the fingers on wheel-turned vessels, if the finger is dragged up the side of the vessel as the wheel turns. There is no indication, however, that this small piece is wheel-turned.

**104 *Felis* HINDQUARTERS****A1q809.2**

Recovered from feature 113 locus 118 stratum B12A • length (torso to raised extremity) 1.8 • torso 0.975 • tail 0.7 • fabric medium fine, chaff temper with some gypsum inclusions • Munsell reading 5YR 6/3 • color light reddish brown • note on color: Munsell chroma shift 1975–1994 • preservation: hindquarters only; all appendages broken

The torso has been pinched and pulled up by the artisan's thumb to form hindquarters and tail. The tail is pushed up and over. Compare with Carnivora torso *Felis* 4 A1q558.3 and other examples that have a tail carried high and an overhanging rump. Compare also with the termination of *Capra* 2 A1q577.1, where the legs are “folded over.”

The torso appears to have been scraped and smoothed. The torso appears to have been fully modeled, and finished by scraping. It is unlikely that tips of fingers could have left these marks. There are fingerprints on the top of the torso and on the underbelly.

A trial piece, unfinished?

## 105 *Felis* TAIL

**A1q976.16**

Recovered from feature 113 locus 20 • length 1.83 • transverse section (tip) 0.39 • transverse section (body attachment, short axis) 0.62 • transverse section (body attachment, long axis) 0.66 • fabric medium • Munsell reading 5YR 6/4 • color light reddish brown • preservation: tail only

This lightly tapered piece, ovoid at the break (point of body attachment) and circular at the tip, has been squeezed and lightly indented on three sides by the fingers. The tip is blunt and rounded. The body join is not typical of other tails (identified as such) in the corpus; it is circular in section and flat.

Could this piece have protruded from the rump, as opposed to hanging down? Compare with Carnivora torso *Felis* 1 A1.19. Compare also with *Felis* 11 A5q832.1, catalogued as a “lion’s tail.” The object is uncharacteristically short, if *Felis*. Yet again, see *Felis* 1 A1.19.

See **COMPARATIVE TABLE 5 Appendages Tails.**

## 106 *Felis* TAIL

**A1q1016.3**

Recovered from feature 173 locus 20 • length 1.97 transverse section (midpoint) 0.0425 • fabric fine • Munsell reading 2.5YR 3/1–2.5/1 • color dark reddish gray-black • preservation: tail only; only a small break at point of attachment

This curved piece has been modeled freehand. The surface has been lightly scraped. One side is lightly polished. There are fingerprints on the inside of the curve. There is a small break on one end, as with tails from the corpus. The curve is regular and argues against taking the piece as a tail, however. It is circular in section at the tip, and indented. The fragment is uniform in size from one end to the other, and does not taper.

The scale is proportional to several carnivore torsos from the figurine corpus. The small break where the tail must have been attached is somewhat unusual, unless the tail lay between the buttocks and was not firmly impressed for adhesion. However, the broken end/join slips easily into place at the top of the rump of several of the figurines (as an example, *Equus* 14 A6.149) and the extension out from the body seems plausible. This is a variant of Bökönyi’s “rat-tail” for carnivores.

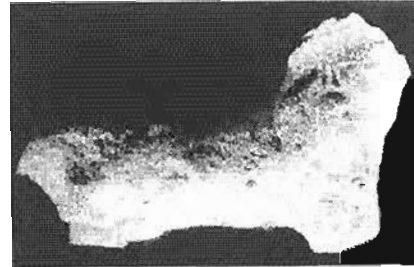
*Bos* figurines share this color range.

**107      *Felis* TORSO****A5.155**

Recovered from feature 66 locus 18 stratum B12b • length (reconstructed from photograph, tail to forequarters) 4.96 • forequarters 1.525 • neck 1.275 • torso 1.475 • hindquarters 1.85 • Munsell reading 10YR 8/2 • color very pale brown • preservation: all appendages lost

The legs are separate from the torso. There is defined musculature. The mane — or raised neck ridge — is likely pulled from the fabric, then pressed down on either side to raise and thin the fabric. There is no breast ridge. The presence of the one detail (as constituted) and the lack of the other are problematic for an identification as *Felis*.

The body ratios are, however, within the range of possibility for Carnivora, although a second review of the measurements could not be done as the object was misplaced.



*Felis* 107 A5.155.  
Note high, thin mane.  
Scale 1 : 1.  
(photograph V5b8104A)

**108      *Felis* TORSO, PARTIALLY MODELED****A5q638.1**

Recovered from feature 66 locus 19 stratum B12b • length 7.725 • forequarters 1.85 • torso 2.9 • height at hindquarters 3.0 • fabric coarse • texture rough • Munsell reading 5YR 7/6 • color reddish yellow • preservation: incomplete

Note the hindquarters and compare with *Capra* 2 A1q577.1; the haunches are formed from flaps of clay brought forward from the torso, creating recessed buttocks.

This is undoubtedly a partially modeled figurine, perhaps a carnivore (a right hindleg on a long body). Small handprint and finger-holds are clear. The piece was in process and discarded incomplete. It is a single piece of clay and not modeled on a core — it is as if picked from a mass of clay, squeezed, then discarded.

Certain parts of the figurine have been squeezed to shape. This object gives a good idea of the appearance of a coarse medium, unfinished with either hand or instrument modeling or a slip.

This coarse modeling medium is reminiscent of AK red packing. Its source may therefore be nearby, quarried from the same source. See also the canid figurine MINIATURES; several are very fragile and flaking.



**109    *Felis* TORSO WITH PELT****A5q790.1**

Recovered from feature 111 locus 5 stratum B12A • length (break to break) 1.6 • torso 1.3 • fabric fine • Munsell reading (interior) 7.5YR 6/2 • color (interior) pinkish gray • Munsell reading (exterior) 7.5YR 5/1 • color (exterior) gray • preservation: fragment only

There are striations on the surface, but the manner of execution appears on no other representation in the corpus. See, however, striations on *Felis* 14 A6q106.1. Also see *Felis* 24 A7.125, almost certainly a fragment of a carnivore torso with pelt indicated by fine striations.

**110    *Felis* FOREQUARTERS****A7.143**

Recovered from feature 63 locus 8 • length 6.36 • forequarters 3.92 • height at forequarters (breast ridge to break) 3.59 • fabric medium, chaff temper and fine silica (?) inclusions • Munsell reading 2.5YR 7/4 • color light reddish brown • preservation: fragment of forequarters, difficult to read

The left foreleg projects far forward. There is a heavy breast ridge. Compare *Felis* 2 A1q48.1. There are light incisions that follow the line of the leg, as from a mane.

The object is incompletely fired (black medium at center, visible at breaks).

**111    *Felis* head****A7.357**

Recovered from feature 201 locus 21 • height 5.45 • cranial length (snout to back of crown) 2.455 • cranial width (ear to ear) 3.81 • fabric medium, chaff temper with gypsum inclusions • Munsell reading 5YR 8/3 • color pink • conservation: surface is abraded • preservation: head only, horns or ears broken

The muzzle is rectangular in vertical section and triangular in horizontal section. There is a slight “beard” at the chin. The snout is squared off in the manner of head *Bos* 203 BH.516. The nostrils are holes impressed straight back into the snout. The mouth is a horizontal incision across the bottom of the snout. There may be a short curving incision to indicate an eye on the left muzzle.

The most problematic aspect of this head is the manner in which the “ears” or “horns” are executed. *Capra* horns do not curve upward in this manner, nor do those of *Bos*. *Ovis* horns can begin along the back of the head in this manner (see, for example, *Ovis* 33 A1.479), but the muzzle does not have this aspect at all; with sheep, horns curve gently from crown to snout.

Further consideration may demonstrate that the large curving appendages alongside the crown are horns and not ears.

See **COMPARATIVE TABLES 2 & 2A The Way Horns Join at the Crown (*Ovis* & *Capra*)**.

**112    *Felis* TORSO MINIATURE****A7q417.2**

Recovered from feature 148 locus 13 • length 2.7 • torso 1.19 • hindquarters 1.48 • height at forequarters 1.93 • height at hindquarters 1.685 • note on measurement: only torso and hindquarters diagnostic • fabric fine few inclusions • texture smooth • Munsell reading 10YR 8/3 • color very pale brown • preservation all appendages broken; tail chipped, sexual parts abraded

Forequarters are broken away. There is a perforation at the base of the neck. The musculature is indicated by striations and scraping.

The hindquarters are contained within an open inverted U outside; and a 60 degree inverted V inside. There is an incision between slightly recessed buttocks. There may be sexual parts terminating the leg join. The tail could belong to *Ovis* TYPE II, although it is rather like a “rat-tail” carnivore tail. It is thin and applied to left of center of rump; it hangs down. The body is not lean and the underbelly is concave, the legs linked by this curve.

While this is a problematic identification, hindquarters and torso treatment incline me to place this figurine amongst the carnivores. Compare with hindquarters *Felis* 36 A7q231.1.

**113    *Felis* TORSO WITH PELT****A10q270.7**

Recovered from feature 67 locus 3 • length 1.685 • forequarters (broken) 1.1 • torso 1.1 • height at forequarters 1.465 • note on measurement torso measurement is diagnostic • fabric fine, some inclusions • Munsell reading 2.5YR 7/3 • color light reddish brown • preservation: torso, fragmentary

Half of the torso remains, but the forequarter join appears thick and the torso lean. The right flank is intact.

Fingerprints overall give the impression of a pelt.

# CARNIVORA

## *FELIS* TYPE I

### RELATED STRATIFIED FINDS

#### 200 *Felis* HINDQUARTERS

A2q392.1

Recovered from feature 149 locus 151 • length 5.21 • torso 2.35 • hindquarters (broken) 2.55 • tail 0.81 • height at hindquarters 3.03 • note on measurement: height, length, hindquarter width not diagnostic • fabric fine, heavy chaff temper, some gypsum inclusions • Munsell reading 10YR 8/2 • color very pale brown • conservation: surface abraded • preservation: hindquarters and torso only; right hindleg, left hindleg and part of torso broken off; tail broken

The torso is lean. Hindquarters are flat, rather narrow and contained by a solidly founded, slightly outcurving inverted U. Sexual parts are not indicated.

The leanness of the torso generates the identification. Otherwise, the tail and hindquarters could pass for *Ovis* TYPE II. Among the latter genus, there is a wheeled example, hindquarters *Ovis* 3 A1q474.1, with a very long torso. Bökönyi was adamant that “no sheep would ever have a torso this long” and identified the body type as carnivore.

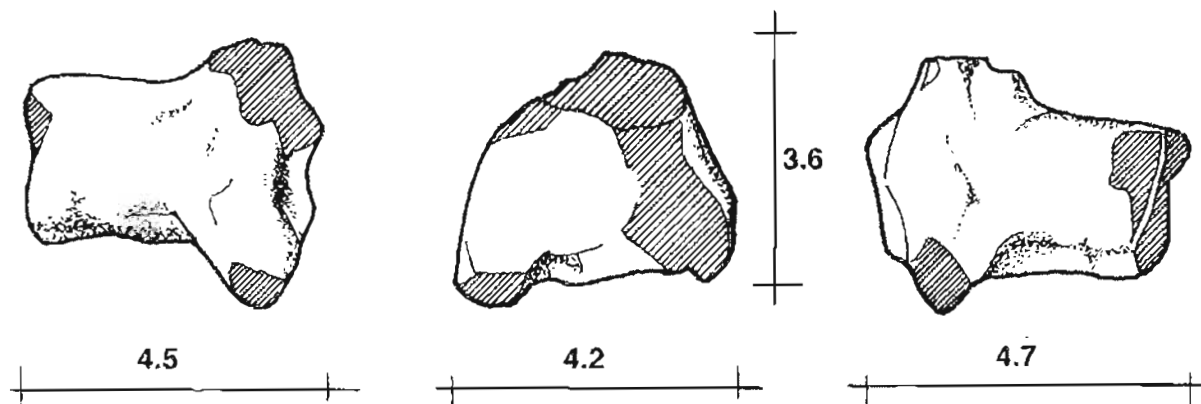
We eventually placed it among *Ovis*, all the same, because the function overrode the body-type. If this representation were wheeled, it might easily have necessitated or accommodated extra body-length; the short legs of torso *Ovis* 26 A5q135.1/A5.199 contained perforated tabs for the wheels of the vehicle; complete, the vehicle would have appeared much more “sheeplike” in its proportions. In the case of *Felis* 200, however, we have a freestanding figurine. The leanness of the body must be taken as such.

There are a series of dots in the pelt of the animal, very lightly impressed and so abraded that the identification is far from certain. They appear to go around the torso, down the right flank (three on the left hindleg, other lines less certain). A microscope is needed to determine the nature of the cut around the edge of the dot. It is unlikely that this is excavation damage.

201 *Felis* FOREQUARTERS

A2q424.1

Recovered from feature 193 locus 150 • length (longest dimension, break to break) 4.86 • forequarters 3.65 • torso 2.52 • height at forequarters 3.8 • note on measurement: height not diagnostic • fabric medium, chaff-tempered, gypsum inclusions • Munsell reading 5YR 8/3 • color pink • preservation: forequarters only, heavily chipped



*Felis* 201. Right and left median planes, cranial view (center).

Note diagnostic details.

Scale 1 : 1.

(rendering cw K703)

The stance is wide. There is a breast ridge, the torso is lean. There is a slight mane that melds with the back.

This figurine was recovered from levels immediately above the AK (Service Sector) walls or from just within these walls.

202 *Felis* FOREQUARTERS

A8q50.2

Recovered from feature 25 locus 4 • length 3.48 • forequarters 2.57 • neck 1.85 • torso 1.73 • height at forequarters 3.38 • fabric medium, heavy chaff temper • Munsell reading 10YR 8/3 • color very pale brown • preservation: two appendages, forequarters only, legs broken; neck chipped

The torso is lean. The ratio of neck to forequarters is approximately 1 : 2. Neck to torso ratio is 1 : 1; torso to forequarters, 1 : 2. The breast ridge is deep and wide. The forequarters are contained within a wide inverted U outside, and a solidly founded (foursquare) inside.

The forelegs thrust forward (145 degrees at left foreleg). An asymmetrical left foreleg is heavier and perpendicular to the ground. Compare *Felis* 2 A1q48.1; the forequarters of the latter are rather more tightly contained, but the legs project forward at a like angle.



*Felis* 202 A8q50.2. Cranial view.

Note widespread forequarters, not unlike *Ursus*.

Here, however, the legs thrust forward in a way that is typically feline.

Nor is the inside stance of *Ursus* solidly founded.

Scale 1 : 1.

(photograph V9e1206)

The musculature has been carved, rather than scraped. Large pieces of clay have been lifted from the object (see right foreleg).

The object is built on a core (this is evident at torso break and possibly at upper left foreleg). Fingerprints are visible where legs separate from the breast ridge. Excavation damage (?) on upper left foreleg reveals application of foreleg to the body as a separate piece.

The object was recovered in excavation unit A8 and belongs to Khabur levels, that is, to post-Palace occupational levels. The typology would seem, therefore, to hold true over a period of several hundred years.

## 203 *Felis* TORSO

A9.17

Recovered from feature 21 locus 1 • length 8.23 • forequarters 3.01 • neck 2.11 • torso 2.49 • hindquarters (broken) 2.92 • tail (?) 0.48 • height at hindquarters 3.23 • height at forequarters 4.8 • note on measurement: height not diagnostic; hindquarters width questionable because of breakage • fabric medium, heavy chaff temper • Munsell reading 7.5YR 8/3–7/3 • color pink • note on color: range of variation in chroma on surface; value intensifies with depositional damage • preservation: all appendages broken; head broken off, tail and sexual parts abraded; breast ridge chipped

The torso is lean, the hindquarters flat and fused, contained within a solidly founded inverted U. The tail is broken, but probably thin and hanging down. The forequarters are contained within a narrow outcurving inverted V. There is a breast ridge; it ends abruptly just behind the forequarters. The sexual organs are expressed, but heavily abraded.

There may be light incisions that indicate a mane; they follow the line of the neck, not of the mane itself, and are long in the manner of *Felis* 14 A6q106.1. It seems unlikely that these regular lines could have been made during excavation. Above these regular incisions, however, there is depositional damage or a slice made in antiquity that appears to have lifted off only a surface layer; the resultant fabric is abraded or perhaps marked only by the temper of the fabric.

There is a possible fingernail mark near right hind leg on underbelly; five pecked marks in a curve cross the belly from this mark. Likely this is excavation damage caused by light probing.

## 204 *Felis* HINDQUARTERS TYPE I

A9q105.1

Recovered from feature 66 locus 4 • length 4.955 • hindquarters 3.37 • tail hole 0.025 • height at hindquarters 4.88 • note on measurement: height and length not diagnostic • fabric medium, few inclusions • Munsell reading 5YR 8/2 • color pinkish white • preservation: hindquarters only; left hindleg partial, sexual organs chipped but intact

These Carnivora hindquarters are contained within a tight inverted U outside. The buttocks are slightly recessed, and there is a raised strip of clay that goes from the tail between the legs to the sexual organs. There may be a strip of clay (band/strap) over the tip of the penis. This is one of two examples belonging to TYPE I corpus. See carnivore hindquarters *Felis* 37 A7q684.2.

The left foreleg is daubed with bitumen at the break.

See **COMPARATIVE TABLES 9A, 9B & 9C Veterinary Intervention Carnivora (penile strap & caudal band)**.

## 205 *Felis* HINDQUARTERS AND TORSO TYPE I MINIATURE

A9q147.2

Recovered from feature 74 locus 5 • length 3.9 • torso 1.13 • hindquarters 1.785 • tail (base) 0.58 • height at hindquarters 1.66 • note on measurement: length, height not diagnostic • fabric fine, uniform small inclusions • Munsell reading 10YR 7/2 • color light gray • conservation: wet-swabbed lightly with water; remaining depositional dirt lifted off with blunt end of a wooden skewer • preservation: torso only, all appendages broken; band/strap on rump partially intact; sexual parts abraded

The torso is lean, musculature defined by scraping. The torso swells to the neck join (broken). The tail, broken at the base, may have extended straight out from the body. Compare carnivore torso *Felis* 1 A1.19. Also see for body length, torso *Capra* 2 A1q577.1.

The remnants of a band going from tail to underbelly remain on the rump. The sexual parts are heavily abraded and broken, the shaft of the organ missing. There may have been a band/strap over the penis. This is one of two examples of a carnivore TYPE I to have the band/strap over the penis.

See **COMPARATIVE TABLES 9A, 9B & 9C Veterinary Intervention Carnivora (penile strap & caudal band)**.

## 206 *Felis* HINDQUARTERS AND TORSO

A10.20.1

Recovered from feature 59 locus 5 • length 5.8 • height (at forequarters break) 2.545 • neck 2.14 • height at hindquarters 3.05 • note on measurement: no diagnostic measurements • fabric medium, uniform chaff temper • Munsell reading 5YR 7/3 • color pink • preservation: right side only of the hindquarters and torso are intact

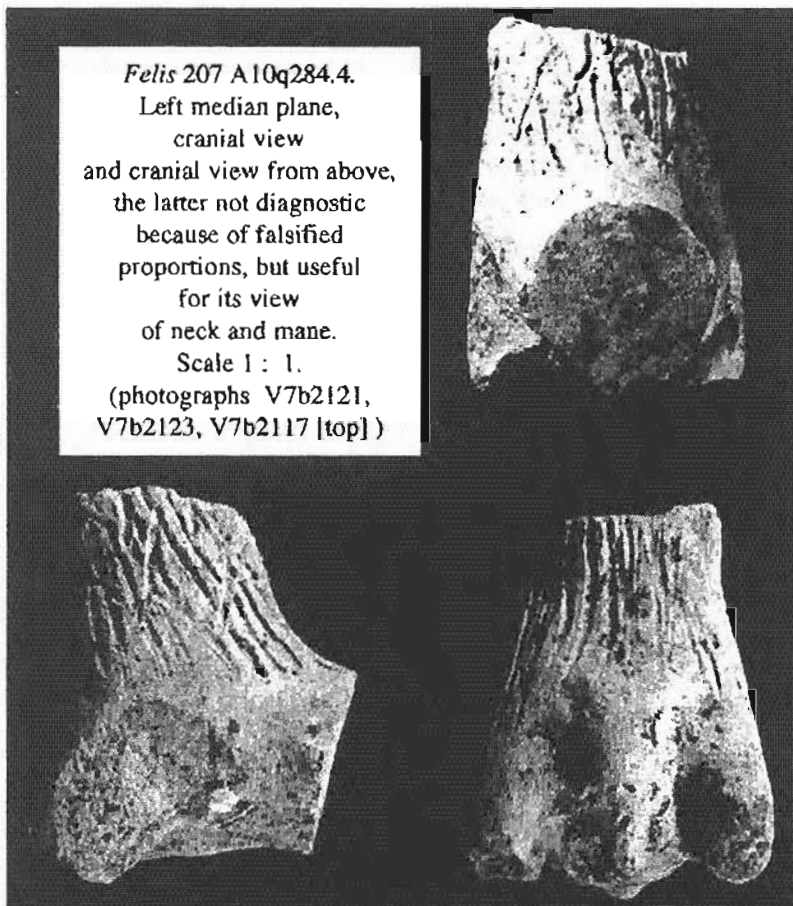
Fragmentary. Although it is not possible to construct diagnostic ratios and proportions, the shape of the fragment shows the animal to be a carnivore. The torso is lean, the rump is rounded and comes down to join the hindleg. The buttocks are recessed; the hindquarters on the outside appear to describe a rounded, slightly incurving inverted U.

207 *Felis* FOREQUARTERS WITH INCISED MANE

A10q284.4

Recovered from feature 139 locus 5 • length 3.56 • forequarters (broken) 3.23 • neck 2.51 • height at forequarters 4.36 • note on measurement: length, height, forequarter width not diagnostic; forequarters width indicative, however, of neck/forequarters ratio • fabric fine, uniformly small chaff temper • Munsell reading 10YR 8/2 • color very pale brown • preservation: forequarters only; mane incisions visible; right foreleg broken off

*Felis* 207 A10q284.4.  
Left median plane,  
cranial view  
and cranial view from above,  
the latter not diagnostic  
because of falsified  
proportions, but useful  
for its view  
of neck and mane.  
Scale 1 : 1.  
(photographs V7b2121,  
V7b2123, V7b2117 [top] )



The breast ridge is prominent, the neck equal in width to the torso. Legs project straight forward, almost in the same plane as the belly.

There are heavy tripartite incisions around the neck, down onto the torso and from the torso down the left foreleg. Seven diagonally applied lines — over the top and onto the flanks of the torso — cut across incisions that are parallel to the line of the torso. The incisions continue around and under the torso, splaying out around the breast ridge on the belly. They are less heavily incised and more evenly applied on the belly.

## CARNIVORA

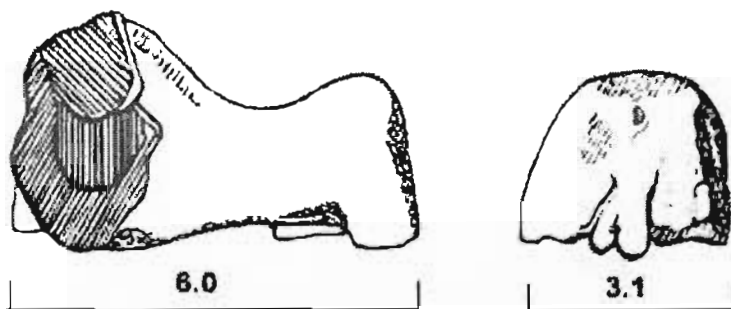
### FELIS TYPE II

For each TYPE II figurine, see **COMPARATIVE TABLES 9A, 9B & 9C Veterinary Intervention Carnivora (penile strap & caudal band)**.

#### 32 *Felis* TORSO TYPE II

A1.48

Recovered from feature 48 relay 266 • length 6.11 • torso 1.85 • hindquarters 2.86 • tail hole diameter 0.025 • height at forequarters 3.6 • height at hindquarters 2.675 • note on measurement: forequarters not measurable • fabric very fine, with some inclusions • Munsell reading 10YR 7/3 • color very pale brown • preservation: all appendages broken; sexual parts intact; left forequarters missing



*Felis* 32 A1.48. Left median plane and caudal view.  
Note core at neck break and heavy neck/body join.

Scale 1 : 1.  
(rendering cw F717)

The hindquarters are contained within an inverted U, set and solidly founded. The penis and testes are clearly delineated and do not emerge from the belly. On either side of the penis, there are areas of raised clay; this may have held a band/strap over the shaft of the penis. These raised areas bear the mark of fingerprints, however; perhaps they simply held the appendage onto the belly. There is a hole for a tail in the rump. The buttocks are fused.

Note the forequarters and hindquarters ratio of approximately 1 : 1, as well as the proportion forequarters : torso : hindquarters. Compare the neck join with *Felis* 6 A1q637.1 There is a breast ridge and a pinched mane at the base of the neck. Musculature is visible along the neck. The strong curve from forequarters to back of torso recalls *Canis spitz* type; but note that the curve is not so great from torso to rump. The forelegs thrust far forward.



*Felis* 32 A1.48. Ventral view.  
Note broken tabs on either side  
at the base of the penis.

Scale 1 : 1.  
(photograph V10b1711)

The torso is modeled on a core; the surface is scraped, considerably smoothed. At the neck break on the left flank, a relatively thick slip can be discerned. The detail is also visible at break on the upper right, at the neck. This accounts for the very smooth surface.

Some depositional dirt has been cleaned away with a wooden skewer, MZ10/H709, and again in MZ11 (after photo), with a subsequent light brushing with water. To do more could damage the surface, which is exceptionally smooth.



**33 *Felis* TORSO TYPE II****A5.25.2**

Recovered from feature 54 stratum B9 • length 4.75 • forequarters 2.3 • neck 1.625 • torso 1.6 • hindquarters 2.93 • height at forequarters 2.5 • height at hindquarters 2.6 • fabric fine, with temper • Munsell reading 7.5YR 7/4 • color pink • preservation: all appendages broken



*Felis* 33 A5.25.2. Right and left median plane, dorsal and ventral views.  
Note hindquarters in relation to body length, a defining ratio of Carnivora TYPE II figurines.  
Scale 1 : 1.

(photographs V8Bb1720, V8Bb1721, V8Bb1719, V8Bb1722)

Both buttocks and forequarters are rounded. Buttocks are fused; an incised line runs from tail to testes, which are recessed; the penis is expressed (not contained within belly). There are striations/scratches to upper left of top of the incised line.

Outside stance is an open inverted U. Inside, the legs meet in an incurving V. Marked breast ridge emerges from neck and continues under forequarters, merges into belly. The tail is thin and flat to body, lightly expressed. The neck is full, as wide as the torso at the base. The body join of right foreleg is diagnostic.

There is a smooth finish on the left flank (MZ8A note) and the surface is scraped. The treatment is uniform overall. There may be a thin slip on this object, visible at the neck-break. There are depositional adhesions on the right flank.

**34 *Felis* HINDQUARTERS TYPE II****A6q808.1**

Recovered from feature 302 locus 30 • length 3.35 • torso 2.1 • hindquarters 3.2 • tail 0.4 • height 3.55 • note on measurement: length and height not diagnostic • fabric medium, chaff temper with some gypsum inclusions • Munsell reading 10YR 8/3 • color very pale brown • preservation: hindquarters only, partial torso; legs and sexual parts missing; strap from tail to belly heavily abraded; tail broken

The buttocks are fused and contained within a solidly founded inverted U. The tail, fashioned from a separate piece of clay, is not carried high, at the top of the rump, but begins lower. It hangs down, like a very thin "rat tail." The sexual parts may be expressed; a heavily abraded strap/band, faintly visible, may go from the tail to the sexual parts.

The buttocks curve down to the foreleg as with those carnivores displaying the penile strap.

The rump itself is rounded and high, atop the buttocks, which are flat. It is almost as if the buttocks terminated the rump, for the hindquarters do not curve downwards and forward, as is the case in other examples (see *Felis* 37 A7q684.2, as an example).

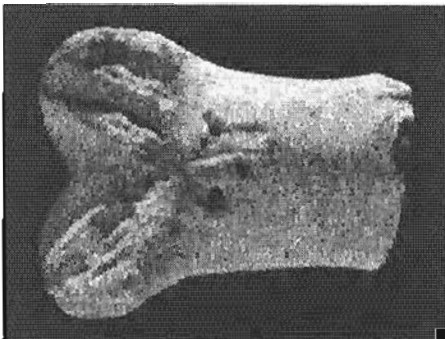
The sexual parts cannot be said to be modeled from the fabric; rather, the fabric has been applied, pressed upward between the legs and then pulled forward onto the belly without further detailing. The imprint of a finger remains in the clay on the left underbelly. The manufacturing detail is unique. No other carnivore appears to be incomplete in manufacture, yet fired.

The band/strap and would go a long way in helping with this identification, for the flat hindquarters are rather more dog-like. No example of *Canis* displays this type of tail, however. Compare hindquarters *Felis* 300 A1q557.2, where the form is similar, yet the buttocks are recessed; *Felis* 35 A7.11, which displays an incised line instead of a strap, and where the form is similar; and *Felis* 32 A1.48, where the form is similar and there is a tail hole and clearly expressed sexual parts.

### 35 *Felis* HINDQUARTERS TYPE II

A7.11

Recovered from feature 31 locus 6 • length (break to rump) 4.78 • torso 2.55 • hindquarters 3.46 • height at hindquarters (left hindleg, rump to break) 4.1 • fabric medium • texture smooth • Munsell reading 10YR 7/2 • color light gray • conservation: surface adhesions • preservation: hindquarters and partial torso; sexual organs broken



*Felis* 35 A7.11. Ventral view.  
Substantial depositional adhesions  
lifted away.  
Scale 1 : 1.  
(photograph V13-1600d3173)

The body is lean. The body is slightly scraped to indicate musculature.

Sexual organs are expressed (but broken); there is a hole where presumably the tail was inserted. The tail was carried high. The rump curves down to meet the hindlegs. The legs do not meld into torso. Stance is an inverted U outside, an inverted, outcurving V inside. The buttocks are recessed.

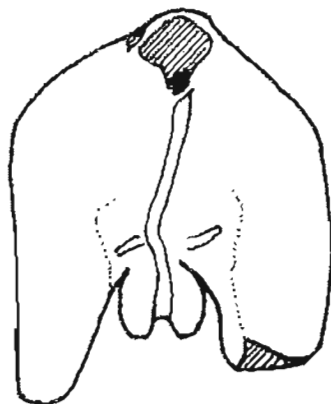
An incision divides the buttocks; it is abraded at the top and comes down to meet the belly. The remnants of a penile strap on the belly adhere to the underbelly on either side of the penis.

This latter detail was not read until our conservator, Beatrice Angelli, cleaned the object. The depositional adhesions not only obscured the underbelly and parts of the caudal section, but also filled completely the holes that pass through and lie on either side of the penis. See *Felis* 302 Z1.203, an anomalous find where the head of the penis is expressed as a splayed animal claw.

36 *Felis* TORSO TYPE II

A7q231.1

Recovered from feature 51 locus 9 • length 8.42 • forequarters 3.55 • neck 2.53 • torso 2.98 • hindquarters 4.00 • height at forequarters 5.08 • height at hindquarters 5.00 • fabric fine, chaff temper throughout; grit, gypsum inclusions • Munsell reading 10YR 8/3 • color very pale brown • conservation: firing "bloom" on back of right hindleg • preservation: head and left front foreleg missing; other legs chipped, right hindleg more so than the others



*Felis* 36 A7q231.1.

Caudal view.

Scale 1 : 1.

(rendering cw H626)

Three legs are intact. The hindquarters are recessed, a solidly founded inverted U. There is an incised line from tail hole to sexual parts. Sexual parts are expressed; penis curves to the left. Inside stance is a slightly open inverted V (45 degrees). The tail hole, deep enough to have retained dark earth, led to an initial observation that bitumen remained; washing dislodged this material. Rump curves down to join hindlegs.

A prominent breast ridge, curves onto the belly. Legs thrust forward (*élançées en avant*). Forequarter stance is wide. The neck is turned to the right. Compare *Equus* 36 A5q815.1. Musculature is indicated on the torso by modeling with fingers. Note fingerprint at right foreleg body join. Angle of join with body is 150 degrees.

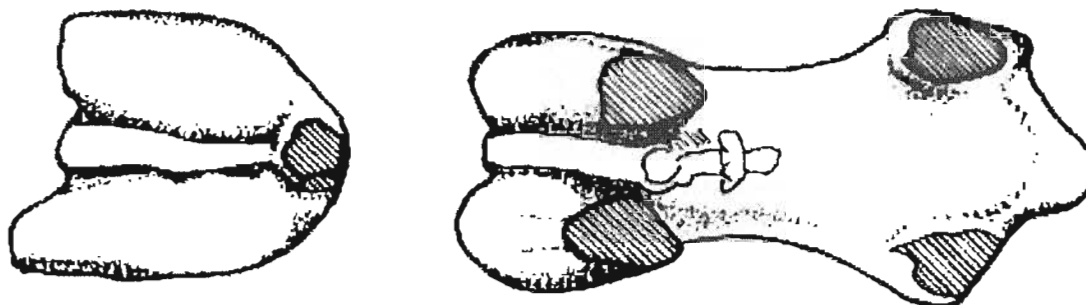
The legs, terminated and intact, are short. Compare forequarters *Equus* 23 A5.30.

Is the quantity and variety of temper in the fabric to strengthen a large object?

37 *Felis* TORSO TYPE II

A7q684.2

Recovered from feature 207 locus 24 • length 7.495 • forequarters 3.75 • neck 2.1 • torso 2.6 • hindquarters 3.475 • caudal width (raised strip between buttocks) 0.075 • caudal width (abraded circle where tail might have been) 1.02 • ventral width (strap over penis) 0.045 • height at forequarters 4.47 • height at hindquarters 4.41 • fabric medium • Munsell reading 7.5YR 8/3 • color pink • conservation: depositional adhesions overall that do not come clean with washing • preservation: all appendages broken; sexual parts complete except for testes, which are broken off

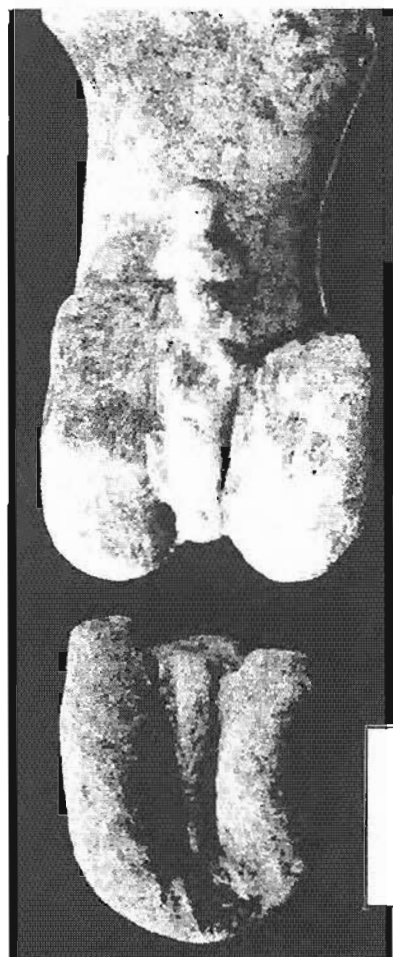


*Felis* 37 A7q684.2.

Caudal and ventral views.

Scale 1 : 1.

(rendering cw I724)



The body length/torso ratio is 1 : 2.86, that is, lean for TYPE II. This representation is included here for the penile strap and caudal band.

Forequarters are wide and heavy, the torso lean. There is a pronounced, though not raised, breast ridge. There is a perforation passing through the neck, perpendicular to the forequarters.

The buttocks are recessed. The hindquarters curve down to join the legs, which are separate from the torso (the separation is indicated). There may have been a tail, but it is abraded or broken off. The legs meet at this point in an acute angle (20 degrees). Between the buttocks, solidly founded on a narrow inverted U, there is a raised, slightly rounded strip, going between the legs to the expressed sexual parts. About midway up the shaft of the penis, there is a strap, which has been pressed into the belly on either side

Note the manner in which the band is inserted between the buttocks (photograph to left) and in which it joins the sexual organ.

*Felis* 37 A7q684.2.

Caudal view and ventral view juxtaposed  
to show manner in which band is laid onto the body.

Scale 1 : 1.

(photographs V7b2115, V7b2111[ventral])

### 38 *Felis* TORSO TYPE II

A7q826.1

Recovered from feature 264 locus 22 • length 7.75 • forequarters 3.84 • neck 2.79 • torso 2.75 • height at hindquarters 3.72 • height at forequarters 3.81 • note on measurement: height not diagnostic; hindquarters not measurable • fabric medium, inclusions • Munsell reading 10YR 7/3 • color very pale brown • conservation: heavy abrasion, not roughening the surface, but wearing it down, smoothing the edges; dark deposition on lower forequarters, breast ridge, and forelegs. • preservation: three legs may be terminated; sexual parts broken; right hindleg and hindquarters missing

The rump is high and curves down to become/join the hindleg, which may terminate. If so, the legs are quite short. The torso is comparatively lean, the neck-join thick. There is a tail hole, and some sign of an incision joining it and the abraded sexual parts. Legs are oval in section.

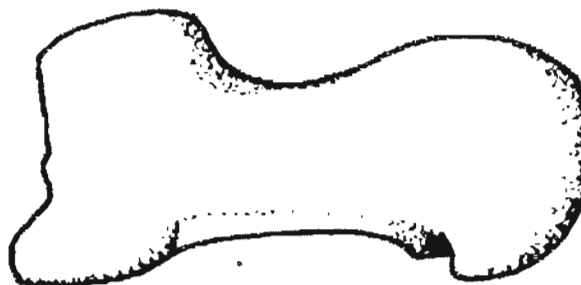
The figurine is covered with a thick slip, chalky to the touch.

Claudia Wettstein, our illustrator, notes that the break at the forequarters/neck is smooth, as if the break had been done intentionally; can this smooth surface be uniquely the result of depositional processes after the object was discarded?

Compare torso *Felis* 112 A7q417.2.

The vestiges of a penile strap and of the organ itself remain on the underbelly. The object has been drawn and added to the table of animals displaying this type of veterinary intervention.

In a way, the object serves as an alert: in the same way we observe “negative walls” — an architectural structure that exists no more, but leaves a vestige in the soil, the visible trace of its former existence — so certain details of animal anatomy may be missing or damaged in such a manner as not to appear immediately obvious to casual inspection.



*Felis* 38 A7q826.1.

Left median plane.

The curvature of the hindquarters to hindleg is notable, as is the thick neck/body join.

Scale 1 : 1.

(rendering cw 1724)

**Ebla/Tell Mardikh. TM.65.E.216/Q13M** (Marchetti 2001, 98-99, Tav. CLXXV, CLXXVI). Neck join and body length bear comparison with *Felis* at Urkesh, although in this exemplar the tail (may) hang down and the stance is static, forelegs being solidly founded. Also compare **TM.65.D.163/Q13M1a** with *Felis* 38, noting the curvature of the hindquarters to hindleg (or is that the tail hanging down?) and the thick neck/body join. Conformation of tail is problematic, as is the stance.

The excavator tells us that the different species are indistinguishable, save for the occasional decorated band about the neck. This might in fact be an indicator of a domesticated or tethered animal.

These two exemplars also illustrate the difficulty of researching *Comparanda* from site to site. In the Ebla volume, the photographs are dark, obscuring diagnostic detail; only one plane is illustrated, not enough to speak about diagnostics, and no other measurements are given. I make the observation respectfully, for I know firsthand how difficult it can be to obtain adequate photographic documentation in the field, not for lack of skill on the photographers' part, but rather because of the press of excavation and the real difficulty of lighting diminutive artifacts so that detail can be analyzed at some remove.

## CARNIVORA *FELIS* TYPE II

### TENTATIVE IDENTIFICATION

#### 114 *Felis* FOREQUARTERS TYPE II

A6q952.1

Recovered from feature 402 locus 31 • length 3.64 • forequarters (broken) 3.56 • torso 2.82 • neck 2.15 • transverse section (left foreleg, long axis) 1.74 • transverse section (left foreleg, short axis) 0.91 • note on measurement: height, length not diagnostic • fabric fine, uniformly fine chaff temper • Munsell reading 10YR 7/2 • color light gray • conservation: heavy firing bloom on underbelly and breast ridge • preservation: forequarters only, head and right foreleg broken off; left foreleg partially intact

Identification as *Carnivora Felis* TYPE II is problematic, but reasonable.

The forequarter stance is wide and there is a narrow pronounced breast ridge in the manner of *Equus* TYPE I figurines. The legs are rectangular in section. There are tightly spaced (0.03 cm apart) light incisions scratched onto the torso on either flank, although the right flank is more pronounced. No equid from the corpus exhibits this technique of indicating the mane or pelt; this comparison of the two genera may, with further investigation, prove diagnostic, as there are many *Felis* exemplars that have incised manes (only, with no further modeling, as with the fingers).

#### 115 *Felis* torso TYPE II

A10q295.2

Recovered from feature 102 locus 4 • length 5.37 • forequarters 2.65 • neck 1.9 • torso 1.9 • hindquarters 2.83 • tail 0.6 • height at forequarters 2.9 • height at hindquarters 2.84 • note on measurement: height not diagnostic • fabric medium, with uniform chaff temper • Munsell reading 2.5Y 8/2 • color pale yellow • conservation: surface roughened by depositional action • preservation: all appendages broken; tail and head missing

The hindquarters are flat, contained within a solidly founded inverted U. The top of the rump is flat and the hindquarters are slightly indented. The tail, broken, may have extended out from the body. It does appear, however, to have been carried high and, tapering in the manner of herbivores, to extend down from the top of the rump. Compare carnivore torso and hindquarters *Felis* 1 A1.19. Here, too, the angle at which the rump joins the hindlegs is flat.

The forequarters are wide. There is a mane, pinched together at the base of the neck from what appears to be an added piece of clay. Musculature is indicated by scraping.

# CARNIVORA

## *FELIS* TYPE II

### RELATED STRATIFIED FINDS

#### 208 *Felis* TORSO TYPE II

A2q439.1

Recovered from feature 204 locus 150 • length 7.94 • forequarters 3.45 • neck 2.28 • torso 2.37 • hindquarters 3.85 • tail hole (diameter) 0.44 • height at forequarters 4.68 • height at hindquarters 3.7 • note on measurement: neck questionable because of breakage, height not diagnostic • fabric medium, with uniform chaff temper • Munsell reading 5YR 8/3 • color pink • conservation: few depositional adhesions on right rear flank • preservation: torso, all appendages broken; left foreleg partially intact

There is an incision down the back leading from the base of the rump to the neck; there is no sign of the line having continued on to the rump. The incised line is deepest at the base of the rump and the base of the neck. There is no sign of a mane. There is a tail hole, with two smaller holes inside, as from the tip of a tapering instrument. The medium splays out around these smaller holes. The hindquarters are contained within a rounded inverted U.

There is a raised band from the tail hole to the underbelly (broken). There may have been sexual parts. This part of the figurine is marked by two deep striations on the left and a recessed area that might have contained the penis.

The forequarters are widespread; the breast ridge is only lightly indicated, if at all. The leg join is terminated at the top by the forequarters. The forelegs project forward (110 degrees on left). Legs are a rounded rectangle in section.

#### 209 *Felis* TORSO TYPE II

A10.71

Recovered from feature 129 locus 8 • length (breast ridge to under tail) 7.66 • forequarters 3.84 • neck 3.0 • torso 2.76 • hindquarters 3.07 • tail 1.07 • note on measurement: length possibly diagnostic, height not diagnostic, forequarters and neck width questionable because of breakage; tail measured not at base on top of rump, but just below rump when hanging between buttocks • fabric medium, chaff temper • Munsell reading 10YR 8/3 • color very pale brown • conservation: abraded overall • preservation: hindquarters and torso, all appendages broken, left foreleg less so; tail broken

The hindquarters are flat and solidly founded on an inverted U. The rump curves down to meet the legs. The tail is wide but tapering. The tail is applied as a separate piece of clay, laid in between the buttocks.

There is a groove made by dragging (as opposed to incising) an instrument from the tail to the expressed sexual parts. The testes are flat, as seen in *Felis* 36 A7q231.1, truncated or pressed flat at the hindquarters. In the latter case, however, the testes have been broken in half vertically. There is a band lying over the shaft below the head of the penis (compare *Felis* 37 A7q684.2).

There is a breast ridge. The neck is wide.

Musculature is indicated and obviously formed by the fingers as opposed to scraping. A good example of this type of modeling. The method does not contribute to an impression of leanness.

## 210 *Felis* TORSO

A10q146.5

Recovered from feature 139 locus 5 • length 3.56 • forequarters (broken) 2.97 • neck 2.43 • height at forequarters 4.36 • note on measurement: length, height, forequarters width not diagnostic; forequarters width indicative, however, of neck/forequarters ratio • fabric fine, uniformly small chaff temper • Munsell reading 10YR 8/2 • color very pale brown • preservation: forequarters only; mane incisions visible; right foreleg broken off

The rump curves down to meet the hindlegs, tail carried high. Buttocks are recessed. There is a raised band that goes from the tail between the legs to the expressed sexual parts. They are heavily abraded, but a band/strap, midway up the shaft of the penis, can be discerned.

## 211 *Felis* TORSO DECORATED

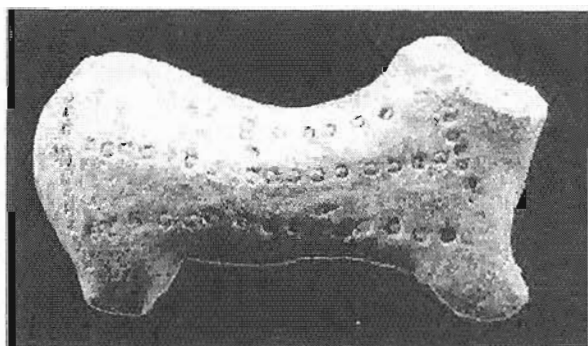
BH.509

Recovered from third millennium strata • length (neck to hindquarters division) 6.55 • forequarters 2.63 • neck 2.04 • neck (long axis) 2.22 • torso 2.31 • hindquarters 3.05 • height at forequarters 3.56 • height at hindquarters 3.2 • note on measurement: height not diagnostic • fabric medium fine • Munsell reading 10YR 7/4 • color very pale brown • preservation: left flank deeply abraded

The buttocks are fused and there is an incised line from tail to sex. There is a tail hole. Sex is expressed. There is a band/strap over the penis, impressed on either side by the fingers (prints visible). The rump curves downward to join the hindleg.

Dots (*ponctués*) in five (visible) lines from front to back; three lines side to side and crossing perpendicular to these, from flank to flank. Two end lines follow line of buttocks and forequarters.

Compare carnivore torso *Felis* 302 Z1.203 and Z1.273, the former with an incised collar, the latter with light punctate marks (*ponctués*) around neck (not included in this volume). Also compare *Felis* 26 A7.142 (raised medium around the neck at a break) and *Felis* 31 A7q966.1.



See **COMPARATIVE TABLES 9A, 9B & 9C**  
**Veterinary Intervention Carnivora**  
 (*penile strap & caudal band*).

*Felis* 211 BH.509.

The dots are rather lightly impressed, the fabric remaining at the center and not lifted out.

Scale 1 : 1.

(photograph V7b2127)



# CARNIVORA

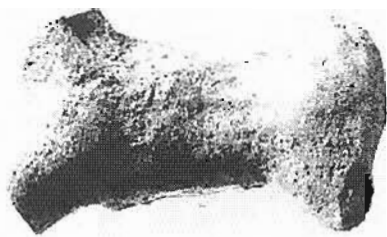
## FELIS

### RELATED UNSTRATIFIED FINDS

#### 300 *Felis* torso TYPE II

A1q557.2

Recovered from backfill locus 117 stratum B3 (?) • length 4.72 • forequarters 2.03 • neck 1.31 • torso 1.93 • hindquarters 2.69 • height at forequarters 2.82 • height at hindquarters 2.42 • fabric fine, with uniformly small chaff temper, some gypsum • Munsell reading 7.5YR 7/8 • color reddish yellow • preservation: all appendages broken



*Felis* 300 A1q557.2 TYPE II.

Left median plane.

Note forelegs projecting far forward.

Scale 1 : 1.

(photograph V10e0138)

The typology asks for a body that is leaner than this figurine (body length is only 80 percent of the projected total body length for a carnivore). As a tentative measure, I have included the figurine amongst *Felis* TYPE II.

Rump curves in to leg join, then is vertical. The hindquarters are contained outside within an inverted U. Inside, the legs join in an inverted V (45 degrees, with apex at tail). The buttocks are recessed. There is a tail hole at the top of the rump. The legs are projected far forward, a detail typical of many carnivores.

The musculature is indicated; there is a mane or neck ridge; it is pinched at the base.

The figurine may have been repaired with bitumen at the neck. The deposit cannot be removed with water and remains within the confines of the neck break (that is, it appears to be applied with some care, not a depositional accident). Some of the fabric adheres to the belly on the right.



*Felis* 300 A1q557.2 TYPE II.

Caudal view.

Scale 1 : 1.

(photograph V10e0139)

#### 301 *Felis* TORSO DECORATED

Z1.164

Recovered from the surface of the Tell and not stratified • length 3.3 • forequarters 2.31 • neck 1.65 • torso 1.91 • hindquarters 2.155 • tail 0.093 • height at hindquarters 2.1 • height at forequarters 2.37 • fabric medium fine, with inclusions • Munsell reading 5YR 7/3 • color pink • preservation: torso only, all appendages broken

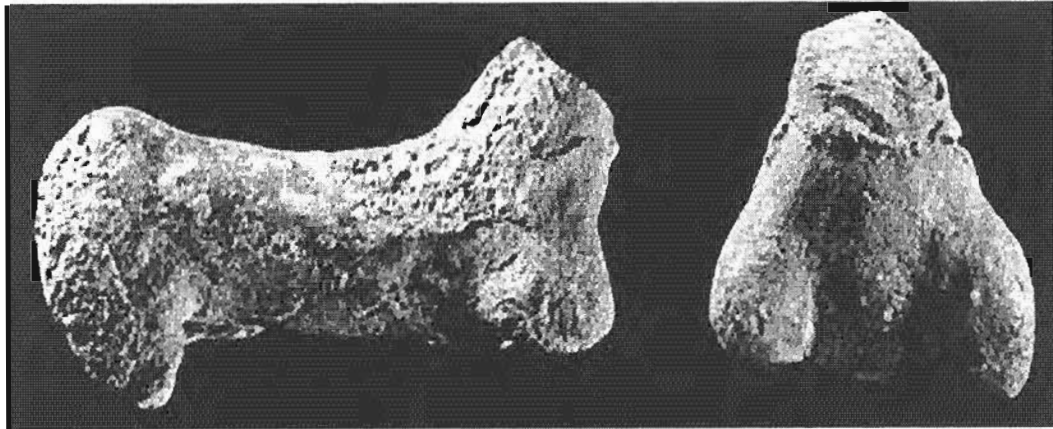
The tail is thick and hangs down, the tips pointing to the left. The hindquarters are founded on a rounded inverted U. There may be a slight breast ridge.

On the right flank, there are a number of parallel incisions along the torso, crossed by three lines that go from the top of the torso to the belly. This decoration continues on to the underbelly. Only the incision at the top of the torso where the lines begin is deep.

### 302 *Felis* TORSO

Z1.203

Recovered from the surface of the Tell and not stratified • length 6.85 • forequarters 2.46 • neck 1.70 • torso 2.31 • hindquarters 2.93 • height at forequarters 3.74 • height at hindquarters 3.40 • note on measurement: height not diagnostic • fabric medium fine • Munsell reading (fabric) 10YR 7/3 • color (fabric) very pale brown • Munsell reading (patina or slip) 10YR 6/2 • color (patina or slip) light brownish gray • conservation: depositional dirt adheres to the neck, rump, and right flank • preservation: torso, all appendages broken



*Felis* 302 Z1.203. Right median plane and cranial view.

The conformation of the body is typically *Felis*.

The treatment of the sexual parts is unique in the corpus, save for *Felis* 51 A7.11.

Scale 1 : 1.

(photographs V7b2410A, V7b2414A)

The forequarters are wide. There is a breast ridge.

There is an incision about the neck and the medium raised by the passage of the stylus of bone or reed has been left at the top of the incision, almost like a band. Other details may decorate the band, but they are hidden under the depositional accretion or broken, as on the left flank. For instance, another wide band of clay may have been applied below the incision; it appears to continue on to the back, around the neck.

Musculature is detailed along the torso, smoothed and then coated or overlain with a slip. The texture is smooth. There is likely a slip overall, deeper in value than the fabric.

The rump is high and curves down to join the hindleg, in the manner of many other examples in the corpus. There may have been a tail hole. There is a deep incision from the tail, through the legs, and ending at the sexual parts. The sexual parts are intact, and the penis is splayed out, pressed onto the underbelly. Additionally, the head of the penis is divided in three parts, like a clover, each with an impressed dot in the center.

The head of the penis has been outlined with a light incision in the last stage of manufacture. The penis itself is applied as a separate piece of clay. See rendering in the PLATES at the end of this volume.

## CARNIVORA

*fera* (OTHER NONDOMESTICATED ANIMALS)

## SUBORDER HYSTRICOMORPHA

## FAMILY HYSTRICIDAE (PORCUPINE)

## 400 Hystricidae (Old World Porcupine) SNOUT FROM ZOOMORPHIC VESSEL

A5q743

Recovered from feature 104 locus 5 stratum B2 • length 5.39 • diameter (mouth perforation) 0.7 • diameter (nostril perforations) 0.5 • transverse section (snout, short axis) 1.82 • transverse section (snout, long axis) 2.11 • thickness (broken "pelt") 0.875 • diameter (circles/*ponctués* on pelt/back) 0.4 • height (pelt perpendicular to snout/pelt break) 3.19 • Munsell reading 2.5Y 8.3 • color pale yellow • preservation: snout, with a portion of the muzzle only

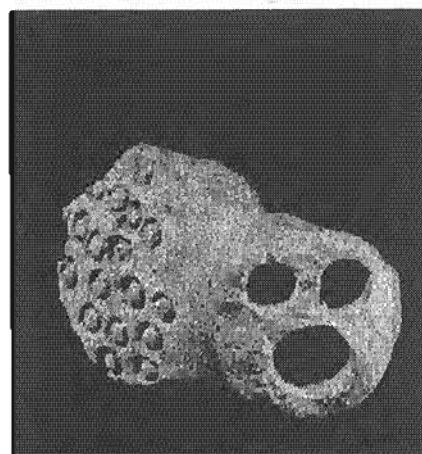
By rights, this object is outside the present typology. First of all, the representation is somewhat emblematic, rather than strictly representational. And then, not enough of the artifact was recovered to be able to speak meaningfully about proportion and ratio of different body parts, so that we might have a diagnostic template against which to measure other similar objects.

Further, if the animal were projected as a complete object in the round, it would be plump and not strikingly lean, as is the main body of carnivores here listed. I have nonetheless included the fragment in this catalog as one of a number of wild animals, not domesticated.

This fragment may be the snout and fragmentary torso of an animal either applied to a vessel or itself a zoomorphic vessel. There are three holes in the flat portion of the fragment; two are smaller than a third hole opposite and seem to represent nostrils, while the larger hole may be the mouth of an animal. The circular marks on the back/pelt are 0.1 cm smaller than the nostrils. They were made with the same instrument that perforated the nostrils, for the inside dimension of the nostril hole is the same as the outside dimension of the circular marks.

The inside surface of the fabric is untreated, not smoothed. The perforations have been punched through, and no fabric removed. The snout may be formed of a cylinder applied to a vessel, then punctured to form nostrils

Bökönyi tentatively identified the snout and spiny pelage as belonging to a hedgehog — an animal represented with some frequency in Mesopotamia — or a porcupine. The snout of both creatures in real life looks amusingly like this terra-cotta representation. Interestingly, while all insectivores feed on vegetable matter, the hedgehogs may consume frogs, mice, lizards and snakes. The porcupines differ from insectivores in that they are not carnivorous, but rather feed mainly on leaves, buds, and bark.

Carnivora *fera* 400 A5q743.

This snout, part of a zoomorphic vessel, may belong to either a hedgehog or a porcupine.

Scale 1 : 1.

(photograph V10e0151)

The fabric is medium fine and the texture is smooth. There is a likely an applied slip (visible on lower edge, as the snout is held to right). There are a few tiny surface adhesions.

**Susa. Sb 2908, limestone hedgehog standing on a cart of bitumen.** Recovered from the temple of Inshushinak. Secondary characteristics of pelage and the snout of *Carnivora fera* 400 are assuredly recognizable and the technique of execution is not in fact much less summary than that of this well-known intact example of the subfamily from Susa. As a latter-day observer, Zainab Bahrani, comments, "The animal is represented with a minimum of detail." (in Harper 1992, Catalog Nr. 102, 155). What passes for the animal's "spiky bristles" is "a pattern of rows of squares carved in high relief."

## ORDER INSECTIVORA

### FAMILY ERINACEIDAE

#### SUBFAMILY ERINACEINAE (HEDGEHOG)

#### 401 *Erinaceinae* (Hedgehog) DORSAL FRAGMENT

**A8q96.10**

Recovered from feature 33 locus 7 • length 5.3 (break to break) • torso 4.5 • transverse vertical section (thickness) 1.29 • fabric medium (?) • Munsell reading 10YR 8/4 • color very pale brown • preservation: fragment only

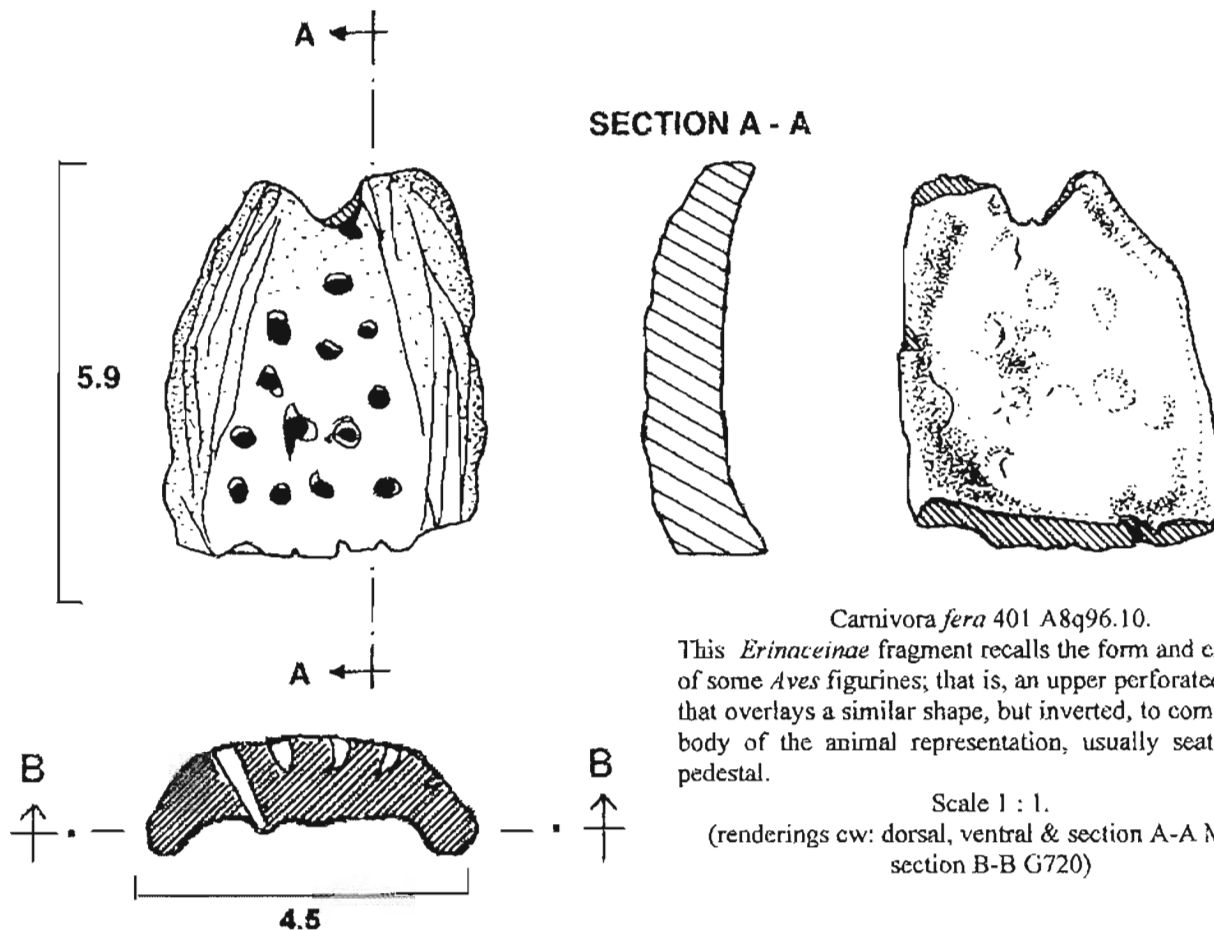
This fragment, also from Khabur levels, is reminiscent of *fera* 400 A5q743, both in treatment and in form. It has a striking parallel amongst MZ12 finds from deep third millennium levels in excavation area A9 – A9.85 (see *comparanda* in this entry and PLATES). We took this last object to be a bird on pedestal, similar in form to *Aves* A7.253. The body was waferlike, as is *fera* 401, except there were two halves, apparently broken apart and separated.

The underside of the object is slightly more concave than the side bearing markings. The unsmoothed underside/interior (?) surface was similar to the inside surface of *fera* 400 A5q743 and *Felis* 401 A8q96.10; nor did the perforations always come through the clay. Sophia Bonetti, excavation conservator, made a thorough analysis of the construction of the object; and reglued the pieces one atop the other. Her report figures in the MZ12 global record.

There are perforations overall; these are made with a pointed instrument, raising the clay on the side opposite but not passing through the waferlike object. There are thin incised lines made by both a sharp and thick-pointed instrument along the top and bottom of the object. While roughly parallel, they cross over one another in places or meet in a point, as if to indicate a contrasting pelt texture along the sides, not the back, of the object, just as the soft "unquilled" belly of the porcupine and the "unprotected" underside of the hedgehog contrast with the spiny pelage on the back (MacDonald 1984, 688 in reference to porcupines, 753 regarding hedgehogs)

One end of the object has been chipped away, breaking open a perforation; this is excavation damage.

This is likely part of an animal figurine. See for comparative purposes *fera* 400 A5q743, a fragment identified as a hedgehog or porcupine, both animals with a spiny pelage.



Carnivora *fera* 401 A8q96.10.

This *Erinaceinae* fragment recalls the form and execution of some *Aves* figurines; that is, an upper perforated "shell" that overlays a similar shape, but inverted, to complete the body of the animal representation, usually seated on a pedestal.

Scale 1 : 1.

(renderings cw: dorsal, ventral & section A-A M909, section B-B G720)

Urkish (Tell Mozan). A9.85 and other birdlike representations on pedestals such as A7.253, A10.47 and A12q555. The first of these *comparanda* may have been intended to contain liquid, which could be "leaked" from an anal orifice. The penultimate representation is a superb *Aves* exemplar, possibly an ostrich, referenced here for the modeling of the body and its pedestal support. The last example — A12q553 — was recovered from third millennium layers adjacent to the Royal Residence and is almost a mirror image of A8q96.10, except that its perforations pass through the wall of the artifact; surely it was pierced from above, as small gobbets of clay adhere to the concave surface. The perforations are laid out in straight lines along the length of the curved artifact and rather heavy incised lines separate these perforations. The object is narrower on one end than the other and a flat, broken area may correspond to the transverse section of an animal's neck.

These few examples, while related by form and possibly impulse, will only with further analysis contribute to a coherent vocabulary that permits us to analyze new finds as they are recovered in the field. I do favor interpretation as animal representations, not tools, such as a sieve or a shaker of some sort. It is possible that some of these artifacts are fragments of zoomorphic vessels; and these, in turn, may have had a functional purpose.

## FAMILY MUSTELIDAE (HONEY BADGER)

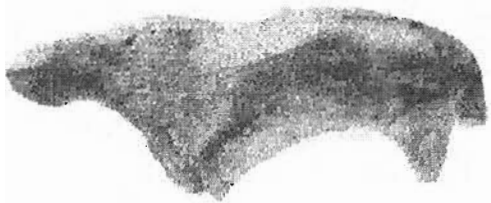
## 402 Mustelidae TORSO

A1.33

Recovered from feature 110 locus 5 stratum B4 • length 5.84 • forequarters 1.64 • torso 1.54 • hindquarters 1.7 • height at forequarters 2.95 • height at hindquarters (rump to right hindleg, broken) 2.01 • fabric fine, with uniformly fine inclusions of grit (?), some gypsum • Munsell reading 7.5YR 7/4 • color pink • conservation: depositional matter on back and right flank • preservation: all appendages chipped; tail chipped, muzzle broken

Intact torso of a *ratel*, or honey badger, a third millennium ancestor of *Mellivora capensis*.

Note the low carriage, conveyed by the gentle downward curve at the base of neck on an elongated body. In real life, this body carriage may be seen with the hyena, although the identification here is against common sense.



*Carnivora fera* 402.

Left median plane.

Note scraping as with a dull blade  
or perhaps a rough uniformly woven cloth,  
on left flank, cranial termination.

Scale 1 : 1.

(photograph V6b1727)



Family Mustelidae. Genus *Mellivora*. Species *capensis*.

A modern relative of the honey badger  
encountered in ancient Syria.

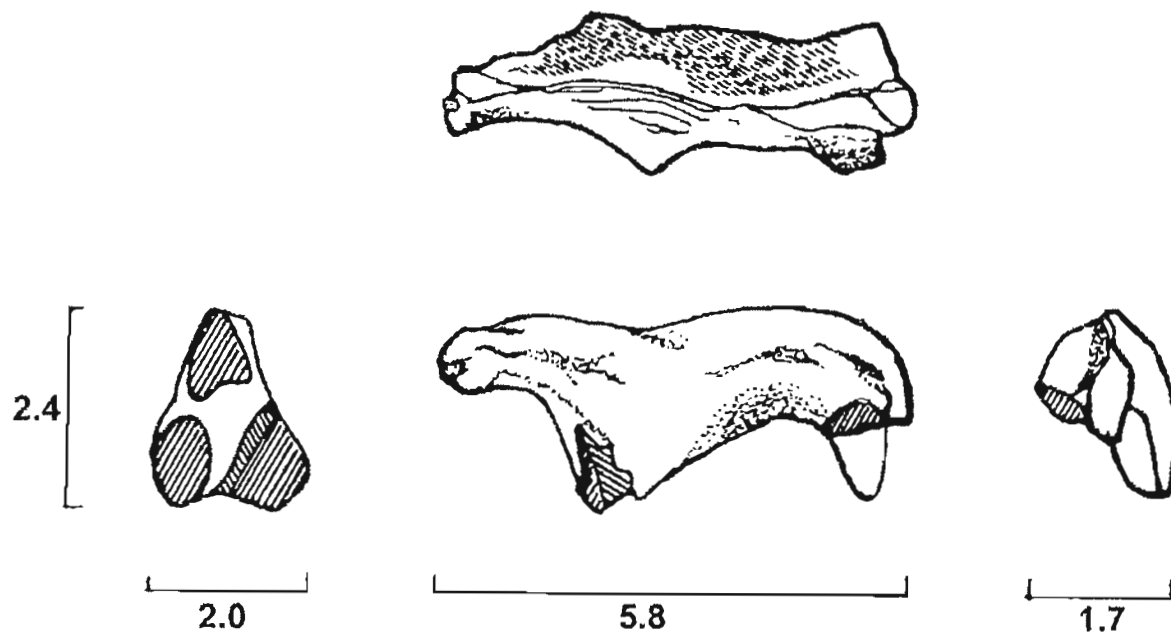
This *ratel* is about 2.5 feet long, not counting a 10-inch tail!  
(Bertin, Burton et al. 1967, 561-2)

There is no indication of pelt; the torso is by contrast *taillé*, smoothed by scraping or by the action of fingers. This modeling creates the musculature. A slip has been applied to the surface, using the same fabric as the object itself.

There may be striations along the length of the torso, as in the coat of the badger.

The forequarters and hindlegs form a triangle in section where they join with the body. Compare *Carnivora Ursus* 403 A1.79. The stance is contained within a modified V; the legs meet in a very wide angle of 110 degrees, to be compared with *Ursus* in the corpus. The tail hangs down and is flattened. Note the concave underbelly, and the curving body. The head is an extension of the neck with little indication of join.

The fabric seems not to have been pulled or extended but rather to have been built up additively. Ears and the eye-sockets on some equids do provide a comparison, but these are pushed upward, out and back, usually with an instrument.



*Carnivora fera* 402.

Note particularly the triangular section, vertical cranial plane, the musculature defined by scraping and smoothing of the lean torso.

Scale 1 : 1.

(rendering cw MZ6 no date)

## CARNIVORA

*fera* OTHER NONDOMESTICATED ANIMALS

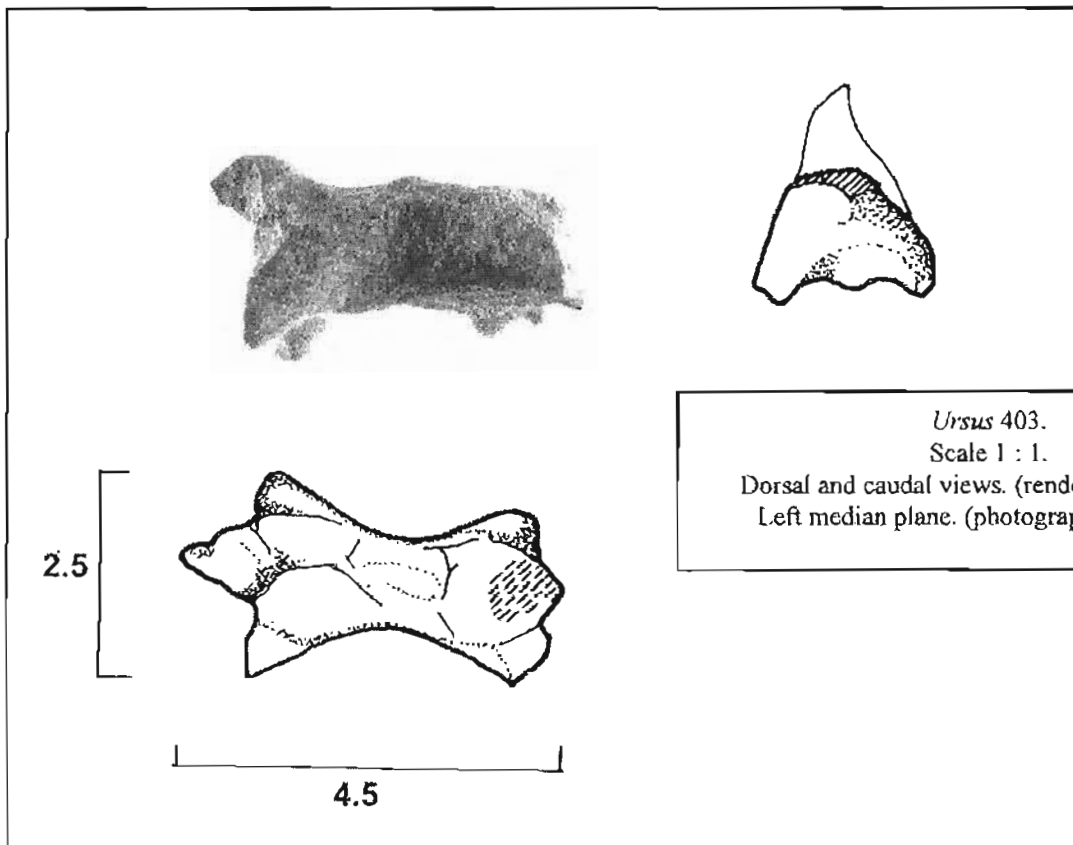
## ORDER OMNIVORA

## FAMILY URSIDAE

GENUS *URSUS*403 *Ursus* TORSO MINIATURE

A1.79

Recovered from feature 113 locus 20 • length 3.76 • length (snout to tail) 4.47 • forequarters 1.63 • neck 0.92 • torso 1.34 • hindquarters 1.72 • tail 0.96 • height at forequarters 2.45 • height at hindquarters 1.4 • fabric fine, with some inclusions • Munsell reading 2.5YR 6/2 • color pale red • preservation: intact except for chips from right hindleg and broken left leg; tail chipped.

*Ursus* 403.

Scale 1 : 1.

Dorsal and caudal views. (rendering cw H713)

Left median plane. (photograph V10e0094)

This figurine, exhibiting a compact body type, most likely represents a bear. The artifact is diminutive, a MINIATURE. The legs meet at the forequarters in a wide inverted V (90 degrees). Compare with herbivore body/leg join, more solidly founded. The legs are thick at the body join, tapering to a rounded termination.

The stubby tail is chipped, possibly terminated; it hangs over the hindquarters. The snout is blunt, the head flat and small with respect to the body. The neck blends with the body and tapers to meet the head. The sexual parts are abraded, if they are represented at all.



The mouth is indicated by a light horizontal incision. The eyes are lightly indented with a blunt instrument, pushed up and back (compare the modeling of the head of *Ursus* 403 with *Aves*/humanoid A1.65 and *Aves* theriomorphic vessel A1.321).

In 1994, I reviewed a figurine labeled A1q918.6 (wrongly, as it turned out). It was from seal-bearing level A1/A5f113, probably from excavation area A5 after it had been fully excavated and subsumed under A1. The object was photographed from below (E7/11) — yet the angle was too severe to make diagnostic observation possible. A dramatic image, but diagnostically disastrous. Certain body contours, however, did exactly match those of *Ursus* 403; one inescapable detail was the wide forequarter stance. At length, I determined that the figurine depicted was indeed *Ursus* 403 A1.79 — but with what difficulty!

The experience was chastening. It is possible, let it be said, to reproduce an object photographically and yet provide no essential diagnostic information about the object whatsoever. This is one reason we reproduce each artifact in six views, whenever possible.

This figurine raises a question. How is it possible for all carnivores — “flesh-eaters” — to fit the same body type? Clearly, they cannot; the body type will vary as to genus or animal family. The body type of this figurine led me to re-define the category.

Also, labeling will have to be revisited. Many animals of the order Carnivora are wild and may be described as *fera* (not a zoological category). Should lions and bears be called *fera* of the order Carnivora or simply *Felis* and *Ursus*? What is more, some animals in the order Carnivora, such as those in the genus *Canis*, are often domesticated. Are they *domestica*? After all, morphological change as a result of husbandry can be traced in the terra-cotta representations at Urkesh.

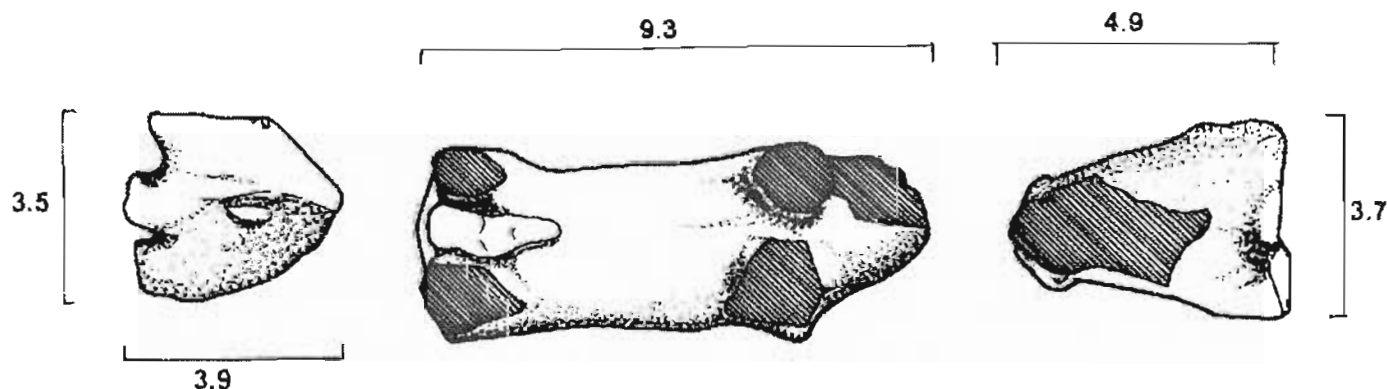
Of course, what is pertinent to this discussion is whether *any* of these indicators of wildness or tameness *can be traced in the archeological record*, or in consistent manner in the artifacts crafted at Urkesh by artisans who referenced a shared mental template as they worked.

As a matter of practicality and in general, I have labeled artifacts by genus, for the representations are distinctive to this level of specificity.

#### 404 *Ursus* TORSO

A5.32

Recovered from feature 15 stratum B11 • length 9.15 • length (leg to leg in frontal plane) 7.53 • forequarters 2.85 • neck 2.2 • torso 2.95 • hindquarters 2.95 • height at hindquarters 3.8 • fabric medium, uniform chaff temper • Munsell reading 7.5YR 7/4 • color pink • conservation: surface heavily abraded • preservation: all appendages broken; sexual parts intact, right forequarters broken off



*Ursus* 404.  
Caudal, ventral and cranial views.  
Scale app. 2 : 3.  
(rendering cw 1723)

There is a back ridge down the entire length of the body. The back joins the body with little differentiation (1 : 1). Buttocks swell only slightly and are fused. The hindquarters are solidly founded and contained within a narrow, slightly incurving inverted U. The buttocks swell outward only slightly and are fused, as are the forequarters. The hindlegs meet at an angle of 90 degrees. The body is stocky. The sexual parts are expressed, and they are not in the belly.

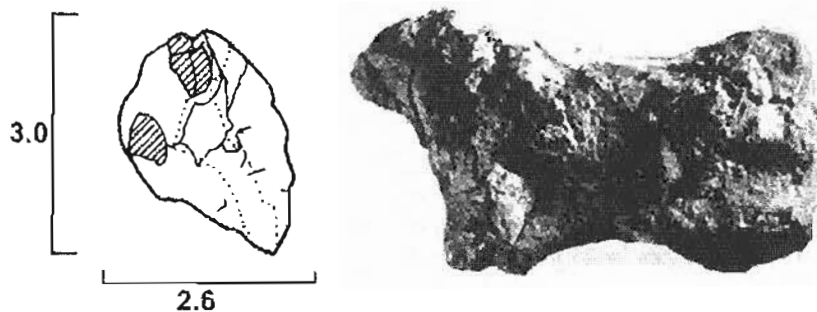
Does the tail hang down in a thin, raised line; or is it terminated and carried high? Likely the former, as there are fingerprints along the raised ridge and it is flat from the rump to midway down the hindquarters. Observing the animal from the right flank, it would appear that the tail does not hang down and that the buttocks swell outward slightly at the vertical mid-point.

Body and head (markedly) are turned right. The ears are small and applied with a separate piece of clay formed into a rounded forward curve, top and bottom. Compare hindquarters *Carnivora fera* 402; and see *Ursus* 403 A1.79.

#### 405 *Ursus* TORSO

A6q487.1

Recovered from feature 162 locus 218 • length 4.11 • forequarters 2.13 • torso 2.30 • hindquarters 2.66 • hindquarters (substantial bulge in front of hindquarters) 2.73 • height at hindquarters 2.67 • height at forequarters 2.9 • fabric medium fine, inclusions • Munsell reading 7.5YR 7/3 • color pink • conservation: snout and other pieces were glued after excavation; UHU was used; originally three or four fragments • preservation: snout repaired, top of muzzle chipped; legs, tail, and top of hindquarters broken



*Ursus* 405 A6q487.1.  
Cranial view and left median plane.  
Scale 1 : 1.  
(rendering cw H705,  
photograph MZ8Bv10e1608)

The body is stocky; the hindquarters stance is solidly founded on a rather narrow, slightly open inverted U. The hindlegs meet in a 90 degree angle. The neck blends into the body at the forequarters. An eye has been impressed on the left muzzle. The right hindleg and the left foreleg, though chipped, appear to terminate, as do the legs of torso *Ursus* 403 A1.79.

The animal snout is especially clear as the object is viewed from the left flank and slightly below. Fortuitous breakage?

The surface is lightly burnished. Is there a shallow fabric impression on the bottom of the left foreleg?

406 *Ursus* MUZZLE AND SNOUT

A7.239

Recovered from feature 155 locus 12 • cranial length 3.22 • horizontal transverse section (snout) 0.96 • vertical transverse section (top of muzzle to under snout at mouth) 1.78 • height (neck to crown) 3.45 • fabric medium, small chaff temper • Munsell reading 7.5YR 6/6 • color reddish yellow • preservation: muzzle only; ear broken

The mouth is indicated by a deep cut under the muzzle, the nostrils by a perforation that continues into the body. The eyes are deeply incised on the right and not so on the left, where the mark left by the hollow instrument used for the impression is visible. The ears are rounded and folded forward, bent over and around a slight depression. The crown is rounded.



*Ursus* 406 A7.239. Cranial views.  
(photographs MZ8B V10e1002, V10e0914, V10e1915)

The nostril perforates the muzzle straight through, which would be unusual were this a free-standing figurine. Could this be either a theriomorphic attachment for a vessel or a piece of a zoomorphic vessel? The perforation might, in another light, have contained a stick that held the head onto the body, strengthening the figurine.

It could be argued that this fragmentary head is the most “bearlike” of the artifacts catalogued here. After all, the piece does resemble the iconographic image we carry in our heads of *Ursus*. Holly Pittman (Pittman 2002) has taken another tack, as it were; nearly all the bears she talks about in her exemplary compendium are standing; or else they are crouching. Most of them are also charming and playful, although I am somewhat at a loss to explain why this should be so. The “gesture that suggests offering or receiving” (page 287) may have something to do with the way we perceive the creatures. Pittman herself makes a striking observation:

rather than looking for their meaning as a powerful image of the wild animal, it is their similarities to humans that may lie behind their symbolic meaning during the Uruk and proto-Elamite periods. (Pittman 2002, 291)

A good portion of the remainder of her essay is devoted to this aspect of animal/human conflation and its descent from an “ultimate cultural source” (page 295). It is interesting to me that Pittman’s numerous insights are based not on verifiable measurement, but solely on secondary characteristics that are “received,” as it were, from the literature and various other cultural associations that many of us share (circuses, cartoons, movies, other representations in popular culture, etc.). Not a single Urkesh bear crouches; nor do they play the lyre. But bears they are.

## CARNIVORA

*fera* OTHER NONDOMESTICATED ANIMALS

## FAMILY URSIDAE

GENUS *URSUS*

## TENTATIVE IDENTIFICATION

116 *Ursus* HINDQUARTERS MINIATURE

A5q706.2

Recovered from feature 129 locus 168 • length (break to tail) 1.57 • torso 0.925 • hindquarters 1.33 • tail 0.041 • height at hindquarters 1.44 • note on measurement: height and length not diagnostic • fabric fine, some large quartz/silica inclusions • Munsell reading 7.5YR 4/1 • color dark gray • conservation: possibly overfired (flat, crystal-like surfaces on two of the inclusions) • preservation: hindquarters only; tail abraded, hindlegs broken

The hindlegs are thrust out from the hindquarters. The tail is wide. The hindquarter stance outside is an open inverted U. The buttocks are slightly recessed; there is an incision between the buttocks. Sexual parts are not expressed.

There are holes from gas bubbles in the fabric, or possibly, these are holes left from burned temper.

117 *Ursus* TORSO MINIATURE

A7q849.1

Recovered from feature 286 locus 13 • length 2.24 • forequarters 1.15 • torso 1.17 • hindquarters 1.24 • tail (?) 0.051 • height at forequarters 1.6 • height at hindquarters 1.57 • note on measurement: length not diagnostic • fabric fine, some small inclusions • Munsell reading 10R 4/1 • color dark reddish gray • preservation: all appendages broken; tail and muzzle broken

The tail is thick and hangs over; the torso is stocky. The way the legs are broken makes it difficult to read the stance or actual body type. The forelegs are thrust far forward (145 degrees on left). An arc joins the two legs on the left flank. The left hindleg is flat on the inside and somewhat splayed near termination; this may be the knee joint.

The forequarters read as *Canis*.

## CARNIVORA

*fera* OTHER NONDOMESTICATED ANIMALS

## FAMILY URSIDAE

GENUS *URSUS*

## RELATED STRATIFIED FIND

212 *Ursus* TORSO AND FOREQUARTERS MINIATURE

A10q56.1

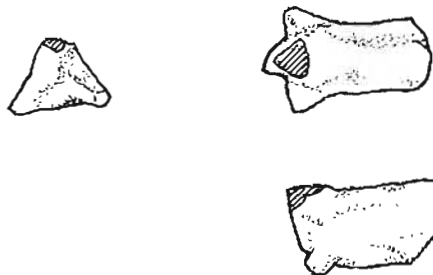
Recovered from feature 37 locus 5 • length 1.155 • forequarters 1.09 • neck 00.71 • torso 1.09 • height at forequarters 1.12 • note on measurement: length and height not diagnostic; transverse section at neck questionable • fabric medium fine • Munsell reading 5YR 7/2 • color pinkish gray • Munsell reading (patina) 7.5YR 5/1 • color (patina) gray • conservation: depositional stain or patina overall • preservation: forequarters only; all appendages broken, rendering identification difficult

The forequarter stance is very wide (140 degrees). Forelegs are thrust forward (140 degrees on both sides).

A fingerprint remains under the left foreleg, impressed as the appendage was shaped.

Compare the blockiness of this MINIATURE torso with *Ursus* 404 and *Ursus* 405.

An area for further study: when patina accrues to an object, developing over time in the ground (or even simply through exposure to air), it would seem that the chroma tends towards the yellow, and values deepen. Saturation seems not to vary much. Can this be generalized to make a provisional depositional standard? The Munsell reading on this object was taken under the right foreleg where the fabric seemed least altered by depositional stain.



*Felis* 212 A10q56.1.  
Cranial and dorsal view, left median plane.  
Scale 1 : 1.  
(rendering cw L730)

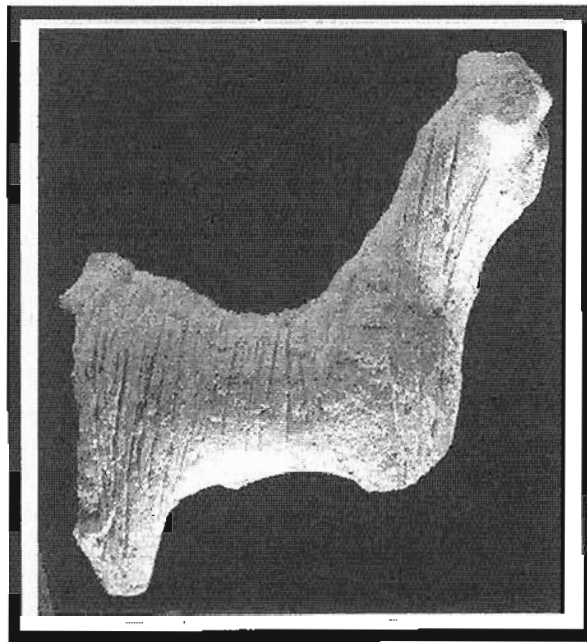
# READING FIGURINES

## ANIMAL REPRESENTATIONS IN TERRA COTTA FROM ROYAL BUILDING AK AT URKESH (TELL MOZAN)

ORDER Artiodactyla

FAMILY Bovidae  
(SUBFAMILY Caprinae)

GENUS *Capra*



## DISCUSSION

The Genus

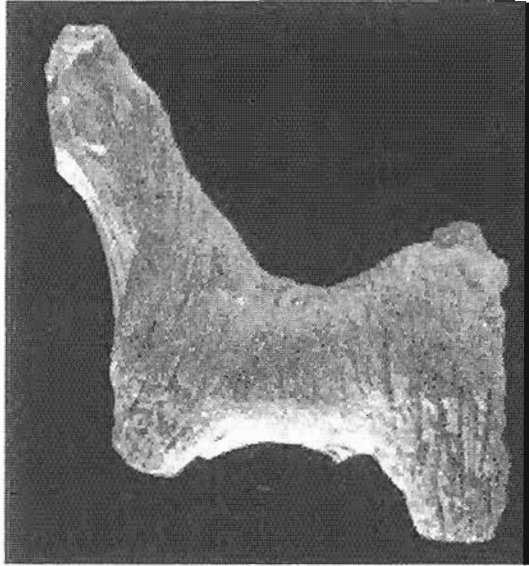
## CATALOG

The Urkesh Corpus

## CAPRA

## DISCUSSION

## How Goats Are Like Sheep



*Capra 1 A1.44* TYPE (TEMPLATE).  
Left median plane.

The figurine has been cleaned and depositional dirt lifted from the incisions, so that the manner of execution (tripartite incision, overlay, etc.) is clear. The technique of rendering the pelt is here reductive and is to be compared with *Ovis* representations where the pelt is created by additive techniques.

Scale 1 : 1.  
(photograph V13-1100 d3028)

In outward form, goats are a leaner animal than sheep. While it is true that *Capra* raised for wool do exhibit considerable body bulk, these animals are the result of a long process of domestication that does not concern us here.

When Charles Reed, the paleozoöologist who accompanied the Braidwoods along the Zagros flanks, stated flatly that sheep were not first domesticated for their wool, he knew his assertion ran contrary to expectations, at least for prehistorians who projected present-day images of sheep and goats onto early caprids (in Braidwood 1960, 138). "Actually," he says, "wild goats and wild sheep have similar hairy coats with woolly underfur. . . . No prehistoric people," he goes on to say, "could have foreseen any possible changes in the predominantly hairy coats of the animals . . . which were being domesticated." (137). So, initially, at least, their silhouette must have been similar.

And the reason for their domestication must have been somewhat similar — the hides of both species were woolly and warm. And their meat was appreciated, too.

As the millennia advanced, however, there did come to be a distinction between the two caprids, although the reasons for the selection of sheep for their "woolliness" are not at all simple genetically.

The difference in silhouette between sheep and goats was already in evidence in the third millennium and is encountered at Urkesh, after several millennia of *Ovis* domestication. Compare two representations of their respective species, each having a distinctive and unmistakable profile — *Capra 1 A1.44* and *Ovis 7 A5q353.1*.

Now, Ernest E. Seton Thompson, in his illustrated "animal anatomy for artists," does not even bother to illustrate goat anatomy, so similar is it, he feels, to the muscular type of the sheep. He says, "The ordinary Goat, though so unlike in appearance, is of the same proportions as the sheep, nor does its bony and muscular anatomy present important differences" (Thompson 1896, 63).



Thompson uses the animal “head” as the unit of measurement for the entire body, whereas the typology that has proven useful for the animal figurines of Urkesh is largely based on proportions and the ratio of body parts, one to the others. His observations may inform our typology, nonetheless, as it is the way the animal appears to the informed and knowledgeable eye (the shepherd’s eye . . . ) that concerns us here.

### The Typology

*Capra* — as represented in the figurine corpus from ancient Urkesh — share all or some of the following characteristics:



*Capra* 1 A1.44. Dorsal view.

This view permits analysis of the relationship of body parts and offers a good understanding of *Capra*’s place in the typology.

Scale 1 : 1.

(rendering cw 1722)

$$w1 = w3$$

As with *Ovis*, the hindquarters and forequarters are approximately equal in width.

$$w2 \geq w1$$

The torso is slightly greater than three-fourths of the width of the forequarters taken in cranial frontal plane.

$$w1@neck \leq w2$$

The neck is less than or equal to the width of the torso taken in vertical transverse section.

$$lg \leq 3/2w2$$

Body length is about 1.5 the width of the torso taken in transverse vertical section. Otherwise said, the goat at Urkesh is lean.

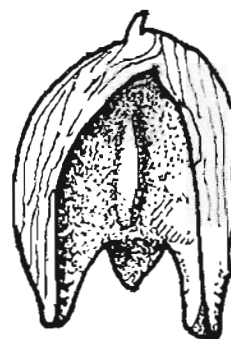
In addition to the above body ratios, *Capra* may share some or all of these characteristics —

#### 1. THE BUTTOCKS OF *CAPRA* ARE DEEPLY RECESSED.

This characteristic of *Capra* is shared with some *Canis* of the Khabur period.

#### 2. THE TAIL IS UPRIGHT AND/OR CARRIED HIGH.

A raiser of goats will tell you that there are only two reasons a goat carries his tail down — he is either scared and very upset or else he is sick. Otherwise, a goat’s tail is carried high and approaches the vertical.



*Capra* 1 A1.44. Caudal view.

Buttocks deeply recessed —  
and with upturned tail!

Scale 1 : 1.

(rendering cw 1722)

A nonsystematic canvassing of photographs of goats reveals a substantial number that have the tail not upright, but at something of a downward angle to the rump. It's not unreasonable, I suppose, to speculate that the creatures have indeed been startled by the camera lens or the presence of a human being and so are registering fear. It's certainly true that one seldom encounters a *rendering* of a goat with pendulous tail. They are drawn from something like an ideal form — a *template*, as it were — the artist carries about in his or her head.

Now, sounding a cautionary note, Schmandt-Besserat finds *only* pendulous tails amongst the goats of 'Ain Ghazal. It seems odd; as Schmandt-Besserat says, "tails defy nature" (Schmandt-Besserat 1997, 50 and Fig. 3). There is of course no reason to suppose there is a necessary 1 : 1 correspondence between faunal remains and terracotta figurines — either in number or form — although it is reasonable to believe so.

Since we are concerned with distinction amongst genera and species in the typology and since this singular detail is so readily apparent, distinguishing sheep from goat, we have decided to excise the pendulous tail from the *Capra* corpus. Goats don't have pendulous tails in nature. The Urkesh artisans respect reality elsewhere in the corpus, so why not here?



*Capra* 204 A10.129.  
Cranial view.

The animal's forequarters are triangular in vertical cranial section. This is typical of the genus.  
Scale 1 : 1.  
(rendering cw J706)

### 3. THE FOREQUARTERS ARE OFTEN TRIANGULAR IN SECTION.

This characteristic almost invariably holds true, no matter the size of the figurine. Compare, for example, *Capra* 204 A10.129 and *Capra* 5 A6.166, a figurine that is close to anomalous, it is so very large.

### 4. THE PELT IS IRREGULAR AND NATURALISTICALLY RENDERED.

It is indicated both by modeling and by heavy incisions of varying depth.

### 5. THE FABRIC IS MEDIUM FINE AND THERE ARE FEW INCLUSIONS.

### 6. THE ATTITUDE OF THE ANIMAL IS ALERT, WITH HEAD CARRIED HIGH.

### 7. THE HAUNCHES (OR THE UPPER LEGS) EMERGE DIRECTLY FROM THE TORSO (HERBIVORE BODY JOIN) AND ARE SOLIDLY FOUNDED BENEATH IT.

That is, the angle of the join is approximately 90 degrees.

### Other Herbivores

To this point, no herbivores other than *Ovis* and *Capra* have been identified at the site, unless one counts the porcupine, classified here amongst nondomesticated omnivorous animals. There are no red deer bones present amongst faunal remains at the site, and there appear to be no representations in clay of the species. A hoof, *Capra* 27 A6q148.1, however, is made of antler, so nondomesticated herbivores must have lived in the region.

### Fragmentary Appendages

At almost every archaeological site, scores of tiny fragments of various animal appendages from clay figurines are recovered. Not only *Capra*, but the legs, tails, hooves, muzzles, ears, and so on of any species depicted may be expected to surface amongst the finds. Many of these are so tiny and approach so closely the nondescript that one is tempted to lump them together as “appendages” and to move on to more fruitful discussions of typology.

The priority one naturally reserves for major objects gives short shrift to these tiny pieces.

Here at Tell Mozan, by contrast, we have made an attempt to distinguish amongst these various tiny fragments. Patterns of manufacture, fabric, modeling, breakage, section, and detail all have had a part to play in our interpretation. I have tried to be explicit about each of these points that, for me and for Claudia Wettstein, our illustrator, serve to characterize a certain fragment as one type of object and not another. In the main, I believe that consistent and coherent diagnostic characteristics have been identified. The discussion here is meant only as an introduction to the topic.

These tiny appendages have been divided into the following categories:

#### LEGS & HOOVES

How is the surface treated — is a pelt indicted? What about musculature? What is the fragment's orientation with respect to the animal's body? How is it broken? Is there a pattern to the breakage? Where was the point of attachment? Is the knee joint expressed or not?

#### HORNS

How does the fragment reflect nature? These forms have been seen in terra cotta —

- flat on one side and curving; triangular in section
- twisted, straight, and rectangular in section (perhaps only at one end)
- curving and half-twisted, circular in section at head join, oval in section at tip.

#### TAILS

*Capra* is distinctive, as is Bökönyi's *Carnivora* — a “rat's tail with tuft of hair at tip”. *Ovis* is more problematic, because there are at least two *Ovis* body types identifiable in the corpus. In all genera, the area of breakage at the base of the tail is often quite small, showing the tenuous nature of the attachment. In some cases at least, it seems as if the object were crafted as a separate piece and then wedged into place at the top of the rump and between the buttocks, as we surmise was done with *Ovis* 302 ZI.324.

#### EARS

We have only recently identified this appendage, detached from an animal's head. For years, we simply called it a *crochet*, the French word meaning *small hook*. We began to think that such objects might be interpreted differently when we came from close examination of the ear of *Ovis* 33 A1.479. The *crochet*, so-called, is outlined on an illustration when the figurine is discussed in the *Ovis* catalog (photograph V8b0829).

Where it seemed important, appendages are discussed separately in the catalog. We have included a number of tables, where these appendages are grouped for comparative purposes.

<b>COMPARATIVE TABLES</b>	
<b>APPENDAGES</b>	
<b>HORNS</b>	
<i>Bos</i>	<i>Ovis • Capra</i>
<b>LEGS</b>	
<i>Ovis</i>	<i>Canis &amp; Carnivora • Capra • Equus</i>
<b>EARS</b>	
<i>Capra</i>	<i>&amp; Ovis</i>
<b>TAILS</b>	
<i>Capra</i>	<i>• Carnivora • Ovis • Canis</i>

### A Note About Cleaning

In our thirteenth season of excavations, our conservator, Beatrice Agnelli, revisited each of the figurines we see as the MENTAL TEMPLATE of the animal shared by artisans, cleaning incisions and lifting off adhesions.

This note appears here, because it was an exemplar of *Capra* that first led me to see what careful and skillful cleaning can reveal of the essential nature of an object. In this case, the aspect of the animal changed markedly. I had assumed that the pelt of *Capra* 1 A1.44 was ragged and rather roughly incised. As depositional dirt was lifted out of grooves, the incisions that defined the pelt emerged as more systematically applied than I could have seen before cleaning. The sharpened stick the artisan used to incise the pelt became a tool wielded for its expressive potential.

In another case, three evenly spaced holes around the sexual organs were revealed — *Felis* 35 A7.11. This is a detail that we had encountered only once before, in a stylized surface find, *Felis* 302 Z1.203. We had not seen the holes before; they were stopped completely with depositional dirt that we assumed to be fabric.

Because I have been concerned about the effects of deposition and recovery on color, as an experiment, I took two Munsell readings of *Capra* 34 A7q964.1, a hoof and leg — one before cleaning and one after. The object had been thoroughly brushed; a reading of 5YR 8/3 (pink) was recorded; then, the object was washed and a catalog reading of 7.5YR 8/3 (pink) was obtained. That is, color value remained the same, as did chroma intensity; hue, however, moved toward the yellows, lightening somewhat.

An obvious cautionary tale: if an object is obviously baked, it can be washed; otherwise it will crumble with the application of water. Test gingerly first with a moistened cotton swab. If the object is unstable, apply consolidant.

## CAPRA

1 *Capra* TORSO TEMPLATE

A1.44

Recovered from feature 89 relay 272 • diagnostic length 5.11 • overall length (tail to forequarters below neck) 5.3 • forequarters 2.91 • neck 1.47 • torso 2.08 • hindquarters 2.97 • height at forequarters (broken horn, left, to bottom of breast ridge) 6.0 • height (hindquarters, rump to break at tip of right hindleg) 4.26 • fabric medium fine, with some large gypsum inclusions • Munsell reading 7.5YR 7/3 • color pink • conservation: abrasion on the forequarters • preservation: intact, except for muzzle and forelegs; hindlegs chipped; tail chipped; horns and ears chipped or missing

Torso with finely incised pelt overall. The pelt treatment, except for the inside hindleg and buttocks, is evenly applied over the surface of the object in thin, rather evenly spaced lines. The lines seldom intersect.

Long hairs on the pelt hang down under the body in points. There are at least two areas that meet in a point on the underbelly. The caudal area surely must represent the sexual parts. The cranial area is placed similarly to the sexual organs of *Bos*, carried forward in the belly, but likely only indicates these hairs of the pelt, hanging down. It is as if the artisan wanted to convey that there were longer hairs overlying the kemp of the pelt.

The hindquarters are solidly founded and contained within a narrow, slightly incurving inverted U. The tail is carried high, upturned, and forms a small curved point atop the rump. Inside, the stance is a narrow slightly outcurving V. The buttocks are deeply recessed. Instead of an incision joining tail to belly and dividing buttocks, there is a raised vertical column of clay, applied, then afterwards smoothed to a sharp line.

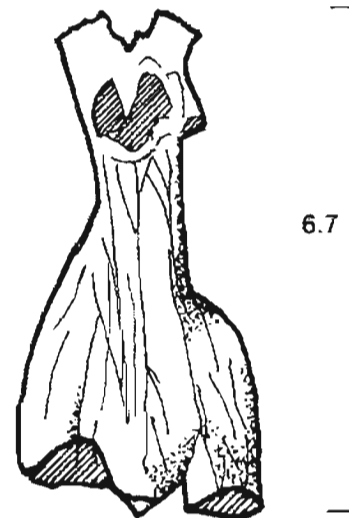
Compare the right rear leg join with *Ovis* 9 A6q19.1, left rear leg/body join. Although the knee joint of A1.44 is not articulated, the leg itself is out somewhat from the body.

There appear to be “ear flaps” on either side of the muzzle, intact only on the left side. There is a pronounced breast ridge. The forequarters are a narrow inverted U outside and solidly founded. The transverse cranial vertical section, however, describes a narrow triangle, a diagnostic trait typical of the genus; the long neck, of course, provides the apex of such a section. The trait is shared with *Equus* TYPE 1, but not with domesticated equids having a wide forequarter stance.

The horns are flat to the front, lozenge-shaped and wide (0.086 – 0.092 cm, long axis). They meet in a V on the crown above the eyes and project up and back.

Note body proportions:

$$\begin{aligned} w1 : w2 : w3 &= 3 : 2 : 3 \\ w1@neck : w2 &= 1.5 : 2 \\ w1@neck : w1 &= 1 : 2. \end{aligned}$$



*Capra* 1 A1.44.  
Cranial view.

The narrow triangular vertical section is shared by others of the genus. Nondomesticated equids also exhibit narrow forequarters.

Scale 1 : 1.  
(rendering cw 1722)

## 2 *Capra* HINDQUARTERS

A1q577.1

Recovered from feature 123 locus 67 • length 3.79 • hindquarters 1.70 • torso 1.49 • height at hindquarters (broken) 2.1 • fabric medium fine, with some inclusions • Munsell reading (body) 5YR 7/6 • color (body) reddish yellow • Munsell reading (core) 5YR 6/4 • color (core) light reddish brown • preservation: partial torso and hindquarters only



*Capra* 2 A1q577.1.  
Caudal view.

The tail, rather wide,  
hangs down.

Scale 1 : 1.

(photograph V9b 0213)

*Capra* hindquarters. The torso is lean and regular, scraped. The buttocks swell outward slightly. They are indented (set back by 0.5 cm); and are smoothed and pulled inward and out from torso. The outside stance is a flat, inverted U. The backs of the hindlegs are extended flaps of clay, elaborated no further. The tail is flat; tapering slightly, it hangs down between these two flaps. The hindlegs are triangular in section.

Compare the raised rump, which contains the tail, with *Ovis* 1 A1.52 and with the hindquarters and overhanging tail of wheeled artifact *Ovis* 3 A1q474.1. Body proportions are similar, as is tail detail.

The darker core (5YR 6/4) visible at torso and legbreaks may be due to firing; there are a number of "pinpoint" holes, as from gas bubbles in the fabric.

Musculature is scraped and smooth. Fingers have formed tapering buttocks. One "pass" on top of the torso ends at the tail and splays out. Could this smoothing and finishing have been accomplished with the fingers only?

Diagnostic details carry the day with this fragmentary representation. Originally, the artifact was assigned to *Felis*, for the body was long and lean. However, no cat as represented in the Urkesh corpus has a tail raised high, as does this example; nor are the hindquarters contained within the protective "flaps" that we have come to associate with *Capra* (and several exemplars of *Canis* from Ur III times.).



*Capra* 2 A1q577.1.

Left median plane.

The hindquarters swell out  
from the torso,  
pulled and folded over.

Scale 1 : 1.

(photograph V90211)

## 3 *Capra* HEAD AND FOREQUARTERS

A5q443.1

Recovered from feature 65 locus 1 stratum B 3 • cranial length (snout to hump) 2.2 • cranial height (snout to torso break) 4.1 • caudal height (hump to rear break) 3.8 • cranial width (horns) 1.65 • thickness (snout) 0.375 • thickness (forelegs) 1.9 • Munsell reading 7.5YR 7/3 • color pink • preservation: forequarters and forelegs broken; head and horns broken, snout chipped.

In dorsal view, the head of this partial forequarters is symmetrically executed, contained outside within a narrow inverted V. Note, in left median plane, the manner in which the head and neck join and the angle of the join. The muzzle is straight, curving smoothly to the snout. The back of the head is humped. Horns are indicated. They meet on the crown in the manner of *Ovis* 41 A5q171.1.



Fabric is fine with some small inclusions. The fragment is smoothly modeled, with little detail. Compare *Equus* TYPE1 forequarters.

Ears are barely indicated and are formed from the fabric of the neck. Light pinching defines the musculature of the neck. Muzzle is pinched. Manufacture seems to be solely handwork, with no shaping by another instrument.

*Capra* 3 A5q443.1.

The flat uniform join of horns on the crown of the head is notable.

Scale 1 : 1.

(rendering cw K715)

#### 4 *Capra* TORSO MINIATURE

A6q144.2

Recovered from feature 144 locus 168 • length 3.12 • forequarters 1.25 • neck 0.087 • torso 0.95 • hindquarters 1.256 • height at forequarters 1.74 • height at hindquarters 1.87 • fabric fine • Munsell reading 2.5Y 2/5 • color black • conservation: piece missing from the torso on the right flank; restored to the extent possible; reglued breast ridge exaggerates its prominence • preservation: broken in four fragments; hindquarters mostly intact

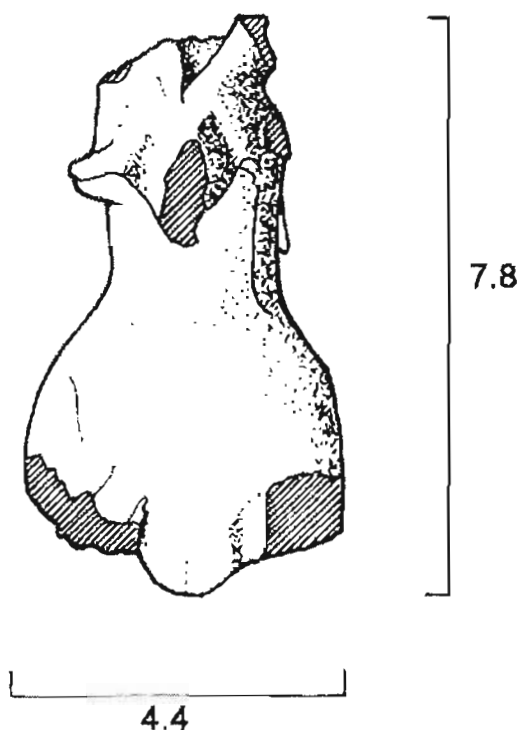
The back is curved below a tail held high. The torso is lean. The hindquarters are triangular in section and contained within an inverted V outside, slightly outcurving. The hindquarters are to be compared with hindquarters *Capra* 1 A1.44 and other objects in the corpus and in other genera that have tail flaps.

The musculature is indicated by scraping. There are five lightly impressed dots on the right flank. There are fingerprints on the rump at flap on right and on the left hindleg.

#### 5 *Capra* TORSO

A6.166

Recovered from feature 208 locus 219 • length (from forequarters under muzzle to tail) 8.82 • note on measurement: length not really a diagnostic measurement, but both parts are intact • forequarters (unbroken) 4.22 • thickness (snout) 1.0 • torso 3.27 • hindquarters 4.35 • tail 1.12 • thickness (left foreleg above break) 2.4 • thickness (leg, short axis) 1.45 • height (left horn to left foreleg) 6.35 • note on measurement: height not diagnostic; taken at hindquarters, which are broken • height = w2 (torso) • fabric coarse, with many inclusions, including silica and gypsum • Munsell reading 2.5YR 7/6 • color light red • conservation: tail affixed with adhesive in its original position • preservation: appendages missing; horns and tail broken



*Capra* 5 A6.166.

Cranial view.

Compare with  
partial forequarters *Capra* 1 A1.44.

Scale 1 : 1.  
(rendering cw I713)

The figurine is damaged, but the diagnostic details are largely intact. The muzzle is rather different from many other examples from the corpus. Although damage obscures the detail, the muzzle is likely oval rather than rectangular in vertical section. The horns join in a V on the crown, curve down onto the head and are carried on either side, around the ear flaps, which project outwards as tabs from the head. Compare ear with ram's head, A1.479, a more naturalistic rendering.

The muzzle tapers from crown to snout. The muzzle is triangular in horizontal transverse section. There is some indication of a "beard" under the snout, fragmentary, but clearly separate from the underside of the muzzle; there are folds of clay that taper inward under the muzzle and come up to this feature.

There is a prominent breast ridge. The left foreleg joins the torso in a manner not typically herbivore, and does not meld with the body. The forequarter stance is foursquare. The rump is an inverted U, probably rather narrow.

There is a mane, low-lying, wide, and slightly pinched. Compare with *Capra* 6 A6q323.1.

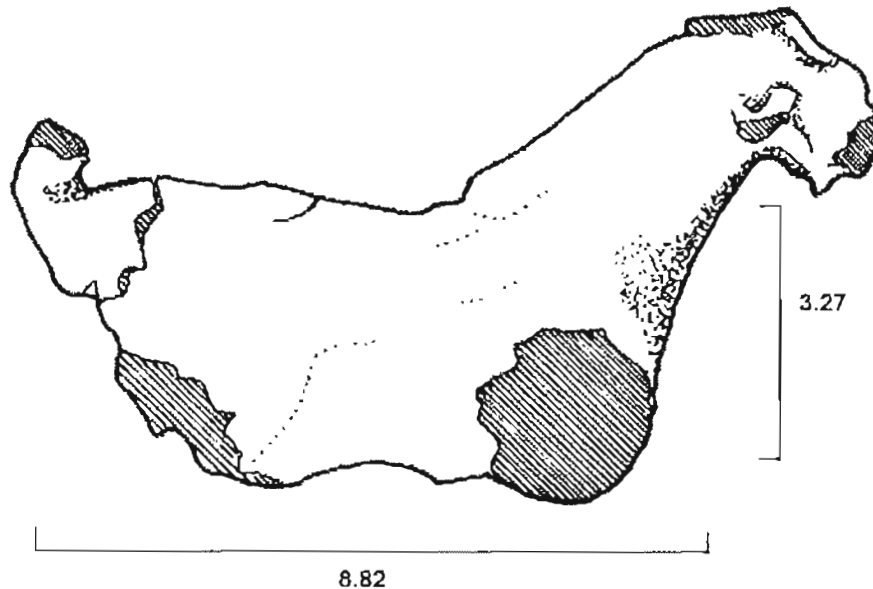
The tail is carried high, curves out from the rump, up and over, joining the body in somewhat the same manner as the tail of the curly-tailed dog. Compare *Canis* 207 K3.8. The termination is lost. Compare also tails *Capra* 20 A1q886.4 and *Capra* 31 A7q206.1.

It appears that the legs were applied as separate pieces of clay and impressed into an indentation in the side of the torso. A small ridge of clay from the torso was pushed up on the inside join of leg and torso, when the leg was applied. This detail is visible because of the break at the inside leg/body join. The tail also must have been applied as a separate piece of clay. The legs are oval in section.

The figurine is baked, yet this did not prevent damage — inflicted, according to our conservator, in antiquity (see next page). The four legs and hindquarters are missing. The tail was broken off and retrieved with the figurine; it has been reattached. There are deep cuts on the left side from the excavation tool, as from the big pick. A piece of the neck was also severed in excavation from the left side of the figurine; it has been replaced and helps further to define the musculature of the neck.



When the figurine was excavated, it was in a deposit of rich red earth. The object itself was impregnated with moisture and the dirt adhered. The nature of some of the damage to the snout, the tail and rump appears almost striated. It may be that the action of water has caused this unusual pattern of depositional damage — an avenue for investigation.



8.82

*Capra* 5 A6.166. Right median plane.Compare the tail with those of *Canis* and with *Capra* 20 A1q886.4.

The dogs and ibexes of Horvat Quitmit, while of different proportions and conformation, bear comparison, too. (Beit-Arieh 1995, esp. 129 Fig.3.84, 131 Fig.387/126)

Scale 1 : 1.

(rendering cw 1713)

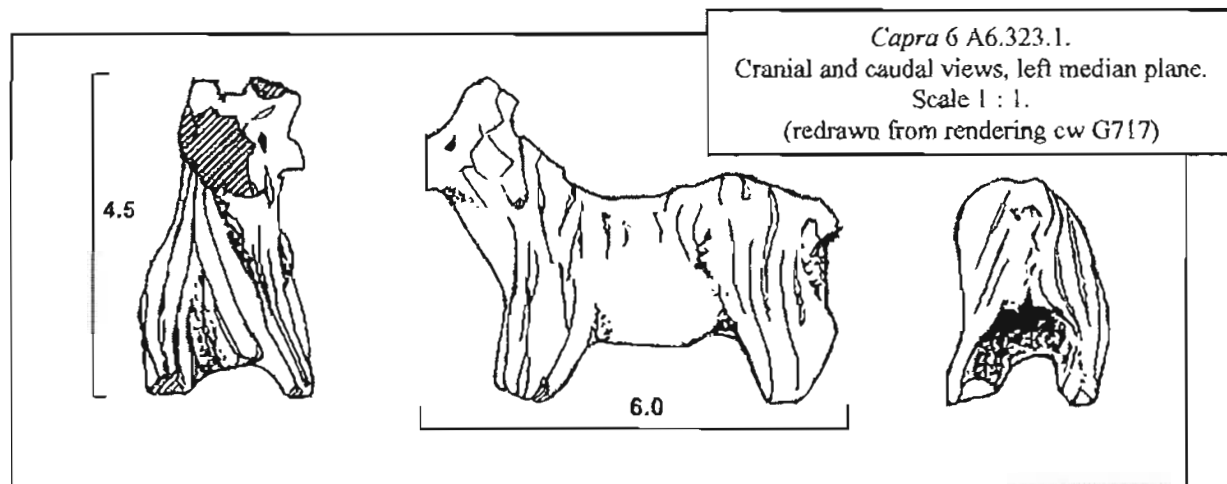
Cleaning with water and the brush was begun on the cut. The clay was dark and dense and no apparent damage was seen. The figurine was cleaned lightly on the muzzle and possibly on one horn to loosen excavation dirt. The tail was lightly cleaned on one side. As work progressed, I became concerned that some damage might have been done in the cleaning process, and in two instances a diagnostic feature might have been possibly obscured. Parts of the figurine appeared to flake away, and what I took to be damage done by the brush became apparent.

To my relief, our conservationists say much of the damage done to the figurine is ancient, not new. According to conservator Samer al-Ghafour, the object was fissured in antiquity. Modern excavation shock broke the object along these fissures, as at the rump. These pieces were not recovered.

6 *Capra* TORSO & HEAD

A6q323.1

Recovered from feature 103 locus 217 • length 4.89 • forequarters 2.30 • torso 1.9 • hindquarters (before "flap" curves in ) 2.2 • neck 1.6 • height (rump to [broken] left hind leg) 3.15 • height (left horn to left foreleg [both broken]) 4.32 • note on measurement: height not diagnostic • Munsell reading 7.5YR 7/2 • color pinkish gray • conservation: considerable dirt still adheres to lower torso, obscuring some pelt details • preservation: all appendages broken; pelt detail and full extent of the torso intact, left torso abraded; tail chipped, muzzle missing and ears chipped



The hindlegs are thick and taper to the knee. The buttocks are pulled outward from the cylinder of clay forming the body, then folded over and pinched together, forming a fine line dividing the buttocks. The hindquarters otherwise are recessed and at the top covered over by these flaps of clay. There are fingerprints on one flap, where it was pinched to form the buttocks. The tail is carried high and hangs to the left on the buttocks.

The forelegs scarcely taper above the knee joint. The right horn is "crumpled" (there are fingerprints) and may be terminated, although it is broken at the back.

There is a lozenge of clay applied to the left side of the neck, as if to plug a hole, but not smoothed into the surface of the clay. A fingerprint indents the lozenge. The fingerprint is actually "within" the left eye, which pierces it, as if the head were modeled from several pieces of clay. This could also be a hole where a small stick was inserted to hold the cranial part of the muzzle onto the head. This may explain why the fingerprint seems to terminate a detail within the head itself.

The fabric is fine, with some inclusions. The incisions that form the pelt are mostly vertical. Note pelt detail on underbelly. The lines forming the pelt terminate, giving the impression of an overcoat of hair hanging down. See composite queen's seal q2.

There are also random strikes that cross over the vertical pelt lines on the body. Compare pelt and hindquarters *Capra* 1 A1.44.



*Capra* 6 A6q323.1. Dorsal view.  
Scale 1 : 1.  
(photograph V10e1405).

The pelt is indicated, incised with a reed or bone cut at an angle. Here the instrument is used primarily in two manners — a thin edge to create fine lines (as with *Aves* A10.47) along the right side of the forequarters and the left side of the rump; and rather more heavily applied (as with *Ovis* 26 A5q135.1/A5.199 [restored]) but always at an angle, on the top of the torso. On the right flank, one sees the characteristic “tripartite” incision.<sup>1</sup>

## 7 *Capra* FOREQUARTERS

A6q648.2

Recovered from feature 211 locus 22 • forequarters 1.63 • neck 1.115 • torso 1.25 • height 2.78 (from leg break to crown of head • neck 1.15 • fabric fine, with some inclusions • Munsell reading 10YR 8/4 • color very pale brown • note on color: fabric only, reading not taken for patina • preservation: hindquarters are missing and surface eroded; problematic and difficult to interpret, because of damage

The neck is long, with horns broken away. The right horn is partially in place; its position is somewhat problematic, as it seems to be rather far back on the muzzle, out from the head.

## 8 *Capra* HINDQUARTERS WITH PELT

A6q1072.1

Recovered from layers above first floors in Service Sector AK “kitchen” • height 3.56 • hindquarters 2.93 • length 4.855 • note on measurement: no diagnostic measurements • fabric medium, heavy chaff temper, gypsum inclusions • Munsell reading 7.5YR 7/1 • color light gray • preservation: hindquarters half broken away; left hindleg broken

The left hindleg is defined by the tripartite incision that divides the buttocks; another line, parallel to the incision, further defines the shape of the leg on the inside. The leg joins the body in the manner of herbivores. The tail would have been carried high.

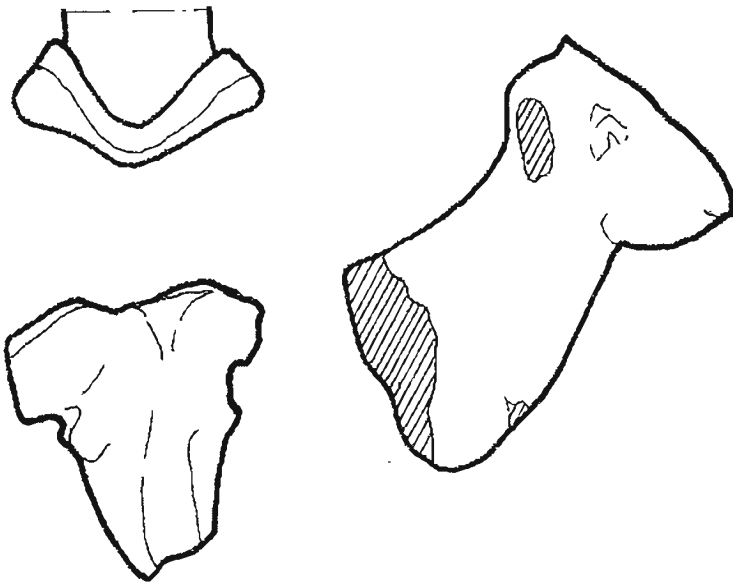
There are heavy incisions on the torso to indicate the pelt. Compare pelt, *Capra* 6 A6q323.1.

## 9 *Capra* HEAD AND NECK

A6q1100.1

Recovered from feature 447 locus 30 • cranial length (snout to horn join) 2.8 • cranial width (horn to horn) 3.98 • forequarters (as this measurement is usually taken, mid-way down forequarters) 2.92 • neck 2.0 • fabric medium fine, with many inclusions • Munsell reading 10YR 8/2 • color very pale brown • preservation: ear flaps and horns broken

<sup>1</sup> I have experimented with several different manners of reproducing both the rendering and the photograph in order to make palpable the differences in the manner in which these incisions have been laid into the clay. Much depends on the original image, of course; in this case, the rendering is from a photocopy subsequently treated electronically to enhance detail. Figures that illustrate the different “pelt” treatments in **TABLE 1** are perhaps comparatively more successful. The persistent observation must be that such details require macro photography and near-photographic realism in drawing style. The former was infrequently available in the field; the latter was not our chosen manner of rendering.



*Capra* 9 A6q1100.1. Right median and dorsal view of muzzle.

The horns are visible in vertical section where they lay, behind and not atop the crown.

Scale 1 : 1.

(rendering cw K716)

The ear flaps are broken, as are the horns. The muzzle tapers sharply. There is a heavy ridge from between the horns to the snout. The muzzle and neck are smoothed.

Note that in this example, the horns join not on the crown, but behind the crown. The neck curves up from the body to under the horn-join. The neck below the muzzle to the breast ridge is also curved.

The ratio of the neck to the forequarters ( $w1@neck : w1 = 2 : 3$ ) is diagnostic. In vertical section, horns are lozenge-shaped. Seen from above in dorsal view, the horns sweep back, not down.

Even though the neck and head are broken off, there remains the indication of a narrow breast ridge. Compare *Equus* TYPE I for breast ridge

## 10 *Capra* TORSO

A7.7

Recovered from feature 26 locus 3 • forequarters 2.41 • neck 1.65 • torso 1.98 • hindquarters 2.21 • height at forequarters (forelegs to horns) 4.29 • height (hindlegs to rump) 2.85 • Munsell reading 10YR 7/3 • color very pale brown • preservation: incised pelt damaged in cleaning on left side; tips of legs broken, muzzle gone

The hindquarters are made of thin flaps of clay folded over and joined. There is a pocket under the tail where the folds meet. Leg/torso join is herbivore. The tail is carried down.

The pelt is incised and hangs down either side, covering the torso. Incisions follow the curve of the torso and legs. The legs are asymmetrical, the right front being heavier and slightly advanced. The horns, which meet in a sharp, clean angle at the crown of the head, are broken off.

The rendering of the pelt gives a sense of movement to the piece, a liveliness characteristic of the figurines of Urkesh.

Torso : neck = app. 3 : 4.

Forequarters : hindquarters = app. 1 : 1.

Hindquarters : torso : forequarters = app. 5 : 4 : 5.

There is an incised crest along the back; it curves out and toward the right hindleg. Compare to *Capra* 1 A1.44.

The figurine is unbaked.

## 11 *Capra* TORSO

A7q12.1

Recovered from feature 10 • length (breast ridge to edge of hindquarters) 4.42 • forequarters 1.07 • torso 1.66 • hindquarters 2.02 • height at forequarters (horn to right foreleg) 3.1 • height at hindquarters 1.125 • fabric fine, with uniform small inclusions (silica?) • Munsell reading 10YR 7/1 • color light gray • conservation: Wite-Out numbers applied on hindquarters; acetone applied; Wite-Out chipped away, remainder dissolved, leaving white residue that eventually can be removed • preservation: all appendages broken; tail intact; head intact except for muzzle; edge of hindquarters intact on left, chipped on right

Elongated torso, with indication of musculature on back as neck blends into torso. The body is heavy in the hindquarters; the stance is *Canis*. Sharp edges on rump, recessed area under tail. The tail is carried high. It is short and curves upward, broken at tip. Compare with tail *Capra* 20 A1q886.4.

The buttocks are rounded and contained within a narrow inverted U. Compare with the stance of *Capra* 15 A7q358.1.

Head is wide and bears an indication of horns above and behind ears. There is a pronounced breast ridge. Penis (abraded) is expressed, but within belly.

There is some indication of musculature by scraping.

## 12 *Capra* TORSO

A7.157

Recovered from feature 63 locus 8 • length 4.63 • forequarters 2.41 • torso 2.06 • hindquarters 2.6 • tail 0.0725 • height at forequarters 2.55 • height at hindquarters 3.6 • fabric medium, some inclusions • Munsell reading (fabric) 5YR 7/3 • color (fabric) pink • Munsell reading (depositional patina) 5YR6/3 • color (depositional patina) light reddish brown • preservation: all appendages broken; on left legs, tips only missing; tail broken

Legs project forward, the light curve of the underbelly links them to the hindlegs. The tail sticks straight out, as torso *Carnivora* 1 A1.19 and some examples of chariots, yet to be catalogued in a thorough manner (as an example, A6q423.1). The hindquarters are solidly founded on a narrow inverted U. Inside, the legs join in an inverted U. The forequarters are widespread. The foreleg/body join is 120 degrees.

Although the legs are not much separate from the torso, there is an incision that makes the division on the left flank and a modeled indentation on the right. The hindquarters curve down on the left to meet the hindleg, although this is outside the torso, not part of it — the difference in modeling technique is significant. Compare with left flank *Ovis* 9 A6q19.1.

13 *Capra* FOREQUARTERS, MUZZLE, AND HORNS

A7.251

Recovered from feature 155 locus 12 • length (breast ridge to torso break) 2.925 • cranial length (broken snout to curve of horn) 2.17 • cranial width (horn to horn) 1.73 • forequarters 2.24 • height at forequarters (left horn to left foreleg [broken]) 4.46 • torso 1.64 • fabric medium fine, with many inclusions • Munsell reading 10YR 6/3 • color pale brown • conservation: depositional stain (carbonized medium?) left foreleg at break • preservation: forequarters only; horns and muzzle chipped; left foreleg only partially intact, right foreleg missing



*Capra* 13 A7.251.  
Cranial view from above  
to show join of horns atop crown;  
forequarters foreshortened.  
Scale 1 : 1.  
(photograph MZ8A V10e1402)

The neck is apart from and above the torso. The muzzle is rectangular in vertical section; it is pinched. Ears are lozenge-shaped in section and project out and down. The stance likely is foursquare, rather than projecting forward (*élancées en avant*). The breast ridge is not deep, yet extends between the legs. There are fingerprints on the fabric.

The horns curve up and back, spreading out. The end of the almost intact horn "twists," rotating back upon itself.



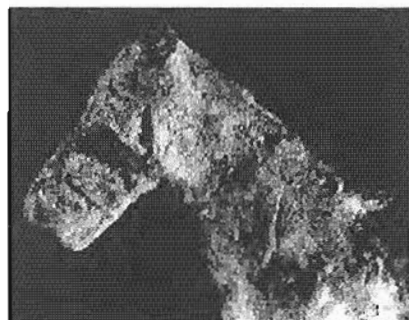
*Capra* 13 A7.251.  
Dorsal view,  
schematic join of horns  
atop crown.  
Scale 1 : 1.  
(rendering cw K715)

Although the bezoar goat, one of the main progenitors of domestic stock, has horns that arch high, up and back, twisted horns appear quite early on in the process of domestication. They are found side by side with straight horn cores, in the faunal samples. By the Bronze Age, they predominate over straight horn cores, although why this is so remains unclear (Clutton-Brock 1981, 58ff, esp. 61 and Fig. 5.13).

14 *Capra* TORSO

A7.319

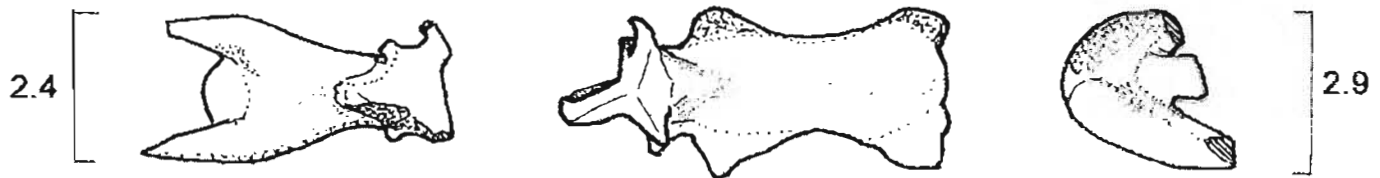
Recovered from feature 135 locus 15 • length 3.6 • thickness (snout) 0.048 • thickness (snout, long axis) 0.065 • forequarters 1.93 • neck 1.34 • torso 1.44 • hindquarters 1.95 • Munsell reading 2.5YR 7/6 • color light red • preservation: intact, except for hindlegs, horns and udder, which is chipped



*Capra* 14 A7.319.  
Cranial left median view,  
to show muzzle termination and strikes.  
Scale 2 : 1.  
(photograph V7b1001)

The muzzle is long and tapers to the snout, which is rectangular in section and pinched. The horns are held up and back, separate from the head. The ears hang down and project outward from the head; they are widely spaced, and the crown is wide, despite the narrow snout.

There is a light groove on the left side of the muzzle, perhaps an indication of a tether? A deeper strike or groove meets it at an angle closer to the snout. This may be a regular scratch or a piece of chaff temper (large).



*Capra* 14 A7.319.  
Cranial, dorsal and caudal views.  
Scale 1 : 1.  
(rendering cw 1713).  
Left median plane.  
Scale 1 : 1.  
(photograph V10e1609)

Nonetheless, the fabric is fine, with few inclusions. It is the same reddish clay as *Capra* 5 A6.166. The musculature (or pelt) is indicated by scraping. The legs taper to a sharp point.

There is a breast ridge, carried slightly to the left. The udder is indicated. The belly is slightly convex. The tail is carried high.

The stance is an open inverted U. Inside stance is an inverted V; legs join at 45 degrees. Forequarters stance is foursquare, the body join is straight down, and the legs blend with the body.

The figurine is largely intact, missing only one leg; the horns, udder, and tail are broken.

Although this observation may be due to an accident of excavation, the leg appears to have been applied separately; it is quite attenuated.

## 15 *Capra* HINDQUARTERS AND TAIL

A7q358.1

Recovered from feature 63 locus 8 • height 3.46 • hindquarters 2.67 • torso 1.87 • fabric medium, many uniform inclusions • Munsell reading 5YR 6/1 • color gray • preservation: hindquarters only; top of tail chipped

The tail is carried high and, if one does not account for the broken “knob” at the top of detail, appears to hang down only. The additional height makes the feature more “goatlike”, at least as we have envisaged it in the typology. The buttocks are fused. The outside stance is a tight, slightly outcurving inverted U.

The interior may be partially carbonized. How else to explain the large dark area at the center of the torso? A “core” of radically different material? If so, it is very dark indeed. The dark area is not depositional stain. Original notes ask the question: “Partially drilled?” And in fact there are two holes or shallow indentations at the bottom of this dark area. Could the piece have stood on a stick, inserted in these “holes?”

16 *Capra* TORSO AND NECK (HEAD)

A7q704.1

Recovered from feature 206 locus 24 • length 3.2 • forequarters 1.42 • neck 1.1 • torso 1.29 • hindquarters 1.64 • tail 0.53 • fabric fine • Munsell reading 7.5YR 7/3 • color pink • conservation: eroded; abrasions head and neck • preservation: muzzle, neck, and tail intact; horns chipped

The snout is pointed. The horns join flat on the crown and may project outward from the head; they do not curve down. The ridge of the muzzle descends from below the crown to the snout. The muzzle is triangular in section, yet curved in profile. The forequarters are founded on a narrow, slightly incurving V outside.



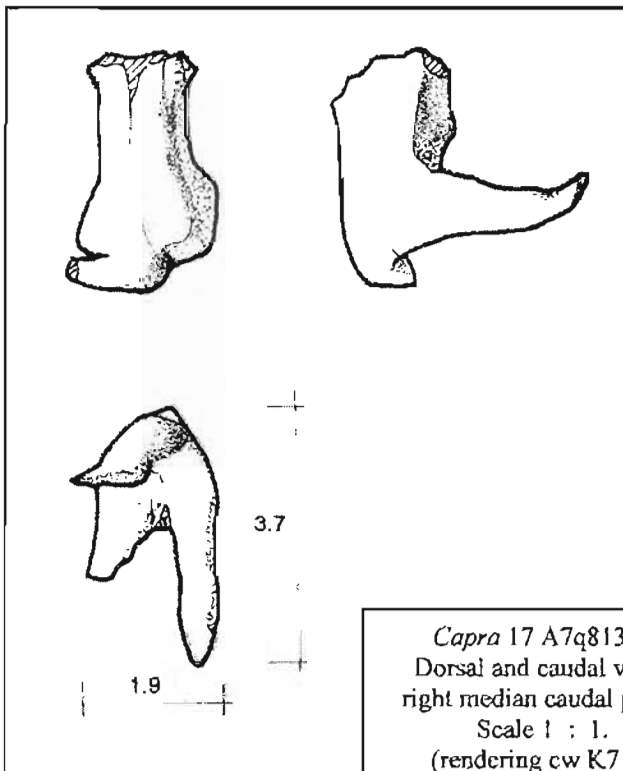
*Capra* 16 A7q704.1.  
Cranial & dorsal views.  
Scale 1 : 1.  
(rendering cw 1711)

The tail is carried high; it is the *Capra* type. Compare with tail fragments *Capra* 33 A7q306.1 and *Capra* 20 A1q886.4. Hindquarters are contained within an open, slightly outcurving inverted V outside. The buttocks are fused. There is a curve to the back.

17 *Capra* HINDQUARTERS, RIGHT HINDLEG & TAIL

A7q813.2

Recovered from feature 148 locus 13 • hindquarters 1.98 • tail (tail, after it separates from the body, not at base) 0.74 • torso 1.33 • height at hindquarters 3.51 • length (under tail to break) 3.11 • note on measurement: length not diagnostic • fabric medium, some inclusions • Munsell reading 10YR 7/2 • color light gray • preservation: hindquarters only; tail and right hindleg intact, except for broken tip



*Capra* 17 A7q813.2.  
Dorsal and caudal view,  
right median caudal plane.  
Scale 1 : 1.  
(rendering cw K717)

The tail tapers to a point and is slightly chipped at the tip but is carried far to the left, as if “swishing” (as noted by Claudia Wettstein). A sheep tail is heavier, longer, and pendulous. Stance is narrow and slightly outcurving inverted U outside. Angle of leg join is 40 degrees. Note incurving inside leg.

Although this example accords with the typology of *Capra*, there is something in the stance, particularly as seen from the right flank, that suggests another genus. The stance may be key; it is very solidly founded. Compare hindquarters *Ovis* 26 A5q135.1 and *Ovis* 1 A1.52.

Also compare tails *Capra* 33 A7q306.1 and *Capra* 20 A1q886.4.

The right hindleg has a hoof that is reminiscent of the *crochet*, *Capra* 104 A1q495 and *Ovis* 38 A1q1045.3.



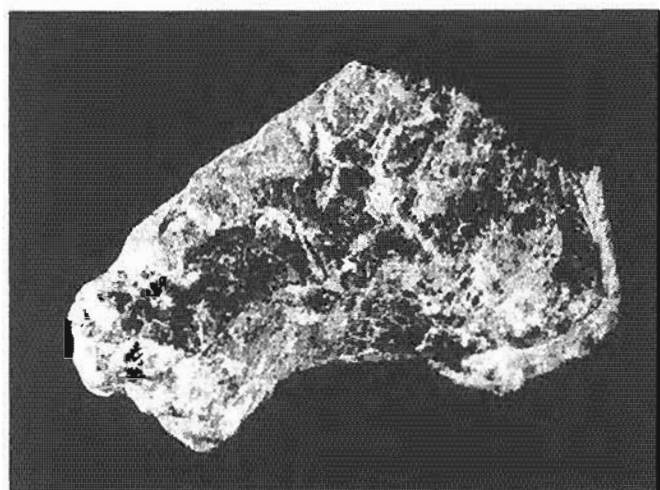
*CAPRA*

## TENTATIVE IDENTIFICATION

100 *Capra* HEAD WITH COLLAR (?)

A1q959.3

Recovered from feature 137 locus 20 stratum B11 • cranial length (snout to neck "collar") 3.38 • cranial height (crown to "chin") 2.4 • thickness (muzzle in vertical section 1.15) • neck 1.4 • fabric fine, with some inclusions • Munsell reading 7.5YR 3/2 • color dark brown • conservation: fragile • preservation: all appendages broken; piece in advanced state of disintegration



*Capra* 100. Left median plane.  
Scale 2.6 : 1.

(photograph no #. These notations printed on back:  
F.C. 31+4 3NENN+4OAU 6899)

The photograph to the left has not been treated for fear of further obscuring diagnostic detail. As it stands, the following details may be discerned: animal snout to the left, beard below. The "beard" is defined by a wedge-shaped polished stone embedded in the fabric. Crown and possible horn juncture can be inferred slightly to the right and above an eye orbit indented mid-muzzle.

This orientation provides by far the most plausible reading of this diminutive artifact. Yet photography, depositional damage and perhaps incomplete manufacture conspire to place the artifact within the realm of fantasy. It has been included here as a reminder that identification is sometimes the result of a slow process of accumulation of detail, particularly so when diagnostic measurements are absent.

Both vertical and horizontal sections of the muzzle are triangular, as is invariably the case with *Capra*.

101 *Capra* HEAD WITH HORNS

A6q594.1

Recovered from feature 191 locus 169 • cranial length (snout to rostral break) 4.3 • neck 1.31 • cranial width (horns) 2.24 • note on measurement: only cranial width and neck measurements diagnostic • fabric medium • Munsell reading 7.5YR 8/3 • color pink • conservation: incorrect number and Wite-Out removed with acetone to the extent possible • preservation: head, part of neck (only), muzzle broken

The horns intersect on the crown. They are oval/lozenge-shaped in section and would have extended out, not down. The head is flat at the crown.

The muzzle is blunt. The snout is bent somewhat, flattened against the muzzle; this manner of execution and the upturned mouth give a startling reality to this diminutive piece. The fabric under the chin is not rounded off, but juts out; the animal may have sported a beard. Compare with the muzzle and snout of *Capra* 5 A6.166.

There are incisions or shallow impressions near the snout seemingly made by a narrow round instrument laid on the surface of the wet fabric, somewhat in the manner of *Capra* 14 A7.319. Overall, there are uniform light "abrasions" — for want of a better word. It is as if a coarse cloth, tightly woven and impregnated with dilute fabric, was dragged over the surface to finish it. These abrasions give the impression of a pelt.

Compare the snout and execution of the muzzle with *Ovis* 304 Z1.275 and with *Ovis* 37 A1.479. The latter representation is much more schematic, yet the overall impression is one of lively realism. Here, reality is in the detail.

In truth, this artifact is outside the typology, for no diagnostic measurements obtain. The identification is based solely on the fact that the representation "looks like" a goat. In the absence of diagnostic, verifiable measurement, the researcher is in the realm of impressionism.



*Capra* 101 A6q594.1.

Left median cranial plane.

Scale: slightly larger than 1 : 1.  
(photograph V10e1515, supplemented  
with graphic treatment in caudal area  
to compensate for light camera exposure)

## 102 *Capra* THERIOMORPHIC ATTACHMENT FOR A VESSEL

A10q293.2

Recovered from feature 102 locus 9 • thickness (horn to horn [both broken]) 3.75 • length (snout to snout [both broken] ) 10.15 • height (midpoint between two heads to break in "stem") 5.05 • diameter (attachment) 3.42 • thickness (snout) 1.05 • thickness (neck of intact animal) 2.97 • thickness (neck of broken animal opposite) 2.76 • note on measurement: need to differentiate the attachment from the symmetrical animals, at least given present orientation • fabric medium, heavily chaff-tempered • Munsell reading 2.5Y 8/2 • color pale yellow • conservation: surface adhesions overall • preservation: crown of head broken; breaks at two places of attachment, probably where the *Capra* figures joined and at vessel-join

The orientation and exact method of attachment is uncertain, but this piece must surely be dependent for support on a larger vessel. The form is likely bipartite (I owe this suggestion to Marilyn Kelly-Buccellati in the field). If this is the case, then the form could be taken as two heads symmetrically emerging on either side of a stalk that was the vessel attachment.

The muzzle and snout of the animal are finger-smoothed. On the left side of the head of the intact animal, a large horn sweeps back, keeping close in to the head. On the right side of the head, there may be an ear or the remnants of the tip of the horn, which may have curved down and around. The ear on the opposite side of the head has been broken away. The back and neck of the intact animal have been smoothed, patterned by smearing, as with a cloth.

The object recalls *Avis* A1.8 in form, as it does a tiny alabaster bird surmounting a needle from the Little Antentempel at Tell Chuera (Moortgat 1978, 71 Abb. 30). It is also worth considering the form of the unusual "processional" vases from Tell Chuera, mid-third millennium (Moortgat 1965, 19ff., Abbs. 7, 9, also Abb. 11). The actual place of attachment of parading animals was often surprising and also, when detached from the bearing vessel, somewhat counterintuitive. For example, the quadrupeds edging along the lip in Abb. 9 are attached along the entire median plane; or when partially detached, as with the animal and rider in Abb. 7, the place of attachment may be at the torso. Our *Capra* 203 A9q8.1 might also have suffered damage to the torso, if pressed into the fabric of a vessel.

The form may be purely geometric or functional. Marta Abbado, draftsman in excavation season MZ11, recalled the heavy "andirons" that were used in kilns at Tell Ashara, the site of ancient Terqa. Here, heavy clay artifacts with three "spokes" branching outward were used (as I gather) as supports; or possibly (contemporary models) as spacers for pottery within the kiln during firing.

### 103 *Capra* HEAD AND ONE INTACT HORN; TERMINATED

A10q295.1

Recovered from feature 102 locus 9 • height 3.64 • thickness 2.84 • cranial length (back of head to broken muzzle) 1.58 • thickness (before tip, right horn) 0.58 • thickness (base of right horn) 0.99 • note on measurement: difficult to measure at point of attachment • fabric fine, with some inclusions • Munsell reading 10R 7/1 • color light gray • preservation: base chipped all around; muzzle broken, horns chipped

The horns meet on the crown in a gentle curve. The horns are ovoid in section. They are rather flat. They are short and taper quickly to a blunt point. They project slightly up from the head and back.

The object can stand alone. The base is concave only to the extent that there is a slight rim around the base; and the chipping around this rim is reminiscent of some of the tokens included in the humanoid corpus as comparative material. Some of the humanoid objects are quite similar and may in fact be representations of animals. Many of the humanoids are terminated.

The modeling is somewhat different on this object, as if it went around the body as opposed to the length being the finished dimension. This may be a clue to another identification, namely a freestanding humanoid figurine. There are fingerprints overall.

The object is unique in the corpus.

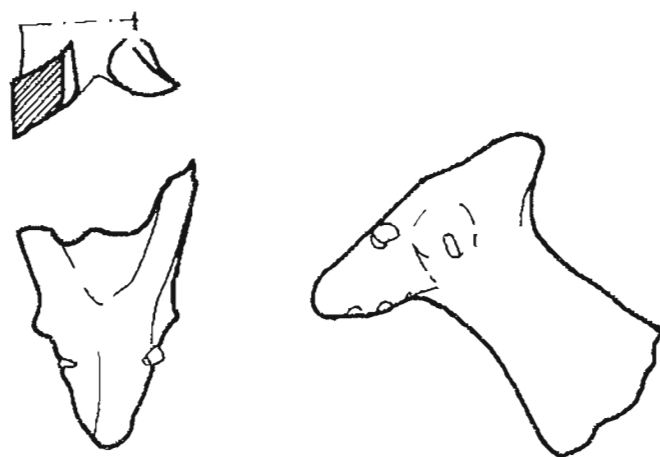
## CAPRA

## RELATED STRATIFIED FINDS

200 *Capra* HEAD AND HORNS

A2.113

Recovered from feature 108 locus 151 (?) • thickness (left horn to snout) 4.79 • thickness (snout) 0.74 • thickness (snout, vertical long axis) 0.76 • neck 2.22 • fabric medium, with many inclusions • Munsell reading 5YR 7/2 • color pink • conservation: depositional adhesion on back of neck • preservation: head only; horns broken, appliquéd eyes chipped



*Capra* 200 A2.113.

A study of the way the horns of the animal meet atop the crown.

Also note the attachment of horns to the neck/muzzle.

They appear to be fashioned from the same piece of clay and not applied.

It is important to note that this piece comes from post-Palace occupational levels and therefore may differ in manufacture from AK figurines.

Scale 1 : 1.

(rendering cw K716)

The horns are one with the muzzle and sweep back from it. The object tapers from horn to snout. The snout is a vertical rectangle in section.

The ear flaps are broken off. The right ear, though broken off, is attached to the head by a small *crochet*/hooklike form as seen in *Capra* 34 A7q964.1. Here it is the attachment that has the hook; the piece is not terminated by it.

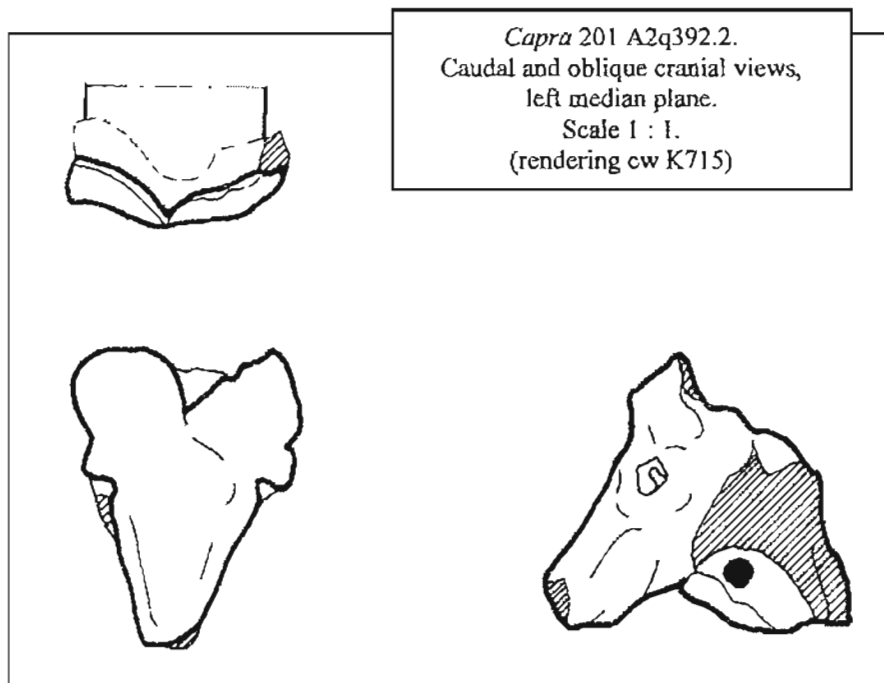
The eyes are appliquéd circles (chipped) of clay. In this case, the appliquéd eyes do not appear out of place on the head; or rather, as an abstract detail. This may be because the piece itself is bold in execution, even though realistic in form.

201 *Capra* HEAD WITH PERFORATION IN NECK

A2q392.2

Recovered from feature 149 locus 151 • cranial width (horn-to-horn) 3.06 • cranial length (horns to snout) 3.9 • note on measurement: cranial width and length are diagnostic measurements, as horns are intact • thickness (snout, vertical long dimension) 1.43 • thickness (snout, horizontal dimension) 1.011 • detail (hole) 0.036 • neck 2.6 • Munsell reading 10YR 7/2 • color light gray • preservation: head only, one ear flap intact, eyes and muzzle abraded; horns may be terminated, not broken

There is a pull on the lower neck. Clay splays out around the exit hole on the right side of the neck. There is a thin section of clay under the neck, possibly only as an attachment to permit the perforation to be made. There may be an "ear flap" behind an indentation for an eye on the left side of the muzzle. There is a fingerprint under the left ear. The muzzle is a rectangle in vertical section, an isosceles triangle in horizontal section. Compare head and pull *Ovis* 33 A1.479.



*Capra* 201 A2q392.2.  
Caudal and oblique cranial views,  
left median plane.  
Scale 1 : 1.  
(rendering cw K715)

The horns are drawn out, extended — *étirés* — and thin, not like the horns of other animals in the genus. They may each in fact be terminated in a smooth curve just above the crown. Could this indicate a younger animal, horns not fully developed?

The fabric is coarse. This is the only object in the *Capra* corpus I have characterized as having a "coarse" fabric. I might

have been well advised to name only one other piece in the same manner. Alternatively, I might have said "medium fine, with many inclusions." I mean to be clear when I say that this is not as coarse a ware as the standard cooking pot, thickened with temper to retain heat. The designation is one end of an impressionistic determination that I have tried to apply with some consistency.

There are also many small air bubbles throughout the fabric; firing time should be considered here as a factor, perhaps longer than usually seen in the corpus. Yet there is no sign of carbonization, as with some *MINIATURE Canis*.

## 202 *Capra* TORSO

A9q8.1

Recovered from feature 9 locus 3 • length 3.54 • forequarters 1.21 • neck 0.91 • note on measurement: break at midsection makes torso reading impossible • hindquarters 1.28 • height at forequarters (crown of head to tip of legs) 2.4 • fabric medium, few inclusions • Munsell reading 7.5YR 7/3 • color pink • conservation: Wite-Out number had largely flaked away; cleaned with acetone; removed to the extent possible • preservation: forelegs intact, sides of muzzle broken; half of torso chipped away for entire midsection; hindquarters intact



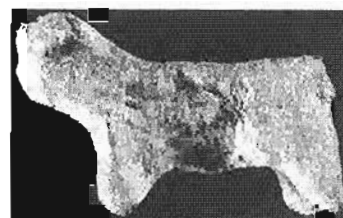
*Capra* 202 A9q8.1  
Caudal view.  
Note tail carried high.  
Scale 1 : 1.  
(photograph MZ7 series  
B121: P.C.31+4 1NCNN + 51AU 6899)

Torso with fused buttocks, foursquare stance outside, wide inverted V inside, legs join at 90 degrees — a detail not seen elsewhere in the corpus with this combination of elements; but consider also that legs join low in the hindquarters.

That is to say that the legs are not long, but rather squat. The tail is carried high. There are fingerprints under the tail break.

The back of the head swells out to either side, as for horns; one may extend to left; the right horn is entirely broken off. The ratio of neck to forequarters is 3 : 4.

See comparative examples under *Capra* 101 for a possible explanation of the breakage at the torso (photograph, right). If the representation were attached to a vessel, as with the Chuera animal processions, and then broken away, the fabric might have been damaged in this manner. Otherwise, it is difficult to imagine how or why gouging would account for this pattern of damage to the artifact.



*Capra* 202 A9q8.1.

Left median plane.

Note break at crown,  
a possible horn attachment.

The pattern of breakage at the torso is  
unique in the corpus.

Scale 1 : 1.

(photograph MZ7 series

B121\_ : F.C. 31+61NENN+51AU 6899)

## 203 *Capra* TORSO

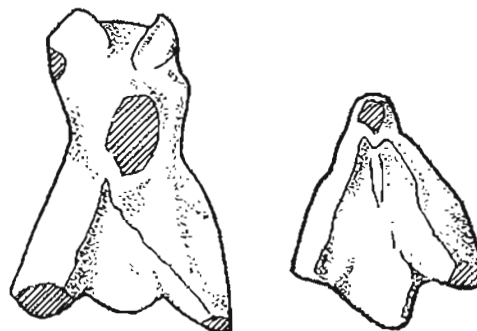
## A10q114.1

Recovered from feature 77 locus 3 • length 5.47 • forequarters 2.765 • neck 1.8 • torso 2.37 • hindquarters 2.53 • note on measurement: hindquarter width not diagnostic; break makes it difficult to measure accurately, although measurement as given is taken right at the edge of the break • fabric fine, inclusions • Munsell reading 7.5YR 7/3 • color pink • preservation: horns broken; tail and snout chipped

The hindquarters are triangular in section. Legs join at 60 degrees. Udder pronounced. Tail carried high. There is the characteristic "edge" to the hindquarters. Compare hindquarters of *Capra* 1 TYPE A1.44.

It is difficult to see the disposition of the horns, as they are broken at both join and tip; very little diagnostic remains.

The pelt is indicated on the left rear leg and perhaps elsewhere on the body by fine incisions, now eroded. The figurine appears to be lightly incised overall. The neck is lightly scraped to shape.



*Capra* 203 A10q114.1.

Cranial and caudal views.

Measurements as taken from this rendering are slightly less  
than indicated in the catalog,

for the draftsman's plane is taken as a section  
at the foremost edge of the object when seen straight on.

Note that both forequarters and hindquarters  
are triangular in vertical section.

Scale 1 : 1. (rendering cw L730)

In the dig house at Tell Barri, I was shown triangular caprid hindquarters from Achaemenid layers. It is striking that, even at this late date, the technique of manufacture persists. Hindquarters and forequarters are executed in the same manner. The stance of the forequarters is also triangular, a singular detail that is found amongst caprids.

204 *Capra* TORSO

A10.129

Recovered from feature 219 locus 24 • length 3.07 • forequarters 1.655 • cranial length 2.42 • neck 0.885 • torso 1.15 • hindquarters 1.8525 • tail 0.52 • preservation: all appendages broken; horn and tail chipped

The eyes are almond-shaped; the pupil is indicated by a lightly incised oval. Horns extend straight back.



*Capra* 204 A10.129.  
Left median plane.  
Scale 1 : 1.  
(rendering cw J706)

The tail is carried high. The buttocks are rounded, an unusual detail for *Capra*. There is a breast ridge and the vertical cranial section is triangular, typical of the genus.

Some diagnostic details are not reported for A10.129. It was recovered in the last days of our twelfth season of excavation at Tell Mozan and tentatively scheduled for delivery to the museum at Deir ez-Zor, then held back for further study. This analysis was not completed. The figurine is included here as a striking comparative example.

A10.129 was recovered in strata that tentatively are taken to be contemporaneous with the first floors of Royal Building AK. Typology is respected.

Note the attitude of this figurine. It echoes the lively stance of two examples of domesticated equids, *Equus* 36 A5q815.1 TYPE III (left median plane) and *Equus* 37 A7.407 TYPE III (right median plane).

205 *Capra* TORSO

A10.249

Recovered from feature 343, locus 32 • length 5.51 • forequarters 2.36 • neck 1.48 • cranial width (across horns) 1.83 • thickness (vertical dimension, muzzle) 0.94 • thickness (horizontal dimension, muzzle) 0.875 • torso 1.7 • hindquarters 2.5 • height at forequarters (horn to left foreleg) 5.765 • height at hindquarters (tail break to left hindleg) 3.15 • note on measurement: height not diagnostic • fabric fine, with many fine and uniform chaff inclusions • Munsell reading 7.5YR 7/3 • color pink • preservation: legs broken off; horns missing, muzzle chipped; tail missing

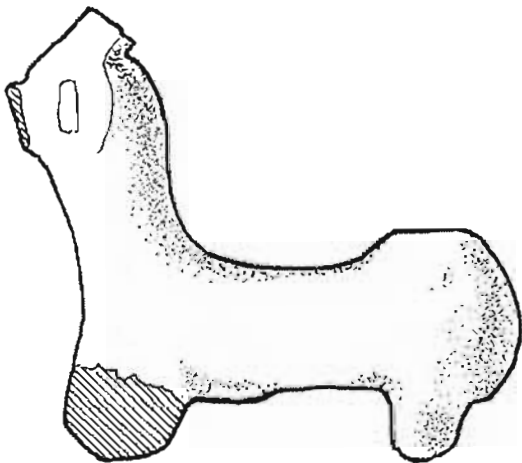
In limited excavations we carried out during study season MZ13, a figurine was found standing erect and between stones of wall f318. The wall had been cut by a pit and this animal representation was found in an accumulation immediately below the floor of the pit.

Because it was found late in the excavation season, no diagnostic photographs were taken; for several years, I had to be content with a field photograph of the object as found — standing, which is notable because not usual. This find is from layers immediately above the Service Sector in AK, and within the peripheral wall bounding this sector to the east.

In a subsequent season, Claudia Wettstein was able to render the object, but until this account, I have not been able to turn to its analysis.

The representation fits the *Capra* typology exactly (with the exception of the forequarters treatment, not the stance), as evidenced by the TYPE (TEMPLATE) figurine, *Capra* 1 A1.44. As with TYPE (TEMPLATE) *Canis* 7 A5q82.1, there would seem to be a continuity of manufacture, each genus remaining fairly constant in representation over several hundred years.

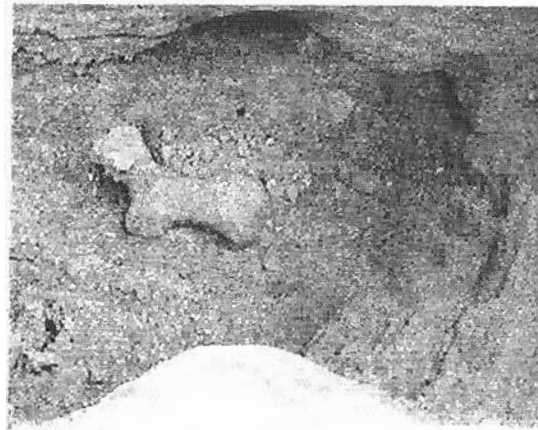
The forequarters are narrow; the forelegs are lozenge-shaped, as are the hindlegs; both are brought out from the body, to form a kind of open envelope around the quarters. This detail is not so marked elsewhere in the genus, where the forequarters seem most reminiscent of *Equus* TYPE I.



*Capra* 205 A10.249. Left median plane.  
The pelt is not indicated.  
Scale 1 : 1  
(rendering cw L801)

Most notable is the hindquarters treatment, enclosed by a flap, pinched together at the top but open below. The lower part of these fused flaps may in fact have been cut away and then smoothed. Also notable is the lack of detail underneath the flap. The inverted V inside is terminated by fabric that may represent an udder.

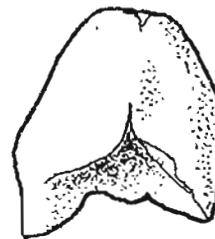
There is little indication of musculature nor of a pelt.



*Capra* 205 A10.249 in situ.  
The stones of wall f318 are in the foreground.  
(field photograph V13d0121A10v124e)

The horns are broken from the crown of the head; they extend back and are almost parallel. They are triangular in section and appear to join on the crown. Earflaps are visible on both sides of the head; the muzzle is chipped away and is almost square in section.

The hindquarters are high and narrow and enclosed within a slightly rounded inverted U outside. The tail was carried high and has been broken away. The rump curves down to the hindlegs, which do not continue but interrupt the curve.



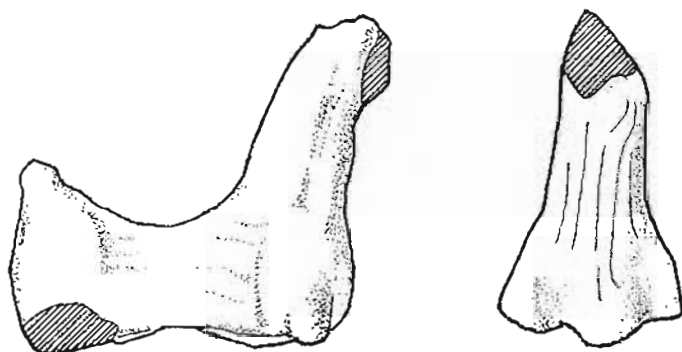
*Capra* 205 A10.249.  
Caudal view.  
Attenuated flaps  
seem to have been added  
in a secondary stage of manufacture.  
Scale 1 : 1.  
(rendering cw L801)



206 *Capra* TORSO AND NECK

A10q293.1

Recovered from feature 102 locus 5 • length 5.0 • forequarters 2.8 • neck 1.58 • torso 1.69 • hindquarters 2.77 • tail (base of tail) 0.75 • height at forequarters 4.8 • height at hindquarters 2.75 • fabric fine, with inclusions, including some gypsum • Munsell reading 7.5YR 7/2 • color pinkish gray • conservation: tail abraded • preservation: torso, all legs broken and muzzle broken off, tail intact



*Capra* 206 A10q293.1.  
Right median plane and cranial view.  
Note surface treatment on forequarters  
and slight indication of musculature on the torso.  
Scale 1 : 1.  
(rendering cw L730)

The neck is long, and on the front under the muzzle, it is scored or shaped to show a long pelt. This type of treatment for surface detail has not been otherwise seen in the corpus. Yes, such scraping has shaped the torso, but here the intent seems to want to indicate something else; it serves as a surface treatment, not shaping of the animal representation itself.

The tail is carried high and turns up. The hindquarters are flat and contained within an incurving inverted V. Compare *Capra* 1 TYPE (TEMPLATE) A1.44. The match is exact.

The calcified depositional adhesion on the underbelly can be removed by scraping gently with the tip of a wooden skewer. I have elsewhere taken such raised markings to be partially carbonized medium itself, remaining on the surface of the figurine.

## CAPRA

### APPENDAGES

#### 18 *Capra* LEG AND HOOF

A1.330

Recovered from feature 137 locus 20 stratum B11 • note on recovery: in AK by doorway, possibly excavation unit A5, feature 68 (?) • height (tip of hoof to joint) 3.2 • thickness (joint) 1.2 • thickness (hoof itself) 0.7 • fabric fine, few inclusions • Munsell reading 10YR 8/2 • color very pale brown • preservation: hoof, knee and upper leg only

There is an expressed knee joint, typical of herbivores. The hoof terminates sharply and is precisely modeled. The curve from body to knee joint is marked. The mass (lock) of hair at the back of the leg above the hoof is modeled.

Work at this scale might demand a fabric with very fine temper and few inclusions. The surface is scraped to shape, but then fingerprints cover the leg, almost serving as a "pelt" of fine hairs. At the bend in the object, there are stress lines, as if the piece were bent to shape when relatively dry. The hoof is finger-modeled and is an appliquéd piece.

See **COMPARATIVE TABLE 7 & 7A Appendages Legs Capra.**

#### 19 *Capra* UPPER LEG, EXPRESSED KNEE JOINT, AND PARTIAL HOOF

A1q855.1

Recovered from feature 159 locus 118 stratum B13 • height (greatest length) 3.7 • thickness (body joint) 1.4 • thickness (tip) 0.7 • thickness 0.9 • fabric medium fine, with some inclusions • Munsell reading 2.5Y 8/3 • color pale yellow • preservation: upper leg, knee joint and partial hoof

The leg is *gracile* (Sándor Bökönyi terminology). The leg bends and should be compared to the hindleg of *Ovis* 9 A6q19.1; the representations have in common a thick juncture at the torso break. The break is horizontal indicating a direct body joint; so *Capra* 19 would have been solidly founded, too. The leg is terminated.

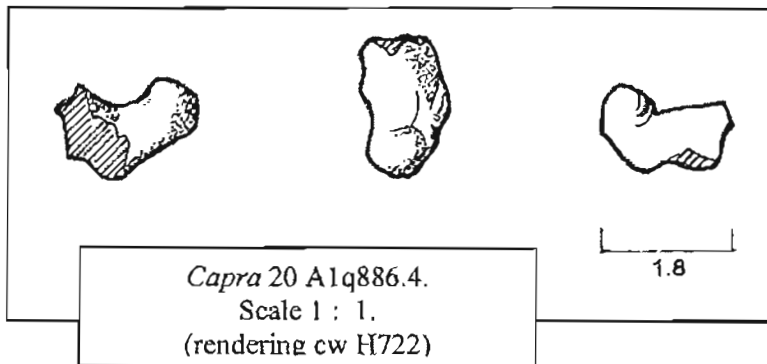
The surface is scraped, then smoothed (with a cloth?) on a wet medium.

See **COMPARATIVE TABLE 7 & 7A Appendages Legs Capra.**

#### 20 *Capra* TAIL

A1q886.4

Recovered from feature 113 locus 20 • length (back of knob to bottom of break opposite) 1.89 • height (top of "knob" to break when held in horizontal plane) 1.23 • thickness (across knob, short dimension) 0.072 • thickness (across knob, long dimension) 0.084 • fabric medium fine, with some gypsum inclusions • Munsell reading 5YR 7/3 • color pink • preservation: tail only



Tail — an upturned “knob” of clay that forms the tail. Once attached to the rump, it curves up and over. The appendage was applied, not pinched from the rump. The knob is a rounded rectangle in section.

Compare with *Capra* 5 A6.166. Markings on top, modeling and scraping may indicate a pelt. There are fingerprints under turned-over “flap” of knob.

See **COMPARATIVE TABLE 5 Appendages Tails** *Capra* • *Carnivora* • *Ovis* • *Canis*.

## 21 *Capra* HOOF AND LEG

**A1q899**

Recovered from feature 113 locus 20 stratum B12A (?) • height 3.2 • thickness (short axis, break) 0.6 • thickness (long axis, break) 0.9 • thickness (short axis, hoof) 0.7 • thickness (long axis, hoof) 0.85 • fabric fine • Munsell reading 10YR 8/2 • color very pale brown • preservation: leg and hoof only; chipped at hoof, yet terminated

There is a knee joint, quite pronounced — the bone is articulated, typical of herbivores. Compare to those items designated as *crochets* — *Capra* 104 A1.495 and *Ovis* 38 A1q1045.3 — in which the leading edge is sharp and quite thin.

The fabric is scraped vertically — up and down the length of the leg.

See **COMPARATIVE TABLE 7 & 7A Appendages Legs** *Capra*.



*Capra* 21 A1q899.  
Herbivore leg, articulated knee joint.  
Scale slightly larger than 2 : 1.  
(photograph V5e0840 (?))

## 22 *Capra* HOOF MINIATURE

**A1q931.29**

Recovered from feature 113 locus 20 stratum B12A • height 0.9 • thickness (across hoof) 0.55 • thickness (break) 0.55 • fabric very fine • Munsell reading 5Y 4/1 • color dark gray • preservation: hoof only

An incision indicates cleft on bottom. The leading edge — or “toe” — of the hoof projects forward.

The idea of **MINIATURE** could not be clearer than with this minuscule but very detailed piece. It is realistic when other examples are abstract, yet the scale is diminutive.

A caveat. In comparison with, say, *Capra* 23 A5.154, the hoof is about half the size. Is it only that this portion of the animal remains that gives the impression of being so small? If the animal were intact, wouldn't we simply say that the piece was realistically detailed, take the measurements, and not otherwise qualify the object?

The cleft is to the front of the hoof (an indicator of the orientation of the appendage when the animal figurine was intact).

See **COMPARATIVE TABLE 7 & 7A Appendages Legs**  
*Capra*.



*Capra* 22 A1q931.29.  
Oblique dorsal and ventral view.  
Scale slightly greater than 4 : 1.  
(photograph V10e0108)

## 23 *Capra* LEG, DETAILED HOOF WITH SPUR

A5.154

Recovered from feature 66 locus 18 stratum B12B • note on recovery: sector S2 • height 3.2 • thickness (hoof) 0.7 • thickness (above hoof) 0.6 • thickness (knee joint) 0.8 • thickness (top of leg, below break) 0.8 • fabric fine, with gypsum inclusions • Munsell reading 10YR 8/3 • color very pale brown • preservation: leg including knee joint, spur and hoof



*Capra* 23 A5.154.  
Vertical cranial view.  
Scale 1 : 1.  
(photograph V8Bb0818)

Leg, intact from break at body join to hoof. Knee joint, spur and hoof are finely detailed, including folds of skin above cleft hoof, and "spurs" at back of leg. Knee joint clearly expressed; fine incised lines differentiate hoof from leg. The leg is scraped to shape.

Note the manner in which the leg would have joined the body. The leg is solidly founded under the torso, as with herbivores.

There is no graduation of thickness at the haunch; therefore the leg does not blend with the body but is clearly detached from it. There is no dividing line or "cut" at the body join.



*Capra* 23 A5.154.  
Left median plane.  
Scale 1 : 1.  
(photograph V8Bb0817)

Compare with body join of *Ovis* 9 A6q19.1.

**24 *Capra* HOOF, RIGHT FORELEG****A5q948.1**

Recovered from feature 66 locus 18 stratum B12A • height 1.95 • thickness 1.075 • thickness (tip) 7.1 • fabric fine, with uniform inclusions, some gypsum • Munsell reading 2.5YR 7/3 • color light reddish brown • preservation: foreleg only

Incision on base indicates cleft hoof (parallel to torso), leading edge slightly curved. The curve of the foreleg is strong and is similar to hindlegs of *Ovis* 24 A1.91 and *Capra* 1 A1.44.

See **COMPARATIVE TABLE 7 & 7A Appendages Legs *Capra*.**

**25 *Capra* LEG AND HOOF****A5q1016.4**

Recovered from feature 173 locus 20 stratum B12B • height 2.95 • thickness (break, long width) 1.0 • thickness (tip, long width) 0.5 • Munsell reading 2.5Y 8/2 • color pale yellow • preservation: broken above (presumed) hoof

Lightly modeled, with some indication of musculature. The leg is somewhat thicker at one end, becoming triangular in section at the body join. The leg joined the body directly in a four-square stance. The fabric has been indented and folded at the body join. The long axis of the leg twists and becomes perpendicular to itself, forming the hoof at the tip. Compare with *Ovis* 24 A1.91. Left hindleg?

The fabric is medium fine, with many inclusions, the texture smooth. The leg is modeled with the fingers, then smoothed (cloth?).

See **COMPARATIVE TABLE 7 & 7A Appendages Legs *Capra*.**

**26 *Capra* LEFT HINDLEG****A6q72.1**

Recovered from feature 23 locus 217 • height 3.0 • thickness (body join) 1.9 • thickness (tip) 0.65 • fabric medium fine, with gypsum inclusions • Munsell reading 7.5YR 6/6 • color reddish yellow • preservation: left hindleg only

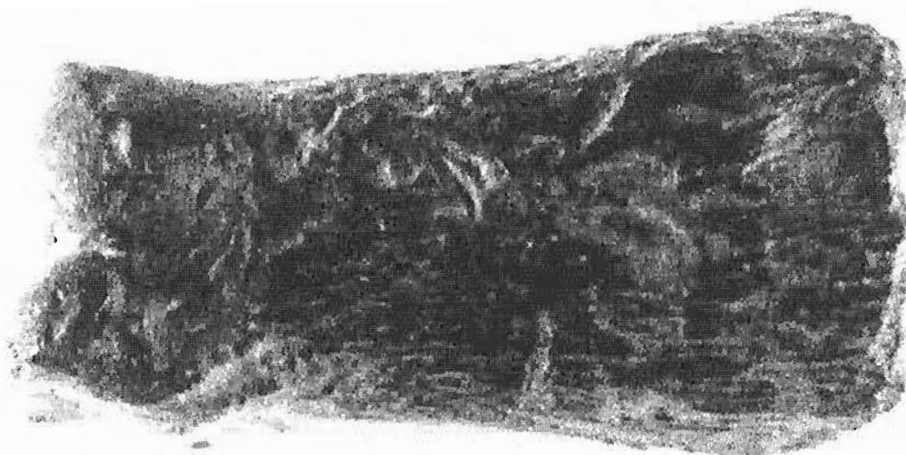
The leg is solidly founded, a foursquare stance inside; outside, an incurving inverted U. There may be the indication of a knee joint. Compare hindquarters *Ovis* 24 A1.91.

See **COMPARATIVE TABLE 7 & 7A Appendages Legs *Capra*.**

27 *Capra* HOOF MINIATURE

A6q148.1

Recovered from feature 48 locus 168 • height 1.5 • thickness (end opposite incised termination) 0.8 • thickness (hoof) 0.6 • Munsell reading (from chart/GLEY I) 5B 2.5/1 • color bluish black • preservation: hoof only, some surface dirt still adheres after cleaning



*Capra* 27 A6q148.1. Hoof crafted in antler.

Scale 6.5 : 1.0.

Reproduced at this scale to show the manner  
in which the hoof/appendage was sculpted reductively.  
(photograph V8Be1010)

The piece is made of antler, a unique example in the corpus. No red deer or others of the family *Cervidae* have yet been identified among the faunal remains on Tell Mozan. This is surprising, as the animal frequently figures amongst skeletal remains at archaeological sites throughout the region.

Moorey says that the archaeological remains of worked antler are extremely rare in Mesopotamia — he calls such samples “elusive” — citing only some tools as examples (Moorey 1994, 120). Antler, as a medium for working, seems quite malleable; one would think artifacts crafted in the substance would be more frequent. Since red deer apparently did not live nearby, is this example imported?

On the end opposite the hoof, two lightly incised parallel lines are drawn perpendicular to a third line, which crosses them. The tip of the hoof projects forward. Compare this piece with *Capra* 104 A1q495, a rectangular-sectioned fragment identified variously as a hoof or a hook. The question of whether the cleft opening in the hoof is on a leading edge, as with actual animals, or whether it is merely an indicator of the hoof division cannot be decided now. Most artifacts of this type incline down toward the edge that is cut by the cleft; if this portion of the hoof were to make flat contact with the ground, the angle of the leg to the torso would change dramatically. Obviously, crafted animal forms such as the present fragment are related by manufacture to other leg and hoof fragments that are not so easily identifiable. To be studied.

See note about the meaning of the word MINIATURE, *Capra* 22 A1q931.29. This piece is equally detailed. And see **COMPARATIVE TABLE 7 & 7A Appendages Legs Capra**.

**28 *Capra* RIGHT (?) HINDLEG****A6q324.1**

Recovered from feature 31 locus 218 • length 3.79 • thickness (short axis/body join) 1.26 • thickness (long axis/body join) 1.54 • thickness (midpoint) 1.0 • thickness (short axis, tip) 0.59 • thickness (long axis, tip) 0.76 • fabric fine • Munsell reading 2.5Y 8/2 • color pale yellow • preservation: leg only, broken at tip and at body join



*Capra* 28 A6q324.1.

Scale almost 2 : 1.

so reproduced to show pattern of scraping  
(or twist in leather-hard fabric?).

(photograph V10b0223)

Definitely herbivore leg, *gracile*, with flat break at body join and articulated knee joint.

A section taken at the lower limb is not quite rectangular. The joint — it must be remembered — enables the lower portion of the leg to fold back and is not on the forward part of the leg. Orientation still is difficult to determine, unless hoof is intact. Other details, such as the way one side of the surface is finished as opposed to a side less visible will help determine orientation, when the body join is unclear. Patterns of scraping are clear on the upper right outside leg; it does not appear that fingers could account for these fine parallel incisions dragged down across the surface and wrapping toward the outside of the leg.

See **COMPARATIVE TABLE 7 & 7A Appendages Legs *Capra*.**

**29 *Capra* LEFT (?) HINDLEG****A6q854.3**

Recovered from feature 220 • length (tip to break) 4.63 • thickness (long axis, tip) 1.35 • thickness (short axis, tip) 0.62 • thickness (long axis, body join) 1.57 • thickness (short axis, body join) 0.74 • thickness (long axis, knee) 1.46 • thickness (short axis, knee) 0.88 • fabric medium fine, gypsum inclusions • Munsell reading 10YR 8/2 • color very pale brown • preservation: leg only, small chip on tip

The upper part of the leg above the knee is lightly concave, the leg molded by the fingers and narrowed somewhat at the knee. The resultant light “knob” of clay gives the impression of a knee joint.

The leg, in manufacture, was altered in shape by the addition of a flap of clay behind the knee joint. The joint is smoothed on what would have been the exterior and is less well blended into the leg itself on the inside, under the torso. There are scrapes (thin parallel grooves approximately 0.5 cm long) on the object. It is unlikely these occurred in cleaning, as the brush used was soft.

See **COMPARATIVE TABLE 7 & 7A Appendages Legs *Capra*.**

### 30 *Capra* LEFT HINDLEG, WITH ARTICULATED KNEE JOINT

A6q1049.1

Recovered from feature 339 locus 30 • height 4.23 • thickness (body join) 1.21 • thickness (knee) 1.27 • thickness (hoof) 0.85 • thickness (knee, short axis) 0.94 • fabric fine, few inclusions • Munsell reading 10YR 7/3 • color very pale brown • preservation: leg (only); terminated, chip on bottom of termination

The leg does not meld with the body, but appears to be detached, founded under the torso. There is a chip on the leading edge of the “hoof” that may indicate a cleft.

See **COMPARATIVE TABLE 7 & 7A Appendages Legs Capra.**

### 31 *Capra* LEG WITH EXPRESSED KNEE JOINT

A7q206.1

Recovered from feature 34 locus 7 • length 1.89 • thickness (body join) 1.2 • thickness (lower leg) 0.091 • fabric medium, with few inclusions • Munsell reading 5YR 7/3 • color pink • preservation: fragmentary leg

The upper part of the leg curves to the knee joint and then descends as a uniform circular section to the break.

See **COMPARATIVE TABLE 7 & 7A Appendages Legs Capra.**

### 32 *Capra* RIGHT (?) FORELEG AND HOOF

A7.301

Recovered from feature 141 locus 15 • length 4.59 • thickness (body join) 2.11 • thickness (knee) 1.0 • thickness (back of leg to tip of hoof) 0.82 • fabric medium, inclusions • Munsell reading 10YR 7/2 • color light gray • preservation: leg and hoof only



This is a good example of a herbivore leg. The body join is flat, the knee joint detailed. From the break with the torso, the leg tapers to an expressed knee joint and then tapers to the hoof.

This is likely the right foreleg because the break on the “front right” side of the object is larger, where there might have been an expressed breast ridge. To the back, there is less medium, as at the body join.

*Capra* 32 A7.301.  
Vertical transverse section.  
Scale 1 : 1.  
(rendering cw I709)



Sealing of Queen Uqnitum's cook, one of several scenes of royal domestic life recovered from the Royal Storeroom in AK (Buccellati 1998, 209a).

Goat haunches with attached hooves may be seen hanging — as on hooks, upside-down — in the sealings of the queen's cook.



33 *Capra* TAIL

A7q306.1

Recovered from feature 89 locus 10 • height (from top of rolled-over flap to break) 1.04 • thickness (rolled-over flap) 0.07125 • thickness (break, long dimension) 1.06 • thickness (break, short dimension) 0.0775 • fabric fine, with inclusions • Munsell reading 5YR 7/2 • color pinkish gray • conservation: carbon covers break • preservation: tail only, break at attachment to rump

The appendage is upturned and stubby. There is a small flat piece that is pulled up and over, then rounded except for a slight protrusion, where the medium has been pulled forward to form a point. Attachment is ovoid.

Compare *Capra* hindquarters and “swishing” tail *Capra* 17 A7q813.2 for a contrasting form. Also compare tail *Capra* 20 A1q886.4 for similar form.

See **COMPARATIVE TABLE 5 Appendages Tails *Capra* • *Carnivora* • *Ovis* • *Canis*.**

34 *Capra* LEG AND HOOF (*CROCHET*) INTACT

A7q964.1

Recovered from feature 142 locus 16 • length 3.575 • thickness (long axis, body join) 1.4 • thickness (short axis, body join) 1.01 • thickness (long axis, knee) 1.34 • thickness (short axis, knee) 0.99 • thickness (short axis, hoof) 0.65 • thickness (long axis, hoof) 0.91 • fabric fine, with uniformly fine chaff temper • Munsell reading 7.5YR 8/3 • color pink • preservation: leg and hoof only

The leg is *gracile*, to use Bökönyi's term, dropping down from a flat body join to the knee joint, then smoothly tapering to the hoof below. The hoof takes the form of a *crochet* or small hook, flat and extending forward from the leg itself down and at an angle. There is a slight ridge around the back of the hoof. It is quite thin at its tip, which is rounded.

## CAPRA APPENDAGES

### TENTATIVE IDENTIFICATION

#### 104 *Capra* EAR OR FLATTENED APPENDAGE

A1q495

Recovered from feature 113 locus 20 stratum B12A • note on recovery: excavator Sultan, sector MS8 • height 1.94 • thickness (long axis/body join) 1.03 • thickness (long axis/horn) .078 • thickness (short axis/horn) 0.55 • thickness (short axis/body join) 0.55 • fabric fine, some gypsum inclusions • Munsell reading 5YR 7/3 • color pink • note on color: tends to "white" • preservation: hoof/leg only

The object in section is distinctly like *Ovis* 41 A5q171.1 and *Ovis* 33 A1.479, both heads with "ears." The key to this determination is the shape of ear *Ovis* 33 A1.479. The placement within the narrow niche between head and horn necessitated the rectangular form.

In longitudinal section, the fragment curves smoothly from tip to break; there is no expressed knee joint. The piece is rectangular in section and it terminates in a small *crochet* almost like the tip of a hoof.

Note the slight rim on all four sides of tip, and a raised half-circle ("boss") on the flat termination. This detail is not rendered in the **Comparative TABLE**. Note the raised, rounded lines meeting in a wedge shape on the wider face of the object, as seen in the photograph, right.

Compare with *Ovis* 38 A1q1045.3, which is modeled in a less regular, but more naturalistic fashion; the knee joint is expressed in the latter figurine fragment and there is a variable thickness to the appendage. Also compare with *Capra* 19 A1q855.1, with an expressed knee joint, a "gracile" expression, but terminating in a rounded point, not a flattened "hoof" form.

The object is regular, sides squared, more like a "nail." This identification is based on similarity of form to wall nails from proto-literate sites (Lloyd 1978, 46, Figs. 14 and 52, Fig. 21).

See **Comparative TABLE 5 Appendages Ears Capra & Ovis**.



*Capra* 103 A1q495.  
Note particularly the raised "boss"  
on the rectangular termination.

Scale 1 : 1.  
(photograph V8Bb0061)

#### 105 *Capra* RIGHT HIND LEG, GRACILE

A5q915.1

Recovered from feature 66 • height 2.465 • thickness (below break) 0.075 • thickness (below break, long dimension) 1.016 • fabric fine, few inclusions • Munsell reading 5YR 7/3 • color pink • preservation: leg only

Even though the piece appears to be short, one side preserves the join with the torso. The piece tapers to a midpoint, then is straight to termination. The surface borne presumably on the "outside" of the body at the hindquarters has been smoothed.

See **COMPARATIVE TABLE 7 & 7A Appendages Legs Capra**.

**106      *Capra* LEG****A6q80.1**

Recovered from feature 22 locus 219 • length 1.975 • thickness (tip, long axis) 0.755 • thickness (at body join, long axis) 0.93 • thickness (at body join, short axis) 0.85 • fabric medium • Munsell reading 10YR 7/3 • color very pale brown • note on color: "color" is really the deposit that covers this piece, not a patina, but an adhesion not easily removable • preservation: a small fragment, broken at both ends

No leg from the corpus has exactly this form. It is unlikely that one slanting end is terminated. I believe the piece is broken on both ends. One side is flat, although scarcely more so than the front of the piece.

See **COMPARATIVE TABLE 7 & 7A Appendages Legs *Capra***.

**107      *Capra* HORN****A7q370.1**

Recovered from feature 63 locus 7 • length 2.18 • thickness (midpoint) 0.7 • thickness (thick end) 0.87 • Munsell reading 7.5YR 7/3 • color pink • preservation: horn only

The object is slightly tapered; at its thicker end, it is ovoid in section, at the other, rectangular in section. The medium is sculpted with an instrument rather than folded over and terminated in a small "coil," as a horn might be. It is similar to the series of *crochets*/hooks of the catalog.

## CAPRA APPENDAGES

### RELATED STRATIFIED FINDS

#### 207 *Capra* HERBIVORE LEG, EXPRESSED KNEE JOINT

A8q6.1

Recovered from feature 7 locus 4 • height (vertical) 0.8 • thickness (body join) 0.7 • thickness (joint) 0.4 • fabric medium, uniformly fine inclusions • Munsell reading 7.5YR 7/3 • color pink • preservation: broken at body join and at knee joint; tip of leg chipped

This fragment is likely half of a longer leg with an articulated knee joint, where break occurs. The first impression of the object is of a short rounded tip; orientation is important, for the knee joint is actually clear. The angle of the upper leg at the body join leads to this interpretation. Compare with *Capra* 19 A1q855.1, an example of a similar body join. Contrast with *Capra* 26 A6q72.1, where the front of the leg is flat, and the leg shorter, more blunt.

This object was found in “disturbed, loose brown soil” under topsoil in locus 3/“topsoil” in locus 4, a continuation of same (the strata are intermingled).

See **COMPARATIVE TABLE 7 & 7A Appendages Legs *Capra*.**

#### 208 *Capra* LEG

Recovered from feature 46 locus 3 • length 3.96 • thickness (body join) 1.58 • thickness (body join, long axis) 1.71 • thickness (hoof/hook/crochet) 0.64 • fabric medium, inclusions, among which is gypsum • Munsell reading 10YR 8/2 • color very pale brown • note on color: a “pink” component to the fabric • preservation: leg only, including *crochet*/hook

There is the familiar *crochet*/hook at the termination of this leg and a light incision above the termination that defines it. The leg joins the body in the manner of herbivores. There is no expressed knee joint; however, the leg tapers slightly from the body join to the knee. The leg is ovoid in section at the top and rather more square/circular in section at the hoof.

#### 209 *Capra* HORN, TWISTED

A9q116.1

Recovered from feature 70 locus 4 • length (tip to break) 2.64 • thickness (body join) 0.084 • thickness (body join, vertical dimension) 1.245 • thickness (tip) 0.025 • fabric fine, with inclusions • Munsell reading 2.5YR 7/2 • color pale red • preservation horn only

The horn is rectangular in section if taken in transverse horizontal plane, a contrast with *Capra* horn cores displayed by Schmid in her *Atlas of Animal Bones* (Schmid and Garraux 1972, 90-91, Plate VII) — the typical horn core of the adult goat is “more or less plano-convex,” one side being flat, the other curved.

Clutton-Brock tells us that whether they are straight or twisted, domestic goat horns have a "more or less well-developed keel on the anterior edge" (Clutton-Brock 1981, 58). Interestingly, this accords both with the figurine fragment here under discussion — for it has a marked edge curving up to the tip — and with Schmid's horn core which, while not sharp, nonetheless has more of an edge on one side than on the other.



*Capra* 209 A9q116.1.  
Twisted horn,  
domesticated goat.  
Scale 1 : 1.  
(rendering cw I708)



Straight and twisted horn cores,  
domesticated goats from Jericho.  
Straight core: 150 mm long,  
twisted core: 180 mm long.  
From Clutton-Brock's *Domesticated  
Animals from Early Times*.  
By permission of the British Museum  
(Natural History).

Clutton-Brock also tells us that by the Early Bronze Age and into the Middle Bronze Age, twisted horns predominated amongst domesticated stock (Clutton-Brock 1981, 61 and Fig. 5.14). Reproduced here.

As early as 3500 to 3200 B.C., in the Royal Cemetery at Ur, goats were represented with twisted horns. Wooley tells us that the flamboyantly decked-out ram had its front legs chained to the thicket branches by a gold chain (Wooley 1935, 77).

Was the animal a ritual offering? Or a creature domesticated and hobbled? The tortuously twisted horns would argue for domestication.

See **COMPARATIVE TABLE 4 Appendages Horns *Ovis* & *Capra***.



Detail, horns of the famous  
"ram caught in a thicket",  
from the Royal Cemetery at Ur.  
(Wooley, 1935, Plate 36)

## 210 *Capra* LEFT HINDLEG

A10q197.1

Recovered from feature 35 locus 10 • thickness (wide dimension, break) 1.745 • thickness (before taper, approximately circular in horizontal section) 0.094 • thickness (hoof) 0.64 • thickness (upper break) 1.3 • fabric fine; one very large inclusion (straw) visible in break at top of leg • Munsell reading (fabric) 10R 6/6 • color (fabric) red • Munsell reading (patina) 10R 7/2 • color (patina) pale red • conservation: depositional stains • preservation: leg only

There is a spur above the hoof and a rounded area at top of the leg and opposite the outside flank. The leg tapers from the midpoint to the body join. The upper portion of the leg is terminated and flat, probably forming the outside of the left buttock.

The contrast of the fabric and the patina deposited on the surface gives pause. A cursory visual inspection would have one including a moderate yellow component in the hue. However, the Munsell aligns the actual color range, assigning a difference in chroma saturation while maintaining the hue.

See **COMPARATIVE TABLE 7 & 7A Appendages Legs Capra.**

## 211 *Capra* HORN, TWISTED ON ITSELF ALMOST A FULL TWO TURNS

A10q192.3

Recovered from feature 109 locus 9 • length 3.54 • thickness (first twist) 1.355 • thickness (tip) 0.078 • thickness (tip, shorter dimension) 0.062 • fabric medium fine, with heavy fine chaff temper • texture uniformly fine, yet rubbly • Munsell reading (fabric) 5YR 7/3 • color (fabric) pink • Munsell reading (patination) 5YR 4/1 • color (patination) dark gray • conservation: some surface damage • preservation: horn only; twists and outer edges intact

The medium is wide, thus the twist is deep. The break is vertical; this means that the horn must have hung down alongside the head. Compare with *Capra* horn A9q116.1, also twisted.

Under no circumstances would one say upon first view that this object were the lesser intense, “brighter” color evidenced by the Munsell reading. The fabric “shows through,” a heavy patination or depositional stain. One almost has to *divine* the original color, although it can and has been read and recorded. Perhaps this surface effect is really the effect of overfiring.

See **COMPARATIVE TABLE 4 Appendages Horns Ovis & Capra.**

## 212 *Capra* LEFT HINDLEG

A10q200.1

Recovered in third millennium layers • body join (long axis) 1.29 • body join (short axis) 1.1 • tip (long axis) 0.78 • tip (short axis) 0.7 • Munsell color not taken • preservation: left hindleg only

The leg is oval in section. There is an expressed knee joint, at an angle of 20 degrees.

## 213 *Capra* HORN, TWISTED

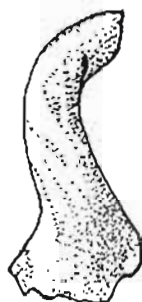
A16q147.1

Recovered from feature 49 locus 8 • length tip to break 3.88 • transverse section at crown join 1.52 • transverse section at crown join (short axis) 1.22 • transverse section at tip 0.45 • transverse section at tip (short axis) 0.4425 • fabric medium fine, many medium inclusions (sand) • Munsell reading 7.5YR 7/2 • color pinkish gray • preservation: horn only

Although this horn is from comparatively late Khabur levels, it displays the characteristic “twist” of the *Capra* horn that comes with domestication. See *Capra* 209 A9q116.1 and comparative examples discussed there.



The appendage twists on itself, the long axis parallel to the muzzle in the median plane, and perpendicular to the frontal plane at the tip. It is fairly certain that this is the manner of attachment of the horn; if it were otherwise (the reverse of the above, for example), the horns would become entangled. The appendage is extended rather than coiled upon itself, as is the case with *Ovis* horns. *Bos* horns have another form entirely, at least in this corpus — the Diyala cattle are almost baroque in the way their horns sit atop the animal's crown.



A more subtle twisting may be seen in some *Capra* horn cores from ancient times, less obvious because the organic sheath around the core has sloughed off in the ground, decaying with time (di Martino 2001).

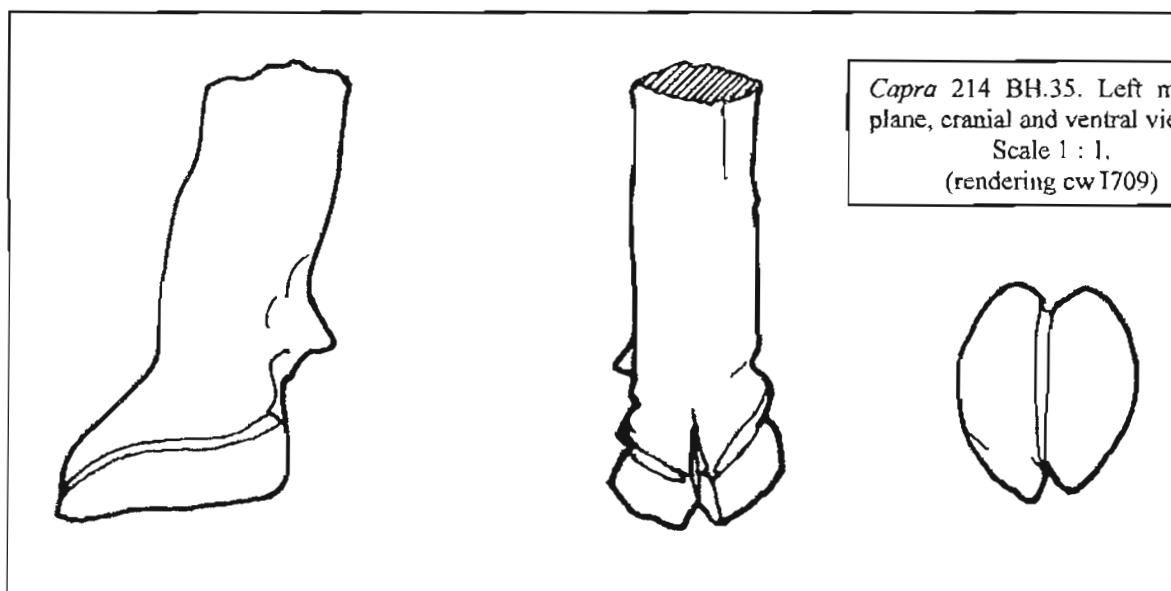
See **COMPARATIVE TABLE 4 Horns *Ovis* & *Capra***.

*Capra* 213 A16q147.1.  
Horn from Khabur levels.  
Ventral and dorsal views.  
Scale 1 : 1.  
(rendering cw L709)

## 214 *Capra* HOOF AND LOWER LEG

B3.35

Recovered in third millennium layers • height (to back of hoof) 5.31 • thickness (short axis, break) 1.54 • thickness (long axis, break) 1.89 • thickness (long axis, hoof) 2.715 • thickness 2.25 (short axis, hoof) • fabric medium fine, uniform inclusions • Munsell reading 10YR 8/3 • color very pale brown • preservation: hoof, broken below knee joint



*Capra* 214 BH.35. Left median plane, cranial and ventral views.  
Scale 1 : 1.  
(rendering cw I709)

. The fragment is large and would have been part of a figurine much larger in scale than those excavated in AK.

The object is useful for analysis of details that may be important to the makers of animal representations at Urkesh. "Spurs," for example, are clearly indicated. So is the nail (the single toe on a cleft hoof), which pushes forward, as noted with all the *crochet* or ambiguous "hoof" pieces in the caprid species TYPE.

Compare with *Ovis* 38 A1q1045.3, a leg with an articulated hoof; *Capra* 32 A7.301, a caprid hoof and haunch; and particularly with the detailed leg/hoof *Capra* 23 A5.154. Contrast also with geometric *crochet*, *Capra* 104 A1q495.

See **COMPARATIVE TABLE 7 & 7A Appendages Legs *Capra*.**



*CAPRA*

## RELATED UNSTRATIFIED FIND

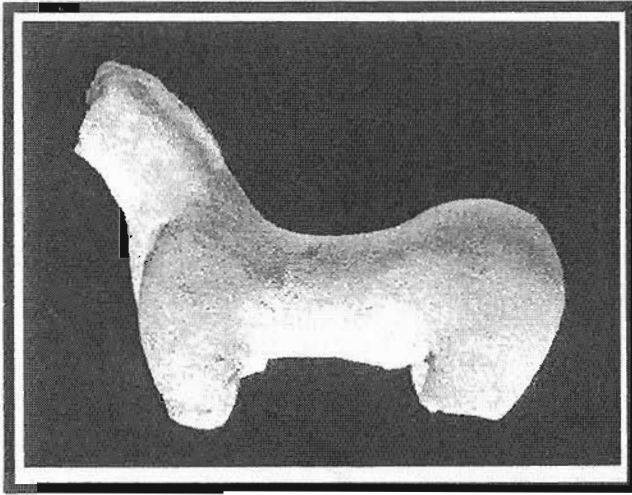
**300**      *Capra* HORN**Z1.292**

Found in backfill inside square 17 • length (break to break) 1.6 • thickness (tip) 0.4 • thickness (base break) 0.8 • fabric medium fine, with inclusions • Munsell reading 7.5YR 8/3 • color pink • preservation: horn only, tip broken
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There is a slight “twist” from base to tip, a sign of domestication in caprids.

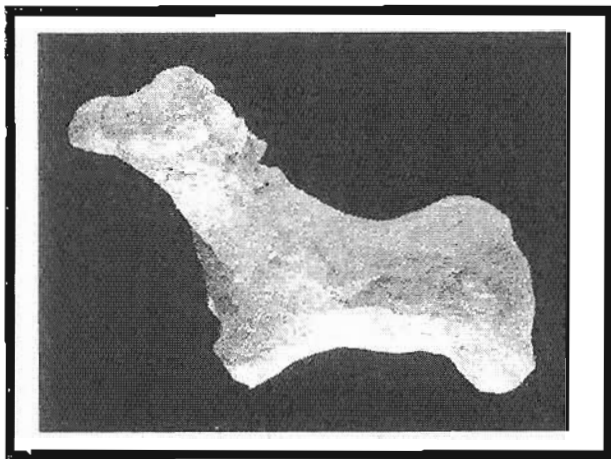
See **Comparative TABLE 4 Appendages Horns *Ovis* & *Capra*.**

READING FIGURINES  
ANIMAL REPRESENTATIONS  
IN TERRA COTTA  
FROM ROYAL BUILDING AK  
AT URKESH (TELL MOZAN)

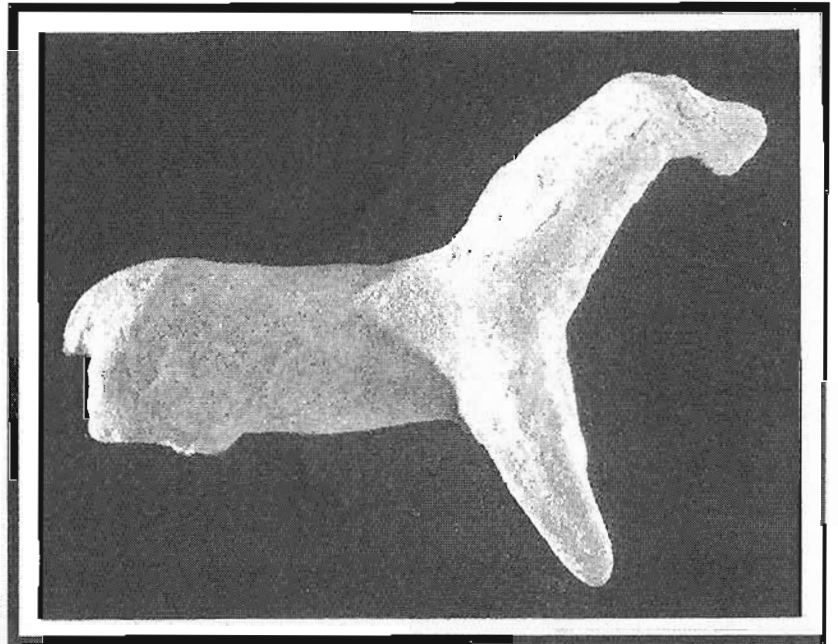


FAMILY Equidae

GENUS *Equus*



ORDER Perissodactyla



DISCUSSION

The Genus

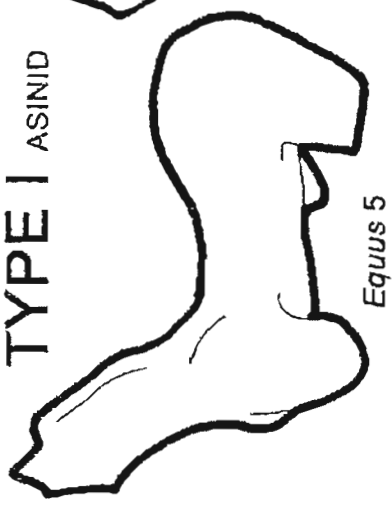
CATALOG

The Urkesh Corpus

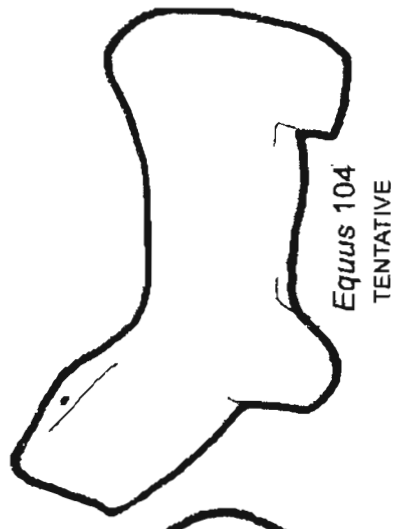
# Equus TYPES I, I/II

Comparative Body Types  
(renderings Claudia Wettstein 1729)

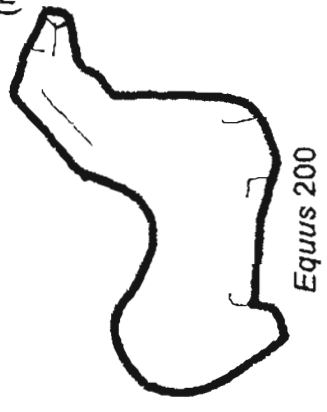
TYPE I ASINID



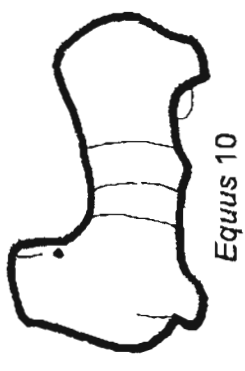
Equus 5



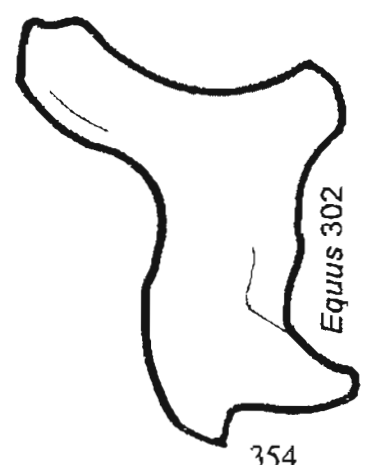
Equus 104  
TENTATIVE



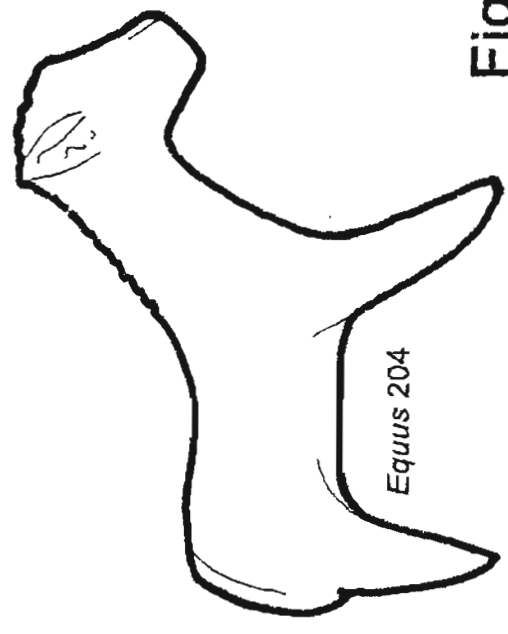
Equus 200



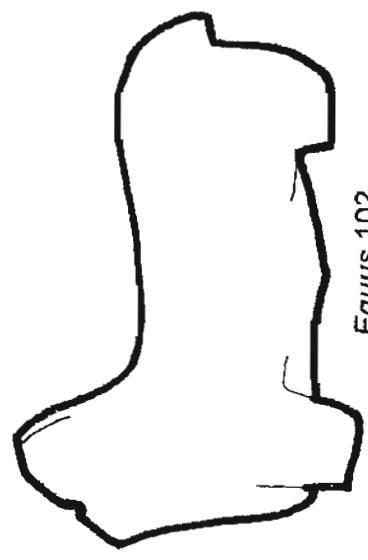
Equus 10



Equus 302

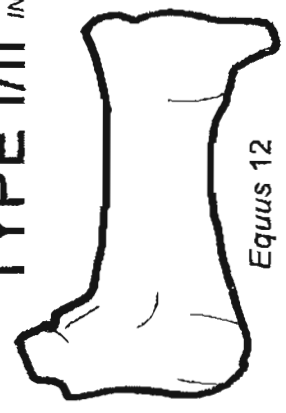


Equus 204

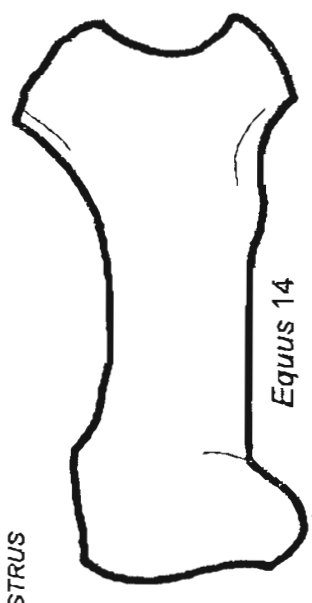


Equus 102  
TENTATIVE

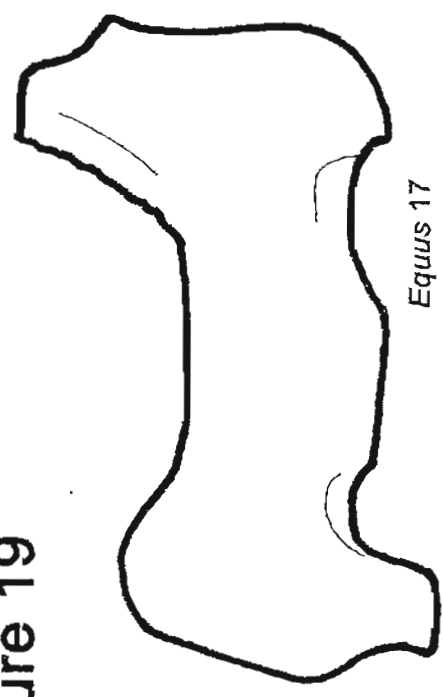
TYPE I/II IN OESTRUS



Equus 12



Equus 14

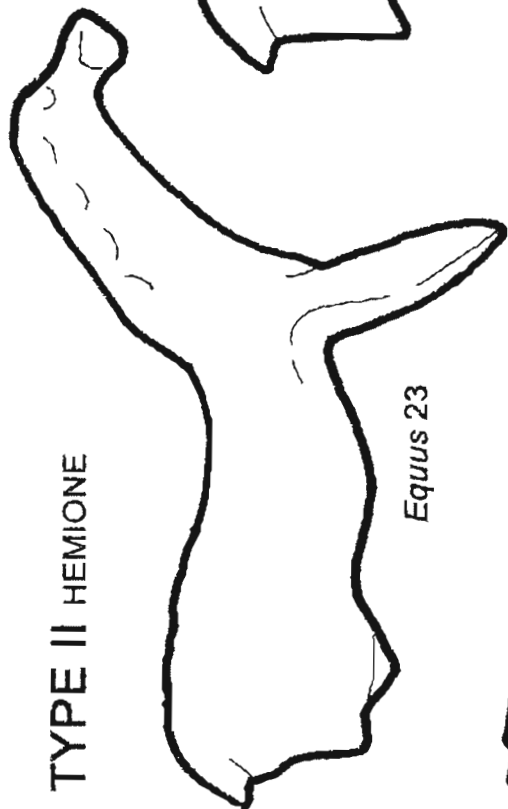


Equus 17

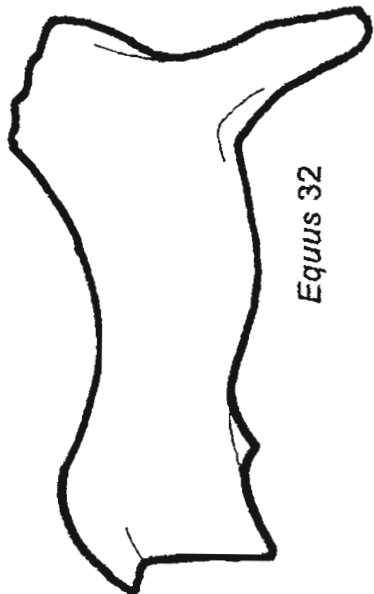
Figure 19

# Equus TYPES II, III Comparative Body Types (renderings Claudia Wettstein 1729)

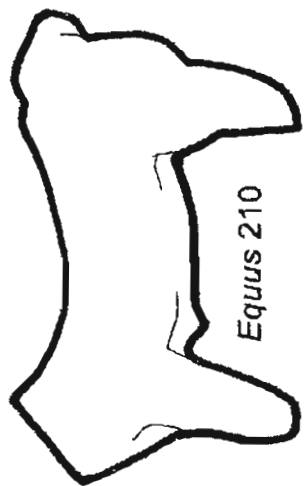
TYPE II HEMIONE



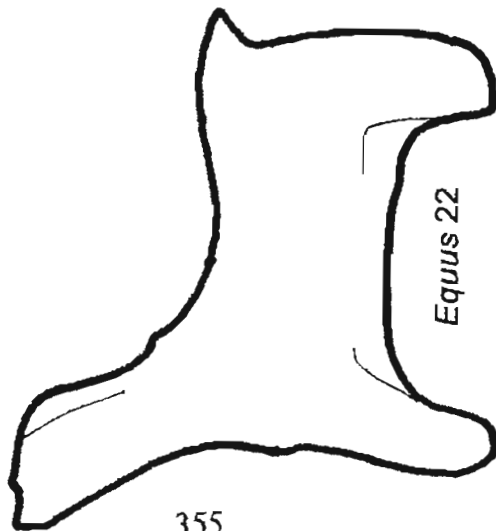
Equus 23



Equus 32



Equus 210



Equus 22



Equus 27



Equus 18



Equus 31

355

Figure 20



Equus 36

TYPE III CABALLINE



Equus 37

Scale 1 : 1

## EQUUS

### DISCUSSION<sup>1</sup>

#### What the *Equus* Figurines Say

If domestication is the story told by the figurines of ancient Urkesh, the equids are its avatar. They are numerous, they embody different species, they are idiosyncratic and particular in the manner of their representation. Something like characters in a play massing on a stage for a curtain call, the remaining fragments of the Urkesh equid corpus present a varied and revealing dramatic panoply at once authentic and impressionistic.

If equid domestication is a story, then it has often been told with varying emphasis. And it has multiple points of origin, branching riverlike throughout Northern Africa and into the Middle East. Remains of domestic asses have been found in the Sudan. (Clutton-Brock 1992, 64-65) Zeder says that it is "quite likely that all the major Middle European equid species are present in the faunal assemblage from [Tal-e Malyan in southern Iran]." She surmises that these animals were "husbanded" for skins and, possibly, meat. The "prime candidate for [domestication as determined from the (butchered)] equid part distributions is domestic ass" (Zeder 1986, 366, 406). By contrast, it is uncertain if the onager (*Equus hemionus*) was ever domesticated. And the exact time and place of domestication of the horse is still debated.

In recent years, however, artifacts have been recovered that help pinpoint the origins of domestication for the horse. Ancient Urkesh tells an important part of this story. The very fact that the family is represented in such variety speaks to the important role of Upper Mesopotamia in the domestication and breeding of asses, onagers, and horses in the Near East.<sup>2</sup>

The briefest of surveys follows, ending with a discussion of the different types of equids recovered at Tell Mozan.

#### The Mythic Horse

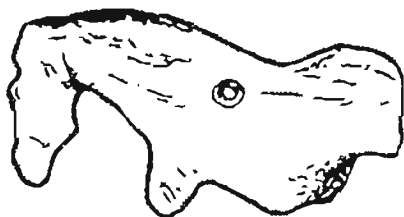
Barrelet makes an interesting observation about equids in her extensive study of terracotta figurines. She says that animal representations have often been freighted with occult meanings and not taken as simple copies of reality. She further observes that, up to the time of her writing and to her knowledge, equids are not so considered (Barrelet 1968, 300). Following Frankfort, she distinguishes between domestic and "divine or semi-divine" animals. The former were working animals and they could be sacrificed; the latter possessed aspects of divinity itself.

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<sup>1</sup> Some of the reflections in this introductory section and in the catalog itself were initially presented elsewhere (Hauser 1998). I have revised these remarks where it seemed necessary.

<sup>2</sup> I owe this formulation to one of several anonymous reviewers of the present manuscript. The final iteration of this manuscript has been guided by my readers' observations and I here again gratefully acknowledge my debt. This reviewer goes on to say, "Equid-breeding must have been a highly prestigious skill and that is reflected in the coroplastic corpus (at Urkesh)." I am in complete accord with this view.

What, then, should one make of the Brak donkeys found in a temple ante-cella dated to around 2200 B.C.? Clutton-Brock and Davies say that the manner and place of inhumation suggest “that the deity had some special connection with these animals” (Clutton-Brock and Davies 1993, 209; Clutton-Brock, Izquierdo, et al. 2001, 327-338). Subsequent excavation has strengthened the excavators’ conviction that dog and equid remains were ritual burials associated with the infill of a large public building (Oates, Oates et al. 2001, 389).



Eneolithic bone plaque carved in the shape of a horse from Varfolomievka (after Anthony, Telegin, et al. 1991). A ritual deposit containing a horse skull was found in a small cemetery of four human graves near the settlement. Radiocarbon dates average between 5000 and 4500 B.C.

Clutton-Brock allows as how the horse from the outset — it begins to be mentioned in the cuneiform texts only around 2050 BC — “remained a high status animal” (Clutton-Brock 1992, 90) and by the eighth century or so, horses had come to occupy a central place in Greek life and they often figure in mythological tales. Demeter, for example, is depicted with the head of a black mare; and her priestesses are referred to as “foals” (Edwards 1994, 39).

Not to count the equids represented so spectacularly in Paleolithic cave art, Anthony and others (Anthony and Brown 2000, 81) provide evidence that “horses were strongly associated with the world of humans and had become an important symbol in mortuary ritual by about 5000 B.C.” They join sheep, goats, and cattle as meat suppliers and “in terms of symbolic representation, horses were unlike wild animals and like domestic ones” (*Ibid.*, 81).

### The Domesticated Horse

What appears certain is that the domesticated horse — domesticated millennia before, but elsewhere — appears in the Gorgan region sometime between 3000 and 2250 B.C., quite a large window, by any standard of reckoning.

There is, for example, a cylinder seal depicting a horse-drawn vehicle from Hissar IIIB. As the association of horsemanship and chariotry with Indic elements among the Mitanni has already been clearly established, this evidence could indicate the route of Indic movements towards Mesopotamia. Ghirshman concluded that at the end of the fourth millennium B.C., a people carrying black wares and familiar with both the domestic horse and wheeled vehicles had penetrated northeastern Iran from the north. (Mallory 1989, 39)

Domestication of a wild population occurs for a reason and amongst the equids a prime criterion of selection has to do with the animals’ suitability as a mount.<sup>3</sup>

<sup>3</sup> Zarins also mentions “draft and breeding purposes . . . plowing, . . . pulling wheeled vehicles, and pack purposes,” an adaptability (not to include the onager) that caused equids to be “highly prized” (Zarins 2007, 11). Riding, of course, came to be preeminent amongst these usages.

If the onager were intractable, *Equus caballus* was not; eventually strategies of imperial conquest would be built around the horse as a machine of war.<sup>4</sup> So, as if domestication were an event and not a process, it became something of a race in itself to pinpoint the exact moment when horses were first ridden.

Pride of place belongs to David Anthony and Dorcas Brown, who, in a justly celebrated article in *Antiquity*, systematized observation of bit wear and beveling on the first premolar of horses, both feral and domesticated (Anthony and Brown 1991). One horse, a "cult stallion" included in a ritual deposit at Dereivka, exhibited premolar wear and anterior beveling visible to the naked eye (Anthony, Telegrin, et al. 1991, 95). This clinched it; the animal had been bitted and therefore ridden only a short time before its death. Hypsodontic growth and wear had not yet obscured the evidence.

This view, which placed the origins of horseback riding somewhere around 4000 B.C. in the Ukraine, USSR, was widely accepted for the last decade of the twentieth century. In the course of time, however, the authors came to reconsider their evidence. Radiocarbon dates on the horse remains from the ritual deposit at Dereivka came back anywhere from 500–100 to 3500–4000 years younger than expected (Anthony and Brown 2000, 75). Although the site itself had been "central in discussions of horse domestication" for over thirty years, the evidence for horse riding was from the Iron Age, not from Eneolithic times.<sup>5</sup>

The occurrence can but emphasize the importance of stratigraphic provenience. Clearly, at Dereivka an Iron Age deposit had been sunk into earlier layers and, as there was not an obvious pit outline, was taken as contemporaneous. The arguments that pertain are not dissimilar from those that swirl about the dating of domesticated canid remains in Palegawra Cave.<sup>6</sup> If the layers in which a given artifact is found prove to be contaminated, then dating is open to question.

The story does not end there. Anthony and Brown, in a rigorously controlled demonstration using various organic substances — hemp rope, horsehair rope, leather, or bone — in the place of copper, bronze, or iron bits, showed how bit wear can occur in precisely the manner exhibited in the Dereivka stallion. At Botai and culturally related sites in the northern steppes of Kazakhstan, radiocarbon dates from the area average between 3500 and 3000 B.C. Horses account for fully 99.9 percent of the 300,000 identified animal bones and they were big enough to ride. Amongst the measurable horse specimens at Botai alone, 26 percent had significant bevel measurements (Anthony and Brown 2000, 83).<sup>7</sup>

<sup>4</sup> Anthony and Brown emphasize that the economic role of riding was at least as important as its applications to warfare. "Riding increased the efficiency, and therefore the potential scale, of grassland herding" (Anthony and Brown 2000, 84).

<sup>5</sup> In the preparation of this manuscript, I was privileged to have the assistance of Dr. Steven Farmer and Dr. Michael Witzel, both of whom provided guidance on the Dereivka controversy.

<sup>6</sup> See DISCUSSION *Canis*, this volume. A new find on Cyprus by Dr. Jean Guilane and colleagues at the Collège de France seems to confirm the existence of a "pet" dog during the second half of the ninth millennium, making *this* the earliest example of canid domestication on record (Vigne and Guilane 2004).

<sup>7</sup> Not surprisingly, the conclusions of the Anthony/Brown study have in turn been questioned; however, with certainty, Juliet Clutton-Brock documents "unnatural wear" on the premolar of other equids (donkeys) at Brak that was "probably caused by bit-wear." The remains of these bitted equids date to about 2250 B.C. (Clutton-Brock, Izquierdo, et al. 2001, 338, Fig. 346)

So horseback riding, if not quite so ancient as originally presumed, appears with some certainty to predate by many centuries the stables and training manual of Kikkuli of Mitanni times (Cooke 2004, 16-18; for a useful summary, see Hyland 2003, 36-41).

### Interpreting Artistic Representations (Reading Figurines)

Moorey notes, "Whoever made the patterns from which [the . . . plaques he has assembled] were cast observed his subject with an acute and knowledgeable eye" (Moorey 1970, 40). The artisans were, after all, experienced observers. I do feel that we must finally accept that those who represent the real world do so with the hope that the audience/viewer recognize the object that is represented. There will surely be some reference to observed variation; were this not the case, then all figurines would be equal and attempts at discrete identification, fruitless.

Artistically, as Zarins rightly observes, "the criteria used for species identification are generally derived from the observations of zoologists" (Zarins 2007, 4, Summation and Conclusion, in pre-publication proof). I have myself taken this approach, when I felt I was able to document morphological change with some certainty. I was fortunate enough to work for several weeks in the field with Sándor Bökönyi, the noted paleozoölogist. As I have elsewhere noted, Sándor never doubted for a moment that the artisans who had crafted the Urkesh figurines were presenting again — representing — real creatures to an audience who could discern the differences amongst species and family.

Once that is stated, however, a kind of gauntlet has been thrown down. We may not, I think, walk away from the difficult task of committing to species identification as it is reflected in the coroplastic record, a task that is sometimes no less complex than "direct comparison with faunal assemblages" (Wengrow 2003, 148).<sup>8</sup> Thus, since morphological change accompanies domestication, as we have seen repeatedly in this volume, we might expect there to be certain identifiers that signal domesticated equids at Tell Mozan. We might also by extension anticipate that these characteristics would help us differentiate amongst equid species.

Yet I have, since beginning this study, come to be rather more cautious about distinguishing amongst nondomesticated equids and those equids that are cross-bred, changed exemplars that are difficult to read in the faunal record. In contrast to the skeletal remains of the wild ancestor of domestic cattle, which are numerous, relatively few fossil records of the wild horse, dating back to the fifth and fourth millennia B.C., have been recovered; so the change from wild to domestic cannot easily be traced in the osteological record (Clutton-Brock 1992, 56-57).

Identifiable secondary characteristics, at least within the figurine corpus, thus assume great importance — and here there are complicating factors.

<sup>8</sup> Wengrow makes the additional observation that the organization of clay figurine assemblages into "distinct biological taxa has perhaps diverted attention from more rewarding avenues of investigation" (Wengrow 2003, 152), notably, an analysis of the archival administrative use of the representations. For speculation regarding usage of the figurines of ancient Urkesh, see the INTRODUCTION to this volume. The work of Akkermans and Duistermaat at Tell Sabi Abyad (in *PaléoOrient* 22.2, [1997]: 17-44) is provocative in this regard. Zarins, in his new volume, considers sole reliance on artistic representation to be perilous.



Moorey makes a point I have not seen made elsewhere — that the *scale* of the artistic representations we often use to identify species is minute and this contributes to uncertainty in identification of species (Moorey 1970, 36). It is surely difficult, particularly when working on cylinder seals without the aid of a glass, accurately to reproduce the morphological nuances we require when differentiating amongst species. The matter is no less critical when hand-modeling at a small, if larger, scale in clay.<sup>9</sup>

After considering head size as a differentiating criterion, and after rejecting it, Moorey says that

the two safest criteria [for deciding whether an onager or a horse is intended] . . . are the forms of the tail and mane. The tail of the onager is stalk-like with a tufted end; that of the horse by contrast is covered with long hairs from its root to its tip. The mane of the onager is generally short and erect. Whilst that of the horse is longer, falling down the back of the neck. (Moorey 1970, 37)

Zarins does consider head size to be definitive and he adds other characteristics:

The main distinguishing phenotypic characteristics of the horse include a long-haired, bushy tail. Short ears, a long-haired, pendant mane (if the animal is domesticated), and a relatively large head in proportion to the body. For the true asses, the distinguishing characteristics include very long ears, a short-haired tail ending in a tuft, and a clear dorsal and shoulder stripe. The hemionos generally have shorter ears and lack the shoulder stripe, although in most observable characteristics, with the exception of body color, they are hardly distinguishable from the asses. (Zarins 2007, 4, Summation and Conclusion, in pre-publication proof)



Warka, *Maul-esel*?  
Draft animal pulling a chariot,  
identified by Moorey as a horse.  
91 mm high x 75 mm wide.  
Contrast increased to clarify detail.  
(Ziegler 1962, 47, Abb. 137)

When we seek to use these very criteria — and we do attempt to do so, as is explained later — a degree of impressionism is unavoidable. An example or two will illustrate the point.

During the third millennium, animals other than horses drew chariots, although, as Collon points out, “it has been argued that a horse (drawing a four-wheeled (?) chariot) is depicted on a seal” from Kish (VW below flood level). (Collon 1987, 158-159, sealing 724) This seems unlikely to me, as the mane is erect or possibly tufted as for some ceremonial decoration. Also, the tail is thin at the base, as is the case for nondomesticated equids and it may be that the tail is tufted, as with the onager or onager/ass mix, rather than flowing, as is the domesticated horsetail.

In his exemplary study of horse and rider, Moorey cites what he calls “the earliest known illustration of a chariot drawn by a horse” amongst Old Babylonian baked clay plaques from Uruk. (Moorey 1970, 49) He identifies the animal (left) by its tail, which is certainly long, if not particularly full.

<sup>9</sup> I believe that in some instances, the artisans at Urkesh actually exploit the “vices” of handwork, as when the pelt of an animal is convincingly represented by a plethora of overlaying fingerprints. The subject demands some systematic study.

Charlotte Ziegler, the author of the Warka study to which Moorey refers, thinks this draft animal may be a hinny (“*Maul-esel?*” she asks) (Ziegler 1962, 47 Nr. 289, Abb. 137). That is, there is something of the horse about the representation for both investigators, although Ziegler does not say why she thinks the animal is a hinny and not a mule, which with some variation sports the thick long tail of a horse. (Helmig and Sewell 1998, 12)

Presumably, Ziegler is following the general rule cited by Clutton-Brock that “the head and tail of the hybrid inherit the characteristics of the sire” (Clutton-Brock 1992, 45). If this is so, then it is difficult to know what to make of the long, broad (?) ears of the animal represented.<sup>10</sup>

Moorey surmises that the hinny was easier to breed, “when the horse is still a rare animal” (Moorey 1970, 38), but modern donkey breeders disagree and question whether breeders would choose to “waste” a valuable animal, such as a large donkey jennet, for the year of gestation, if the resulting offspring were a sterile hybrid (hinny) (Sewell 2005). According to Edwards, “perhaps only one in seven donkeys will conceive if served by a horse or pony” (Edwards 1994, 329).

Sewell rightly sees a “faint line of division” that extends the length of the tail and speculates that the representation may depict *more than one animal*. “A single animal pulling a two-wheeled vehicle would have a *pair* of shafts of some kind to support and balance a two-wheel vehicle, as opposed to a pole between two animals.” (Sewell 2005, personal communication, January 27)<sup>11</sup>

Equally of interest are Sewell’s remarks about the conformation of the animal depicted by Ziegler: “the body line of the horse — particularly the lower line along the bottom of the abdomen — goes from a deep heart girth (depth from top of withers to bottom start of abdomen behind the elbow) to narrower in the flank (from top of loin through to end of abdomen where it joins the hind leg). The animal drawing the chariot has a pretty even top and bottom line — just like the donkey or the onager. . . . Both hinny and mule are similar to the horse in this respect.” Sewell concludes that the draft animal depicted in the Uruk sealing is most likely an onager — !

A composite sealing of an equid with rider drawn from the archives of Akaballa, a scribe associated with the animal-processing center at Drehem in the Ur III period, is similar in style to the Collon example from Kish and has been the subject of lively debate. It has been proposed as an example of very early horse riding — almost two millennia before the practice became widespread and, indeed, essential (Owen 1991, 261).<sup>12</sup> Owen says “there seems to be little doubt that we are dealing here with a representation of a horse (*Equus caballus*) and not one of the more common equids of the period.”

<sup>10</sup> Sewell speculated that the author’s tracing (as visual aid) might continue the end of the pole shaft, obscuring somewhat smaller ears of what may be an onager. Further, she stated that the “head carriage is not horselike, in that the horse, with a longer neck, will generally bend more at the poll (section of the spine just behind the ears) and have a more rounded neck and head carriage with nose tucked down and inward, as opposed to the animal on the clay tablet whose neck is stuck straight out (no bend or flexion). . . . Donkeys will characteristically trot,” she says “. . . with head out and often with nose stuck in the air.”

<sup>11</sup> “Since all draught was by paired animals under a yoke, the single pole was standard” (Littauer, Crouwel, et al. 2002, 407 footnote)

<sup>12</sup> I am indebted to Dr. Rudi Meyr for calling my attention to the image and for sending me his somewhat revised version of same, and to Dr. Giorgio Buccellati for forwarding me the text. Dr. David I. Owen was equally helpful in supplying me with a photograph of the original tablet and the rendering by Josh Owen, a portion of which is here reproduced.

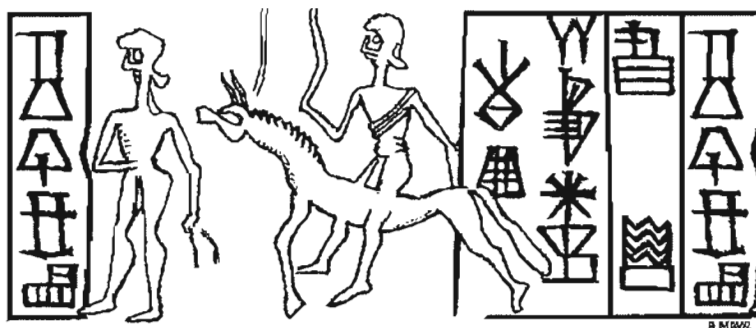
Owen's interpretation is compelling because of his ingenious analysis of equid/rider comportment and the stride of a galloping horse and because of textual evidence presented. In footnotes to the article, Owen notes that he has shown a photograph of the sealing to Moorey, Porada, and Zarins and they have to one extent or another endorsed this opinion also. (Owen 1991, footnotes 23, 35)



*Abakalla* sealing. The rendering has somewhat "tamed" the steed, de-emphasizing the pointed ears and the nature of the mane and also amplifying the thickness of the tail (after rendering by Dr. Diana Stein in Owen 1991, 270, Fig. 1). Rendering by Josh Owen, courtesy, Dr. David Owen).

Although Owen does not represent a saddle in his rendering of the scene, he does say in his analysis that the rider is seated on some sort of blanket. (Owen 1991, 262) This would account for the rather awkward position of the rider, which, without some sort of support, would seem to be positioned above his animal mount and not seated forward as illustrated by Owen's rendering. Owen does say that some details are only apparent from study of the tablet itself, and not readily apparent in the photograph of the object (Owen 1991, footnote 33).

Another rendering of the same scene by Dr. Rudolph H. Mayr depicts an equid that is not likely to be a horse. He does not represent the saddle, either, but shows the rider about to land on "the donkey seat" — well back on the animal's body, a position not suited for riding at speed (Clutton-Brock 1992, 66). The attitude of the rider in both renderings is similar to that of the rider on the donkey seat from a drawing reproduced by Clutton-Brock of a terracotta plaque from Littauer and Crouwel (Littauer 1979) after Moorey (Moorey 1970).



*Abakalla* sealing, as rendered by Dr. Rudi Meyr. This version of the sealing, from a photograph by D. Owen, emphasizes certain details: long erect ears, the blunt muzzle and extended neck, the erect mane, a narrow base for the tail and the attitude of the rider — above the back of the animal, not seated forward, but about to regain the "donkey seat."

(Rendering courtesy Dr. Rudi Meyr)

This brief discussion serves to emphasize how difficult it is to “read” objective reality — in this case, a representation of some species of equid on a sealing. Which rendering is “truer” to the source? An objective reading bears all the marks of subjective interpretation. The real animal would be different yet — and eludes description.<sup>13</sup>

The more telling observation, however, may be that *whoever* the observer was in this brief drama, he or she never doubted that the representation was of an animal that really existed. Further, there is an implicit faith on the part of all observers that the artisan *wished to represent and was skillful enough* to represent the animal accurately, enough so that a knowledgeable contemporaneous observer could identify the animal.

What *we*, twenty-first century observers, lack is context that would permit full understanding.

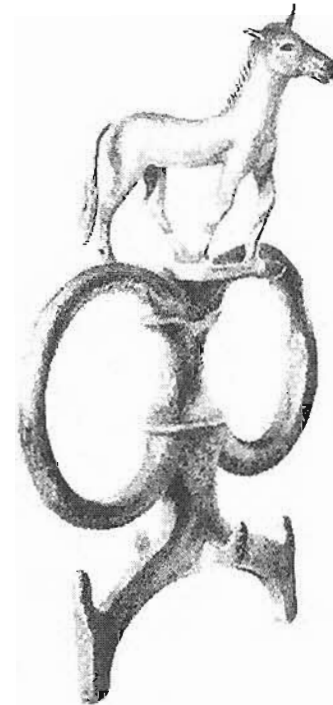
### Reading Reality

There has always been uncertainty about identifying equids, both their sculptural representation and their (often highly fragmented) faunal remains. As a contested example, Wooley felt that the art of Sumeria reached the epitome of realism in the execution of an equid, a “mascot” that was perched atop a pole on Queen Shub-ad’s (later Pu-abi) sledge. An “ass”, Wooley calls the animal in his field report; a “donkey”, he says in the summary catalog at the end of the same volume. Whatever the species, the representation fired the excavator’s imagination.

above rose the “mascot” in the form of an ass cast in electrum, an astonishingly fine piece of realistic sculpture and one of the most charming objects that the cemetery has produced. . . . The delicacy of the line of the legs has suffered a good deal in the object as it is seen today (after straightening), but if due allowance be made for that there is nothing to stint our admiration for the art of the maker (Wooley 1954, PC/800, 78).

Wooley was so convinced that he had read the rein-guide from the yokeshaft (Postgate’s terminology Postgate 1992, 65) aright that he and his workmen assumed that donkeys had drawn Shub-ad/Pu-abi’s sledge. In fact, oxen did the work.

And as for the *species*, Wooley was again mistaken. This is not an ass, nor a donkey, but a faithful representation of an onager, perhaps an ass-onager cross, as the wild animal was hardly tamable (being on the rein-guide did not necessarily mean the animal was domesticated).



U. 10439. The electrum “donkey”, a rein-guide from the yokeshaft of Queen Pu-abi’s sledge. Compare this representation of *Equus hemionus* ssp. with nondomesticated equids in the Urkesh figurine corpus. The artist’s rendering has made the creature more slender than it appears to be, as photographed. Scale app. 1 : 2. Ht. 0.135 m. Width 0.10 m. (From Woolley 1934, 78 and Plate 166, M. Louise Baker, del.)

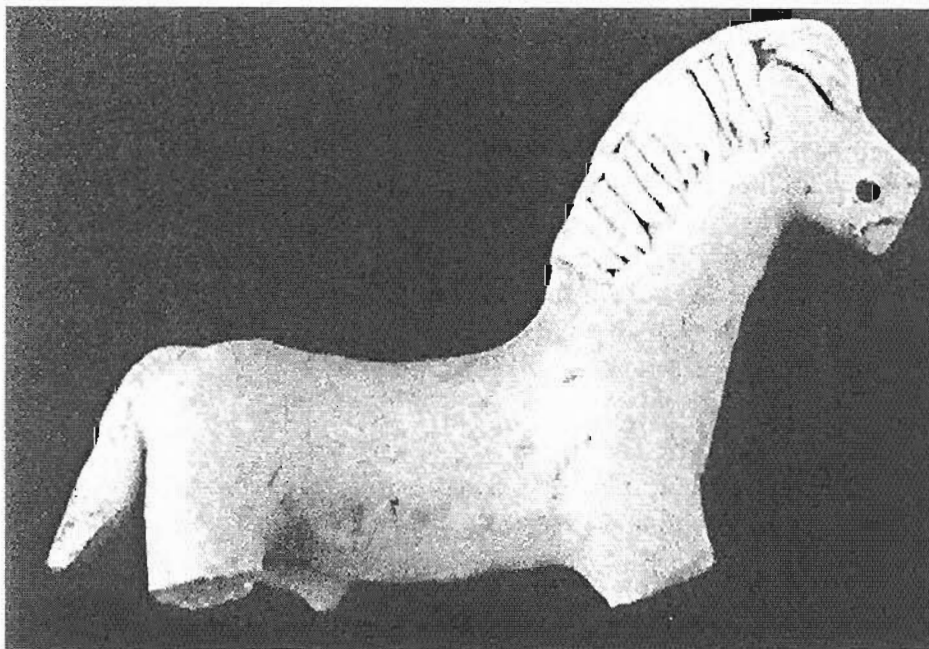
<sup>13</sup> Dr. Joan Oates has concisely and thoughtfully described the equid figurines at Tell Brak, paying especial attention to hybridization and species differentiation. In a singular demonstration, she identifies a number of secondary characteristics in one and the same figurine that would point to different types of equids, thus underlining the difficulty of identification (Oates 2001, 289, Fig. 312).

An exemplary account of the “semantic gymnastics” regarding species identification of Puabi’s onager can be found in Zarin’s forthcoming volume (Zarins 2007, 24-26, in pre-publication proof).

It is noteworthy that in his description of the equid from the Royal Cemetery, Postgate uses the word “equid” rather than “donkey” or “ass”, as so much confusion has surrounded the equids and their domestication in the Ancient Near East. It is by caution; and it is worth quoting him here at length, an opinion we take — for the moment — as final word on the subject.

For many years, during which philologists were blithely writing about “donkeys” in early Sumer, received opinion among zoologists held that the donkey (*Equus asinus*) was introduced into Western Asia from North Africa later than the third millennium, and hence that the equids shown in Sumerian representation must be onagers (*E. hemionus ssp.*). This was despite reports that wild onagers are untamable, and another difficulty was that the cuneiform texts of the third millennium seem to mention several equid species.

A good solution to these problems has been achieved in recent years by a shift in zoological opinion, which now admits the possibility of donkeys indigenous to Western Asia, and by careful analysis of the textual references. It now seems clear that the Early Dynastic Sumerians both used asses and succeeded in crossing them with wild onagers (called *donkey of the steppe*), giving a domesticable (if sterile) offspring, a beast which combined the docility of the donkey with the strength and speed of the onager. The reason why this practice did not survive into the second millennium is clear: in the Ur III texts we begin to find references to small numbers of a new kind of ‘donkey’ — the horse, which was probably imported from the north or east. (Postgate 1992, 165-166)



Tell es-Sweyhat. “Domesticated horse (Type SF.1d).” Right median plane. The manner in which the strands of the mane are applied is not found in the Urkesh corpus, except among *Ovis*. Scale 1 : 1.

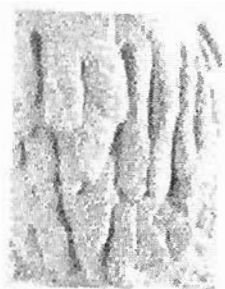
(Photograph courtesy of Dr. Thomas A. Holland )

Closer to home, in excavations at Tell es-Sweyhat, Thomas Holland and his team have unearthed a figurine that may be a domesticated horse. The figurine is dated to 2350–2250 B.C., making the equid quite an early representation of the domesticated animal.<sup>14</sup>

The es-Sweyhat equid respects the typology we have laid out at Tell Mozan as typical of the equid torso — forequarters : torso : hindquarters = 4 : 5 : 6.

The long hairs of a domesticated horse lie along the neck, in contrast to the erect mane of nondomesticated equids.

<sup>14</sup> In a most generous gesture, Dr. Thomas Holland has furnished me with photographs of the Tell es-Sweyhat equid and with his pre-publication notes regarding the find. He provided several views of the representation, making possible the detailed analysis I have made here. I am indebted to him for his kindness.



*Ovis* 13 A7.501.  
Detail, cranial view.  
The pelt is applied in separate strips.  
Elsewhere on the same figurine,  
it is applied as a single scalloped strip  
overlaid on the torso.

(photograph detail V13d1130-0082)

The treatment of the mane also has a manufacturing parallel at Mozan, but only amongst the *Ovis* figurines (See the close-up of an *Ovis* pelt, right.).

In a detail not often noted, Dr. Holland says that the figurine has a “self-slip on unbroken surfaces.” (Holland 2001 forthcoming, 9-10, 237, Plate 116[a] and

Figure 157/6 [664-tent.]) Many of the equids in the Tell Mozan corpus are similarly finished, a manufacturing detail I think is indicative of extra care taken by the artisan in the making.

According to the news report announcing the find, “the hole in the muzzle (is a clue) that the figurine was of a domesticated horse” (Wilford 1993). Dr. Holland does not make this claim in his notes. In the same way that a halter or a tethering ring does not, a muzzle hole does not invariably signify domestication; it simply means that the animal was tethered, or that the object was likely pulled, a string inserted through the hole.

Dudley Riggs, an American theatre entrepreneur and innovator who was born into a circus family, recounts (Riggs 1999) that the zebra — *impossible* to domesticate — is called, by circus folk, a “lead animal”, meaning an animal that was an untamable liability. A zebra had to be led around the circus ring on halter, because the exotic equid could not be depended upon to follow the proscribed path in performance!<sup>15</sup>

The tail of the es-Sweyhat equid is broad at the base, as is the tail of the domesticated horse, yet it tapers to a point; typical of neither horse nor onager. The form of the appendage may be dictated more by technology than by typology. A thin tail, thin at the outset and broader at termination simply would not have survived intact in the soil over several millennia. Dr. Holland notes that the tail is incised, a most interesting detail and another sign of special attention devoted to this representation. Neither eyes nor ears are indicated. In another exceptional detail the es-Sweyhat figurine deviates from the Urkesh typology, *Equus* TYPE III — the muzzle is blunt.

### ***Equus* at Tell Mozan**

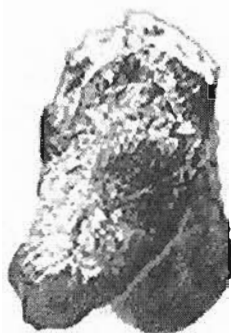
Our excavations at Tell Mozan — and several finds that, to a reasonable observer, represent domesticated horses — have far-reaching implications relating to the Hurrian incursion in Northern Syria:

The Hurrian data found by the Mozan/Urkesh excavations are quite exceptional. . . . Here for the first time the use of horses in a palace economy and everyday life is documented for the last part of the third millennium B.C. (Ivanov 1998, 147)

<sup>15</sup> 2005 saw the production of an electronically animated feature movie, *Racing Stripes*, in which zebras were not only ridden and made to race, but also were given the gift of speech.

Some exemplary equids had already been recovered in the very first excavation season at Tell Mozan. M1.209 is a notable example. The figurine is of burnt clay and it was found in the destruction layer in K1, item 12, feature 16, dating to the mid-third millennium, about two centuries before the assemblage from the Royal Building AK (Buccellati and Kelly-Buccellati 1988, 81 and Ill. 1); (Kelly-Buccellati 1990, 124 and Plate 73).

Another fifteen fragmentary animal figurines, collected on the surface of the Outer City, are referenced on page 54 of *Mozan I*, including M1.207, “a small horse with male genitals and faint incised lines on its mane.” These animal figurines were recovered — amongst some 14,000 artifacts — during a surface survey of the Outer City surrounding Tell Mozan. The “eastern part of the rise” yielded the most animal figurines, although the findspot of the small “horse” is not noted (Thompson-Miragliuolo 1988, 54, 56).



*Equus* MZ1.209 K1.12, likely the head of a domesticated horse. Narrow muzzle is diagnostic, as are widespread eyes and the mane coming onto the crown between the eyes

Scale app. 1 : 1.  
(photograph V2C0713)

Another equid — most interesting because it shares characteristics of both domesticated and undomesticated stock — was recovered from the surface of the mound itself. I take this figure to be M.207, illustrated in Fig. 46, page 156. In the discussion about the artifacts from the excavations, the object is referred to as M1.209 (likely the number was switched with the label assigned to a lithic artifact below, itself assigned a duplicate number). Because the figurine is broken, it is impossible to say whether the mane rose onto the crest of the head between the ears. See CATALOG *Equus* for more details and typological considerations (entered as *Equus* 216 under RELATED STRATIFIED FINDS).

The remainder of this DISCUSSION and CATALOG will be concerned with the animal representations we have taken to be Perissodactyla (order), Equidae (family), *Equus* (genus) as recovered from Royal Building AK at Tell Mozan and made in ancient Urkesh.

### **A Combination of Realism and Abstraction**

The figurines are at once realistic and abstract; they may be anatomically accurate in detail and bear complex surface decoration or be summary (not at all to say “careless”) in execution. A good number of the figurines must have been made with a living equid model in mind and all of them exhibit shared characteristics of an idealized typological model. Zarins would call this exemplar, I believe, the “holotype” (Zarins 2007, 26 in pre-publication proof). From the beginning, I identified one exemplar as the TYPE figurine for a given genus. Close to publication, I have decided to refer to this one representative figurine as the TEMPLATE for the genus. The artisans who crafted these figurines “knew their animal” and took care to differentiate the figurine from animals that were not equids.



Although “not everyone was a great artist,” as Bökönyi remarked lightly, there were similarities amongst the little figures that were found repeatedly. He never assumed that body shape was accidental nor questioned that the artisans who made the figurines did not intend to model a given animal type. It was a fortunate circumstance that I was able to develop my overall animal typology with the benefit of a close daily contact with Bökönyi.

Bökönyi was particularly interested in equids and signs of domestication associated with equids. He looked forward to “some new kind of evaluation of the figurines because they are undoubtedly of key importance in early horse history in Southwest Asia” (Bökönyi 1994, not paginated).

In the report on his season’s work he wrote:

In Tell Mozan . . . horse bones . . . were found. . . [Only] a small number could be measured, nevertheless even the dimensions of [those not measurable] reveal the species identification in most cases. (Bökönyi 1994)

Whereas the figurines are stratified and firmly dated, horse bones taken by Bökönyi from among the faunal remains are few (0.26 percent) and, up until MZ8, neither “found in a precisely datable layer [n]or in a closed-find assemblage.” One also could not speculate as to whether or not these faunal remains were of domesticated horses.

### On the Way to Domestication

There are definite indicators of equid domestication amongst the terra-cotta figurines at Urkesh in the faunal record. As we discovered with a number of carnivore representations, there seems to have been an effort to alter the species or to take control of it by artificial means. With *Carnivora*, the application of a band between the buttocks leading to the sexual parts and a strap across the penis must have been related to the wish to tame a wild animal noted for its ferocity. The lion and the panther moved from the steppe into the palace halls as symbol and confirmation of the royal presence. The effort, if not exactly foolhardy, touched on the ill-advised. Was ever an enterprise more marked for failure? <sup>16</sup>

Now, not so surprisingly, the same treatment of hindquarters and sexual parts is found among the equids. Obvious signs of control — animal husbandry — are halter, bit, and bridle. But modification of equids was physical, too, and must have been designed to facilitate breeding within the genus. These methods perhaps included castration to modify temperament and instinctual behavior — increased docility? Controlled or scheduled mating habits? Apparently, at least one body modification was designed to make life easier for the domesticated equid itself — nostril-slitting (see page 429).

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<sup>16</sup> By the middle of the first millennium, the relationship between human beings and carnivores is clearly iconic. As example, the *Bust of a Median* cited above in INTRODUCTION *Carnivora*, page 246, has a precursor in a large panel of “Gilgamesh, maîtrisant un lionceau rugissant” from Khorsabad (Parrot 1969, 32, Fig. 36). If taming was a questionable enterprise, the wish to control wild animals was all the more real for having symbolic import.

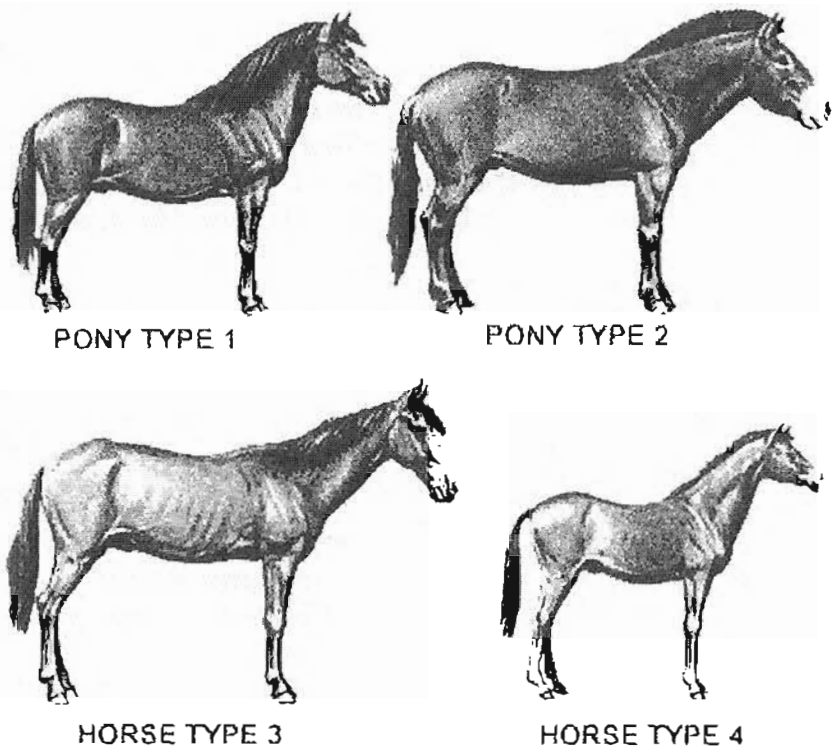


If the asinid and hemione populations exhibited desirable characteristics only to a limited degree, then a selective breeding program could effectively isolate, enhance, or strengthen these attributes. Once the horse came on the scene, the program must have assumed a certain urgency, for the animal could be bred and to a purpose.

Indeed, the end of the Third Millennium became a turning point for the horse in the Middle East. A newcomer in the territory, the horse exhibited the very qualities most sought after. The animal was strong, but it was also light of limb and thin of coat, not bulky and brawny, as were donkeys or feral animals from northern climes.

We need only review Juliet Clutton-Brock's succinct account of "the variation in morphology that can be seen in many wild and domestic species of mammals which have a very widespread distribution" (Clutton-Brock 1992, 61 and Figs. 4.7, 4.8, a visual comparison of Shetland ponies and Arab horses). The transition to a lean, sleek animal capable of great speed and nimble of foot is graphically illustrated in *HORSES The Visual Guide to over 100 Horse Breeds from Around the World*. (Edwards 1993)

Zarins remarks that very little historical information is available as to (humankind's) interactions with equids in the wild. (Zarins 2007, Introduction 1.2, 2 in pre-publication proof). Widening the circle of concern to include the asinid and hemione equid groups, as well as the caballine complicates the matter further, particularly as the question of hybridization arises.



*Postulated horse types derivative of early primitive horses.* The progression from stocky animal heavily coated to a sleek animal with finer conformation, (Edwards 1993, 14) while multi-branched and not linear, alerts us to morphological change that may be observed in the process of domestication itself — as seen in the equid figurines at Urkesh. One may readily identify desirable characteristics that would be favored by breeding programs (by permission, DK Publishing, Inc.).

The identification of species, subspecies and hybrids is a difficult task compounded by the fact that zoologists and paleo-zoologists disagree on the basic identifying species characteristics of the various Equidae. (Zarins 2007, Summation and Conclusion, 4 in pre-publication proof)

We have already seen some of the difficulties encountered in interpretation of the artistic evidence. Nonetheless, the figurines at Urkesh do demonstrate consistent relationships that can be documented within a corpus of figurines we have chosen to designate as equids as distinct from other genera.

Secondary characteristics play a part in this identification, certainly; but more importantly, *measurement to establish verifiable and consistent proportions and ratios of body part to body part has defined the parameters of the equid corpus.*

We take the identifications we make here as *indicators*, rather than as proscriptive determinations.

What we know for certain is that the equid figurines at Urkesh taken as a corpus exhibit morphological changes that can be described with certainty, that these changes cluster in categories that differentiate one group of equid figurines from another and that this categorization invites speculation about how and why such categorization should be made.

#### ***Equus* Typology: Proportions & Ratios of Body Parts**

Amongst the equids recovered from the AK Palace, there are three distinct body types, which I have only recently come to think correspond with “the three equid groups” — asinid, hemione, caballine (Zarins 2007, *Equidae in the Wild* 2). They are categorized here as **TYPE I**, **TYPE II**, and **TYPE III**.

In my studies of the equid figurines recovered at Urkesh, because there were signs of veterinary intervention, I came to see these three types as distributed in hierarchical fashion along a vertical line from “nondomesticated” to “domesticated,” avatars of the grand experiment in animal husbandry at ancient Urkesh. Animals from the asinid group were classified amongst “nondomesticated equids” at one end of the scale, and “horses,” clearly domesticated, were classified at the other end of the scale. “Onagers” fell somewhere in between; I took them as early candidates for hybridization, again, “on the way” to domestication.

This classification is misleading for the most part. There are domesticated asses and there are wild horses. Although researchers are hard-pressed “in archeological, osteological context” to identify crosses between any two of the three species, there is some indication that such crosses were attempted. Zarins, citing Gray, has provided a useful list of potential crosses (Zarins 2007, *Equus caballus* 73-74; also, see Helmig and Sewell 1998). We might expect that such crosses were depicted amongst the terracotta representations, but at the least, identification is a perilous task. Nonetheless, when such speculation seems warranted, I have so indicated in the text as an invitation to future investigators.

Measurements of body parts (labeled as  $w1/w2/w3$  for forequarters/torso/hindquarters and  $lg$  for length) bear an internal consistency, each to the others; and while not every ratio has been explored, a number of relationships have been observed to be constant. These ratios and body proportions serve to distinguish the body type of an equid in the figurine corpus at Mozan from other animals.<sup>17</sup>

$$w1 < w3$$

The forequarters are less wide than the hindquarters.

$$w2 < w1 < w3$$

The torso is less wide than either the forequarters or the hindquarters.

$$w1 : w2 : w3 \sim 5 : 4 : 6$$

If the hindquarters are taken to be 6, then the forequarters will be about 5, the torso 4.

That equids in the Urkesh figurine corpus have, as a general rule, heavier hindquarters may indicate the usage to which the domesticated animal was put.

$$lg \geq 2w3$$

Body-length is greater than or equal to twice the width of the hindquarters.

$$lg@neck \geq lg/2$$

The length of the body is a little less than twice as long as the neck. I have taken this measurement in vertical cranial section, measuring from the top of the crown to the mid-point of the torso.

The length of the neck does not prove to be a differentiating factor in other animals in the figurine corpus (but see, in the limestone seal, A9.24, two horned animals with long necks and lean bodies). It is so, however, in the case of the equids, as the head and neck are usually long and thrust forward, out from the body. Obviously, neck length and appropriate ratios can only be determined if forequarters, neck, and head of the equid are intact.

This said,

$$w1@neck \geq w1/2 \leq w2$$

The width of the equid neck is a little wider than half the width of the forequarters and somewhat smaller than the torso.

<sup>17</sup> Some carnivores do have a very similar body type, but forequarters and hindquarters more nearly approach or can even be equal to each other in width, and the torso is scarcely less wide than the forequarters (the constant is  $w2 \leq 4/5w1$ ).

### ***Equus* Typology: Stance and Conformation**

In addition to the body ratios noted, equids in the figurine corpus at Mozan may exhibit some or all of the following characteristics:

1. FOREQUARTERS ARE SOLIDLY FOUNDED.
2. MUZZLE IS RECTANGULAR IN SECTION; SNOUT IS FREQUENTLY PINCHED AND TRIANGULAR IN SECTION.
3. ANGLE OF FORELEG/BODY JOIN IS 120 DEGREES.
4. NECK IS LONG AND FORWARD FROM BODY.
5. TORSO IS LEAN.
6. BUTTOCKS ARE FUSED AND SOMETIMES RECESSED.
7. SEXUAL PARTS ARE EXPRESSED.

Other animals in the corpus may exhibit some of these characteristics, but not all and not all taken together.

### ***Equus* Typology: TEMPLATE, TYPES and the Signs of Domestication**

Three figurines, one from each group of equid TYPE, represent the group as a whole – a TEMPLATE, if you will. These three figurines are described fully in the CATALOG below, but may serve here as useful point of reference:

**TYPE I** *Equus* 5 A6.238 • **TYPE II** *Equus* 23 A5.30 • **TYPE III** *Equus* 36 A5Q815.1

Within the three equid groups, we are able to observe certain characteristics of domestication, changes in bodily structure resulting from morphological change brought about by isolation from the animal stock in the wild and selective breeding. We do not mean to say that such a change occurs over the short term of decades; rather, *domesticated and nondomesticated species lived side by side and did exhibit different body types.*

Signs of domestication in *Equus* TYPE II and *Equus* TYPE III include:

1. BREAST RIDGE IS PRONOUNCED AND DOES NOT CONTINUE INTO BELLY.

The domesticated horse (*Equus* TYPE III) also exhibits the following characteristics, observable as a third equid body type in the figurine corpus:

2. MUZZLE IS NARROW, EYES ARE WIDELY SPACED AND DEEPLY RECESSED, EARS ARE SHORT.
3. MANE IS LONG.
4. MANE RISES ONTO HEAD BETWEEN EARS.
5. TAIL IS WIDE AT THE BASE.

With the asinid group (*Equus* TYPE I), by contrast, we note that:

1. FOREQUARTERS ARE NARROW.
2. MUZZLE IS BLUNT OR SHORT.
3. MANE IS ERECT.
4. TAIL IS TUFTED.

These characteristics do not necessarily mean that the animal is not domesticated, as I had previously observed; instead they serve to distinguish these equids from the caballine group.

This list of details has been assembled from two sources: (1) signs of animal domestication as documented in paleozoölogy and (2) the way third millennium observers represented the animal in clay at Tell Mozan/Urkesh. *No one detail taken in isolation is diagnostic*, and final identification is open to interpretation. In the main, however, these details are indicators that provide a basis for approaching the figurines and for seeing in them a key to one aspect of third millennium life.

#### **Veterinary Intervention and Animal Husbandry**

Now we return to the manipulation of the equid population at Urkesh in order to accelerate morphological change and to encourage the development of desirable characteristics that could be passed consistently to succeeding generations.

Control of procreation would be the prime tool in a focused program of domestication. This is, properly speaking, *husbanding*, a step along the way to domestication, absolute control of an animal population for the benefit of humans.

Other traits of the *Equus* population strengthen the argument and lend credence to the idea of a sophisticated breeding program aimed at taming wild stock. We are indebted to Chris Kimbrough for the observation that three female animals in the corpus might be in heat (Kimbrough 1998). Each displays a prominent swollen vagina.

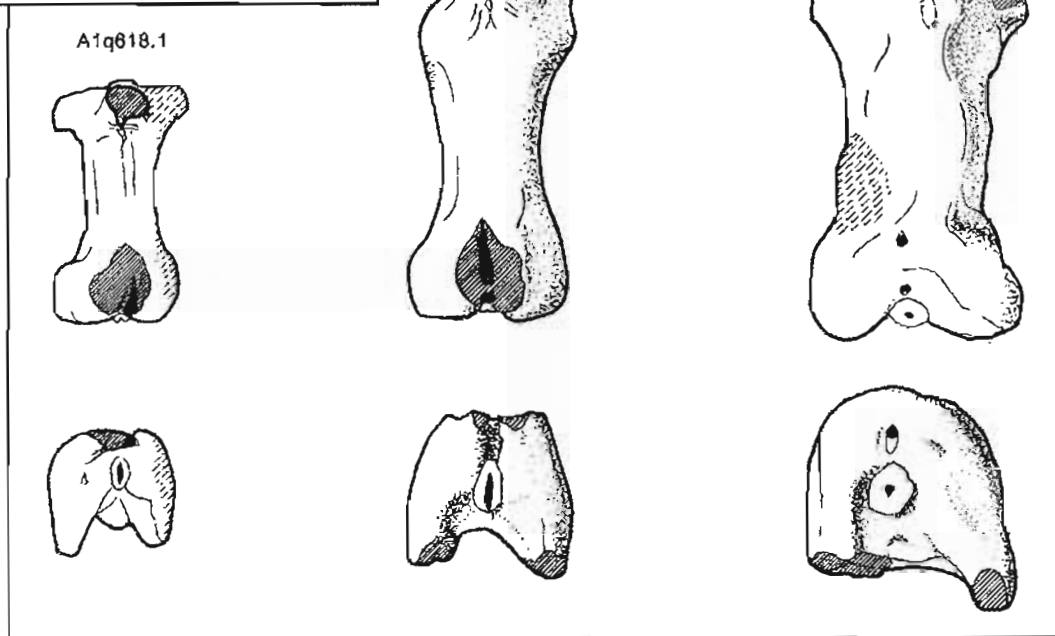
That the detail is represented serves to underline its importance and singularity. I take this detail to be a likely indicator of animal husbandry and controlled reproduction of livestock amongst the Urkesh herders.

The three mares in Figure 21 are linked both by body form and by surface finish to male examples of equids that exhibit a caudal band and a penile strap. Also, each of the female equids has a comparatively lean torso ( $lg \geq 2w3$ ). When a band divides the hindquarters of the male animal and when there is a strap across the sexual parts, the equid torso is invariably lean. Those animals with lean bodies, obviously such a contrast with the intractable and irritable and untrainable onager or the sturdy but headstrong ox, would have been singled out, selected with the express aim of reproducing a desirable trait.

## Equids in oestrus

Scale app. 2 : 3.  
(rendering cw K701)

FIGURE 21



The strap across the sexual parts of the male animal may be related to castration, a process that enforced docility through veterinary intervention and not only to control reproduction. As she discusses behavior modification of the wild *Equus* species, Clutton-Brock tells us how decisive a process castration could be:

Although the long-ranging and high-speed mobility of the horse makes it the ideal means of transport for humans, the process of domestication cannot have been easy, which may partially explain why the horse was the last species of livestock to be enfolded into human societies. Early on in the history of early husbandry and before the practice of castration became widespread the management of a group of domestic horses must have required considerable courage and knowledge of animal behavior. (Clutton-Brock 1992, 22)

The herdsman of Urkesh possessed this skill. The figurine corpus tells us this.

We have designated female equids in *oestrus* or male equids that exhibit signs of veterinary intervention as ***Equus* TYPE III** to emphasize that the animal is caught in the very process of change — on the way to domestication.

## §

In time, archaeologists will unravel the code that relates the form of the small terra-cotta figurines at Urkesh to lifeways of the past. In the meantime, *measurement* is the single most important tool available to investigators. It distinguishes documents, one from the other, and may in time provide a key to the process of equid domestication in the Middle East.

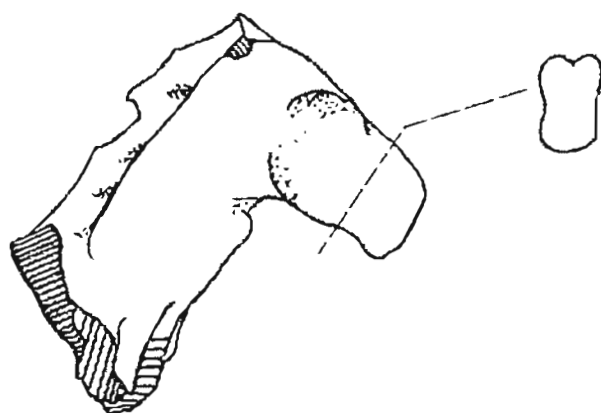
# *EQUUS*

## TYPE I ASINID

### 1 *Equus* HEAD TYPE I

A1q836.1

Recovered from feature 161 locus 118 stratum 13B • cranial length (snout to mane) 4.0 • cranial width (across ears) 2.2 • height (groove of muzzle to base of neck [broken]) 5.3 • neck 1.97 • snout (horizontal transverse section) 1.07 • snout (vertical transverse section) 1.15 • fabric medium, with heavy but uniform chaff temper • Munsell reading 10YR 7/3 • color very pale brown • preservation: head and neck (only)



*Equus* 1 A1q836.1.

Right median plane and transverse cranial section, muzzle.

Scale 1 : 1.

(rendering elb C721)

This is one of several equid heads so simplified that I have identified them as “blanks.” Whether they serve as a basic form for further elaboration remains to be substantiated.

The crown of the head and the neck are squared off, rather an unusual detail in the corpus. The musculature of the neck is indicated.

The sides of the muzzle are concave, visible as modeling on the right side of the muzzle. The lower join of the head and neck is formed by the side of the finger. The muzzle is blunt.

The mane is sharp, the muzzle curves slightly to the left (seen in cranial view), and the snout is blunt. There is a possible perforation in the mane, but the mane is chipped, making it difficult to read. The head has been modeled as a rectangular block, then pinched from the sides to taper the muzzle. The mane is high between the eye ridges, which are pushed up as a result of pinching the sides of the muzzle together and lifting the clay toward the back of the head. The top of muzzle shows a join of two sides of medium pushed up and together — a kind of “fold” on top of the muzzle. The medium is chaff-tempered.



*Equus* 1 A1q836.1.

Dorsal view from right and slightly above eye level. Note ridge atop muzzle, erect mane.

Scale 1 : 1.

(photograph V10e0501)



*Equus* head, right median plane.

From Tepe Gawra, Stratum VI.

There is a breast ridge, the mane is sharp and rises high onto the crown between the ears.

Scale 1 : 1.

(photograph courtesy

American Schools of Oriental Research and the University of Pennsylvania Press)

From Tepe Gawra, in Early Dynastic through Sargonid levels (Stratum VI) — an important time of international contact and trade — comes a “comparatively large head”. There are no parallels in preceding levels. Speiser calls attention to the fact that all specimens found in this level are well-fired and that for the most part, artisans are now treating heads and tails individually (Speiser, Cross et al. 1935, 69, Plate XXXIV/b). The head itself is almost twice as large as *Equus* 1, and the surface is more detailed, as we might intimate from Speiser’s remarks.

Compare the incised mane to that of *Felis* 14 A6q106.1. There are no exact parallels in the Mozan *Equus* corpus, for the equids of Urkesh are subject to several stages of manufacture, and this obscures the simple strike lines of the Gawra example (as an example, *Equus* 36 A5q63.1 TYPE III).

We should question Speiser’s remark that the presence of the horse is “abundantly attested for this early period” (Speiser, Cross et al. 1935, 185). The blunt muzzle and the mane carried high on the crown makes us think of this specimen as a nondomesticated equid, such as the onager.

Although I say that the modeling of the mane comes to a sharp edge, the incised lines down the neck might in fact indicate a flowing mane. These long strikes give pause, but they may indicate musculature or a first stage of manufacture only.

Tell Halawa A. *Equiden* Nr. 137 (Meyer, Pruss, et al. 1994, Abb. 38) exhibits a muzzle that curves from crown to snout. The mane comes up onto the crown between the ears, which appear to be pronounced.

## 2 *Equus* RIGHT FRONT FORELEG TYPE I

A1q885.7

Recovered from layers above first floor, storeroom locus 20 • height 2.13 • transverse section (break, short dimension) 0.95 • transverse section (break, long dimension) 1.28 • transverse section (above termination, short dimension) 0.035 • transverse section (above termination, long dimension) 0.047 • fabric medium fine with small inclusions (visible on surface) • Munsell reading 10YR 8/2 • color very pale brown • preservation: terminated leg (only)

The appendage tapers to midpoint, then continues to termination. Adjoining face is curved to termination. Body-join to termination oval. Compare torso *Equus* 5 A6.238, TYPE I.

See **COMPARATIVE TABLE Appendages Legs *Equus***.



**3 *Equus* FOREQUARTERS (FRAGMENTARY) TYPE I****A5q171.2**

Recovered from feature 38 locus 19 stratum B9 • forequarters 3.13 • neck 2.025 • torso 2.85 • height at forequarters 6.46 • fabric medium fine, with heavy chaff temper • Munsell reading 10YR 8/3 • color very pale brown • conservation: trowel chip/mark on left of neck • preservation: forequarters only; legs and head broken; sexual parts broken

The neck is fused to the body and is thick. There is a heavy breast ridge between the legs on the belly, but it does not rise up the neck.

There is a mane, or more likely a neck ridge. The head is carried only slightly above the body (the neck curves to meet the top of the head). The penis expressed in the middle of the belly (as with herbivores). There is a clay ridge in the belly at the torso break. There are sexual parts, possibly broken.

There is a slip, visible at the neck and torso breaks. The figurine is modeled on a core (texture difference); a hairline outlines the difference in fabric.

**4 *Equus* FOREQUARTERS TYPE I****A5q530.1**

Recovered from feature 62 locus 22 stratum B3 • forequarters 2.84 • neck 1.57 neck (transverse section, long axis) 1.82 • height at forequarters 5.725 (neck to intact right foreleg) • fabric chaff-tempered, straw imprint on left side of neck • Munsell reading 10YR 8/3 • color very pale brown • conservation: depositional deposits on right neck • preservation: forequarters only; right foreleg intact and terminated

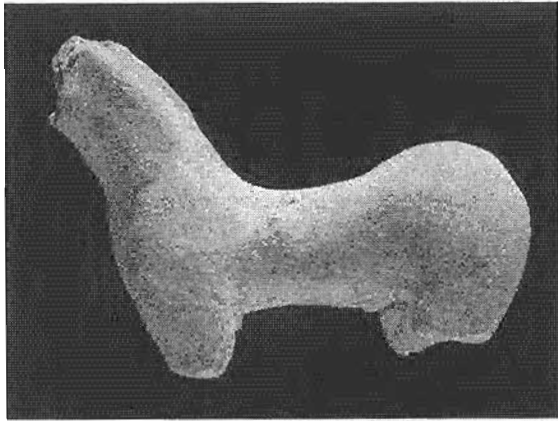
The forelegs are solidly founded and are contained outside within a narrow inverted U. Inside, the legs meet in a wide inverted V (45 degrees). The neck curves back slightly toward the torso and swells somewhat as it joins the forequarters. There is no discernable breast ridge; the leg is lozenge-shaped in section. The mane is lightly pinched and the musculature of the neck is indicated.

**5 *Equus* TORSO TYPE I TEMPLATE****A6.238**

Recovered from feature 350 • length 5.75 • forequarters 2.55 • neck 1.14 • torso 1.66 • hindquarters 2.67 • tail 0.28 • height at hindquarters 3.3 • height at forequarters 5.7 • note on measurement: height not diagnostic • fabric fine, with uniformly fine chaff temper • texture smoothed overall • Munsell reading 7.5YR 7/1 • color light gray • preservation: all appendages broken; head missing; tail and sexual parts chipped

This is a nondomesticated equid, more likely onager than wild ass, as the proportions are quite lean.

The breast ridge is narrow yet prominent and contained within a solidly founded slightly out-curving inverted U. Compare the Ur III onager on Pu-abi's yoke-staff (Woolley 1934, Plate 166).



*Equus* 5 A6.238 TEMPLATE TYPE I.

Left median plane.

This is the very type  
of the nondomesticated equid.

The attitude is modeled on life —  
typical of the species.

Compare torso with

*Equus* TYPE II and TYPE III.

Scale 1 : 1.

(photograph MZ13 1300d3106)

The torso is lean and more than twice the width of the hindquarters. This measurement places the animal representation within the typology but still responds to reality, where the hindquarters of the nondomesticated animal are in fact slimmer than those of the domesticated animal.

There is a sharp, erect mane, uniformly pinched from the fabric of the neck. The neck projects out and up. The forelegs project not forward, but in fact *back* somewhat; although solidly founded, the front of the leg curves out from the forequarters and down to form the front of the leg. Compare *Equus* 22 A5.10 TYPE II, whose attitude is similar.

The forequarters are fashioned reductively, trimmed and carved, rather than modeled from successive applications of the medium to the core. The fingers smooth and finish this work in a second stage of manufacture.

A piece of clay adheres to the right side of the upper neck, but it is broken. It is in approximately the same position as the “yoke” of *Equus* 106 A10q148.1, crossing and perpendicular to the line of the neck. There may be a relationship with techniques of animal husbandry, specifically equid domestication.

There is a “rat tail,” not carried high and hanging down. The tail is fashioned from a separate piece of clay and inserted between the buttocks. The sexual parts are expressed. A deep groove passes from under the tail between the legs to the sexual parts, falling between the *testes*. The rump curves down, melds with and forms the back of the hindlegs. There are fingerprints on the hindlegs. Compare *Equus* 204 A10.79.



*Equus* 5 A6.238 TYPE I.

Cranial view.

Note narrow forequarters and  
pronounced breast ridge.

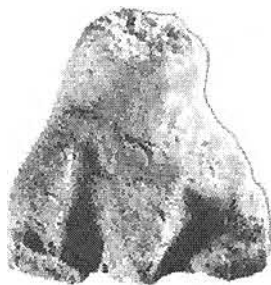
Scale 1 : 1.

(photograph MZ13 1900d2612)

Tell Halawa A. *Equiden* Nr. 93, Nr. 95 Nr. 108 Nr. 135 Nr. 153 (Meyer, Pruss, et al. 1994, Abb. 36, 37, 38, 39) are the closest parallels to the Mozan nondomesticated equid, but none has exactly the same neck conformation nor the curved back; at Mozan, the neck continues a rather deep back curve up and onto the crown. Nr. 153 is closer in silhouette to the Mozan *Capra* type (e.g., *Capra* I A1.44). Nr. 93 and Nr. 95 bear an erect mane and the tail, while not carried high, is rather thin and appears to taper. Nr. 135 does exhibit a curved back with a tail carried high. Nr. 108 has a pronounced breast ridge. Nr. 95 conforms exactly to the Mozan typology —  $w1 : w2 : w3 = 5 : 3 : 4$ . Many of the Halawa examples have “an emplacement for a rider,” or at least there is a break or abrasion atop the withers.

**6 *Equus* FOREQUARTERS TYPE I****A6q493.5**

Recovered from feature 145 locus 168 • length 4.12 • forequarters 3.15 • neck 2.15 • torso 2.43 • height at forequarters (break in neck to bottom of breast ridge) 3.6 • note on measurement: length and height not diagnostic • fabric medium, uniform chaff temper • Munsell reading 10YR 7/3 • color very pale brown • preservation: forequarters only; all appendages broken



*Equus* 6 A6q493.5. Cranial view.  
Scale 1 : 1.  
(photograph V10e1507)

The forequarters are triangular in vertical transverse cranial section. There is a heavy but narrow breast ridge; it is flat and fingerprints separate it from the legs. The legs are solidly founded.

**7 *Equus* HEAD WITH MANE TYPE I****A7.3**

Recovered from feature 8, a layer below disturbed topsoil • cranial length 3.62 • cranial width 1.55 • transverse section (snout, long axis) 0.09 • transverse section (snout, short axis) 0.075 • neck 1.6 • note on measurement: neck width and length not diagnostic • fabric medium, gypsum inclusions • Munsell reading 10YR 8/3 • color very pale brown • preservation: head only, tips of ears chipped



*Equus* 7 A7.3. Right median plane, dorsal view, left median plane.  
In the right median plane, note dots in a vertical line to the front of a slightly raised ridge on the neck. Dorsal view: the ears are separate from the head and point straight back. The mane is sharp, quite pronounced. In the left median plane, note the light polish, rarely encountered.

Scale 1 : 1.  
(photographs V9e1710, V9e1711, V9e1709)

The mane is quite high and sharp (0.7 cm above neck and head) and comes onto the forehead between ears /eye ridges. These ridges, both chipped, are applied as separate pieces of clay.

The ridge of the mane is continued down the muzzle to the nose by a light incision. The eye ridges are pronounced, blending into ears (chipped).

The snout is flat. Nostrils are indicated by dots of similar dimension and shallowness. There is a light horizontal incision below the nostrils to indicate the mouth.

Dots, lightly applied, appear on the right of the muzzle, similar to harness markings on other figurines (but scarcely perceptible). There are two dots, one above the other, at the break in the neck on the right flank, five in a downward curve below the ear, two left of the ridge on the muzzle. Others below the neck are probably obscured by incisions, smoothing, or abrasions.

*Equus* 7 A7.3 and *Equus* 29 A7q11 were excavated in the final days of MZ8 in new area A7. They are excellent examples of a type of the simplified, unadorned "blanks" noted elsewhere in the corpus.

Compare snout *Equus* 301 Z1.188, a MINIATURE surface find, in **COMPARATIVE TABLE 1 & 1A Pelts & Surface Decoration**.

**Tall Munbaqa.** Tierterrakottafiguren Nr. 393. *Kopf eines Equiden (Esel?)* Mbq 30/35-12, Raqqa Nr. 338 (Czichon, Werner, et al. 1998, Tafel 79). The ears extending back and up, the slightly tapering blunt muzzle and what may be taken for a sharp mane (see cross-section) mark this equid head as nondomesticated. There is an applied halter. The muzzle is "cylindrical," although I probably would have characterized it as "rectangular." The features are applied on the Munbaqa exemplar, while they are incised or impressed on the Urkesh head.

**Hammam et-Turkman.** Equid Figurine HMM 81-A 2 (Rossmest and Venema 1988, Pl. 175, Fig. 26). Identified as an equid, "a fragment of a head with the snout pierced for reins." (page 564). Note the manner in which the mane terminates at the crown; it was probably erect and did not lie flat, indicating a nondomesticated equid.

## 8 *Equus* FOREQUARTERS TYPE I

A7.13

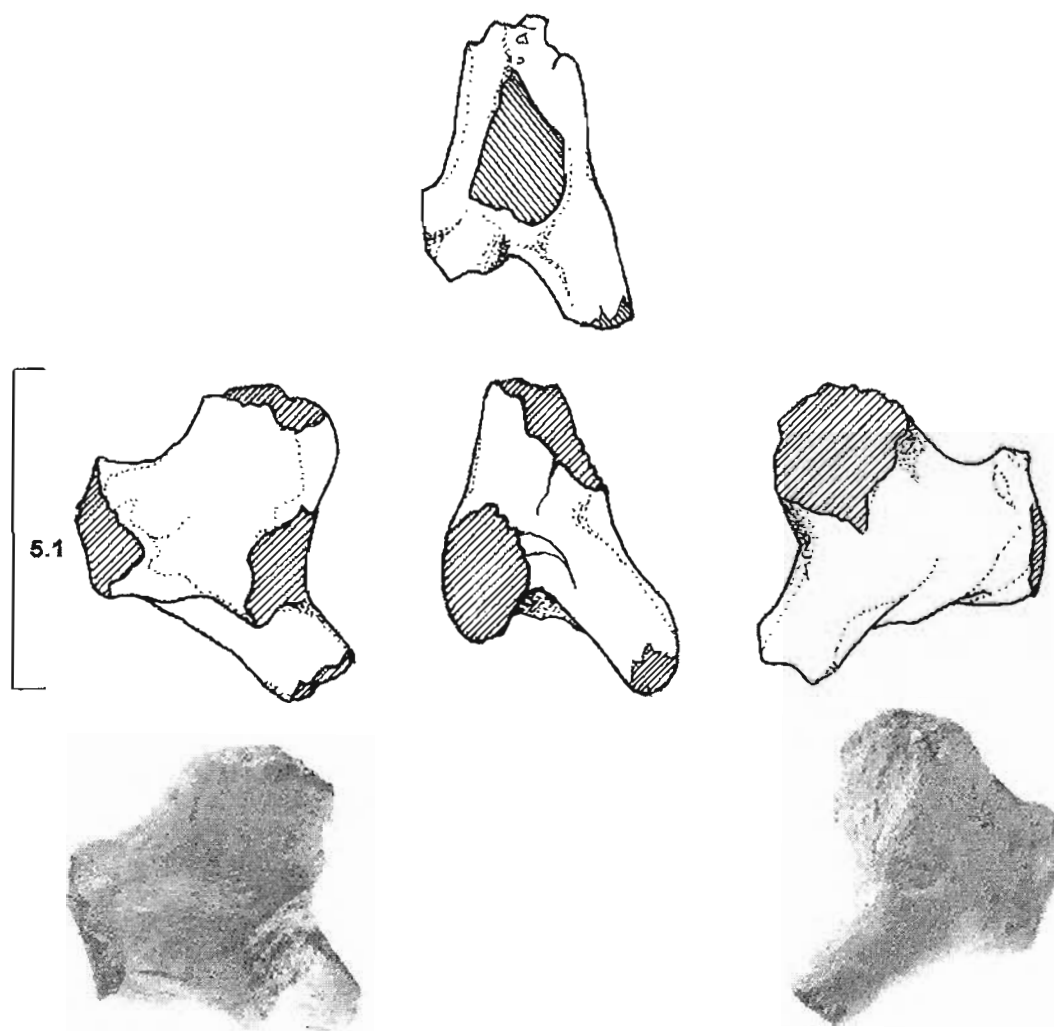
Recovered from feature 31 locus 6 • length (breast ridge to break) 4.36 • forequarters 3.38 • neck 1.85 • torso 2.415 • height (torso in horizontal plane, break at mane to left foreleg) 5.35 • note on measurement: torso questionable, height and length not diagnostic • fabric medium, chaff temper, heavy gypsum and fine silica inclusions • Munsell reading 7.5YR 8/4 • color pink • preservation: forequarters only; all appendages broken

Imagine finding this object in the ground. Since all the appendages are shattered and missing, how can you determine the correct orientation? Finally, the triangular, narrow cranial section showed us how this equid must have stood. And I used it again to reorient the sections for this catalog! The top view in the first row is taken in the dorsal plane.

The musculature is lightly defined by modeling on wet clay, rather than by scraping. There is the beginning of a mane at the base of the neck. The forelegs project forward (*élancés en avant*).

There is a rounded breast ridge, not very marked. The forequarters are triangular in vertical section. The forequarters are contained within a wide, inverted V.

There are a number (four?) of lightly impressed dots around the neck, visible on the right flank. A hollow instrument has been used.

*Equus* 8 A7.13.

Dorsal view.

Right median plane, cranial view, left median plane.

The photographs of the right and left median planes were correctly oriented, but reversed and shot at an oblique angle, which accounts for the apparent lack of conformation to the rendering.

Scale 1 : 1.

(rendering redrawn cw H616)

Note the musculature definition on the right forequarters, neck to leg. Fingerprints appear at the breast ridge, which I read in both left and right median views. A flap of clay, not smoothed into the body, can be seen inside the right foreleg and under the torso (visible in cranial section). The slip emphasizes this detail.

Consider the manner in which this figurine was finished. Compare *Equus* 23 A5.30 and other equids from the corpus. The finish is smooth, the musculature is not defined by scraping.

9 *Equus* TORSO AND NECK TYPE I

A7.85

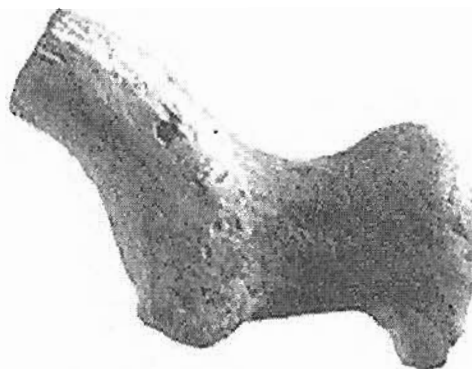
Recovered from feature 100 locus 9 • length (rump to breast ridge) 5.23 • forequarters 2.42 • neck 1.59 • torso 2.06 • hindquarters 2.97 • height at forequarters 4.12 • height at hindquarters 3.2 • fabric fine, uniformly small inclusions • Munsell reading 10YR 7/3 • color very pale brown • preservation: torso (only); all appendages broken, neck intact

The neck curves and projects forward. The forequarters are triangular in transverse cranial section. The legs are solidly founded. The neck/body join is thick. There is a lightly pinched mane and a sharp breast ridge, which continues onto the belly. Compare attitude/neck carriage *Equus* 22 A5.10.

There is a perforation at the base of the neck. It cannot be cleaned to determine if it passes straight through the figurine.

There are fused buttocks, an incision down the rump, and a tail hole atop the rump. The tail is carried high. Compare with the incision to the sexual parts of *Felis* 36 A7q231.1.

The musculature is indicated by scraping.



*Equus* 9 A7.85. Left median plane.  
Note the rounded rump  
and the manner in which the legs join it.  
Scale 1 : 1.  
(photograph V10-e1512)

10 *Equus* TORSO TYPE I

A7.333

Recovered from feature 141 locus 13 • length 4.56 • forequarters 1.98 • neck 1.07 • torso 1.56 • hindquarters 2.0 • height at forequarters 3.21 • height at hindquarters 2.35 • fabric fine, with few inclusions • Munsell reading 5YR 7/4 - 5/2 • color pink-reddish gray • note on color: a range of color is represented on the figurine indicating a diminution of chroma and an increase in intensity/value as reading moves toward the grays • preservation: torso intact; all appendages broken, head missing



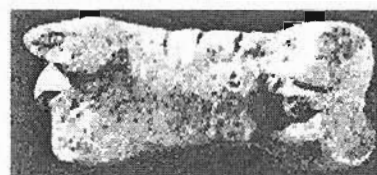
*Equus* 10 A7.333. Left median plane.  
Note the attitude. Some of the impression  
of the head thrown back may be due  
to the perforated tab at the base of the neck.

Scale 1 : 1.  
(photograph V7b0231)

Torso, hindquarters, forequarters, and sexual parts intact.

The surface of the figurine is burnished in the manner of *Canis* 15 A7.259. Here there are three strikes or regular incisions on either side of the torso. They pass over the back, but probably did not meet at the underbelly. The neck is carried vertically, alert in the manner of dogs.

There is an incision linking the tail with the underbelly and there are expressed sexual parts. There is an impressed dot at the tip of the penis, made with a hollow instrument. A bit of fabric remains at the center of the impression.



*Equus* 10 A7.333.

Ventral view.

Remains of caudal band visible.

Scale 1 : 1.

(photograph V7b0235)

This treatment has something of a parallel in *Felis* 35 A7.11, where three small holes are evenly spaced around the head of the organ, and in *Felis* 302 Z1.203, where the head of the organ is splayed outward like a tripartite clover and impressed dots are at the center of each part. Whereas the other two applications may spell veterinary intervention for ritualistic purposes or as a sign of domestication, here the hole may only mark an orifice. Yet there seem to be traces of a thin band between the buttocks from the tail hole to the sexual parts, which we have taken to mean veterinary intervention with other representations.

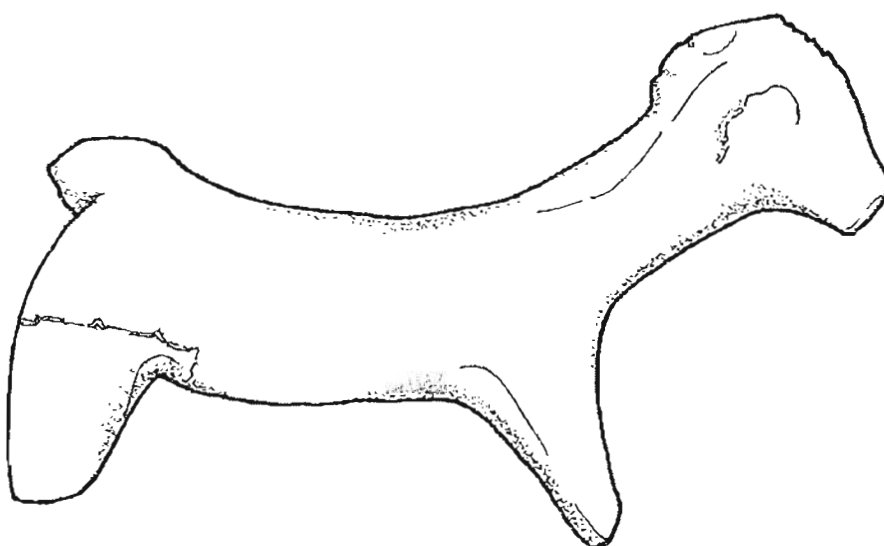
The ratios of torso to quarters in both width and length fit the equid typology; the body is too lean to be a dog. Also, there are only two examples of a possible tail hole among the canids, one of which is very similar in stance and fabric to this piece. With canids, incised lines most often outline or accent details and there is only one incised line in the corpus linking tail with underbelly.

Compare this figurine with torso *Equus* 5 A6.238 and with torso *Canis* 15 A7.259, similar in execution and appearance, but different in body TYPE.

## 11 *Equus* TORSO TYPE I

**A7.510**

Recovered from feature 242 locus 21 • length 7.76 • cranial length 3.59 • cranial width (across base of ears) 2.23 • forequarters 2.84 • neck 1.98 • torso 2.56 • hindquarters 3.87 • tail 0.57 • height at forequarters 7.5 • height at hindquarters 5.6 • note on measurement: height at forequarters and cranial length not diagnostic • preservation: three appendages intact, all chipped; one appendage, retrieved after initial excavation, attached in conservation:



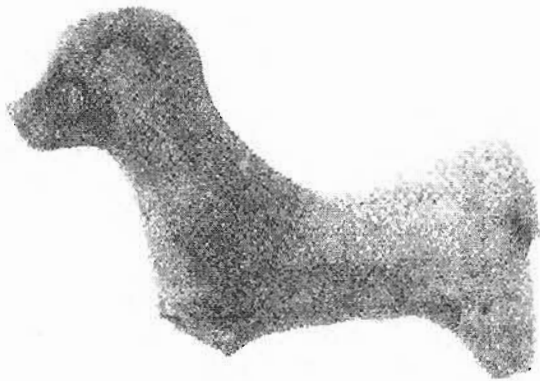
*Equus* 11 A7.510.

Right median plane.

Scale 1 : 1.

(rendering cw j803, two versions:  
with no appendage,  
and with appendage restored)

The object is fairly true to type, as regards body ratios. The mane, however, extends onto the crown, up and down the muzzle, ending only slightly before the nostrils.



*Pferd*. Nr. 579 (Klengel-Brandt 1978).  
The object is reproduced here at app. 1 : 1.  
(See discussion of scale  
in INTRODUCTION *Assur compuranda*)

The eyes are not apparent. The ears are applied, smoothed into the fabric of the muzzle; they are quite large for the size of the head and must have been pointed, up and back.

The tail is carried high; the hindquarters are solidly founded, contained within a rounded inverted U. The inside stance reflects this.

The forequarters are narrow, contained within an open inverted V. There is no sign of a breast ridge. The tail is thin at the base, given the width of the hindquarters.

**Assur. *Pferd* Nr. 579 Ass 22281 – VA 8105** (Klengel-Brandt 1978, Tafel 18). The author says that it is impossible to ascertain when the figurine was made.<sup>1</sup> In silhouette, Nr. 579 resembles A7.510, the *only* equid from Assur that does resemble the Urkesh equids. While we must await a final determination in the stratigraphic sequence of the Royal Palace, it is very likely that A7.510 was retrieved from Ur III levels; that is, contemporaneous with Assur Level E (according to Andrae), from which more animal than anthropomorphic figurines were retrieved. The neck and head of the Urkesh animal are thrust forward, whereas those of the Assur equid are not. The mane of both animals extends over and onto the muzzle, a rather unusual detail in the Urkesh corpus; not so at Assur, where a number of exemplars were retrieved from later (Parthian, Sassanian) levels. As I consider the Urkesh exemplar, I do not understand why Klengel-Brandt considers the legs of the Assur equid to be “stumpy” (*stummelförmigen*); otherwise, she characterizes the animal as “slender” (*schlanker*). The angle of the leg/body join is within the same range as Urkesh equids (+/-120 degrees). The tail of both animals is carried high; the hindquarters of both are solidly founded (as I judge from the left median plane of the Assur animal). The eyes of the Assur equid are applied disks, a detail almost never found at Urkesh. Nr. 579 is only provisionally included amongst the horses. Rightly so. I take the representation to be a nondomesticated equid.

***Tepe Gawra* equid** (Speiser, Cross, et al. 1935, PLATE XXXIV[c]). The excavator comments only on the manner of firing and the fabric. The representation is notable for the erect mane that comes over the crown and halfway down onto the muzzle. The torso is solidly founded and the leg/body join approaches 90 degrees (forequarters).

<sup>1</sup>“Für die Datierung des Stücke Nr. 568 und 579 können keine Vorschläge gemacht werden; sie sind auch nur Vorbehalt als Pferde zu erklären” (Klengel-Brandt 1978, 89). (“As for dating fragments 568 and 579, we are unable to offer a rea-sonable proposition; likewise, their attribution as horses should be taken as tentative” [author’s translation]).



# *EQUUS*

## TYPE I ASINID

### TENTATIVE IDENTIFICATION

#### 100 *Equus* LEFT FORELEG TYPE I

A1q1058.1

Recovered from first floors AK Storeroom • height 3.0295 • transverse section (break, body join) 2.65 • transverse section (below break) 1.74 • transverse section (above tip) 0.073 • fabric medium, with some gypsum inclusions • Munsell reading 10YR 8/2 • color very pale brown • preservation: tip of leg only; break includes portion of torso

The fragment could accommodate a slightly recessed breast ridge and a longitudinal body join with the torso (ridge in fabric oriented to right front). Section from break to tip is a square/circle.

Arguing against the TYPE I identification is the thickness of the object (less than 1 cm difference from top of leg to tip). Nondomesticated equids, at least as we have defined them in this corpus, are not as “heavy” as their domesticated relatives. With this piece, one might argue for solidly founded forequarters and a pronounced breast ridge.

#### 101 *Equus* MUZZLE AND NECK TYPE I

A7q424.1

Recovered from feature 155 locus 12 • length 3.11 • neck 1.53 • cranial width (ears) 1.36 • height (crown to neck break) 2.37 • note on measurement: height and length not diagnostic • fabric medium, chaff temper • texture smooth • Munsell reading 10YR 7/2 • color light gray • preservation: : muzzle only, broken; ears chipped

The ears are pointed and held back. In the making, they were folded over and smoothed. The neck is forward, muzzle curved and flat, depending upon the angle of join with the body. There is a sharp pinched mane. Muzzle is rectangular in section.

*Equus* 101 A7q424.1.  
Left median plane.  
Scale 1 : 1.  
(photograph V10e1004)

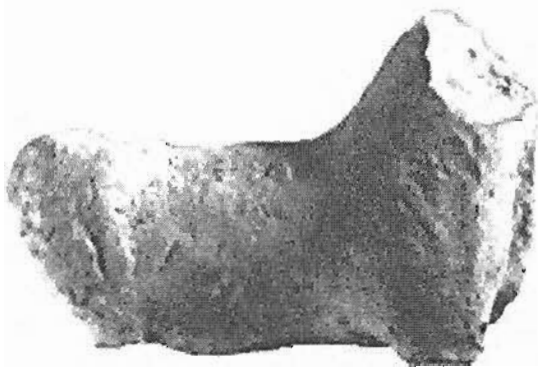


The flat crown is found in many figurines in the corpus. The neck join to muzzle is thick. There may be a slip overlaid.

#### 102 *Equus* TORSO TYPE I

A7.316

Recovered from feature 169 locus 15 • forequarters 3.11 • neck 2.03 • torso 2.63 • hindquarters 3.13 • length (breast ridge to under tail) 6.865 • height at forequarters 4.61 • height at hindquarters 3.2 • note on measurement: height not diagnostic • fabric medium fine, with uniform inclusions • Munsell reading 10YR 7/3 • color very pale brown • preservation: all appendages broken; tail broken, breast ridge intact



*Equus* 102 A7.316. Right median plane.  
Note breast ridge and overhanging tail.  
Scale 1 : 1.  
(photograph V10e1615)

There is a pronounced breast ridge continuing onto belly. Both forequarters and hindquarters are solidly founded.

Compare hindquarters *Equus* 23 A5.30 and those of *Equus* TYPE I.

The tail poses interesting questions, for it is flat, lying down against the hindquarters, and wide, similar to the tail of *Equus* 23. The solidly founded stance may also relate to domestication. This animal, however, has a stiff mane that does not lie flat and the forequarters are not wide, but are contained within a narrow, incurving inverted V.

There is a heavy slip. There are scratches on the surface, probably from excavation, on the forequarters: two horizontal, and a light zigzag line that descends from the neck down the left foreleg.

### 103 *Equus* TORSO AND FOREQUARTERS TYPE I

A7q747.4

Recovered from feature 242 locus 21 • length 4.815 • forequarters 2.56 • torso (measured vertically) 1.81 • height at forequarters 2.98 • height at hindquarters 2.25 • note on measurement: length may in fact be diagnostic because hindquarters are intact just under tail hole; forequarters diagnostic, other measurements not • fabric fine, some inclusions • Munsell reading 2.5YR 6/3-2.5YR 5/1 • color light reddish brown-reddish gray • preservation: forequarters and torso; hindquarters broken in half vertically; left foreleg broken at torso.

The forequarters are contained within a narrow slightly outcurving V. There is a breast ridge. The legs meld with the torso. There is a deep curve to the back. The tail is held high. The left foreleg meets the flank at 120 degrees. There is a mane at the base of the neck.

Munsell reading varies from reddish brown to reddish gray. What in fact causes the color variation? Depositional action? How might this have occurred secondarily, as in handling or near smoke?

There are gas bubbles visible in the surface; the figurine may have been overfired.

### 104 *Equus* TORSO TYPE I

A9.18

Recovered from feature 49 • length 6.02 • forequarters 2.48 • neck 2.04 • torso 2.27 • hindquarters 3.31 • height at forequarters 4.18 • height at hindquarters 3.39 • fabric medium fine, with some inclusions • Munsell reading 5YR 7/2 • color pinkish gray • conservation: surface heavily abraded • preservation: torso with neck; all appendages broken; rump chipped

The tail is carried high. The hindquarters are triangular in section, the outside stance being limited by a rounded inverted V that meets in a point at the tail. The buttocks are recessed. There is a perforation in the mane or neck ridge. Musculature is indicated by scraping. The forelegs meet in a narrow inverted V. The outside stance is a narrow slightly rounded inverted V.

There are fingerprints on the recessed part of the buttocks and under the neck between the forelegs. Probably the fabric was sliced away at the forequarters. Compare triangular section through hindquarters in the Urkesh corpus, confined primarily to *Capra*.

## 105 *Equus* FOREQUARTERS TYPE I

A10.45

Recovered from feature 1 locus 2 • length 4.73 • forequarters 2.48 • neck 1.01 • torso 2.01 • height at forequarters 3.39 • note on measurement: height, length not diagnostic • fabric fine, with uniform chaff temper • Munsell reading 10YR 7/2 • color light gray • conservation: surface and neck break heavily abraded • preservation: forequarters only, part of torso remains; all appendages broken

Narrow forequarters are contained within an inverted V. There is a slight outward curve. There was likely a slip on this object. It is visible at the left foreleg break.

My earliest notes about A10.45 concern breakage and how to read it. We can say, for example, that the neck break is heavily abraded, while the torso break is clean and sharp. It is difficult to see how depositional action alone could account for the difference. In other instances, breakage may be seen as deliberate, rather than accidental. These observations do inform our understanding of an object.

I have long held and say repeatedly in this volume that the usual manner in which fragmentary objects are measured in the field is of no use to the analyst at all. Relative size does matter, of course; but such information is not sufficiently discrete. In the case of A10.45, were I to have taken the cranial plane in dorsal view, I would at the least have some sense of body massing. I could determine as well the ratio of torso to forequarters. I could not have determined diagnostic length.

I think that we need to learn to read the pattern of breakage, perhaps invariably at a microscopic level. A10.45 invites us to consider how else the researcher might determine (or project) diagnostic measurement, in spite of breakage.

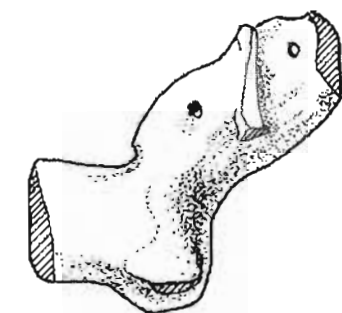
## 106 *Equus* FOREQUARTERS, PARTIAL MUZZLE WITH YOKE TYPE I

A10q148.1

Recovered from feature 55 locus 1 • length 4.26 • forequarters 2.4 • neck 1.42 • torso 1.88 • height at forequarters 4.9 • note on measurement: height, length not diagnostic • fabric medium, some chaff temper • Munsell reading 10YR 8/2 • color very pale brown • preservation: neck, partial muzzle with yoke (broken?) and partial torso

The prominent breast ridge of the forequarters is contained within a narrow inverted U. The neck is erect and the muzzle (presumed) projects up and forward, as with *Equus* 5 A6.238.

Compare forequarters *Capra* 1 A1.44, as narrow as *Equus* 106, but with horns projecting back.



*Equus* 106 A10q148.1.

Right median plane.

Note attitude and perforations  
in a prominent erect mane.

Scale 1 : 1.

(rendering cw L716)

The eyes are close set, impressed into the side of the head at a slight angle. The eye on the left is not deep; it is perhaps abraded.

Around the neck are two tapering pieces of clay, which meet behind the eyes just below the crown. Study PLATE LVI for conformation. This detail appears to be applied; I do not take these flaps as appendages.

The flaps may indicate some sort of horse trapping, all the more significant for this being a representation of an equid from amongst the asses. Animal husbandry represents culling and control. Perhaps this is one example of that process; another is surely the penis strap, found on several animals in the corpus, equids as well as wild creatures.

If I were to redraft this essay, *Equus* 106 would figure in the corpus of Urkesh TYPE I equids and not amongst the tentative exemplars. Claudia Wettstein had to render the animal before I could analyze its representation more thoughtfully. This process in itself is a good testament to the usefulness of rendering; perspective comes at the same time one considers detail.

# *EQUUS*

## TYPE I/II

### 12 *Equus* TORSO TYPE I/II

**A1q618.1**

Recovered from feature 129 locus 168 • length 5.1 • forequarters 2.46 • neck 1.28 • torso 1.65 • hindquarters 2.68 • height at forequarters 3.425 • height at hindquarters 2.54 • dorsal section in median plane (visible depth of hole atop hindquarters) 0.8 • note on measurement: height not diagnostic • fabric fine, with uniformly fine chaff temper • Munsell reading (patina or surface) 7.5YR 6/3 • color (patina or surface) light reddish brown • Munsell reading (neck, different fabric, left half) GLEY 5/1 • color (neck, different fabric, left half) greenish gray • note on color: 1975 Munsell 7.5YR 6/2 • color pinkish-gray • conservation: depositional dirt on the right flank • preservation: all appendages broken



*Equus* 12 A1q618.1.  
Caudal view.  
The vagina is  
prominently displayed.  
Scale 1 : 1.  
(photograph V8Bb1725)

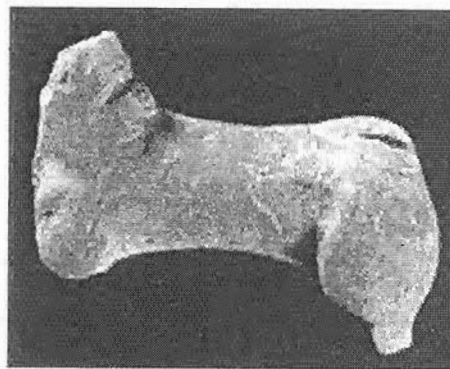
The left hind leg is thin and angled; it is clearly separated from the torso. The rump is rounded and the hindquarters curve down to join the leg. The hindquarters are contained within an incurving, solidly founded inverted U. The hindlegs meet at an angle of 45 degrees, an inverted V.

There is a raised ridge or mane on the neck. A hole pierces the neck ridge. It is possible that this raised area starting at the base of the neck is only for the perforation. The breast ridge is heavy and it continues between legs. The stance of the forelegs is an inverted U. There are two strikes on the rear quarters, on the upper left, visible in the photograph at left. Additionally, a long scratch beginning at the break atop the rump descends along the left flank to the midquarters. It is likely this marking is excavation damage, as it appears random.

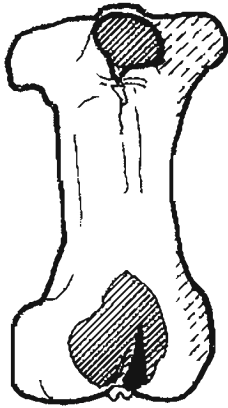
The animal is in repose, solidly founded, and is in this respect atypical of the corpus.

This is the female of the species. The sexual organ (vagina) is clearly indicated by a vertical incision in an almond-shaped oval between the hindlegs. The body type is not typical of the genus. The hindquarters are large and the torso quite lean, the ratio being exactly one-half the length of the animal representation. This ratio is the same for *Equus* 36 A5q815.1, an equid bearing other traits of horse domestication, including harness. This, then, must be the female counterpart of that animal.

More telling than this diagnostic measurement, however, is the relationship of torso width to torso length. In the case of all three examples of equids displaying a vagina, the ratio is 1 : 3, quite lean.



*Equus* 12 A1q618.1.  
Left median plane.  
The torso is lean.  
Note also the smooth slipped finish,  
apparent at the break in the rump.  
Note also the deep tail hole,  
where hairs may have been inserted  
Scale 1 : 1.  
(photograph V8a-c5212)



*Equus* 12 A1q618.1.

Dorsal view.

Note the relationship of torso width to length,  
approximately 1 : 3,  
a ratio also encountered  
in *Equus* 14 and *Equus* 17, females of the species.  
Scale 1 : 1.  
(rendering cw f725)

When we compared *Equus* 12 to torsos *Equus* 14 and *Equus* 17, we noted that each has a lean torso, as do the carnivores. But other details, such as the erect mane and the neck/forequarters ratio, led us almost immediately to put these three figures amongst the equids, and to ask what their relationship to animal husbandry might be. Claudia Wettstein and I first assigned

them to TYPE III, thinking that their relationship to domestication was determinant. After reflection, we placed them as transitional equids between the wild species and asses and TYPE II hemiones. In terms of animal husbandry, it is here that the decisive change from wild to tame must occur. The lean torso is not frequently noted amongst the wild equids. It begins to be seen, as do wider forequarters, amongst domesticated equids, particularly the horse (TYPE III).

Note the hole under the break on top of the rear quarters. It is not accidental nor is it an air bubble, as originally noted. A thin instrument has been inserted and rotated slightly to enlarge the opening (or else the instrument is pointed and has left its imprint). It is possible that hairs for a tail were inserted here (Bökönyi 1993).

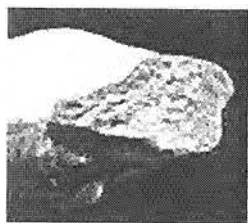
The surface of the torso is scraped and smoothed. The figurine is slipped; the area at the top of the rump that is "broken" is in fact only missing a rather thick slip that covers the animal and accounts for its smooth surface. Water used during cleaning heightened the color of the fabric, enabling us to see that the animal representation is composed of different admixtures of the fabric and its corresponding slip. Compare for the finish and the shape of the hindquarters *Equus* 208 A2.111 and *Equus* 16 A7q204.5, both equids bearing a penis strap.

### 13 *Equus* torso TYPE VII

A5q843.1

Recovered from feature 99 locus 5 stratum B11A • length 5.42 • forequarters 2.02 • neck 1.27 • torso 1.86 • hindquarters 2.38 • height (across neck to breast ridge) 3.3 • height at hindquarters 2.8 • fabric fine, with few inclusions • Munsell reading 10YR 8/3 • color very pale brown • preservation: all extremities broken

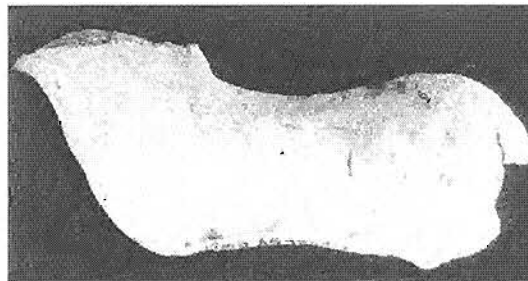
This is an equid on the way to domestication, as this body type with these features has been described. Rear underbelly does not appear to have been broken. This is an unusual detail — the underbelly slopes up back of the hindlegs to meet the tail, which is applied on the rounded rump and extends beyond the end of the torso, hanging free. The tail is thick at the base. Compare *Ovis* 7 A5q353.1 torso, where the tail is "in" the hindquarters, yet added as a separate piece of clay.



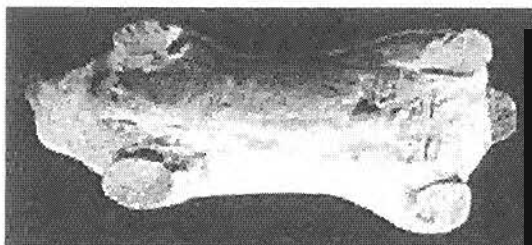
*Equus* 13 A5q843.1. Neck.  
Dorsal view,  
horizontal transverse section.  
Scale 1 : 1.  
(photograph V7b1810)

There is a pronounced breast ridge; it continues up the neck from the underbelly. The back of the neck has been heavily pinched with fingers to make the mane (visible in dorsal view at the break). The musculature of the neck continues into the torso.

Compare torso *Equus* 23 A5.30 and torso *Ovis* 7 A5q353.1. The sexual parts were applied as a separate piece of fabric. The imprint of testes remains. The underbelly was scored for attachment of the sexual parts. There was a band across the penis (intact on left side, still adhering to the belly).



*Equus* 13 A5q843.1. Left median plane.  
Note the tail, which hangs down,  
lightly scored for separation from the torso.  
Note also pronounced breast ridge.  
Scale 1 : 1.  
(photograph V7b1804)



*Equus* 13 A5q843.1. Ventral view.  
Note the broad tail at break,  
the rise in the belly where the breast ridge begins.  
Half of the penis strap remains  
on the left side of the organ.  
There are impressions in the belly  
where the testes were applied.  
Scale 1 : 1.  
(photograph V7b1813)

The left foreleg join is 140 degrees, left hindleg join 150 degrees, right foreleg join 140 degrees, right hindleg join 150 degrees. The stance is foursquare founded on a wide inverted U. The undercarriage between the hindlegs has been smoothed, curving down into the belly.

The surface has been scraped and smoothed to indicate the musculature. The fabric was smoothed while wet. There is a slip.

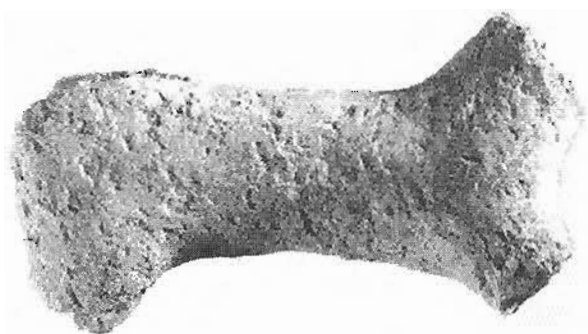
See **COMPARATIVE TABLE 10** *Equus*  
**Veterinary Intervention (penile strap & caudal band).**

## 14 *Equus* TORSO TYPE I/II

A6.149

Recovered from feature 115 locus 168 • length 7.45 • forequarters 2.65 • neck 1.95 • torso 2.35 • hindquarters 3.25 • height at forequarters 4.01 • height at hindquarters 3.29 • note on measurement: length not diagnostic • fabric medium fine, with uniform gypsum (or calcium carbonate) inclusions • Munsell reading 5YR 7/4 • color pink • preservation: torso; all appendages broken; top of rump broken off

From a lean torso, forelegs project forward, each at 140 degrees to the torso (apex held at the end of the curve where leg joins body). There is a slight mane. There is a lozenge-shaped vagina with a vertical incision.



*Equus* 14 A6.149. Right median plane.  
Note depositional action on surface of the figurine.  
Scale 1 : 1.  
(photograph V10e1602)

The tail hole, deep, emerges on the (broken) rump and appears to have a small piece of clay lodged in it, and the impression of this small piece is on either side of the hole. Is it possible that the "tail" inserted in this hole was held in place by this lodged piece of clay?

Amongst *Ovis*, we identified one hindquarter fragment that had a deep groove down the center, as if prepared for a clay tail, hanging down. On *Equus* 14 A6.149, the female of the species, we see the same detail, except here, the grooved slot holds the vulva.

The hindquarters are contained within a slightly rounded inverted U outside, an inverted V inside, 60 degrees. The surface is uniformly abraded, exposing temper and creating "pockets" overall.

This object, as did *Capra* 5 A6q166.1, came from the ground wet. The tail hole appeared to have bitumen in it in the field, when the object was fresh from the ground; the clay was dark and clearly not part of the fabric of the body; upon drying, the effect lessened. Objects sitting in this same stratum of reddish deposit may have something to say about depositional action.

See **COMPARATIVE TABLE *Equus* Body Types I • I/II • II • III** before the INTRODUCTION to this section.



*Equus* 14 A6.149. Caudal view.  
It appears that the almond-shaped incised vulva was inserted as a separate piece of clay into the groove in the hindquarters.  
Scale 1 : 1.  
(photograph V10e1603)

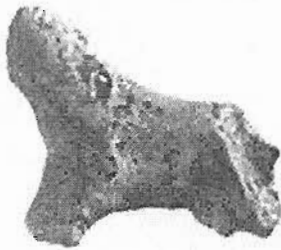
**Hamam et-Turkman. HMM 81-A 1 "Horse" or "donkey"** (Rossmeis and Venema 1988, Pl. 175, Fig. 25). Measurements as follows: length = full extent of figurine, including tail; width = forequarters; height = forequarters from foreleg break to neck break. Diagnostic measurements [MZ typology]: length 5.6 MZ, torso 1.8 MZ, forequarters 2.26 MZ. From the rendering it is not possible to say whether the mane lies along the neck or is erect. The leanness of the torso and relationship of torso width to forequarters has a parallel with equids in oestrus at Urkesh. There is no indication of sexual parts for the Turkman equid.



**15    *Equus* torso TYPE I/II****A7.121**

Recovered from feature 63 locus 8 • length 3.17 (under neck to mid-break, hindquarters) • forequarters 1.69 • torso 1.51 • hindquarters 1.55 • height at forequarters 2.36 • note on measurement length, height, and hindquarters not diagnostic • fabric fine, with heavy grit (?) inclusions • Munsell reading 2.5Y 7/2 • color light gray • conservation: depositional adhesions overall, except torso • preservation: forequarters and torso only, all appendages broken

The torso is lean. The neck is long. There is a perforation at base of neck. Genitals are expressed; there is a strap across the penis.



Portions of the torso have been sliced away to shape, but not smoothed, except on the back of the torso and the forequarters. Is the figurine finished? Compare with *Equus* 208, *Equus* 13 and *Equus* 16, all of which bear the penis strap.

*Equus* 15 A7.121.  
Left median plane.  
Scale 1 : 1.  
(photograph V10e1414)

**16    *Equus* HINDQUARTERS TYPE I/II****A7q204.5**

Recovered from feature 62 locus 7 • length (rump to break, not diagnostic) 2.78 • hindquarters (right hind leg to break, not diagnostic) 2.69 • height at hindquarters (top of rump to break, not diagnostic) 3.7 • fabric fine, uniformly fine inclusions (grit?) • Munsell reading 10YR 7/6 • color light red • preservation: half of hindquarters (right rear rump) only; sexual parts broken

There is a tail perforation. The hindquarters are contained within an inverted U outside, a narrow V inside. The sexual parts are expressed, but broken. There is no defined musculature.

There is a band/strap over the penis.

This piece was one of four *Equus* figurines displaying a strap or band over the shaft of the penis. After examination of each type, it proved impossible to assign them all to the same species, neat as this might have been in theory. For example, one might have spoken of the techniques of animal husbandry as they applied to *Equus hemionus* only. TYPE I/II, a “transitional” category of equids on the way to domestication, identifies genus (yet note: *Equus* distinct from *Felis*).

The surface, likely slipped, is very smooth, almost as if polished.

There are four chips in the surface that follow the curve of the rump on the right flank. These do not appear to be modern.

See **COMPARATIVE TABLE 10 *Equus* Veterinary Intervention (penile strap & caudal band).**

17 *Equus* TORSO TYPE I/II

A7.320

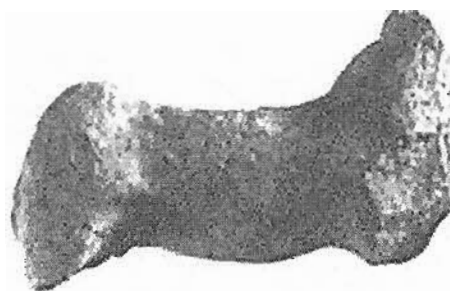
Recovered from feature 135 locus 15 • note on recovery: found in an area of disturbed topsoil; no associated q-lot • length 8.65 • forequarters 3.45 • neck 1.74 • torso 3.17 • hindquarters 4.05 • height at forequarters 5.25 • height at hindquarters 4.625 • fabric medium fine, with heavy chaff temper • Munsell reading 10YR 8/3 • color very pale brown • preservation: all appendages broken; hindquarters including vagina intact

There is a deep tail hole, impressed at an upward angle into the top of the rump. The other end of the hole can be seen where it emerges at the top of rump. The rump is high and curves down to meet the hindlegs. The torso is lean. Some musculature is defined by scraping; but the figure has largely been shaped by the fingers.

There is a thin mane, pinched and raised with possibly an attachment for a ring or a hole for a cord. This is a detail seen in *Equus* 18, where the treatment of the mane is similar.

The neck turns sharply to the left, as with A5q815.1, and is substantially less wide than the forequarters. The breast ridge is pronounced. The ratio neck/forequarters is 2 : 3. The angle of the right foreleg/body join is 120 degrees.

The vagina is an applied disc with an impressed dot in the center.



*Equus* 17 A7.320. Right median plane.  
Scale 1 : 1. (photograph V10e1601).

It is pertinent to think about the relationship of the amount and quality of temper to the size of the figurine.

Comparative *Equus* can be seen in **COMPARATIVE TABLE *Equus* Body Types I • I/II • II • III** where A7.320 is placed between nondomesticated equids and equids in the process of domestication.

The body conformation of equid representations and *Carnivora* at Urkesh are enough alike to warrant pause when studying domestication and morphological change of the genera. Compare conformation of the *Carnivora/Felis* corpus with *Equus* 17 and with other *Equus* exemplars in order to distinguish between the genera, and amongst TYPES and different species. Look, as striking examples of the differences, at the rump of *Felis* 36 A7q231.1 and the forequarters of *Felis* 202 A8q50.2.

**Hamam et-Turkman. HMM 81-A 1 "Horse" or "donkey"** (Rossmelst and Venema 1988, Pl. 175, Fig. 25). The rump is high and curves down to the hindlegs. Also, see *Equus* 14 for similar body conformation as taken in the right median plane. The Turkman equid is likely not domesticated, judging from diagnostic measurements. The leanness of the torso would argue against a donkey.

*Equus*

## TYPE II HEMIONE

18 *Equus* TORSO AND HEAD WITH MANE TYPE II MINIATURE

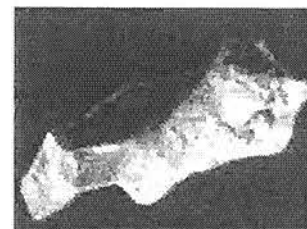
A1.481

Recovered from feature 113 locus 20 stratum B12A • note on recovery: MID-N Ahmed • length 2.78 • forequarters 1.15 • neck 0.82 • torso 1.24 • hindquarters 1.54 • height at forequarters 2.1 • height at hindquarters 1.3 • fabric fine, with uniformly fine inclusions — grit? • Munsell reading 10YR 7/2 • color light gray • preservation: legs broken, hindquarters crumbling; ears chipped



*Equus* 18 A1.481.  
Left median plane.  
Scale 1 : 1.  
(rendering cw K726)

This is a very useful figure, diagnostically. Details are clearly reworked for an effect (as an example, the muzzle). The tail is carried high.



*Equus* 18. Dorsal view.  
This photograph emphasizes  
the peculiar blockiness  
of the modeling.  
Scale 1 : 1.  
(photograph V8a-e0575)

Seen in cranial view, the head turns to the left, as does the head of *Equus* 36 A5q815.1 (turns to the right). The mane is erect, the ears sharp; both have been brought to a sharp edge. The mane ridge, pinched once, is pronounced. There may have been a harness, either not fully modeled or lost through abrasion or fracture. The muzzle is long, yet the neck is thick. The muzzle is rectangular in section, becoming triangular in section at the snout.

There are three strikes on the lower right forequarters. The torso is thick, uncharacteristically so for the genus.

The figurine is unbaked.

See **COMPARATIVE TABLE *Equus* Body Types I • I/II • II • III.**

19 *Equus* FOREQUARTERS (MARE?) TYPE II

A1q615.1

Recovered from feature 134 locus 69 • length 2.55 • note on measurement: length not diagnostic • neck 1.625 • torso 2.4 • fabric fine, with uniformly fine inclusions • Munsell reading 7.5YR 7/3 • color pink • preservation: forequarters only, legs broken; torso fragmentary

Sándor Bökönyi characterized these forequarters as “gracile” and surmised that the animal representation is of a mare. The neck/body join is thick, however, so this equid may be an ass, *asinus*, sp., rather than *hemionus*, sp. or ssp. (either onager or donkey). Musculature is indicated on the neck and smoothed.

The hindquarters are contained outside in an open inverted U; inside, the legs meet in an inverted V (45 degrees), but the apex of the angle is well up inside body, so the legs are widespread. Compare *Equus* 22 A5.10 and *Equus* 23 A5.30. The foreleg/body join is 120 degrees.

There is a slip and the object may be built on a core.

## 20 *Equus* RIGHT FORELEG TYPE II

A1q718.1

Recovered from feature 133 locus 167 • height 3.2 • transverse section (top at body join) 1.6 • transverse section (top at body join, perpendicular to other section) 2.575 • transverse section (tip) 0.7 • tip (short axis) 0.64 • fabric fine, few inclusions • Munsell reading 5YR 7/4 • color pink • note on color: shift from color 1975 Munsell to 1994 Munsell • preservation: leg only

If inclined at a shallow angle, the stance is appropriate for an equid, as is the form of the appendage itself; it tapers nicely to the tip. Also, there is a deep join with the torso, neither sudden nor blended with the body.

See *Equus* 23 A5.30, a figurine that cannot be properly read if no account is taken of the missing hindlegs.

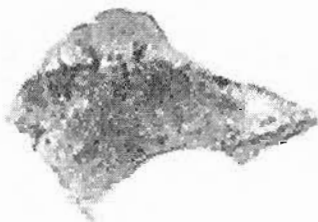
See **COMPARATIVE TABLE *Equus* Body Types I • I/II • II • III.**

## 21 *Equus* HEAD TYPE II

A1q960.8

Recovered from feature 137 locus 20 stratum B11 • cranial length (broken snout to first ridge in mane) 3.8 • transverse section (short axis, neck) 1.05 • transverse section (long axis, base of neck includes mane) 1.53 • height (ridge of mane to break under muzzle) 2.57 • fabric fine, few inclusions • Munsell reading (mane) 10YR 7/2 • color (mane) light gray • Munsell reading (neck) 10YR 5/2 • color (neck) grayish brown • preservation: head only, muzzle broken

A sharp, erect mane comes far forward on the forehead. Contrasting colors of clay emphasize the mane; the contrast has been consciously exploited for this effect. Note the application of the mane. It has been applied subsequently, with a slightly drier medium, pinched up and over and then smoothed down onto the crown of the head.



The eyes are rather shallow. They are far forward on the eye ridge itself and are indicated by incised dots made as from a thin reed, with center abraded or removed. Jaw line is clearly indicated. The muzzle is flat underneath to the snout, which is heavily pinched. The muzzle is narrow for an equid (see, however, *Equus* 115 A1.429) and forward eyes are not typical of the genus.

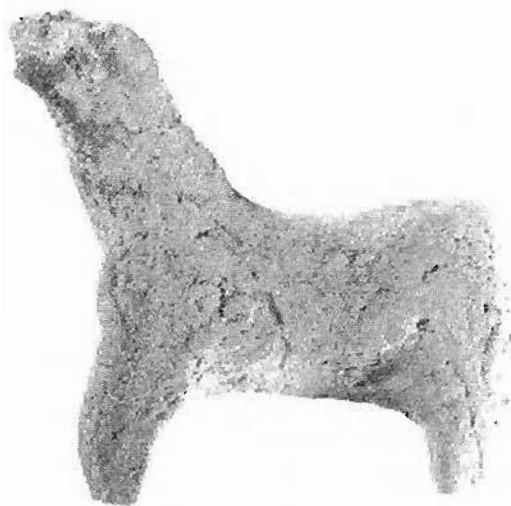
*Equus* 21. Right median plane.  
Scale 1 : 1.  
(photograph V8Bb813)

The break makes a diagnostic view difficult.

22 *Equus* TORSO AND HEAD TYPE II

A5.10

Recovered from feature 27 stratum B3 • length 5.5 • forequarters (torso above legs) 2.6 • forequarters (curve of legs) 2.9 • torso 2.3 • hindquarters (torso above legs) 2.3 • hindquarters (curve of legs) 2.8 • height at forequarters (longest leg to top of head) 6.3 • height at hindquarters (broken) 3.8 • note on measurement: taken before developing standard measuring technique; “above legs” later taken to mean “forequarters” and “hindquarters” — the midpoint quarters measurement we now use • fabric rather coarse, chaff-tempered • Munsell reading 10YR 8/3 • color very pale brown • Munsell reading (firing bloom) 5YR 7/6 • color (firing bloom) reddish yellow • conservation: surface eroded; pick-mark (?) on right side of head • preservation: largely intact, muzzle broken and tips of legs chipped



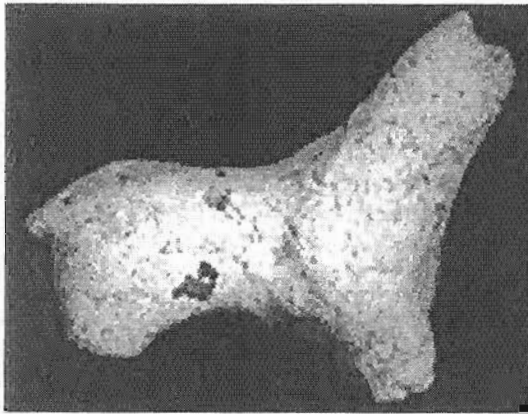
*Equus* 22 A5.10. Right median plane.  
Forequarters are solidly founded.  
Both forelegs and hindlegs are slightly incurving,  
in the manner of TYPE I equids  
(see forequarters *Equus* 5, hindquarters *Equus* 9)  
Scale 1 : 1.  
(photograph V8Be0149)

Domesticated equid, donkey or half-ass. The break at the tip of the muzzle may be at a perforation. Is there a tethering ring? There is a slight breast ridge at the base of the neck. Left forequarters and right hindquarters have been pinched so as to form a shallow trough down the middle of the leg; they are rectangular in section. The legs are *gracile*, in Bökönyi's terms.

The buttocks are recessed and fused. Compare the manufacture of the buttocks with *Capra* 2, which exhibits recessed buttocks enclosed, as it were, in protective side “flaps”. Here, tail and hindlegs, rectangular in section, also define and enclose the hindquarters. The angle at which the legs meet (45 degrees), however, contributes to an energized stance not present in the comparative *Capra* example, which is solidly founded.



*Equus* 22 A5.10. Caudal view.  
Scale 1 : 1.  
(photograph V9e0406)



*Equus* F1q579. TYPE I.  
Comparative find from domestic context.  
Right median plane. Scale 1 : 1.  
(photograph V5b0853)

There are fingerprints on the underbelly. The piece has been pinched into shape from a single piece of clay, with the exception of the eye ridges, which have been applied. A straw impression remains in front of the left hindleg (or perhaps the chaff has been burned away). There is a firing bloom on hindquarters.

The gestural reality of this figurine is notable: the animal thrusts its head up and out, braying. This is a domesticated equid — wide eye ridges, a mane carried high onto the forehead between the eyes. In spite of what I have said about the energy and attitude of the figurine, the body is stocky (forequarters : torso : hindquarters = 1 : 1 : 1). The effect is all in details of execution and belies the proportions.

**Tell Mozan, *Equus* TYPE I F1q579.** Compare stance and body type. This figurine was found in coeval strata at Tell Mozan, but in a domestic context, Area F1. Erect mane, perhaps rising high onto the (broken) crown. The tail, while not thick at the base, is carried down. Forequarters are heavy, and the neck blends with the forequarters rather than thrusting forward as a separate body part. There may be a breast ridge.

**Tell Mozan, *Equus* 302 TYPE I Z1.279,** an unstratified find, an animal with quite narrow forequarters and torso, the attitude identical to A5.10. The forequarters are not solidly founded, yet they are heavy in the manner of *Equus* F1q579. The mane is rigid and may rise onto the crown. (The photograph below is somewhat misleading; the break at the neck occurs below the crown; the actual angle at which the animal holds its head is not visible.)

The attitude of the comparative examples from Urkesh and of *Equus* 22, true to nature, is of a braying equid raising its head to the sky. Only in the left median plane of *Equus* 22 is the shallow curve of the back apparent; and because the muzzle is almost intact, thrust out and up, there is a liveliness exhibited by neither of the other two specimens. Also the modeling of the legs, thin, incurving yet stable, as remarked by Bökönyi, differentiates *Equus* 22 from the other two specimens.

Now, we need not read the body proportions of *Equus* 22 as “heavy” — the representation is nonetheless compact. The length of the neck, as distinct from the forequarters, is an important element in reading this animal as a domesticated specimen.

These are palpable differences — nuances of manufacture — most telling in cumulative detail, not in one reading as taken in dorsal view.

Also compare *Equus* 22 with *Equus* 23 grouped here in the same TYPE. See **COMPARATIVE TABLE *Equus* Body Types I • I/II • II • III.**



*Equus* 302 Z1.279 TYPE I.  
Left median plane.  
The legs are surprisingly thick  
in horizontal section.  
Scale 1 : 1.  
(photograph V8be522)

**Tell Halawa A. *Equiden* Nr. 115** (Meyer, Pruss, et al. 1994, Abb. 37) is notable for its attitude, head thrown back as if braying, in the manner of the Urkesh representation.

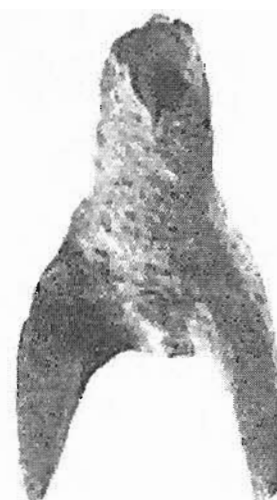
**23 *Equus* TORSO AND FOREQUARTERS LARGELY INTACT TYPE II TEMPLATE****A5.30**

Recovered from feature 48 locus 70 stratum B3 • note on recovery the object was found just above red packing in locus 70; i.e., below first floors of AK, in or just above the subfloor • length 6.48 • forequarters 3.25 • neck 1.55 • cranial width (ear to ear) 1.0 • torso 2.16 • hindquarters 3.20 • tail 0.9 • height at forequarters (head to right foreleg) 6.67 • fabric medium fine, with inclusions • Munsell reading (fabric) 10YR 8/2 • color ( fabric) very pale brown • Munsell reading (surface) 10YR 7/3 • Munsell reading (surface) very pale brown • conservation: depositional deposits on recessed part of buttocks • preservation: intact but for hindlegs; tail broken off; sexual parts abraded

This is an equid displaying some sure signs of domestication — either a hemion/ass hybrid or possibly a horse.

The stance of the animal is solidly founded (“foursquare” as defined in the typology). The legs are rectangular in section. The forelegs are terminated. There is a pronounced breast ridge.

The hindquarters are equal in width, yet heavier in mass than the forequarters. The buttocks are fused and recessed. The underbelly is slightly convex. The tail is rather thick. There is a raised rounded area from tail to sex. The recessed area has been filled in with clay to make a flat surface. This detail can be seen on the left flank by the hindquarters, inside the hindleg. There is an incised (?) line along one side of the raised rounded area from the tail to the sexual parts.

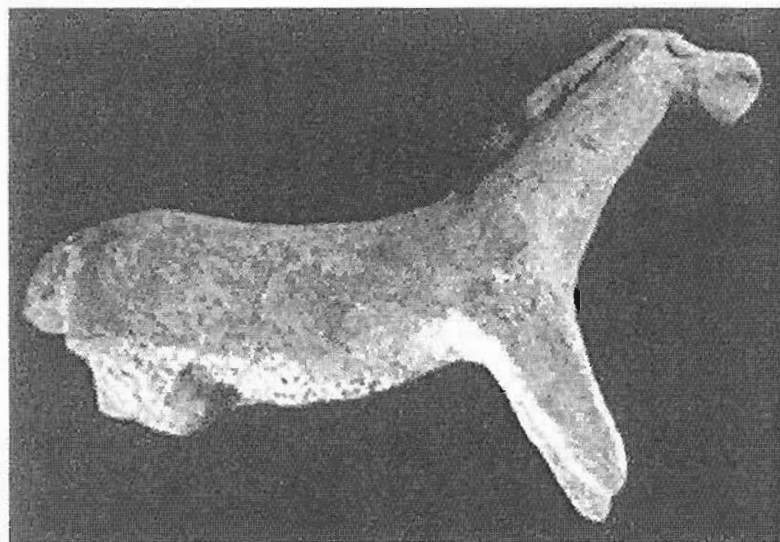


*Equus* 23 A5.30. Cranial view.  
Scale 1 : 1.  
(photograph V8Be1408)

The neck curves gently down from crown to torso (visible in left median plane). The muzzle is tentatively pinched and triangular in section. By “tentative,” I mean to say that the modeling of the muzzle seems to have been accomplished in one movement only, with no subsequent shaping. The eye ridges are pronounced; the eye on the right side of the head was applied as a small flap of clay. The nostrils were pushed up and further modeled by fingers.

In our conversations at Tell Mozan, Sándor Bökönyi called A5.30 “a horse type,” but he stopped short of identifying the animal as a horse. He surmised that A5.30 was either a donkey or a hemion (a “half-ass”) (Bökönyi 1993, D701, 3). According to this noted archeozoologist, in the third millennium the wild horse was not present on the steppe dominated by Urkesh — but onagers were, as was the wild donkey.

The subspecies of *Equus* that lived in Syria — the “Syrian onager” — was not suitable for riding and was even smaller than the wild donkey. Clutton-Brock tells us that “this most western onager” stood scarcely a meter at the withers and that it was hunted for sport and probably for its hide (Clutton-Brock 1992, 37).



*Equus 23 A5.30. Right median plane.*

Note applied — or severely pinched and pulled over — eye flap.

This photograph is highly treated, so details of handwork can be discerned.

Consult also PLATES LXII and LXIII: *Equus* TYPE II Hemione.

Scale 1 : 1.

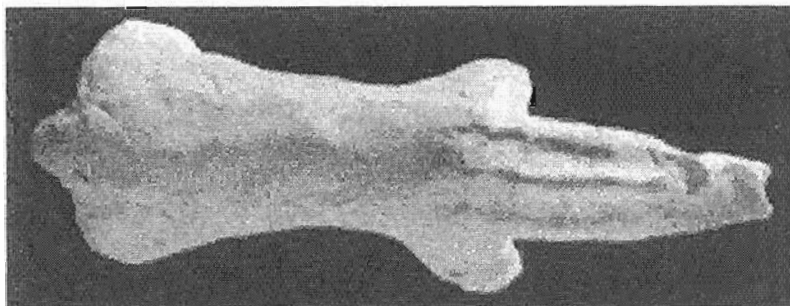
(photograph VbBe145)

This equid figurine, however, also shares some characteristics of the horse. The tail is broad, having "hairs from the beginning," whereas the onager, the asses, and the bovids, too, have a tufted tail. The breast ridge, which broadened with domestication, is "sharp," prominent. I had imagined that the horse would have had a lean body type, as opposed to the wild asses, but Dr. Bökönyi assured me that the opposite was true — wild equids were in fact slight. This body type is amply represented in the *Equus* corpus at Urkesh.

As our talks went on, Sándor Bökönyi and I reviewed more examples of *Equus*, some of which were clearly domesticated. Of these, some wore harness or bore marks of trappings and were clearly horselike. Later, Dr. Bökönyi isolated unstratified horse bones in the faunal assemblage. Since wild horses were not present, might these be the bones of the domesticated horse? As yet, we do not have an answer.

The mane of *Equus 23* rises onto the crown of the head; yet it is erect. Normally, a standing mane would indicate an onager and it would stop short of the crown.

When he first examined A5.30, Dr. Bökönyi thought this mane was similar to that found on a donkey or the hemion. I most certainly would be hard pressed to characterize the modeling of the mane on the crown as a forelock, tempting as it is to do so.



*Equus 23. A5.30. Dorsal view.*

Body proportions taken in vertical section along the frontal plane serve to define the TYPE.

The carefully sculpted mane, lying on both sides of the neck, is also apparent.

Scale 1 : 1.

(photograph V13-cd0030).

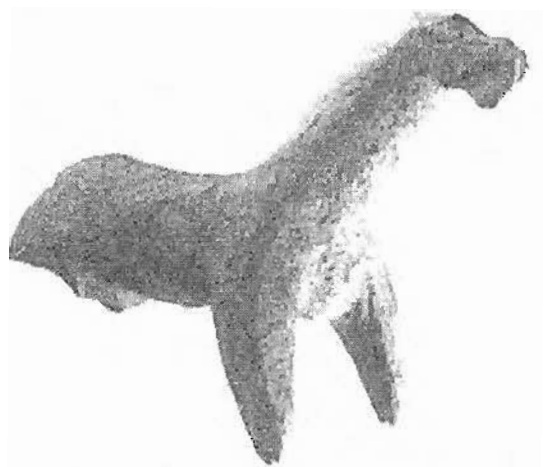


These considerations notwithstanding, the mane of *Equus* 23 has been scrupulously modeled. It does fall on both sides of the neck: there are five ridges on the left side, incised with a fingernail; the mane is equally pronounced on the right. Care has been taken with the execution.

The tail is wide at the base, not thin — a characteristic of the horse, rather than the hemione — and the forequarters are broad with a prominent breast ridge — morphological changes that come with domestication.

There is likely a slip on this object, visible at the hindleg breaks. The slip is only slightly more intense in chroma and value than the fabric. Depositional dirt may account for this difference.

The manufacture of the object is accomplished partly by smoothing, partly by pinching (mane and head). The left hindleg has been contained and pushed to form a rectangular section.



*Equus* 23 A5.30. Right median plane/cranial view.

While this is an attractive photograph,  
emphasizing the dynamism of the execution  
of the figurine,  
the view is not diagnostic.  
Not to scale.  
(photograph V8Be1407)

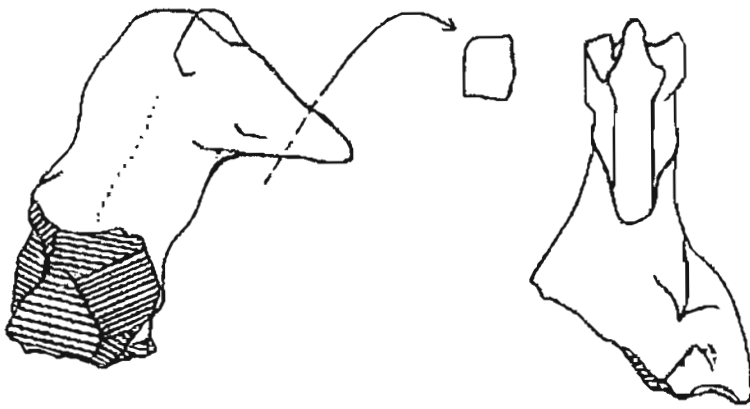
I was consistently troubled by the orientation of *Equus* 23 A5.30. The artifact proved to be something of a “test case”; it was important to document it accurately. The creature is abnormally foreshortened if it is set down flat on a table, resting on its broken hindlegs. This view differs considerably from a view seen in the same plane at an angle that is perpendicular to the surface of the object. The rendering of this equid was also corrected for stance; since the object is missing its hindlegs, it can be perceived as being unnaturally poised to vault forward, as it were. Whatever the angle, the animal still has singular energy.

Tell Halawa A. *Equiden* Nr. 113 (Meyer, Pruss, et al. 1994, Abb. 37). The stance of the hindquarters could be compared with the Mozan equid, but the body silhouette is considerably stockier.

## 24 *Equus* HEAD TYPE II (“BLANK”)

A5.109

Recovered from feature 111 locus 5 stratum B12a • height 5.9 • cranial length 4.07 • cranial width (ears) 1.51 • cranial width (snout) 0.7 • forequarters (neck, before it joins body) 1.59 • fabric medium fine, with inclusions • Munsell reading 10YR 8/3 • color very pale brown • preservation: head and neck only



*Equus* 24 A5.109. Right median plane and cranial view.  
Note narrow muzzle, stiff mane rising onto crown of head.  
Scale 1 : 1.  
(rendering elb C721)

This equid head is practically featureless, without detail — one of my so-called “blanks.” The muzzle is tapering, long and rectangular in section (0.7 cm x 0.9 cm), the mane is quite sharp and it comes forward onto the crown between the ears. The ears are tapering and they sweep forward to join eye sockets, which are not widely set. The ear is applied and pressed onto the head with fingers (prints at both front and back). Consider the relationship of nail impressions and the smooth, blank finish of this object.

There appears to be a slip. The surface was smoothed, but it has been somewhat roughened by depositional action.

## 25 *Equus* HEAD TYPE II

A6.257

Recovered from feature 220 • length (snout to mane above break) 4.28 • vertical transverse section (snout, long axis) 1.84 • horizontal transverse section (snout, short axis) 1.04 • height (tip of ears to break) 2.2 • fabric fine, with few inclusions • Munsell reading 10YR 8/3–10YR 7/3 • color very pale brown • conservation: depositional accretions extremely heavy on right side of muzzle, lighter on back, top and rear left of head • conservation: abraded due to depositional action — although this now appears to me less certain • preservation: head only, details intact



*Equus* 25 A6.257. Dorsal view.  
Note the “crook”  
on the caudal end  
of the nostril incision.  
Scale 1 : 1  
(photograph V7b1800)

The muzzle is *gracile* (the photograph to the right appears somewhat foreshortened), eyes with impressed pupils centered in a raised circle inside a vertical almond shape. The mane is erect and does not come forward onto the crown between the ears. The mouth is open; a projecting piece of clay creates the impression of a tongue, as if the animal were whinnying.



*Equus* 25 A6.257. Left median plane.  
Note detailing by incisions  
subsequently smoothed.  
Scale 1 : 1.  
(photograph V7b1726)

The nostrils are broken back into the muzzle from the snout.

Compare nostrils *Equus* 204 TYPE I A10.79 — perhaps they are slit? Until I read Clutton-Brock, in her remarkably informative and readable book *Horse Power*, I had always assumed that the nostrils had been deeply impressed and that the hole had appeared due to abrasion in the soil over time.

However, these incisions — contrasted perhaps with those of *Equus* 204 A10.79 — appear to have been made from the top, not from the front of the muzzle. In the dorsal view, particularly, the incision is crooked; the caudal part of the incision is at such an odd angle, it could not possibly have been made from in front of the muzzle. The fabric between the two incisions is practically detached from the snout, so deeply have the nostrils been incised.

Clutton-Brock says that few practices have been more widespread nor have had a greater continuity over time than the slitting of nostrils, in order — presumably — to facilitate breathing by horses and asses. To this point, the earliest pictorial evidence for the practice comes from Amarna, ca. 1350 B.C. The practice continues to the present day (Clutton-Brock 1992, 77-79 and Figs. 5.14, 5.15, 5.16).

There is a heavy slip covering the object, visible at the neck break.

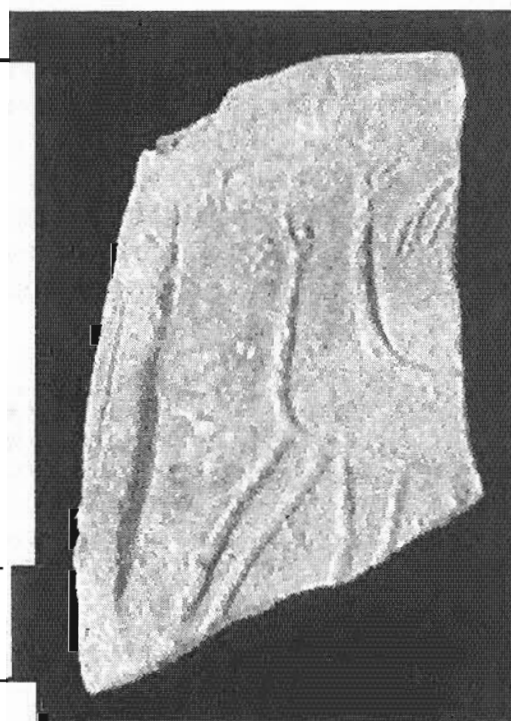
## 26 *Equus* PLAQUE WITH TETHERED EQUID TYPE II

A6q271.1

Recovered from feature 4, locus 167 • height (right of break on top left to bottom left break, diagonal transverse section) 8.1 • height (break to break on left) 7.4–7.5 • height (full extension) 8.6 • horizontal section (at midpoint) 4.78 • thickness (plaque) 0.7 • thickness (raised design) 0.8 • fabric fine • Munsell reading 10YR 6/4 • color light yellowish brown • preservation: broken on two sides, border otherwise intact

This plaque or tile depicts a tethered equid, domesticated or being tamed. Near the muzzle, there is the very light impression of a ring with hanging tether broken from the surface of the plaque.

This is the only “scene” recovered at this scale. Sealings are, of course, minuscule, and the carved stelae recovered near Temple BA are of stone and considerably larger.



### *Equus* 26 A6q271.1

The design is executed in relief —  
the shallow reverse impression of a rectangular mold.  
Scale reference only (rendering), 1 : 1 (photograph).  
( rendering cw J702 redrawn from photocopy,  
photograph James Walker V13d6603)

The piece is schematically rendered. The animal may be tethered at the edge of a forest; there are trees on either side, indicated by a few light passes of an engraving instrument. The branches hanging down on the right are antler-like, but not erect.

The object is quite flat and thin — only 0.7 cm thick. The impression has been taken, I believe, from a mold. The outlines on the surface are raised, not incised. It is not unlikely that the same instrument was used to make both the outlines of the equid and the thin lines that create a border around the edges of the plaque and the scenic elements.

On the back, the plaque has a shallow rim all around, as if the clay had been gently pressed into a mold, with pressure at the center to impress the equid shape more deeply, firming it in.

Whether the fine lines that comprise the framing device in *Equus* 26 A6q271.1 could be “picked up” and transferred in positive to the plaque is questionable. They could have been added subsequently, tracings after the three-dimensional plaque had been lifted from the mold. Certainly the tracings on the Mari molds (Object 1121, for example, a lion with a sunburst on its back) are intricate enough, but their scale permits bold treatment with the fingertips. As of now, *Equus* 26 exists outside the typology. It is included here because of its subject matter — a domesticated equid — and its context: it was recovered rather high up, within the walls of AK.



*COMPARATIVE ARTIFACT* excavated in the Royal Palace at Mari — a bread mold (M.1043. Louvre, AO. 18905).

Note the relative shallowness of the figures — the 2 cm impression on the left sections of the large carnivore on the right. Parrot surmised these animals were lions, but he questioned whether the smaller quadrupeds were dogs. They are — note the upturned curly tails!

Scale app 1 : 5.

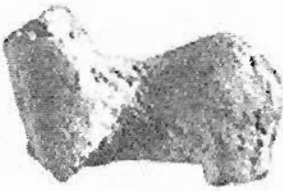
(Courtesy, Librairie Paul Geuthner)

**Mari. Contemporaneous bread mold M. 1043. Louvre, AO.18905** (Parrot, Barrelet-Clemental, et al. 1959, 41-42, Fig. 34 and pl. XXII), one of a “magnifique lot” (*Ibid.* 1), was recovered from the Palace in rooms with ovens. Parrot and his colleagues thought they were destined for the royal table. Many of the molds bear images of animals that are reminiscent of animals represented at Mozan. Others are decorated with geometric designs — concentric circles, parallel lines, “fish scale” chevrons, circular petal-like forms (*rosaces*). The molds are both circular and rectangular.

## 27 *Equus* TORSO TYPE II MINIATURE

A6q548.5

Recovered from feature 169 locus 21 • length 3.57 • forequarters 1.645 • neck 1.01 • torso 1.38 • hindquarters 2.11 • height at hindquarters 2.07 • height at forequarters 2.22 • fabric fine, with some inclusions • texture smooth • Munsell reading 10YR 8/3 • color very pale brown • preservation: torso, all appendages



*Equus* 27 A6q548.5.  
Left median plane.  
Scale 1 : 1.  
(photograph V10e1412)

There is a deep curve to the back of this torso, and the tail is carried high. Hindquarters stance is an inverted U outside. The buttocks are fused and indented gently rather than recessed. The rump curves down to meet the hindleg; this is more apparent when seen in the right median plane. Forelegs project far forward; the angle of the body join is 110 degrees.

There is a mane. The head and the neck do not project forward, as with *Equus* 23; of course, the head/neck join is missing, so it is difficult to say.

There is a substantial slip.

## 28 *Equus* FOREQUARTERS TYPE II

A6q1010.1

Recovered from feature 423 • length 3.37 • forequarters 2.29 • neck 1.21 • torso 1.7225 • height at forequarters 3.79 • fabric medium, inclusions • Munsell reading 10YR 7/3 • color very pale brown • preservation: forequarters and torso only; right foreleg and muzzle broken

The stance is wide and solidly founded. The neck is thrust far forward. There is a breast ridge. There is a mane pinched from the medium to a thin edge. Legs are wide and lozenge-shaped in section. Right foreleg body join is 140 degrees.

There is the lower half of a perforation at the neck-break, just under the mane.

## 29 *Equus* HEAD WITH HALTER TYPE II

A7q11

Recovered from feature 8 • cranial length 4.01 • cranial width 2.24 • neck 1.96 • height (crown to break) 3.27 • note on measurement: height and length not diagnostic • fabric medium, uniform chaff temper • Munsell reading 10YR 7/3 • color very pale brown • preservation: neck and head; muzzle broken back to right eye

Ears are wide-set, eyes indicated by impressed ovals that slightly raise the clay within (visible on right eye). The muzzle is flat. The mane is high on the neck, but not onto the forehead between the ears; it is fused with the neck.

A wide halter has been applied as a separate piece of clay, around the ears, onto the muzzle. It is lightly fused with the mane and incised at the edges for definition.

This head is heavier than that of other equid figurines in the corpus (note the neck width as compared to the thickness of the head).

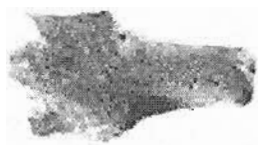
Compare *Equus* 209 A2q251.1, with quite a narrow muzzle. As *Equus* 29 was found fairly early in the excavation of this unit, it is not unlikely that these two examples of *Equus* head are contemporaneous. Excavation unit A2 is to the east and slightly higher on the mound than excavation unit A7.

### 30 *Equus* HEAD TYPE II

A7.210

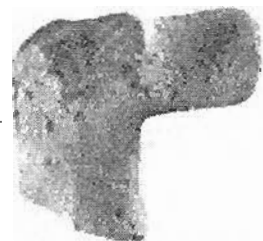
Recovered from feature 148 locus 13 • cranial length 3.32 • cranial width (eye sockets) 1.67 • horizontal transverse section (snout) 0.078 • vertical transverse section (snout) 1.17 • height (crown to neck-break) 2.89 • fabric fine, few inclusions • neck 1.485 • note on measurement: height not diagnostic • Munsell reading 7.5YR 8/3 • color pink • conservation: deposits on crown and back of neck • preservation: head only, ears broken

The mane is sharp and carried high between the ears, which are held back and are tapering. The flat, heavily pinched muzzle is thin and rectangular in section.



*Equus* 30 A7.210.  
Dorsal view.  
Scale 1 : 1.  
(photograph V10e1013)

All edges are rounded. The eye ridge is raised, eyes wide, reading as a small zigzag puncture, the same instrument being used for each, as for the nostrils, although they are not crooked.



*Equus* 30 A7.210.  
Right median plane.  
Scale 1 : 1.  
(photograph V10e1012)

The dorsal view could profitably be compared with TYPE III equids, for example, *Equus* 37 A7.407.

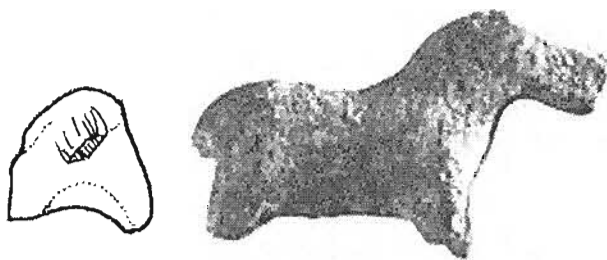
### 31 *Equus* TORSO TYPE II

A7.256

Recovered from feature 155 locus 12 • length 3.52 • forequarters 1.75 • torso 1.47 • hindquarters 1.73 • tail (above the break) 0.087 • overall extension (frontal plane) 5.48 • height at forequarters (left foreleg [terminated] to top of head) 3.52 • height at hindquarters 1.99 • note on measurement: height not diagnostic • fabric fine, few inclusions • Munsell reading 2.5Y 6/1 • color gray • preservation: torso intact; tips of legs and tail are broken off; — except left foreleg, which is terminated

There is a mane and it is erect. It does not continue onto the head. The muzzle is pinched to shape, there being a flap of clay folded over at the termination of the muzzle that forms the snout. The eyes are wide-set and lightly indented.

The top of the muzzle is similar to the flat pinched muzzle of head *Equus* 209 A2q251.1 TYPE II. The muzzle is triangular in section. The left foreleg is terminated. There is a slight curve to the back. The tail is wide and hangs down to the right. The forequarter stance is an inverted wide V outside, an open inverted U inside.



*Equus* 31 A7.256 Caudal view and right median plane.

Note mane, which does not rise onto the crown, the blunt, flattened muzzle, and the broad, arching tail that hangs down. Incisions on tail.

Scale 1 : 1.

(rendering cw H719, photograph V10-e1406)

Compare torso *Capra* 14 A7.319. Only diagnostic details distinguish the genera.

**Tall Munbaqa. Tierfigur Nr. 713 Mbq 30/30-32 Aleppo 71 MBQ 200** (Czichon, Werner, et al. 1998, Tafel 88). It is likely that this damaged figurine is *Bos*, rather than *Equus*. However, breakage is such that it masks details that would prevent interpretation as an equid; and body conformation echoes the Urkesh piece.

**Tell Halawa A. Equiden Nr. 121** (Meyer, Pruss, et al. 1994, Abb. 38) exhibits an erect mane and a blunt snout (rare among the Urkesh equids). The muzzle is a vertical rectangle in section, in contrast to the triangular snout of the Urkesh equid.

### 32 *Equus* TORSO TYPE II

**A7q822.1**

Recovered from feature 251 locus 21 • length 6.3 • forequarters 3.01 • neck 2.25 • torso 2.46 • hindquarters 3.9 • tail 1.0 • height at hindquarters 3.04 • height at forequarters 4.03 • fabric medium fine, with many uniform inclusions • Munsell reading 7.5 YR 8/2 • color pinkish white • preservation: torso, all appendages broken; tail broken

The hindquarters are contained in a solidly founded inverted U. The buttocks are fused. The rear stance is solidly founded, an inverted U. At the base of the neck, there is an indication of a mane. Musculature is lightly indicated. There may be sexual parts. Leg join at forequarters is 120 degrees.

There is a slip, visible at the right hindleg break.

Compare hindquarters *Equus* 23.

### 33 *Equus* NECK AND PARTIAL MUZZLE TYPE II ("BLANK")

**A7q865.1**

Recovered from feature 148 locus 13 • height 4.55 • cranial length 3.325 • cranial width (in front of ears) 2.07 • vertical transverse section (muzzle break, long axis) 1.69 • horizontal transverse section (muzzle break, short axis) 1.13 • neck 1.87 • fabric medium with uniformly fine chaff temper • Munsell reading not available • preservation: neck only with mane; muzzle broken, ears chipped

The mane is very sharp and erect. It comes onto the crown of the head. The muzzle is rectangular in vertical section. The ears enlarge the line of the neck/muzzle slightly and project back on either side of the mane. The top of the muzzle is lightly indented, although there is not a lip around the edge, as with heavy pinching.

Compare *Equus* 1, also Tepe Gawra examples from coeval strata (Speiser, Cross et al. 1935, Plate XXIV/b, 69-71).

Compare head, eyes, and mane *Equus* 35 A5q63.1.

### 34 *Equus* TORSO TYPE II MINIATURE

A7q964.2

Recovered from feature 142 locus 16 • length 2.12 • forequarters 1.17 • neck 0.74 • torso 0.92 • hindquarters 1.06 • tail (wedge for tail) 0.16 • height at hindquarters 1.25 • height at forequarters 1.55 • note on measurement: height not diagnostic • fabric fine, few inclusions • Munsell reading 5YR 8/2 • color pinkish white • preservation: all appendages broken

The forequarters are wide and the legs project both forward and backward (right hindleg body join is 120 degrees). The tail, carried high, is missing; there is an indented wedge shape where it once was carried. The hindquarters are uncharacteristically flat; the top of the rump is flat, the hindquarters solidly founded in a narrow inverted U. There is a tripartite incision going from the top of the rump to the sexual parts. The tapering tip of a thin instrument has been impressed at the tip of the penis.

The sexual parts and accompanying tripartite incision are more typical of *Carnivora* TYPE II.



# *Equus*

## TYPE II

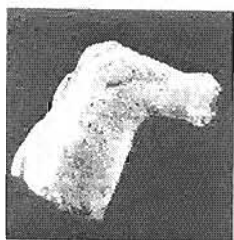
### TENTATIVE IDENTIFICATION

107 *Equus* HEAD TYPE II

A1.117

Recovered from feature 162 stratum 12B • cranial length 2.4 • height (mane to break, neck below snout) 2.85 • neck (base) 1.89 • forequarters (short axis, base) 1.54 • cranial width (snout) 0.5 • vertical cranial transverse section (snout) 0.8 • fabric medium fine, chaff temper with gypsum inclusions • Munsell reading 10YR 7/4 • color very pale brown • preservation: head only, ears and snout chipped

The head was made in two stages of manufacture and there are striations along the right side of mane, similar to *Equus* 35 A5q63.1.



*Equus* 107 A1.117.  
Right median plane.

The sculptural qualities of this figurine are totally executed with the tips of the fingers — pulling and pushing of a wet medium.

The eye ridge is indicated by the impression of a fingernail.

Scale 1 : 1.

(photograph MZ8Ae111)

Finger work is evident, notably on the front of the neck under the muzzle and on the muzzle to form the snout. The muzzle section changes from rectangle to triangle, which twists to the left. The mane has been smoothed (very wet medium).

On the right median, the eye-socket ridge, barely indicated, is pushed back and up with a fingernail. On the left median, a simple strike pushes the clay back.

There are three scallops on a prominent mane that is erect and rises onto the crown of the head. It is not possible to say if the ears were short or long, for they are broken off. The ears were applied as separate pieces of clay. They are attached to the head, however, by a substantial piece of clay that terminates the wide part of the muzzle leading to the eye socket (0.89 cm on right, 0.94 cm on left).

Originally, I had designated this figurine as a “blank”; I should have rather called it a “simple” rendering. It has much detail.

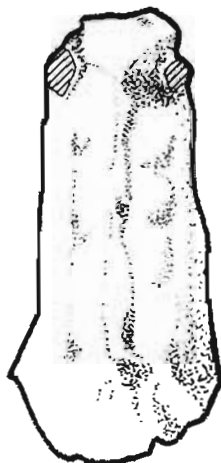
**Tall Munbaqa Kopf eines Equiden Nr. 731 Mbq 17/14-1 Raqqa Nr. 315** (Czichon, Werner, et al. 1998, Tafel 88, 201). The blunt muzzle definitely points to a nondomesticated equid, and although the Urkesh exemplar is not bridled, the conformation of the head is close to that of the Munbaqa equid. The mane of the Munbaqa equid is erect and would have been classified amongst the TYPE I equids at Urkesh.

108

*Equus* HEAD TYPE II

A1.363

Recovered from feature 113 locus 20 • note on recovery ALC MID-N3 (?) • cranial width 1.92 • neck 2.145 • neck (base) 3.12 • neck (base of neck, perpendicular to other axis and shorter) 2.75 • height (top of mane to lower break) 5.2 • fabric medium fine, with uniform chaff temper • texture smooth • Munsell reading 10YR 8/3 • color very pale brown • preservation: head and neck (only); muzzle broken, tips of ears broken



*Equus* 108 A1.363. Rostral view,  
to show pinched/impressed mane.

Scale 1 : 1.

(rendering cw K726)

The scale of this object is considerably larger than that of most of the corpus. The head is flat; the mane is erect and does not rise onto the crown. The mane is lightly scalloped, then smoothed with the fingers. The neck is thick.

The ears, judging from the dorsal view and the angle at which they protrude from the head in caudal view, appear to have been pointed, and extend back from behind the eyes, not outside the neck; they are applied to the back of the muzzle, either side.

109 *Equus* DECORATED HEAD TYPE II

A1q773.2

Recovered from feature 157 locus 18 • cranial width (across ears) 1.1 • height (front of muzzle to front of neck) 3.5 • forequarters (neck, short axis) 1.40 • forequarters (neck, long axis, includes mane, above top perforation) 1.98 • transverse section (short axis, base of neck) 2.05 • transverse section (long axis, base of neck) 2.41 • transverse vertical section (vertical axis, muzzle) 0.95 • diameter (top perforation) 0.32 • diameter (bottom perforation) 0.32 • fabric fine, uniformly fine chaff temper • Munsell reading 10YR 7/3 • color very pale brown • preservation: neck only; muzzle broken at sharp angle



*Equus* 109 A1q773.2, muzzle.

Right median plane, cranial, and dorsal views.

Decorated, possibly indicating  
the studs of a harness.

Scale 1 : 1.

(rendering cw K726)

This fragmentary representation may be a donkey, because the neck join is thick. The top of the muzzle is pinched and tapers to the snout. The ears were applied to the head as separate pieces of clay; they extend back from the sides of the muzzle, on either side of the mane. The muzzle is pinched and rectangular in section at the break. There is a raised edge around the top of the muzzle, remaining from the pinched medium. This detail is encountered elsewhere in the corpus.

This piece, an equid head/neck, was difficult to identify, once again because of orientation. Compare with *Equus* 22 A5.10, a figurine that is nearly complete, and useful for the attitude of head and torso. Compare also with *Equus* 1.

The mane is raised, but otherwise not elaborated. There is a perforation just behind and below the crown. It was impressed from both sides to meet at the center of the neck. Another, 0.7 cm lower, pierces the base of the neck. The base of the mane is raised to accommodate the perforation.

The neck is punctate, having three dots on the right, two on the left near the base of the neck. The perforations and pattern of application may show us something about the manner in which the animals were tethered.

Compare with "bridle/yoke" hardware, *Equus* 213 BH.383.2, tentatively — and somewhat lightheartedly — identified by Sándor Bökönyi in MZ8.

## 110 *Equus* NECK FRAGMENT TYPE II

**A5q593.1**

Recovered from feature 7 locus 68 stratum B10 • height (mane [broken]) 3.8 • neck 2.0 • fabric medium, some inclusions • Munsell reading 2.5Y 7/3 • color pale yellow • preservation: mane/neck fragment (only); portion of underjaw at join

Heavy incisions down both sides of the neck outline tendons; there are other finer incisions crisscrossing under the muzzle, as hair might. See carnivore torso fragment A1.414 with very fine incisions overlapping.

The mane is rather sharp and is incised on the right. It bears nine light indentations made by fingers. The left side is abraded, but seven crosshatches made in very short jabs with a comb are visible on the left of the mane. Incisions on the opposite of the neck are more nearly parallel. It is likely that a different instrument was used to make the incisions.

Compare with *Equus* 35 A5q63.1. Also, for a different kind of pelt treatment, see *Felis*/vehicle 26 A7.142.

## 111 *Equus* HEAD TYPE II

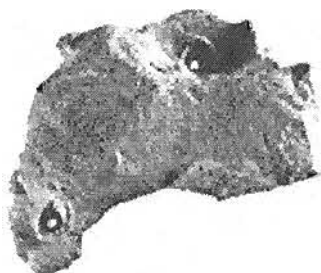
**A6q462.2**

Recovered from feature 162 locus 218 • height 3.47 • cranial width (ears) 1.69 • diameter (perforation in snout) 0.081 • neck (base) 1.81 • thickness (tab in mane) 0.054 • fabric medium fine, some inclusions; characterized early on in our investigations as TYPE IV (mkb), a fabric with reddish hue • Munsell reading 7.5YR 7/3 • color pink • preservation: head only, ears chipped

There are two perforations, one in the snout, one in the mane. Both are strongly pinched to form a narrow tab, giving the impression of an inserted perforated disk at the mane. The muzzle is square in section, then rectangular in section at the snout.

This stubby muzzle has been folded over and pinched, as with equids. *Equus* muzzles are often pinched to model the snout and perhaps to elongate the muzzle. There is a join visible the length of the muzzle.

Short, curved, and rounded snouts are sheeplike. See *Ovis* 47 A6q470.1; also *Capra* 5 A6.166 and *Capra* 9 A6q1100.1 — or any of the comparative surface finds of rams in **COMPARATIVE TABLE 8 Heads with Perforated Muzzle or Tab Ovis**).



*Equus* 111 A6q462.2.  
Left median plane.  
Scale 1 : 1.  
(photograph V10e1210)

There may be a mane, rising onto the crown, although since the perforated tab cuts deeply into the neck, it is difficult to say. The nostrils were apparently impressed from either side to form the perforation; there is clay raised around the point of entry on each side. The nostrils are far forward on the snout.

The eye sockets are deep and wide, a sign of equid domestication. The ears are short, small, and erect.

There is an indication of musculature.

See heads *Equus* 1 A1q836.1, *Equus* 300 Z1.104 and *Equus* 302 Z1.279.

Tell Brak. Equid figurine with pierced . . . muzzle reg no. 1395 from FS 1114, Level 3 Akkadian (Oates 2001, 288, Fig. 310). Muzzle curvature of the Urkesh exemplar differs from that of the Brak figurine.

## 112 *Equus* FOREQUARTERS TYPE II

A7.138

Recovered from dirt-pile of locus 6 • length 2.69 • forequarters 3.2 • neck 1.88 • torso 2.48 • height at forequarters 4.78 • note on measurement: height and length not diagnostic • fabric fine, uniform inclusions • Munsell reading 2.5Y 8/3 • color pale yellow • preservation: forequarters only, heavily abraded, all appendages broken

A pronounced breast ridge curves up from the belly onto the neck. Neck width is half that of the forequarters. Legs project forward at 130 degrees.

Compare *Equus* 8 A7.13 for similar difficult questions of orientation. Finally, it is the finishing of the breast ridge that helps determine how the object was meant to be seen.

## 113 *Equus* FOREQUARTERS TYPE II

A7q603.1

Recovered from feature 150 locus 15 • forequarters (across forequarters at midpoint, to break; therefore, not diagnostic) 2.07 • neck 1.01 • torso 1.57 • note on measurement: forequarters not diagnostic • fabric fine, few inclusions • Munsell reading 7.5YR 7/3 • color pink • preservation: partial left foreleg and forequarters; all other appendages missing

The piece is so fragmentary it is difficult to read. Held vertically, the piece may be interpreted in this manner: the left foreleg would be solidly founded; a breast ridge would be apparent and the forequarters would be wide. Read in this manner, the torso would be lean. The ratio of neck to forequarters would conform to that of *Equus* in the corpus.

**114 *Equus* MUZZLE TYPE II ("BLANK")****A7q899.1**

Recovered from feature 304 locus 7 • cranial length 3.76 • height 3.25 • horizontal transverse section (snout) 0.0915 • vertical transverse section (snout) 1.2 • fabric fine, with few fine and uniform inclusions • Munsell reading 10YR 7/2 • color light gray • preservation: head/muzzle only; left ear chipped

Muzzle is rectangular in vertical section and in horizontal section, a square adjoined to a rectangle for the muzzle/snout. There is not much taper, rather an adjoining of geometric shapes. The edges of these shapes are rounded.

There is a perforation at the snout, below the nostrils. The nostrils are impressed with a thin round tapering instrument, compressing and expanding the medium rather than encircling and leaving or extracting the medium. The eyes are wide-set. The ears are applied separate pieces of clay, rather thin (0.03 cm).

Compare the ware of conical cups found in the royal building and this fabric, which is fine. A quantity of the cups was found in this square. Although I do not draw any conclusions regarding association at this point, the simplicity of execution of both types of object and the similar quality of the fabric bear comparison.

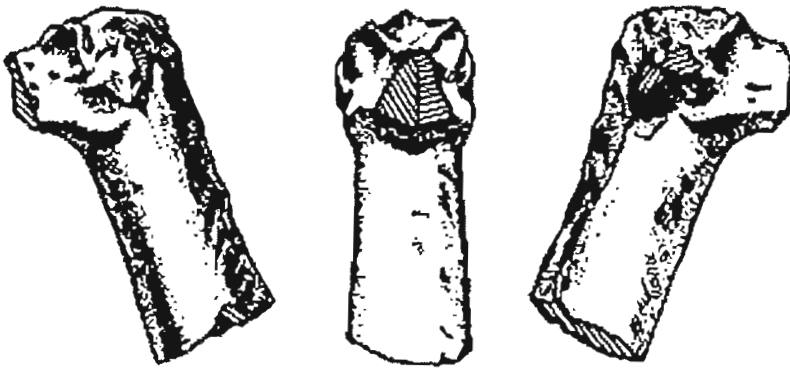
# *Equus*

## TYPE III CABALLINE

### 35 *Equus* CROWN OF HEAD AND NECK WITH MANE TYPE III

A5q63.1

Recovered from feature 27 locus 19 stratum B3 • note on recovery: feature is classified as "topsoil"; associated with early floors/sub-floors; exact findspot not noted • height 4.8 • cranial length (broken muzzle to mane) 2.475 • cranial width (across ears) 1.78 • neck 1.52 • fabric medium, with uniform chaff temper • Munsell reading 10YR 7/3 • color very pale brown • preservation: muzzle broken, neck and part of muzzle (only); ears chipped



*Equus* 35 A5q63.1. Left median plane, cranial view and right median plane.  
Note the triangular section of muzzle,  
which may have terminated in a rectangular section.  
Scale 1 : 1.  
(rendering pp F707)

This fragmentary head and neck with detailed mane must have been broken from a representation of a domesticated horse. The ears are carried back; they are applied to, not modeled from, the head. The eye ridges are deep and were pushed with fingers up and back from the clay mass of the head. The muzzle is triangular in section.



*Equus* 35 A5q63.1.

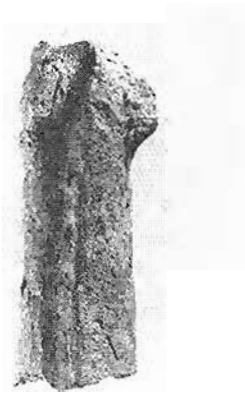
Dorsal view.

There may have been a forelock. The comb has been dragged over the crown of the head, leaving fine incisions visible on the eye ridges.

Scale 2 : 1.

(photograph V8b-e1707)

Note the high mane rising between the ears onto the forehead, and prominent (deep) eye ridges; eight scalloped ridges on left possibly represent a long mane for rider's mount. Compare with the other side, which is smoothed with repeated impressions of fingers, but not deeply scalloped. The ears are applied over the finished mane.

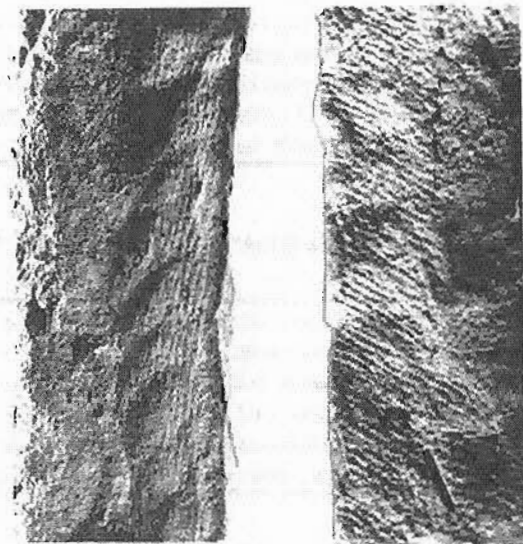


*Equus* 35 A5q63.1  
Longitudinal dorsal view.  
Scale 1 : 1.  
(photograph V8b-e1705)

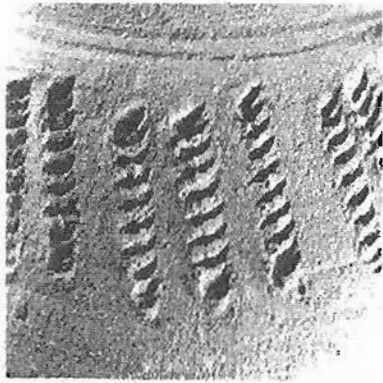
The mane of *Equus* 35 A5q63.1 was manufactured in several stages. In a four-step process, the mane was first either pinched up from the fabric of the neck or applied as a separate ridge of clay. Then, the mane was indented either side with the side of the (thumb?). Subsequently, the mane was combed vertically on the left in one or two passes and then combed diagonally on the right in several passes. The combing appears to extend down and around the neck (beyond the break).

Compare treatment of the heavily incised mane of *Felis* 14 A6q106.1.

The comb used was fine, five to six teeth at best. On the right, it is apparent that the comb was dragged from the mane down onto the neck in a series of parallel passes. On the left, the same instrument was dragged from top to bottom of the neck, following the mane. The marks are abraded but visible high up and halfway down the mane to the base of the neck.



*Equus* 35 A5q63.1, mane. Dorsal view.  
Left of the mid-sagittal plane:  
pinching overlaid with vertical combing;  
and right of the mid-sagittal plane:  
pinching with diagonal combing in parallel series  
down the neck.  
In the full view above left, the darker vertical line  
is just to the right of the mane itself,  
either created by heavy pinching (a first pass)  
or applied as a separate ridge of clay.  
Scale larger than life size.  
(photographs V8Be1708, V8Be1709)



Ethnoarchæological study.  
Comb lifted in regular intervals  
as wheel turns, creating vertical lines.  
(photograph V8Be1704)

Contemporary potters still use small combs for decorating pottery; the instrument can be used as on the left side of this mane, in long strokes; or it can be applied and lifted regularly to give a series of "lines" composed of multiple "hatchings", as on the right side of this figure (the animal's left and right).



Ethnoarchæological study.  
Comb dragged over surface,  
creating groups  
of fine parallel lines.  
Compare with overcombing  
on *Equus* 36 A5q63.1.  
(photograph V8Be1703)

**Tell Halawa A. *Equiden* Nr. 144** (Meyer, Pruss, et al. 1994, Abb. 39) is one of two examples in the Halawa corpus with incised mane, although it is considerably less detailed than the Urkesh equid and appears to have been manufactured in a single pass. Also, the mane is rendered in an unusual manner, being quite thick and outlined where it terminates along the neck. This detail alone might put the Halawa animal amongst the domesticated equids. Although there is an incised pelt on one other equid at Halawa (Nr. 112/Abb. 37), the body conformation is so unusual as contrasted with the Urkesh equids that I cannot comment meaningfully on the creature.

### 36 *Equus* TORSO WITH HARNESS TYPE III TEMPLATE

**A5q815.1**

Recovered from feature 93 locus 4 stratum B2 • length 4.4 • forequarters 1.95 • cranial length (mane to snout) 2.47 • cranial width (across top harness strap) 1.25 • neck 1.1 • neck length (from head to top of torso) 2.21 • height at forequarters (middle of forehead to left foreleg) 4.2 • transverse section (straps around muzzle) 0.2 • transverse section (strap over forehead) 0.3 • torso 1.65 • hindquarters 2.225 • hole, hindquarters in median plane (depth) 1.59 • hole, diameter (width of hole in hindquarters) 0.026 • fabric fine, with uniformly fine chaff temper • Munsell reading 7.5YR 7/3 • color pink • preservation: torso with intact harness (right side missing); sexual parts abraded



*Equus* 36 A5q815.1.  
Cranial view.  
Note the lively attitude,  
head turned to the right.  
Scale 1 : 1.  
(rendering eib C721)

This is a domesticated horse. The harness is intact, save for one missing piece. The head is turned right, muzzle long and tapering. The head is turned right, and the mane is as if "blowing in the wind" (Sándor Bökönyi's observation).

In this lively, realistic rendering, there are clear signs of domestication — there is a harness, the mane is high between ears; there is a forelock. The ears are held far back on the crown and appear to be thrown back; they do not flank the eyes. The taper of the muzzle is marked; in section, the muzzle is a rectangle becoming a triangle at the snout.



The eyes, widely spaced, are lightly incised with a hollow reed or bone. The nostrils are flared, pushed up and back from the snout. Although broken, there was a pronounced breast ridge.

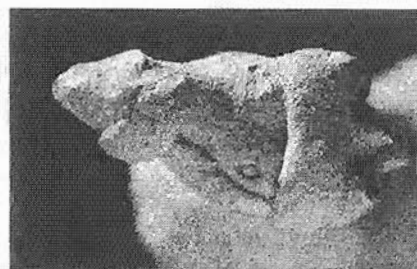
Note the wide flat angle at which the forelegs join the torso.



*Equus* 36 A5q815.1. Right median plane.  
Note the curve of the rump to the hindleg.  
The body has been shaped by scraping  
—a reductive manufacturing process  
visible along this flank.  
Scale 1 : 1.  
(photograph V8Be1402)

The fabric is fine, with uniformly fine chaff temper — a large piece is visible at the left foreleg break. There is a light slip visible at the left hindleg. There is no noticeable difference in color between the slip and the fabric. In such a case, depositional action has not taken its toll nor is a special slip created for application on the surface of the object.

We may assume that the object was “self-slipped” — that is, the fabric of the figurine itself, heavily diluted with water, was applied lightly either by dipping the figurine in the solution or dabbed uniformly over the entire surface with the fingertips.

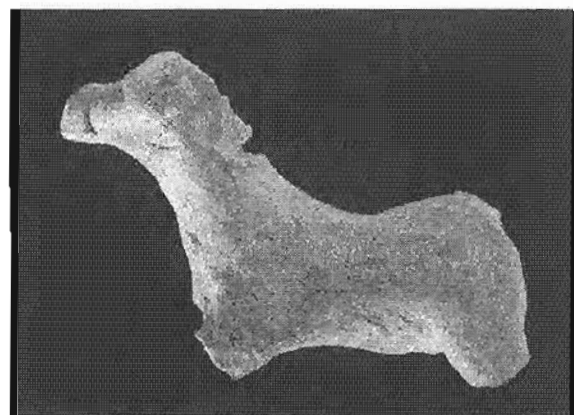


*Equus* 36 A5q815.1. Left median plane  
Close-up of trappings on muzzle. Scale 2 : 1.  
(photograph V13d2714)

The neck length is approximately half the body length. There is a perforation (broken) at the neck and a hole (0.26 cm) at the tail. The hindquarters are contained within a narrow, inverted U outside. Inside, the legs meet in an inverted V (40 degrees).

The sexual organs are indicated, but abraded.

The figurine has been scraped to model — muzzle, torso, and rump. The musculature of torso and rump is scraped with a flat instrument. This is a reductive process; quite a large thin piece of clay must have been lifted from the back.



*Equus* 36 A5q815.1. Left median plane.  
Note modeling by scraping and shaving the surface,  
also depth of perforation in the mane.  
Scale 1 : 1.  
(photograph V13d3142)

A5q815.1 was recovered from excavation unit A5 in feature 93 — described by the excavator as “topsoil.” The object was found among miscellaneous chaff-tempered sherds, one of which I take to be an out-turned rim marked with wide Khabur brown “light-colored horizontal stripes.” These sherds were contained in an accumulation above third millennium layers. This accumulation has “a different character” from deposits within the walls of the royal storehouse and in particular accumulation fl13, according to Hélène Cooper, pottery analyst, and Marilyn Kelly-Buccellati.

In an attempt further to specify the context in which A5q815.1 was found, we should enumerate types of ceramic fabric from f66, the rich third millennium layer in A5. This layer is the same stratum as fl13, the sealing-rich layer from the previous excavation season. If there is a notable coincidence of types, there is some reason to assign the object to third millennium strata. Also, *wadi* accumulation that coursed through AK seems to have consisted mainly of second-story material, contemporary with AK.



Assur. Pferde Nr. 543/Ass 8851–VA 7160  
(Klengel-Brandt 1978, Tafel 17).

The structure of the bridle is complex and features a strap that binds the mane and what is interpreted as a protective piece lying over the nose.

Note scale, here 1 : 1.

*Pferde* (Nr. 541/Ass. 19670–VA 7294, 543/Ass 8851–VA 7160, 544/Ass 15193–VA 7167, 555/Ass 9147–VA Ass 3302, 558/Ass 168–VA 5512, 560/Ass 8638–VA 7162, 561/Ass 17488–VA Ass 3307 and, not illustrated, Nr. 542/Ass 9258–VA Ass 3300, 545/Ass 15749–VA 7161, 552/Ass 13656–VA Ass 3295, 554/Ass 11050–VA 7107, 559/Ass 19014–VA Ass 3317, 563/Ass 15846–VA Ass 3310) (Klengel-Brandt 1978). Although the Assur horse heads must surely date to later Assyrian times (the typological referent with frontlets is on a stele of Tiglathpileser III), the trappings merit some attention. 1500 years earlier, the equids of Urkesh were also bridled. Those that were outfitted with more than a halter (as we see on the plaque with tethered *Equus* 27) — the equids with bridles — all bear a strap across the poll (the top of the head) as do the Assur horses.

The poll is even today considered a source of some concern in horse management.<sup>2</sup> Some bits are linked to the sensitive crown of the horse head by light trusses; and other manufacturers sell what is known as a “poll guard.”

At Assur, this feature is much exaggerated; and although many representations of horses throughout the ages do exhibit an exaggerated brow (see, as a possible coeval example at Urkesh, *Equus* 38), in the case of the Assur horse figurines this feature most probably is an *accoutrement*, part of the trappings instead of a physical feature. Indeed, Nr. 544 has regular hatchmarks across the poll; and the same area of Nr. 558 is executed in a lighter clay than the fabric of the head. The area is called *stirmwulst*, literally, a “swollen forehead” in the Assur volume.

<sup>2</sup> “Apart from [horses’] backs, many problems stem from the poll areas. Unwilling to flex . . . or becoming tense during periods of work may stem from a tight or achy poll.” Equestrian Online Store, United Kingdom (2004).

**37 *Equus* FOREQUARTERS AND HEAD, MUZZLE LARGELY INTACT TYPE III****A7.407**

Recovered from feature 148 locus 13 • length 6.06 • cranial length 2.95 (snout to mane) • transverse section (across nostrils) 0.0915 • cranial width (across eyes) 1.09 • height at forequarters 4.05 • note on measurement: forequarters and neck cannot be taken because of breakage • fabric fine with many uniform small inclusions • Munsell reading (fabric-patina) 10R 5/2 - 7/2 • color (fabric-patina) pale red-weak red • preservation: muzzle, neck and right half of forequarters intact, right foreleg intact to knee joint; ears chipped

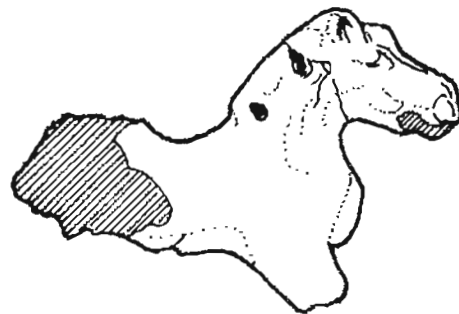
There are two perforations in the mane. The mane is erect. The mane comes up onto the crown between the ears, which are sharp and pointing back. The muzzle is blunt in the manner of *Equus* 36 A5q815.1, rounded and sloping to the snout. The lower jaw is missing. Nostrils are indicated by small projections of clay on either side of the muzzle.

The eyes are wide-set, out from the muzzle, and continue by the ears, as with *Equus* 35 A5q63.1 and, in rather more stylized examples, *Equus* 115 A1.429 and *Equus* 24 A5.109. The feature is notable also with the small zigzag punctures that serve as eyes on head *Equus* 30 A7.210. The muzzle tapers inward and swells to accommodate the nostrils. The foreleg meets the torso at 135 degrees.

The narrowness of the muzzle, the wide flaring nostrils, the wide-set eyes and the sharp ears held back lend credence to this identification as TYPE III.

There are signs of a dark slip on the right flank above the foreleg, where it is chipped away above the foreleg.

I have taken to reading Munsells for both the slip and the underlying fabric. When the slip does not contrast directly with the fabric, the variation in surface color is somewhat predictable. It stays in the same hue, deepening somewhat in intensity and often losing chroma, as we move from the fabric to the patina or the weathered portions of the surface.



*Equus* 37 A7.407.  
Right median plane.  
Scale 1 : 1.  
(rendering cw H720)

**38 *Equus* HEAD WITH HARNESS TYPE III****A7q855.1**

Recovered from feature 148 locus 13 • length (snout to back of mane at halter) 3.55 • cranial width (outside of halter at eyes) 1.71 • transverse section (nostrils, inside of halter) 0.074 • transverse section (snout, vertical plane, long axis) 0.098 • Munsell reading 7.5YR 8/3 • color pink • fabric fine, with uniform inclusions • conservation: depositional adhesion on the crown • preservation: halter broken in front and over snout and another cross-piece in front of ears

Muzzle long and tapering to a flat termination from the wide-set eyes. The mane is not sharp and comes up onto the crown between the ears. The ears are separate from the head, broken at both the back and the top. The eyes are impressed with a thin hollow instrument from in front, straight back into the muzzle. The snout is rectangular in section.

A harness surrounds the muzzle, passing over the mane and around the snout. A cross-piece encircles the snout behind the nostrils; this piece is terminated below the muzzle, and is simply pressed into, but does not join the other end. There was another cross-piece passing over the crown at the ears.

There is an interesting detail of breakage under the muzzle: at the cross-point of the two straps, there may have been a perforation, now broken.

## *Equus* TYPE III

### TENTATIVE IDENTIFICATION

#### 115 *Equus* HEAD (FOAL?) TYPE III

**A1.429**

Recovered from feature 113 locus 20 • note on recovery: S6 • height 2.4 (mane to break) • cranial length (intact ear to snout) 3.1 • transverse vertical section (muzzle/vertical axis) 0.95 • transverse horizontal section (muzzle/across top of triangle) 0.5 • neck (base) 1.1 • neck (long axis, base) 1.45 • fabric medium fine, with some temper • Munsell reading 2.5Y 8/2 • color pale yellow • preservation: head only; one ear chipped



*Equus* 115 A1.429.  
Left median plane.  
Scale 1 : 1.  
(photograph V8Bb0816)

There is a strong curve to the long muzzle, possibly indicative of a young horse per Sándor Bökönyi. The angle at which the object is held is important to the perception of this curve.

The ears are back and pointed. The mane does not come up between the ears. The muzzle is triangular in section. There is a flap of clay extending beyond the snout by about 0.014 cm, and enclosing it on all sides. The nostrils on both side of the snout are very lightly impressed.

Modeling includes gentle curves on either side of the lower muzzle to show bottom jaw and jowl. The musculature of the neck is indicated and smoothed. The mane of the animal is indicated both by a raised ridge, lightly indented, and strikes over this. Compare mane treatment *Equus* 35 A5q63.1.

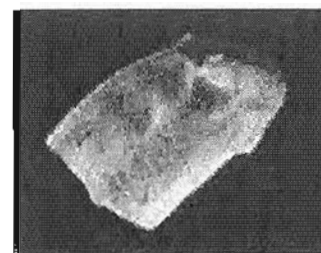
#### 116 *Equus* NECK AND MANE TYPE III

**A5q928.8**

Recovered from feature 66 locus 18 stratum B12B • height (base to mane) 2.35 • neck 1.4 • cranial length (long axis muzzle) 1.65 • fabric fine, with uniform inclusions • Munsell reading 5Y 8/2 • color white • preservation: muzzle broken off at crown; neck and mane only

There are few details; the object is similar in manufacture and rendering to the several “blanks” of the corpus. The muzzle is almost square in section.

The ears, tapering and thrown back, follow the curve of the crown and mane (except for broken tips); they may have turned up slightly at the tip. The ears were separated from the mane by the side of a round instrument. Grooves are still apparent on the inside of the ears, although they have been pressed down on the crown with the fingers (prints).



*Equus* 116 A5q928.8.  
Right mid-sagittal/median plane.  
Scale 1 : 1.  
(photograph V5b8104)

The tip of the ear does not join the neck but is separate from it. It is difficult to see how the fingers could have modeled this detail, without the use of a thin blade of some sort.

The erect mane continues onto the forehead. The edge of the mane is smoothed and rounded. There are light indentations by fingers along the mane, smoothed repeatedly with wet fingers or cloth. Compare *Equus* 35 A5q63.1. There is light, regular scratching on the mane similar to that seen on *Equus* 204 A10.79, though less pronounced.

The eyes are small dots (*ponctués*). They are placed quite far back, high on head and close together. Fabric remains in center of dots, left upon removal of the hollow instrument impressing the eye. See *Humanoid* A5.134 for a similar eye treatment.

The mane and the ears were lifted from the medium, rather than added as a separate piece. The neck is thick and heavily muscled (see photograph).

The fabric appears to have been wiped when wet, as with a tightly woven textile. This detail has been encountered several times in the corpus. It gives a "scratched" appearance to the surface. I cannot imagine that this is the result of depositional action, nor of smoothing by fingertips.

*Equus*

## NOT IDENTIFIED BY TYPE

## TENTATIVE IDENTIFICATION

**117 *Equus* TERMINATED LEG MINIATURE****A1q927.6**

Recovered from layers above first floors, AK storeroom • height 1.38 • transverse section (short axis, body join) 0.5 • transverse section (long axis, body join) 0.7 • transverse section (tip) 0.39 • fabric fine, with uniformly fine chaff temper • Munsell reading 10YR 8/3 • color very pale brown • preservation: tip only

The leg tapers first to the knee, then to a rounded tip. The break at the body join is flat.

The piece has been formed of a single piece of clay, rolled between the fingers and joined.

The shape, although placed here because of the simplicity of execution as a first trial, is somewhat anomalous when compared with other legs that are surely equid.

See **COMPARATIVE TABLE 6A Appendages • Legs** (*Canis, Felis, Equus*).

**118 *Equus* HORSE-TRAPPING****A1q976.12**

Recovered from feature 173 locus 20 • length (perforations oriented to upper right) 2.47 • transverse section (midpoint) 1.55 • transverse section (on left — curve with two holes on right) 0.525 • transverse section (on right — chipped?) 0.025 • fabric fine, uniformly fine inclusions • Munsell reading 5YR 5/1 • color gray • preservation: fragment only

This thin waferlike piece has two perforations on a raised “hump.” The “curve” has been applied as a separate piece of clay.

It is impossible to ascertain what is chipped and what is intact. How would this piece fit in a larger object?

Compare with *Equus* 213 BH383.2, the supposed “bit.” This is the only convenient parallel in the corpus for this fragmentary piece. As a purely anomalous detail, there is perhaps an indication of pelt, the striations lightly burnished (by cleaning?) on the body.

This identification, so very tenuous, renders the (possible) identification of *Equus* 213 somewhat suspect.

Compare with *Bos*/humanoid 7 A6q569.1, a “fantastical” association of animal and human parts that is understandable within the lexicon of conventional iconography.

The perforations have been made with an instrument that has been rotated slightly to enlarge the opening. This is the same technique we find in equid trapping *Equus* 212, and that has been observed in bone artifacts that have possibly served as bits (Anthony 1991, 266). It is clear this is not an accidental fragment. The perforation is made from one side, with the instrument being held lower than the object itself (the hole angles upward through the fabric).

## 119 *Equus* NECK, BEND OF MUZZLE

A5q166.1

Recovered from feature 38 stratum B9 • length 2.15 • neck 1.185 • neck transverse section (short axis) 1.12 • fabric fine, with few inclusions • Munsell reading 7.5YR 7/4 • color pink • conservation: top of head abraded • preservation: fragment (only); orientation and placement in animal body uncertain

The object tapers slightly. Eyes are placed high on top of the crown.

Compare the eye placement on heads *Equus* 116 A5q928.8 and *Equus* 201 A8.32.

The surface is scraped, smoothed and lightly burnished. There are strikes on the right at the muzzle and a horizontal impression or groove on the left side of the muzzle. Are these signs of wear?

## 120 *Equus* TORSO

A6q383.1

Recovered from feature 118 locus 218 • length (break to break) 3.1 • forequarters 2.4 • torso 1.55 • note on measurement: length not diagnostic • fabric medium fine, many inclusions, including gypsum • Munsell reading (torso, little depositional stain) 5YR 7/3 • color (torso, little depositional stain) pink • Munsell reading (interior fabric [?]) 5YR 5/3 • color (interior fabric [?]) reddish-brown • conservation: carbon on much of surface • preservation: fragmentary forequarters

The right hindleg may be impressed (and terminated) with a fingerprint. The forelegs are divided by imprint of a finger, pressing up and to the left, forming the front of the right foreleg and an inverted-V stance.

The orientation of the object is problematic. Taking the flat surface to be the termination of the right hindleg, the object can be deciphered at least provisionally.

As far as intensity of hue goes, the relationship between surface and fabric is the inverse of what one would expect.



**121 *Equus* NECK AND MANE, FRAGMENTARY****A6q624.2**

Recovered from feature 211 (?) locus 22 • length 3.09 • neck (short axis) 1.092 • neck (long axis) 2.26 • fabric fine, inclusions • Munsell reading 7.5YR 7/3 • color pink • preservation: fragmentary
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

The artifact is obviously from a figurine and it is modeled. The orientation of the object remains uncertain. It is probably a section of a neck. Despite difficulties of reading the object, it was catalogued amongst equid representations from the start.

There are fingerprints on either side of the form, bringing the clay to an edge, as with a mane.

*Equus*

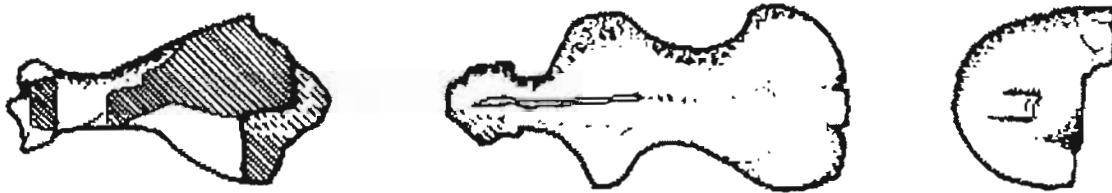
## TYPES I, I/II, II, AND III

## RELATED STRATIFIED FINDS

200 *Equus* TORSO TYPE I

K3.17

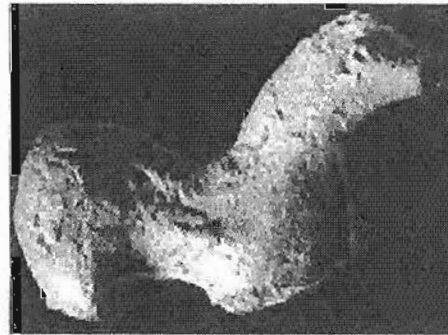
Recovered from third millennium stratum by city gate • length 4.04 • forequarters 2.02 • neck 1.05 • torso 1.36 • hindquarters 2.20 • tail 0.38 • height at forequarters 4.6 • height at hindquarters 2.14 • fabric fine, uniformly fine chaff temper • Munsell reading 10YR 7/3 • color very pale brown • preservation: all appendages broken; tail and muzzle broken



*Equus* 200 K3.17 TYPE I.  
Cranial, dorsal, and caudal views.  
Scale 1 : 1.  
(rendering cw 1726)

There is a deep dip in the back. The tail is held high; the rump curves down to meet the hindleg. Buttocks are fused. The long (broken), not tapering tail is deeply incised either side. The hindquarters are contained within an inverted U. The forelegs turn back *under* the torso, as with *Equus* 5 A6.238. Compare also *Equus* 22 A5.10 and other exemplars noted under that entry.

The ears go back alongside the head/muzzle. Both are formed of separate pieces of clay. Section of muzzle is flat rectangle. The longer dimension is on top, a detail not frequently found in the corpus; usually, the long side of the rectangular muzzle is in the vertical plane. High ridge of pinched, erect mane comes up onto the head between the eyes. Compare *Equus* 35 A5q63.1.



*Equus* 200 K3.17 TYPE I.  
Right median plane.  
Scale 1 : 1.  
(photograph V5b8106)

The forequarters are contained within a narrow inverted V. There is a breast ridge. Compare forequarters *Capra* 1 A1.44.

The musculature along the torso is deeply indented, particularly along the right flank.

**201**      ***Equus* MUZZLE AND NECK TYPE I****A8.32**

Recovered from feature 56 locus 9 • cranial length 2.76 • cranial width (across eyes) 1.60 • neck 1.98 • height 6.00 • note on measurement cranial length not diagnostic • fabric medium fine, with uniform inclusions • Munsell reading 7.5YR 7/3 • color pink • preservation: head only.

The top of the muzzle is flat; muzzle is triangular in section. The neck tapers outward slightly to body join. Ears are wide; pinched mane does not go onto crown between ears. The edge of the mane undulates, caused by the pressure of nail and finger, applied on the diagonal from behind the crown. The crown is flat to the eyes, then inclines toward the snout. The eyes are applied, flat against the head. Three ridges go up the neck. Eyes are high on top of crown and wide, some medium remaining at the center of the right eye.

The method of indicating eyes is reminiscent of the eyes in head *Felis* 3 A1.414. There is another equid head in the corpus that, because of this detail, also recalls carnivores. Musculature is defined by fingers, then smoothed with cloth. There is a slip, visible at the break on the lower neck.

Compare with *Equus* “blanks.” Compare with *Equus* 116 A5q928.8, also *Equus* 119 A5q166.1.

**202**      ***Equus* HEAD TYPE I MINIATURE****A8q138.3**

Recovered from feature 43 locus 9 • cranial length 2.37 • cranial width (across eyes) 1.96 • snout (vertical transverse section) 0.078 • snout (horizontal transverse section) 0.071 • neck (width) 1.37 • neck (transverse section, including mane) 1.84 • crown at poll (?) (horizontal transverse section) 1.23 • height (crown to break) 1.98 • fabric fine, with some inclusions • Munsell reading 7.5YR 5/1 • color gray • preservation: head only, broken below muzzle; snout broken



*Equus* 202 A8q138.3.  
Right median plane.  
Scale 1 : 1.25  
(photograph V10e1514)

A low, undulating mane comes up onto the crown between the ears. The muzzle is rectangular in section and tapers from the crown to the snout.

The eyes are widely spaced, the ears erect; the top of the muzzle is flat.

There appears to be a perforation down along the left side of the neck; it continues down the neck and is visible at the break. There is a hole in the center of the break.

Does the Munsell reading correspond to the patina color? The object has been brushed only. The clay in which it was found is light red. Depositional action may account for the apparent color.

**203    *Equus* TORSO AND HINDQUARTERS TYPE I****A10.62**

Recovered from feature 122 locus 8 • length 5.83 • forequarters (from above, due to breakage) 2.425 • neck 1.65 • torso 2.12 • tail 0.65 • height at forequarters 2.95 • height : hindquarters not possible to measure; length and height not diagnostic; forequarters questionable • Munsell reading 10YR 7/2 • color light gray • preservation: torso, all appendages broken; right hind quarters and left forequarters broken off

The hindquarters are fused and contained within a flat, inverted U. The tail hangs down.

There is a mane, heavily pinched. The breast ridge is narrowly contained by the forequarters, which are themselves solidly founded on a slightly incurving inverted U. The forelegs are slightly off center, skewing slightly right (unless this is the effect of the breakage, higher on the left than on the right).

The fabric is medium fine, with many uniform inclusions. There are three adhesions of fabric or depositional adhesions. They extend from the mane onto the torso, curving slightly to the right. These continue a deep impression on the left of the lower mane, which also contains a piece of fabric (from the mane?). Opposite this indentation, on the right at the base of the mane is a fingerprint, heavily impressed.

The pattern of breakage is regular, as if intentional.

**204    *Equus* TORSO INTACT TYPE I****A10.79**

Recovered high up within AK walls • length (not including tail) 5.4 • forequarters 2.9 • neck 1.69 • torso 2.05 • hindquarters 2.57 • tail 0.62 • tail length 2.65 • height at forequarters 6.2 • height at hindquarters 4.3 • fabric fine, with uniformly fine inclusions, fine grit (?) • Munsell reading 10YR 7/2 • color light gray • preservation: intact except for chipped left hindleg and slightly abraded right ear



*Equus* 204 A10.79. Left median plane.

Note the erect mane  
marked with regular crosshatches;  
the long ears, carried back;  
and the nostril slit.

The legs are thrust forward, yet the animal  
is at rest.

Scale 1 : 1.

(photograph taken in lab  
at Deir ez-Zor Museum by author;  
no registration number.)

This equid is a domesticated (?)  
onager or ass, judged so because of  
what may be slit nostrils.

It may indeed be that the nostrils were originally open, as equid nostrils have been slit for millennia to allow them — mistakenly, according to some — to breathe more freely with exertion. I had originally assumed that a layer of clay had eroded away from the top of the muzzle, opening the nostril incision far back into the muzzle.

Mary Aiken Littauer writes that the practice is “very ancient”; however, the earliest reference she cites is a relief from Tel el Amarna of the fourteenth century B.C. In addition to the supposed therapeutic value for the animal, the nostril slit also enabled horses to breathe when they were fitted with a noseband placed very low, which impaired breathing. In more recent times, slitting the nostrils also effectively prevented equids from whinnying (Littauer 2002).



Pisanello.  
Sketch of horse with nostrils  
slit far back.  
Collections du Louvre.  
Courtesy Musées Nationaux.

A twentieth century invention replaces nostril slits. It is called the Flair, an “equine nasal strip” analogous to the Breathe Right strip developed to dilate the noses of human cold sufferers and snorers (Hawley 2000, 1A, 12A). The device addresses a common breathing problem suffered by racehorses: exercise-induced pulmonary hemorrhage, or “bleeding” as horsemen say. During heavy exercise, small blood vessels in the lungs of the horse can rupture. One theory links the problem to “negative pressure” as the animal tries to inhale large amounts of air through its nose (an equid cannot breathe through its mouth). As I understand it, the device, attached with adhesive to the fleshy parts of the nose, spreads the nostrils, opening them and allowing freer passage of large quantities of air.



*Equus* 204 A10.79 caudal view.  
The tail — remarkably —  
is intact.  
Scale 1 : 1.  
(photograph taken in Deir ez-Zor lab  
by author;  
no registration number)

The ears are curved back and sharply pointed and are formed of two narrow pieces of clay, tapered and pulled; the join is incomplete at the top of the ear. There are light incisions along the rim, as a pelt. The muzzle is blunt and rectangular in section.

There is no breast ridge. Forelegs are solidly founded, but are thrust forward. The mane begins low down on the neck and is evenly notched; it is erect and comes up onto the muzzle. The tail is carried high and has been laid in as a separate piece of clay; the tail swells out at first, but then tapers to a point. The rump is flat on top and the hindquarters are solidly founded.

Manufacture should be studied further, as some appendages may have been inserted as separate pieces of clay in deep incisions in the torso. There are strikes on the body, on the left flank low on the neck, at the left foreleg, and in front of the left hind leg. Is this depositional damage?

**Tall Munbaqa.** *Vierheiner* Nr. 751 Mbq 25/35-36 Aleppo 71 MBQ 14 (Czichon, Werner, et al. 1998, Tafel 88). This damaged torso may be an equid. The narrow, slightly tapering forequarters are reminiscent of the Urkesh exemplar. It is likely that forelegs of the Munbaqa piece are incurving; they are either terminated or close to termination and therefore not particularly equidlike, nor is the undercarriage and manner in which legs join the torso. Only more extensive documentation — views in all six planes and a complete set of diagnostic measurements — could provide a surer determination of the species.

**Hamam et-Turkman.** Equid Figurine HMM 81-A 2 (Rossmeisl and Venema 1988, Pl. 175, Fig. 26). Identified as an equid, “a fragment of a head with the snout pierced for reins.” (page 564). The ears are pointed in the manner of the Urkesh nondomesticated onager or wild ass, but see also head TYPE III *Equus* 115 A1.429, identified with reservations as a “foal,” and with short sharp ears that lie back.

The orientation of the Turkman head is uncertain; the muzzle (broken off) may have extended to the right, making the way the ears lie and the way the mane lies on the crown slightly more “natural.” That there is a hole in the muzzle indicates only that the animal may have been tethered, not necessarily domesticated.

## 205 *Equus* FOREQUARTERS TYPE II

A10q146.3

Recovered from feature 67 locus 3 • length (break to left foreleg tip) 3.36 • forequarters 2.76 • neck 1.81 • torso 2.09 • height at forequarters 4.8 • note on measurement: height, length not diagnostic; other measurements questionable, because of breakage • fabric medium fine, with uniformly fine chaff temper • Munsell reading 10YR 7/2 • color light gray • conservation: abraded overall • preservation: forequarters only; right foreleg missing, left foreleg chipped, head missing

The stance is wide. The left foreleg thrusts forward at an angle of 140 degrees. Neck and torso meld into one another. There is a mane and a perforation in the mane. There is a point of entry at both sides; the hole is not pierced straight through.

This equid representation is likely a donkey. Compare *Equus* 22 A5.10. Can a pattern of wear be distinguished in the uneven modeling of the entry point, as the object was suspended or pulled about from above?

I question whether uniform color readings in A10 from the early levels had to do with the adherence of excavation dirt to the surface of the objects. At registration, we were only brushing objects — and very lightly at that — rather than washing them.

More vigorous brushing seems to dislodge little of the excavation dirt, if any still adheres.

## 206 *Equus* TORSO TYPE I

A10q312.2

Recovered from feature 67 locus 3 • length 5.98 • forequarters 2.66 • neck 1.61 • torso 2.13 • hindquarters 3.29 • height at forequarters 2.22 • height at hindquarters 3.46 • note on measurement: height at hindquarters diagnostic; height at forequarters not diagnostic; forequarters questionable • fabric fine, with uniformly small chaff temper • Munsell reading 7.5YR 7/3 • color pink • preservation: all appendages broken, except for left hindleg

The hindquarters are contained in a tight, slightly incurving inverted U. The buttocks are slightly recessed. There is a breast ridge. The leg join and forequarters at the top form a narrow triangle.

The left hindleg may be terminated. This is helpful, for it allows us to project the termination onto other animals in the genus, although this leg length seems quite short for *Equus*, given our emphasis on realistic rendering. I would not have been surprised to find this leg amongst the sheep. Of course, the leg may not be terminated at this point at all, just heavily abraded. For further study.

The pattern of incisions visible on the surface should be examined microscopically. There may be fine incisions coming down from the neck, visible on the right flank. There are dots lightly impressed on and above the left hindleg. Examine also the pattern of crosshatching that covers the entire left flank. It is very light but appears to have been applied in successive passes, now almost completely abraded. The sources may be several: original application of paint or patterning, abrasion of same, or application of successive patterns. Penultimately, the object is marked by depositional action and finally by the accidents of excavation.

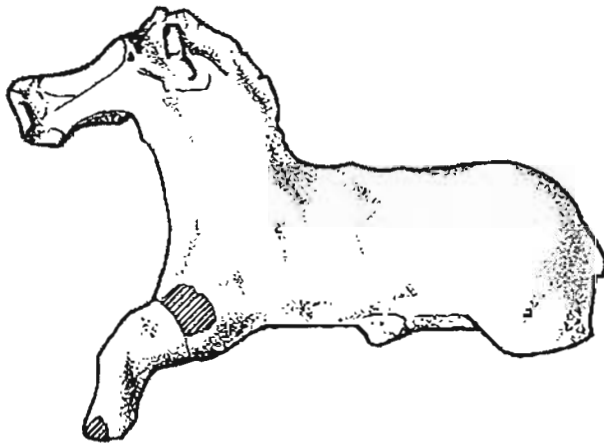
The torso is modeled by scraping and slicing (on the upper left torso).

There is firing bloom on the underside of the torso. Some pieces of fabric still adhere to the underside.

## 207 *Equus* torso TYPE I

A13.129

Recovered from feature 78 locus 12 • length 5.335 • forequarters 2.455 • neck 1.6 • torso 2.255 • hindquarters 2.49 • tail 0.29 • height at forequarters (terminated hoof to mane) 6.05 • height at hindquarters 2.99 • note on measurement: all measurements diagnostic, except height of hindquarters • fabric medium fine, with inclusions • Munsell reading 10YR 8/2 • color very pale brown • note on color: Munsell reading only one mark less intense in chroma than fabric of *Equus* 23 • preservation: torso and head; left foreleg intact, but chipped



*Equus* 207 A13.129. Left median plane.  
Note the mane that rises onto the crown,  
the narrow tail attachment, and vertical pointed ears.  
The snout is comparatively long for TYPE I equids.

Scale 1 : 1.  
(rendering cw K728)

This striking TYPE I equid is likely an onager and is unique in the corpus for these reasons: (1) attitude — no other equid modeled or sculpted in three dimensions is represented prancing or with the foreleg elevated in this manner; (2) attitude — the neck and head lean to the right, reminiscent of *Equus* 36 A5q815.1, where the animal has its head turned sharply to the right; (3) the musculature is quite pronounced, particularly along the neck and under the muzzle at the forequarters, where the neck/forequarters have been pushed back and smoothed flat; (4) the left foreleg is terminated with an indication of a hoof (a slight ridge along the leading edge of the terminated appendage).

Otherwise, the sexual organs are expressed, the tail is a typical onager "rat-tail," and the mane is rigid and erect; in this case it comes onto the crown of the head but does not fall over, as with a forelock. There may be some indication of a breast ridge (an irregular small ridge of clay between the legs at the forequarters), but it is not a prominent feature of this representation.

The muzzle is long, as with TYPE III (domesticated caballine) equids, heavily pinched to shape, moving from a square in rostral section to a vertical rectangle in cranial section. Eye ridges are indicated, as are the ears, which are thrown back.

The figurine should be compared for the termination of muzzle with *Equus* 23 A5.30, a TYPE II (TEMPLATE) equid on the way to domestication. The hindquarters are not at all similar in the two animals — the A13 example is contained within a narrow inverted U, as is the manner of TYPE I equids; and inside, a wide, inverted V is truncated by the torso.

The manufacture is the most notable aspect of this object and is an example of quite aggressive modeling by pinching and smoothing with the fingers. The medium must have been pliable and wet, as the passage of the fingers leaves consistent, smooth ridges along the neck.

The object has been repaired at the left foreleg and also at the muzzle, both broken in extracting the object from the ground.

Emplacement should be studied. The object was found lying on its left flank wedged between stones in the pavement of the royal residence. There is perhaps a parallel with A7.501, a large *Ovis* torso, with heavy fleece. This latter object was found nestled amongst pebbles in a floor; it is to be determined if this were a domestic context.

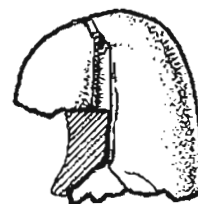
## 208 *Equus* HINDQUARTERS TYPE I/II

A2.111

Recovered from feature 108 locus 150 • length 4.77 • torso 2.225 • hindquarters 2.89 • height at hindquarters 2.88 • Munsell reading 2.5YR 7/4 • color light reddish brown • preservation: hindquarters fragmentary, only half remains; piece broken on left side halfway up incision from tail to belly; sexual parts broken

The rump continues the line of the torso with a slight rise, then curves down to join hindleg. That is, the tail is not carried high, and the curve of the rump to hindleg is less marked than with *Carnivora*. There is a tail hole and a deep groove from tail to sexual parts, which are expressed. The head of the penis is separated from the shaft by a break; the band that passed over it has fallen away.

In making the tail hole, the tip of the instrument touched the surface on the upper left, as it was withdrawn; on the right, a ridge of clay was raised and not smoothed.



*Equus* 208 A2.111. Caudal view.  
Scale 1 : 1.  
(rendering cw K711)



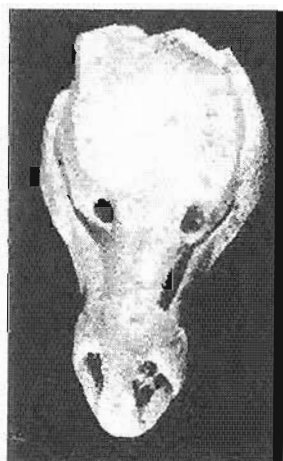
The fabric is fine, with uniform small inclusions including grit and much gypsum (calcium carbonate). The surface is smoothed, although depositional processes may have acted uniformly on the surface to roughen it. If there is a slip, it retains some of the fine grit used for the temper.

See **COMPARATIVE TABLE 10** *Equids Veterinary Intervention* (penile strap & caudal band).

## 209 *Equus* head TYPE II

A2q251.1

Recovered from feature 119 locus 15 • cranial length (snout to back of muzzle) 3.3 • transverse section (cross-straps, short axis) 0.085 • transverse section (cross-straps, long vertical axis) 1.34 • transverse section (thick part of muzzle) 1.725 • neck 1.42 • fabric fine, few inclusions • Munsell reading 10YR 8/3 • color very pale brown • preservation: ears chipped, halter broken at back of head and on lower right cross-strap at snout



*Equus* 209 A2q251.1.

Dorsal view.

Note ridge around top of indented muzzle.

Scale 1.5 : 1.

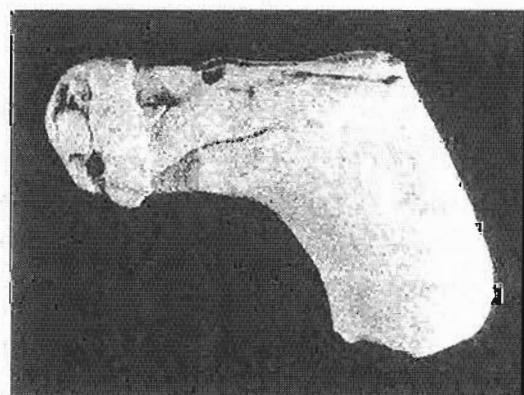
(photograph V7b1905)

The muzzle is thin, the crown indented, similar in manufacture to *Equus* 1, but here the edges of the muzzle are not brought together to form a half-join at the top of the muzzle. The edges are, however, brought together by pinching to form the lower part of the muzzle and the snout. Eyes are impressed with a thin reed or bone, inserted from the front into the raised edge of clay that surrounds the crown of the muzzle.

The nostrils are less deeply impressed, but probably made with the same tapering instrument. Neck and head meet at an angle of 70 degrees. The angle at which the head/muzzle joins the neck join of some animals may prove to be diagnostic; I have not studied this detail systematically, but have repeatedly noted it.

There is a halter, nearly intact, formed of separate pieces of clay. The straps are down each side of the muzzle and join in front. Behind the nostrils, a cross-piece encircles the snout; there is a break on the lower right above the snout and at the back of the head.

The snout is rounded, yet not blunt. The muzzle is rectangular in vertical section and terminates in a vertical ovoid shape. The mane is not indicated. There is a perforation/tethering ring below the snout. It is pierced through.



*Equus* 209 A2q251.1.

Left median plane.

Scale 1.5 : 1.

(photograph V7b1835)

On the box, I made the notation "one-stage manufacture," and in fact, the surface of the object seems not to be much treated, except for the application of the halter.

Nagar (Tell Brak). Heads of Akkadian equid figurines with decorated headstalls (53 and 54). Equid figurine with pierced ... muzzle (reg. no. 1395 from FS 1114, Level 3 Akkadian (Oates 2001, 287 Fig. 308 and 288 Fig. 310). The Brak heads with applied halter are quite simply modeled, with less attention to the conformation of the muzzle than at Urkesh. The headgear itself is more elaborate than the Urkesh exemplars.

210 *Equus* TORSO TYPE II

A2q378.1

Recovered from feature 133 locus 150 (?) • length 5.42 • forequarters 2.63 • neck 0.70 • torso 2.0 • hindquarters 3.16 • tail 0.9 • fabric medium, some inclusions • Munsell reading 10YR 8/3 • color very pale brown • preservation: hindquarters intact; legs chipped, tail broken; torso intact, right foreleg missing; head broken off

The hindquarters are flat, slightly open in an inverted U outside, solidly founded in a four-square stance; the left foreleg joins the body at a 120 degree angle. The legs are a rounded rectangle/ovoid in section.

Note the form of the hindquarters above the legs, which are chipped but otherwise intact. This is the defining characteristic of any of the animal figurines — the way the legs are terminated radically changes one's overall impression of the body type. This may be one reason so many of animal figurines are classified as being from a single genus — incomplete as they are, they are lumped into a single category with little regard for other defining characteristics. In the Urkesh corpus, the legs of *Equus* are schematized, much more so than the body they support.

Musculature is smoothed with fingers.

See **COMPARATIVE TABLE 6A Appendages Legs (*Canis*, *Fells*, *Equus*)** and **COMPARATIVE TABLE *Equus* TYPES I • II • III** at the beginning of this section.

211 *Equus* FOREQUARTERS TYPE II

A10.9

Recovered from feature 44 locus 4 • length 5.15 • forequarters 4.11 • neck 2.01 • torso 3.07 • height 5.93 • fabric medium, uniformly fine inclusions • Munsell reading 7.5YR 7/3 • color pink • preservation: forequarters only; head missing, partial torso

There is a mane, rather sharp, not pinched. The breast ridge is prominent, but narrow, and it is this attribute that prompts the identification. Body join of right foreleg is 150 degrees, rather extreme.

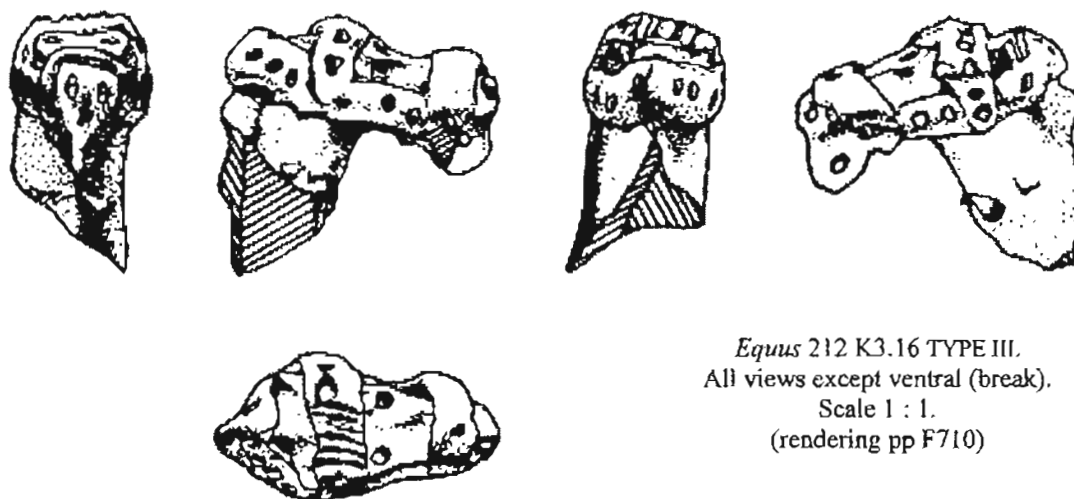
Compare foreleg/body join *Equus* 5 A6.238, which almost turns under.

At first glance, the forequarters appear disproportionately large, but in fact they contain the narrow breast ridge, and the scale of the object itself is large. Even so, the stance is not as wide as, say, torso *Equus* 23 A5.30.

212 *Equus* HEAD WITH HARNESS TYPE III

K3.16

Recovered from third millennium levels near the city gate • length (snout to harness over mane) 3.6 • height (break, bottom of neck to cross-piece of harness above eyes) 3.55 • transverse section (snout in front of harness) 0.7 • transverse section (snout, vertical axis including ring) 1.2 • fabric medium fine • Munsell reading 10YR 8/3 • color very pale brown • preservation: head only; harness and other surface detail intact



*Equus 212 K3.16 TYPE III.*  
All views except ventral (break).  
Scale 1 : 1.  
(rendering pp F710)

Incised dots (studs?) decorate the harness. A forelock is indicated; it falls over the harness. The left ear emerges from under the harness. The eyes are incised dots, as are the nostrils, which are not widespread. The muzzle is flat. There is a tethering ring (pierced through and entire) under the mouth. The harness is complete except under the muzzle (as with *Equus 36 A5q815.1*). The muzzle is rectangular in section. At the snout/ring, the section becomes an inverted triangle.

In the left median and dorsal views, note the deformation of the muzzle by the applied harness straps; compare with *Equus 18 A1.481*. Compare mane *Equus 35 A5q63.1*.

See also *Equus 216 M1.209*, a TYPE III equid, with wide-set eyes under prominent eye ridges; the ears appear short, the muzzle relatively narrow. Possibly, there is a forelock, falling forward high on the crown of the head and between the ears.

**Assur. Pferde, various** (Klengel-Brandt 1978). See *Equus 36* for precise referents. *Equus 202* bears comparison particularly with Assur Nr. 544, which has striations on the area corresponding to the poll.

**Tall Munbaqa. Kopf eines Equiden Nr. 731 Mbq 17/14-1 Raqqa Nr. 315** (Czichon, Werner, et al. 1998, Tafel 88, 201). Harness similar. The equids are of different species.

**Tell Halawa A. Equiden Nr. 97 and Nr. 119** (Meyer, Pruss, et al. 1994, Abb. 36 and Abb. 38) appear to have eyes that have been made with a rather bold insertion of a pointed (in the case of Nr. 97) instrument. They otherwise do not resemble the Urkesh equid at all. The harness of Nr. 119 is decorated with parallel alternating incisions and Nr. 110 (Abb. 37) is decorated with opposing slanting lines or "chevrons."

**Tell Brak, Figure 310 Equid figurines with pierced manes and muzzles (TB6184, post-Akkadian from FS 1037)** (Oates 2001, 288). The tab under the chin is notable. Although it is not pierced, there is a perforation above the tab, through the muzzle itself.

**Tell Mardikh (Ebla). Testa di equide; TM.67.F.136 Q21T2c and other exemplars from Tav. CLXXX** (Marchetti 2001, Tav. CLXXX, 100). Interestingly, the head and the trappings seem to have been manufactured together, as if they were made *d'un seul trait* and not as if one were applied over the other; see, as example, the eyes of TM.67.F.136, which are applied first as heavy pastilles and then pierced with a relatively large, blunt instrument. The remaining medium gives the impression that there is an appliance around the eye, part of the trapping itself.

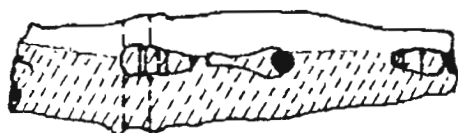
The author remarks that some of the applied pieces are combed, as TM.71.S.176, Tav. CLXXX; and distinguishes another type, where the decoration is applied directly to the crown (TM.65.D.8 Q21T2b — but is this an equid?).

Commentary on the Ebla figurines is clearly complicated by the fact that the techniques of manufacture come from another workshop of differing traditions — and I suspect, usages for the artifacts themselves. The mental template held by the artisans contrasts with the manufacturing principles that inform the Urkesh corpus.

## 213 *Equus* CLAY ARTIFACT, EQUID TRAPPING

**BH383.2**

Recovered in third millennium strata, northwest of Temple BA • height (ring) 1.875 • height (“crochet”/hook) 1.975 • height (curve) 2.4 • height 1.7 • length (extreme left, as viewed in photograph) 6.2 • thickness (left end, as viewed in photograph) 1.225 • thickness (midpoint) 1.5 • thickness (right end, as viewed in photograph) 0.875 • Munsell reading 10YR 7/3 • color very pale brown • conservation: surface abraded overall • preservation: original attachment and relationship to associated object conjectural



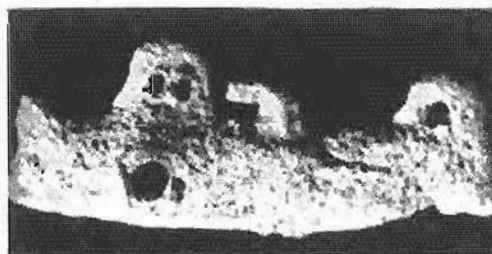
Is this a clay model for an actual bit to be executed in metal or an organic medium, such as bone? Or could it be a hanging yoke? No anthropomorphic or animal references have been retrieved.

This fragment is a long object (6.2 cm) pierced with holes and with a “hook,” which is broken; it is not certain how it was attached to the larger cylinder. There is firing bloom on the back of the object to the right of the curve.

The object is pierced from the end near the “ring” on a diagonal emerging below the “ring.” It is also pierced vertically at the base of the “crochet (right side as seen in the rendering),” with the hole emerging on the bottom of the object.

There is also a vertical hole at the left (broken) end of object; and it is punctured four times horizontally: there is a large hole below the two-holed curve, two punctures in the curve, and one through a “ring” on the end of the object.

*Equus* 213 BH383.2. Clay artifact.  
Possible model of equid trappings.  
Scale 1 : 1.  
(rendering cw F707)

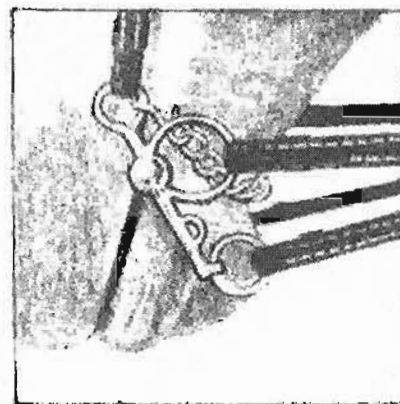


*Equus* 213 BH383.2. Clay artifact,  
perhaps representing bit  
or bridle attachment.  
Scale 1 : 1.  
(photograph [not entered in roster])

Sándor Bökönyi suggested that the object might be a model of the cheek-piece from an equid harness. Compare with *Equus* 118 A1q976.12. A contemporaneous parallel has yet to be identified.

David Anthony tells us that

"Riding is . . . suggested by the appearance of objects thought to be cheekpieces within Sredni Stog material culture. . . . Sredni Stog cheekpieces were made on the end of an antler tine, pierced with one or rarely two holes. The perforations have saucer-shaped worn areas around them, apparently from the movement of cord. . . . Their identification as cheekpieces is as firm as any such identification can be" (Anthony 1991, 266-267).



In the end, a modern demonstration provides quite a close parallel for the structure and detail of BH383.2. This is a *pelham*, a combination of snaffle and curb, with a single mouthpiece. Here, the bit is rigged using two reins. Courtesy, *Horseplay Magazine*.

At Ugarit, Tell F'arab, and Ur, bronze axes have been found with perforations similar to the two-holed curve atop *Equus* 213. See esp. U.9687, Type A14, a cast open-socketed axe from the Royal Cemetery at Ur, unique among the metal finds (Woolley 1934, 306 and Plate 224). The functional parallel is far-fetched, of course; and exemplars are not encountered after Sargon; but the formal comparison — perforation to defining form — gives pause. Similarly manufactured objects have been recovered in Northern Syria, although Woolley does not credit the region with invention of the form.

**Tell Mozan.** Other metal objects, having an equally unrelated function, are instructive, in the way they are bent. For quite a refined example, look at the **garment fasteners, or pins, particularly M1.206**, picked up from the surface of Tell Mozan, near Area K1. Given a fabric of sufficient tensile strength, it can be folded over onto itself, forming a hook or a ring.

The **Luristan bronzes** in many collections around the world feature similar pieces. As an example, see the referenced "**bit with linked mouth-bar**" in the Minneapolis Institute of Arts (Acc. No. 6682). The object is from central western Iran (Luristan) and the date of manufacture is given as 1200-400 (an *MLA Bulletin* article notes that "[s]ome authorities place pieces of this type as early as B.C. 2000." The cheekpieces (variously, "plaques" or "plates") bend downward from a midpoint and taper to either end. There is a perforation at the midpoint through which the cross-piece passes. There are rings atop the object near both ends.

**Collections of the Musée du Louvre (A020507) from "Fer II."** The cross-piece of a horse bit is remarkably like the punctured bosses and hook atop *Equus* 213 BH383.2.

**Line drawings of "types of psalia" from the Caucasus and Central Russia Hittite reliefs** show horses with similar perforated metal pieces attached to reins and leather trappings.

## 214 *Equus* MUZZLE, TIP ONLY MINIATURE

F1.154

Recovered in domestic context, third millennium stratum • cranial length 2 .0 (snout to break) • transverse vertical section (snout, vertical axis) 0.66 • transverse horizontal section (snout, long horizontal axis) 0.73 • fabric fine, some inclusions • Munsell reading 10YR 8/2 • color very pale brown • preservation: tip of muzzle only

Nostrils are deeply impressed dots, slightly flared — that is, widened by lateral movement of the instrument used. The mouth is a shallow incised line. Section is a horizontal rectangle.

Fingerprints create fine lines over all.

Compare pelt *Equus* 301 Z1.188, where the pelt is indicated by very fine regular incisions. See **COMPARATIVE TABLES 1 & 1A Pelts & Surface Treatments**.

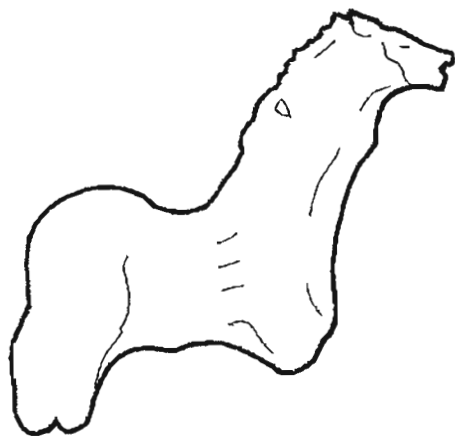
Note that of all the COMPARATIVE examples given here, *only* the F1 figurines come from a domestic context.

## 215 *Equus* TORSO TYPE I

A13q41.2

Recovered in courtyard, royal residence AR, adjacent to service sector AK • length 3.98 • forequarters 1.48 • neck 0.8 • neck (length) 2.29 • torso 1.35 • hindquarters 2.25 • note on measurement: taken from rendering (cw J802) • preservation: legs broken, muzzle broken at midpoint of perforation

This figurine came to my attention late in the preparation of this volume, which accounts for its position out of sequence apart from other TYPE I equids. It was recovered in the same area as *Equus* 207 above a pavement in the royal residence and poses a number of interesting questions relating to the domestication of equids other than those of the caballine group.



*Equus* 215 TYPE I A13q41.2.  
Right median plane.  
Scale 1 : 1.  
(rendering cw J802)

The proportions of the torso approach the typological template for equids only asymptotically, the forequarters being quite narrow, as would be the case with TYPE I equids, but the hindquarters are rather heavier than is typical of the genus. The body is quite compact, giving an overall impression of heaviness; yet the animal exhibits a long neck, thrust forward. The neck length (2.29 cm) has been taken in vertical section from the crown to the top of the withers and is almost two-thirds the body length, as we measure it.

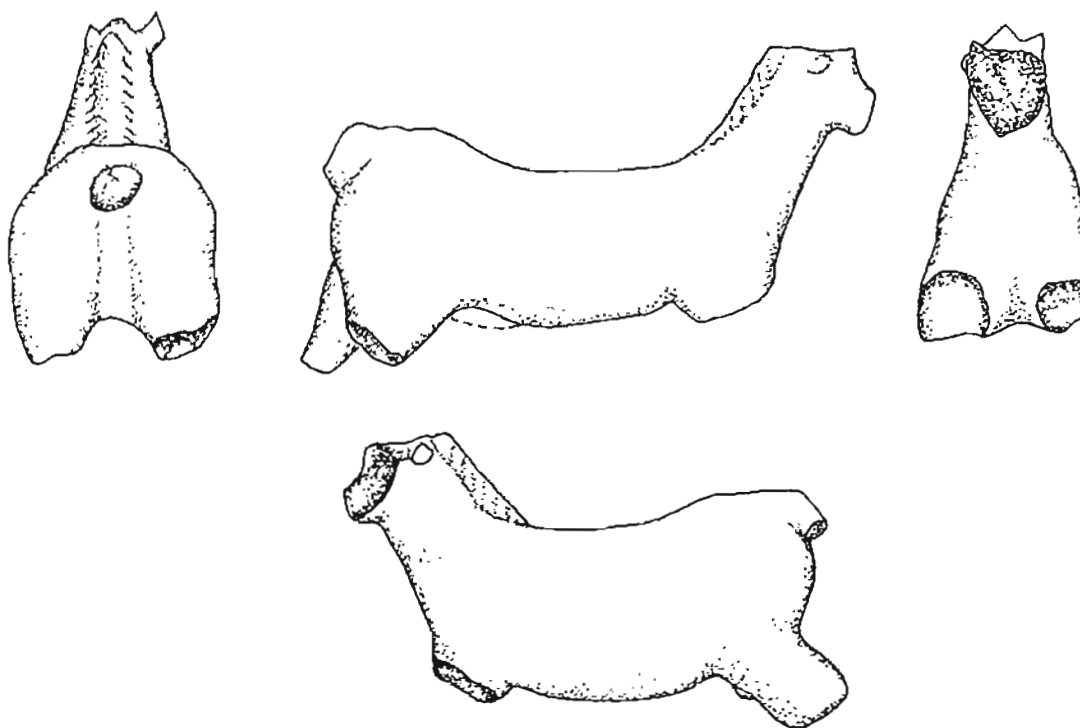
The mane is erect, and the ears, terminated, are pointed and thrown back, measuring fully one-third the length of the muzzle (allowing for breakage). The mane is perforated, as is the muzzle, where it is broken. Apparently, the animal was tethered. The tail is narrow at the base. Most intriguing of all is the presence of a caudal band and the remnants of a strap over the penis. These details are clear signs of efforts at domestication among TYPE I equids at Urkesh.

Were it not for the hindquarters and compact torso, I could easily see this representation as an echo of the Ishar-Beli equid represented in a sealing reconstruction from third millennium layers in the royal palace (Figure 11, in the INTRODUCTION to this volume). The figurine therefore strengthens speculation that the iconographic meaning of the sealing has to do with animal husbandry and control.

**216** *Equus* TORSO TYPE I/II**M.207** (FIELD NUMBER B1.16)

Recovered from surface of mound during first two seasons of excavation • length (left median plane) 5.55 • length (oblique right median plane) 6.43 • forequarters 2.84 • neck 1.18 • torso 2.11 • hindquarters 2.84 • tail 0.74 • note on measurement: torso is measured from above in vertical section and not in frontal horizontal plane; therefore, measurement is not diagnostic • preservation: all appendages broken; muzzle and tail broken off

My observations about this animal representation are drawn solely from the renderings. For some reason, the right median plane seems to have been drawn at something of an oblique angle and the right median plane is considerably longer than that of the left. This is not caused by the extended hindlegs, for the measurements are taken in the horizontal frontal plane, as with other examples drawn from the corpus. If the figurine were held obliquely, however, with the cranial section away from the artist, one would expect foreshortening.



*Equus* 216 M.207 (B1.16).  
Caudal and cranial views, left and right median planes.  
The figurine exhibits aspects  
of both domesticated and undomesticated stock.  
Scale 1 : 1.  
(rendering after (Buccellati and Kelly-Buccellati 1988, Fig.46)

I have placed the animal amongst male equids exhibiting the caudal band and penile strap, clear signs of veterinary intervention. M1.207 does bear the negative impression of a caudal band. Also in this category are three female equids with enlarged or marked vagina, which I have taken to be animals in heat. It is, however, with the female equids that the body proportions of M.207 have the clearest parallel, particularly with the sunken belly and, at least as rendered in the left median plane, quite a long torso.

Neither the cranial nor the caudal view places the animal amongst TYPE I equids; rather — and this is a surprise — the animal appears to be an atypical example of the domesticated TYPE III equids. Forequarters and hindquarters are exactly as encountered with *Equus* 36 A5q815.1, our TEMPLATE for the domesticated horse!

The figurine also exhibits at least some detail in the handling of the mane. Light incisions along the mane have been applied in a second stage of manufacture to a separate ridge of clay pressed onto the torso. The tail is carried high; the ratio of tail width to hindquarters width is less than 1 : 4.

Because of these crossover characteristics, some typical of the domesticated equid and some not, I have called the animal TYPE I/II, to underline its close ties with other animals on the way to domestication. Because of the erect mane and the heavy torso, I would be hard pressed to place the animal amongst the fully domesticated equids from Urkesh.

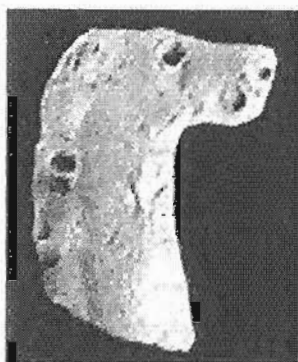


*EQUUS*

## RELATED UNSTRATIFIED FINDS

**300** *Equus* HEAD WITH INDENTATIONS**Z1.104**

Recovered from surface • cranial length 2.8 • neck 1.5 • neck (long axis) 1.825 • Munsell reading 10YR 7/4 • color very pale brown • preservation: head and neck only



*Equus* 300 Right median plane.  
Scale 1 : 1.  
(photograph V8a-e5111)

Of several indentations on this head, the one representing the eye is deep, in contrast with one at the lower jaw and one near the tip of the snout: could this representing a tethering ring? As I interpret Sándor Bökönyi's notes in an unpublished manuscript on animal figurines and their relationship to the faunal assemblage at Urkesh, he sees the indentation at the mouth as possibly indicating the placement for a bit.

Bökönyi also referred in this same note to a "piece" of a bit. As the note cannot refer to this figurine head, I imagine he meant *Equus* 213, a convincing "model" for a bit or other horse trapping.

There is a perforation at the middle of the mane. The muzzle section is a rectangle in vertical rostral section and an inverted triangle in vertical cranial section. The nostrils are widespread. The mane and the snout are pinched. The top of the muzzle is indented — the fabric folds up and over and is pushed in from the sides, in what must have been one movement of the artisan's hand.

Note the manufacture of eye and the splayed-out clay around the indentation; note also the treatment of the indentations on muzzle, mane, and nostril. The instrument used appears to be tapered, the gesture of application wide and low.

**Tell Brak, Figure 310 Equid figurines with pierced manes and muzzles (reg. No. 1395, from FS 1114, Level 3 Akkadian (Oates 2001, 288).** The erect mane is particularly notable, as is the mane in which it rises onto the crown. It is important to remember the orientation of equid heads once separated from the torso; they are not erect, as a pendant might be.

**301** *Equus* MUZZLE MINIATURE**Z1.188**

Found on Tell • cranial length (snout to break) 1.245 • transverse vertical cranial section (snout, long vertical axis) 0.57 • transverse horizontal cranial section (snout, short axis) 0.465 • transverse vertical dorsal section (break, long vertical axis) 1.245 • transverse horizontal dorsal section (break, short axis) 0.62 • fabric fine, with inclusions • Munsell reading 7.5YR 7/4 • color pink • preservation: tip of muzzle

Eyes are appliquéed with an incised dot in the center. Nostrils and mouth are indicated by fine incised lines. A high mane is indicated, over the top of the head; it appears to have been added and/or “brought up” from the body of the figure. The snout is squarish and pinched lightly to indent below eyes.

See **COMPARATIVE TABLE 1A Pelts & Surface Decoration.**



*Equus* 301 Z1.188 MINIATURE  
Left median plane.  
Under the glass,  
one sees that the entire surface  
of the object is covered  
with fine incisions, as for a pelt.  
Scale 1 : 1.  
(rendering elb C721)

### 302 *Equus* TORSO TYPE I

**Z1.279**

Found on the surface of the Tell • length 4.35 (measure taken from below to avoid sharp protruding edges of leg) • forequarters 1.96 • neck 1.30 • torso 1.77 • hindquarters 1.96 • tail 0.73 • height at forequarters 4.36 • height at hindquarters 3.21 • note on measurement: height not diagnostic • fabric fine, uniformly fine chaff temper • Munsell reading 2.5Y 7/2 • color light gray • preservation: all appendages broken; muzzle and tail broken

Buttocks recessed. Tail thick, hangs down. The mane, rigid and erect, comes onto the crown between ear ridges that stand out from the head. The forequarters are narrow and solidly founded. They are triangular in section. Hindquarters stance outside is contained in a narrow inverted U; inside, it is an inverted V (30 degrees).

The stance, with the head thrown back, as if braying, is an attitude similar to *Equus* 22 TYPE II and with *Equus* 5 A6.238 TYPE I.

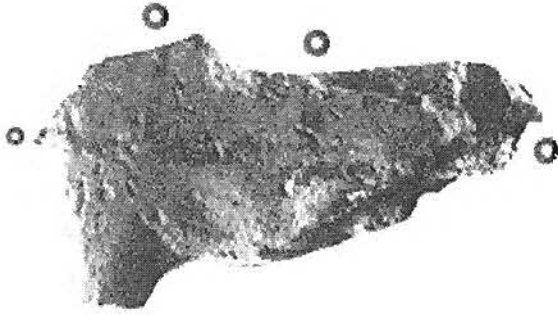
The fabric is folded over and pinched at the muzzle. In spite of rather narrow forequarters, they are not solidly founded; the legs meet at approximately 70 degrees. The mane is rigid — amongst the characteristics of wild equids. Yet the tail is wide and the torso somewhat stocky, similar to *Equus* 22 A5.10 TYPE II.

### 303 *Equus* TORSO WITH TRACES OF PAINT TYPE I/II

**Z1.296**

Found on the surface of the Tell • length 6.95 • forequarters 2.89 • torso 2.32 • hindquarters (broken) 2.87 • height at forequarters 3.31 • height at hindquarters 1.58 • note on measurement: hindquarters height not diagnostic • fabric fine, chaff-tempered, with gypsum inclusions • Munsell reading 7.5YR 7/6 • color reddish yellow • conservation: abraded overall • preservation: all appendages broken; tail broken, half of left underbelly, hindquarters and head missing

This is a lean torso with an abrupt high mane and a prominent breast ridge. The forequarters are triangular in section, contained within a rounded, inverted V outside. The leg/body join is defined by slicing. The sexual parts are expressed but heavily abraded.



*Equus* 303 Z1.296. Left median plane.

Two painted vertical lines intersect  
with a third horizontal line bisecting the torso.

The lines are marked with dots.

Scale 1 : 1.

(photograph V10e0901)

There are traces of painted trappings along the body, over the back and under the belly. The markings cross. There may be an outline of paint around and over the tail, between buttocks.

The mane is marked by four horizontal strikes. Musculature is defined by scraping. The tail hairs are incised (four strikes); the tail is broad, flat and not carried high. This detail and the traces of painted trappings point to a domesticated equid.

The figurine is underfired; fabric in the center of the figurine is gray.

# ANIMAL REPRESENTATIONS IN TERRA COTTA FROM ROYAL BUILDING AK AT URKESH (TELL MOZAN)

## COMPARATIVE TABLES

**TABLE 1**  
**Pelts & Surface Decoration**  
**Figurines & Utilitarian Objects**

There is a tendency, as we know, to take figurines as a class of objects and not as individual exemplars, as if each one were no different than any other. We skim over details.

The pelts and surface treatment of the animal representations at Urkesh are varied; it seemed worthwhile to assemble a number of examples in one place, so this perception might be rendered palpable. At various times in the manuscript, we have spoken about the way incised lines cut into the surface; they may be deep, true incisions or they may be shallow, mere scratches. Not infrequently, we have encountered what we call a “tripartite incision” — the tool used to make the mark must have been a hollow reed, cut on a slant. In such a case, along the edges of the incision, inside the “trough” made by the instrument, we find grooves that are left by the edges of the instrument itself. In the renderings here, Claudia Wettstein has drawn this type of incision differently from the incised line. Compare for example, the sweeping lines that decorate the wings of *Aves* A1.321, following at the same time the curve of the shallow bowl of which the bird is a part, and the more complex tracings meant to show the fleece of *Ovis* 33.

The “utilitarian objects” mentioned here are the bowl and possibly *Aves* A7.309, a stamping tool with pommel, a device of which at least two have been recovered at the site. One might also include *Felis* 26, a wheeled carnivore. I speculate further on the usefulness of the figurines themselves in the INTRODUCTION to this volume.

## TABLES 2 & 2A

### The Way Horns Join at the Crown of *Ovis* & *Capra*

The matter treated in these two adjoining tables has not been much discussed. I remain convinced that the detail is diagnostic and would enable us to distinguish amongst the genera. I have not yet been able, however, to formulate a precise postulate that could be applied when analyzing artifacts.

There is consistency in the manner of rendering the horns of the Caprinae, of that there is no doubt. In some few cases, I have used my provisional observation to distinguish amongst the heads not only of goats and sheep, but also of cattle. As so many of the heads are found by themselves, apart from animal torsos, and as a great many of these are further damaged, a guide to identification would be useful. So here, I see two of the heads as sheep: the one because of the gentle join of the horns across the crown and the other because the horns curve down alongside the muzzle as opposed to thrusting back and up.

Claudia Wettstein and I have worked on the drafting of this detail a number of times, hoping to render clearly the differences in how the horns join. What you have here is our most recent effort.

## TABLE 3

### APPENDAGES

#### Horns (*Bos*)

Depending upon the care exercised in recovery, archaeological sites abound in small, somewhat amorphous finds. Little bits of clay that have been modeled by hand, clearly — but to what purpose? From what were they broken — detached?

I have tried to identify these little markers, as they were brought to me by an assiduous staff — little falls through the net of the Global Record at Tell Mozan. As a season progressed, the tiny, fragmentary finds began to fall into groups. It was clear that some belonged together, and not elsewhere. These groupings lie behind the comparative tables that follow.



Mari. Plaque, now in the  
Damascus Museum.

Horns of cattle distinguish themselves by their prominence on the animals themselves, by their *absence* on the representations, and by the simple elegance of their execution as witnessed from figurine fragments.

Interestingly, it is a *plaque* from Mari that I reference most frequently when I think of cattle horns (Parrot 1969, 334 Fig. 40). The horn itself floats above the head of the bovine; it is almost not attached, but it is as simple and stylized as the rest of the representation.

Parrot was himself somewhat taken with the artifact, for he says:

On sent cette fois l'artiste accomplie, qui, à propos de thèmes consacrés, a su faire œuvre personnelle en écartant l'accessoire pour mettre en valeur l'essentiel.

If there is a holotype for cattle horns, this is it.

As for the appendages rendered in **TABLE 3**, you will notice two distinct styles of illustration.

The most recent renderings are shadowed on the curvature of the object, in an obvious attempt at modeling. I find this effort useful, for it leads one to think of the artifact in cross section; when in doubt about one of these admittedly nondescript fragments, I might have attempted to capture the cross section of the object at each end — at the “tip” and at the point of attachment.

A number of patterns emerge:

oval (ellipse) → oval (ellipse) *Bos* 10 A7.396, *Bos* 16 A5q338, *Bos* 110 A10q84.1

oval → revolves by a 1/4 turn → oval *Bos* 18 A7q667.1

thin vertical rectangle → fat vertical rectangle *Bos* 105 A5q805.1

vertical ellipse → horizontal rectangle *Bos* 19 A9q112.3, *Bos* 108 A9q112.1

This method of analysis alerts me even now to relationships that were at first not apparent. *Bos* 19 A9q112.3 and *Bos* 108 A9q112.1, for example, were taken separately to be within the corpus, and without — *Bos* 108 remains “tentatively” an exemplar. In effect, both exhibit the same cross section and the same evolution in shape from attachment to tip. They must have been found in close proximity — they are part of the same excavation lot and separated by only one find.

Had I methodically applied this method of analysis to each artifact retrieved, I might have felt that *there was a relationship* between these two disparate and not conjoined fragments.

The exact nature of the relationship remains to be determined.

*Bos* 110 A10q84.1, attenuated, differs in style of execution from the other exemplars. Judging only from appearance, the artifact might represent an antler. As we know, deer do not figure in the faunal assemblage at Urkesh, although *Capra* 27 A6q148.1, a hoof MINIATURE, is made from antler.

**TABLE 4**  
**APPENDAGES**  
**Horns (*Ovis*, *Capra*)**

The twisting form of a *Capra* horn is unmistakable. It comes with domestication. Our *Ovis* horns are rather more difficult to identify, but in general, they curl down upon themselves, in a more compact curve than that of *Bos*. They also cleave tight to the head of the animal. By contrast, *Capra* horns jut up and back from the crown.

**TABLE 5**  
**APPENDAGES**  
**Tails (*Capra*, *Canis*, *Felis*, *Ovis*)**  
**Ears (*Capra*, *Ovis*)**

Tails of animal representations do not fare well in the ground. Detached from the artifact to which they belong, they often migrate far from where they first were deposited. One seldom finds them identified in the archaeological record.

Nevertheless, the exemplars in **TABLE 5** can with some certainty be identified as animal tails from different genera as noted. In some cases, they actually come from an identifiable animal (*Capra* 20 A1q886.4); in others, secondary characteristics lead to the identification (*Felis* 11 A5q832.1); in still others the manner in which the appendage was fashioned and attached — modeled as a separate piece and then wedged in between the buttocks (*Ovis* 35 A1q963.28) — gives us a clue. Some three fragments are tentatively pictured here.

Little nubbins that they are, these ears are of certain identification, for they have been taken from more complete representations of the genus. The point of attachment, somewhat flattened where the piece of clay was pressed onto the head, seen in both *Ovis* fragments here, led me to include *Capra* 104 A1q495, tentative, no doubt, but useful comparatively.

**TABLES 6 & 6A**  
**APPENDAGES**  
**Legs (*Ovis*)**  
**Legs (*Canis*, *Felis*, *Equus*)**

Each of the appendages here assembled exhibits the solidly founded herbivore body join. They are relatively stocky, as legs go, and the hoof is not articulated, unless one counts the “crochet” of *Ovis* 38 A1q1045.3 and possibly *Ovis* 108 A7q624.1. These two exemplars, now that I consider them next to their fellows, might have been assigned to *Capra*, for they are less stocky than other appendages I have taken as *Ovis*.

*Ovis* Z1.419 has not yet been entered into the descriptive catalog but is included here because of the exaggerated knee joint, similar to that of *Ovis* 9 A6q19.1. A cranial view in transverse vertical section of this artifact would have been helpful, as it might tell us more about the body-join. Another uncatalogued artifact, *Ovis* A10q110.2, is similar in form to *Equus* leg fragments, but no equid is this stocky.

The appendages pictured in **TABLE 6A** pass here with little commentary, as comparative material makes the case strongly. See CATALOGS.

## TABLES 7 & 7A APPENDAGES Legs (*Capra*)

Of all the fragmentary appendages, none are so carefully articulated as the *Capra* legs (as, *Capra* 23 A5.154, *Capra* 214 B3.35). Why this should be so, I do not know.

Particularly notable is *Capra* 32 A7.301, which is remarkably similar to hanging sides of meat in a sealing depicting kitchen work. See CATALOG and Giorgio Buccellati's FOREWORD to this volume, **Figure F2/4 Possible correlations : figurines and artifacts with seal motifs.**

The *crochets*, which with some frequency terminate legs amongst the sheep and goat representations, are also encountered amongst domesticated cabelline equids TYPE III. As represented on a living animal, they more closely resemble hooves (see, as example, *Equus* 207 A13.129).

*Capra* 27 A6q148.1 is the only artifact crafted from antler that has been recovered at Urkesh.

## TABLE 8 Heads with Perforated Muzzle or Tab (*Ovis*)

These exemplars are notable for their size and consistent conformation.

In the literature, researchers have tended to consider animal representations with tabs placed at the neck or perforations through the neck as having been part of some pullcart or toy. As I have speculated elsewhere in this volume, it is difficult to justify such an assertion at Urkesh, at least in sector AK, as the various rooms seem either to provide primary support for activities carried on by the royal family or its administrators (Excavation Units A6, A10) or to serve as storerooms (Excavation Units A1, A5).

It is possible, I suppose, to consider a large room we have identified as a kitchen (Excavation Unit A6), as a "domestic context," but I think not, as the scale is more appropriate to the support services of an entire residential complex, not a single *foyer*. Yet there is substantial support for the idea that figurines are made not in workshops but by individuals in a family or private context. Dr. Joan Oates, for example, feels that there must be some connection between terra-cotta models and "their overwhelming presence at Brak in essentially domestic contexts" (Oates 2001, 293), but she does not speculate on their function. The animal representations here catalogued, with the single exception of *Equus* F1q579, a comparative example not entered in the CATALOG (see *Equus* 22 A5.10, page 398), do not come from a domestic context, but from an administrative or service sector.



There are numerous animal representations at Urkesh that must have been wheeled, but they have not yet been analyzed in detail, except for those few theriomorphic artifacts in the present CATALOGS. Certainly, no animal torso proportional to the heads pictured here has been recovered. Were one to consider the highly detailed and relatively large representations, *Ovis* 13 A7.501 and *Ovis* 14 A7.506, it would be necessary to consider the design imperative that dictated the manner of representation — layered pelt and overcoat, as opposed to the tripartite incisions of the **TABLE 8** heads. We have in the main avoided such discussion.

The thin horn termination, curving back, of *Ovis* 303 Z1.94 gives pause; broken off, it might resemble a tail, an artifact retrieved from within AK, so identified but not yet catalogued (A10q661.2, rendering cw N823).

### **TABLES 9A, 9B, & 9C** **Veterinary Intervention (penile strap & caudal band)** **(*Carnivora/Felis*)**

These terra-cotta representations of cats from the third millennium are obviously important in the story told at Urkesh of domestication, animal husbandry and the taming of wild animals from the steppe. Their special significance for the royal family at Urkesh has been discussed in this volume. Each, with the exception of A10.293, which tardily came to our attention, has been technically described in the CATALOG *Carnivora/Felis*.

Consistent ratio and proportions have led to the classification of these animals as *Felis*, which with two exceptions are among the cats we designate as TYPE II.

*Felis* 35 A7.11 and *Felis* 302 Z1.203 exhibit decorative treatment of the genitalia, the former visible only after skillful cleaning by Beatrice Agnelli, conservator. How this treatment might be related to matters of domestication of otherwise untamable wild beasts is open to speculation.

### **TABLE 10** **Veterinary Intervention (penile strap & caudal band)** **(*Equus*)**

We speculate on the usage of the penile strap and the caudal band in both DISCUSSION *Equus* and CATALOG *Equus* in this volume.

Three of the five equids rendered here belong to what I early on designated as a transitional phase in the story of equid domestication at Urkesh. *Equus* 13 A5q843.1, *Equus* 15 A7.121, and *Equus* 16 A7q204.5 are all TYPE I/II, more hemione than ass, and certainly not horses. I would likely, in some future assessment, assign the other two equids rendered here to the same category.

Researchers at Tell Brak have identified “a small, donkey-like example [of equid figurines]” that has strapped genitals (Oates 2001, 287 Fig. 309; see also 289 Fig. 311). I am unsure whether I would have classified this exemplar amongst the asses, because I have not measured the object, nor have I seen the representation in three dimensions. Visual inspection of the photograph does not, to my mind, invite comparison of the Brak equid with the conformation of the Mozan equid published by an overzealous journalist in *National Geographic* as a “horse” (Weintraub 1998). See *Equus* 204 TYPE I A10.79, this volume.

The figurines at Urkesh remind us that is important to acknowledge that domestication is an ongoing process not confined to one genus, one species, one exemplar of any one fully domesticated animal, a development that comes rather late in what has been a long and arduous process. The penile strap and caudal band do document animal husbandry at Mozan. They are witness to the penultimate step in an effort to control animal populations that are not as yet domesticated nor tamed to the extent desired.

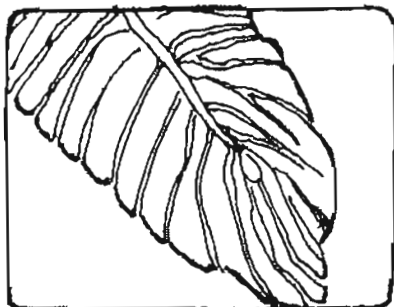
**COMPARATIVE TABLES** follow.

# READING FIGURINES

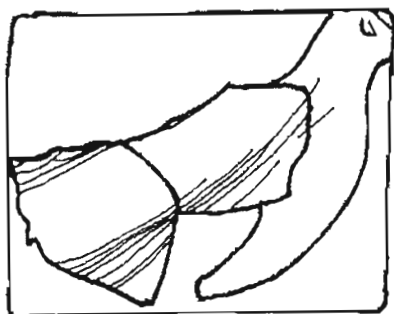
ANIMAL REPRESENTATIONS  
IN TERRA COTTA  
FROM ROYAL BUILDING AK  
AT URKESH (TELL MOZAN)

COMPARATIVE TABLES  
1-10

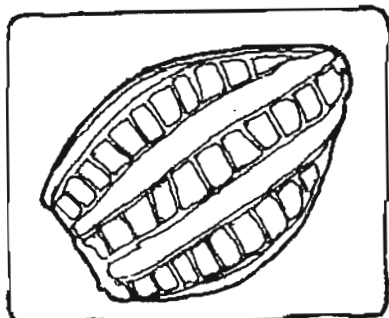
**Aves A7.253**



**Aves A1.321**

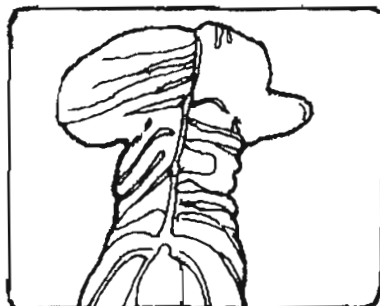


**Aves A7.309**

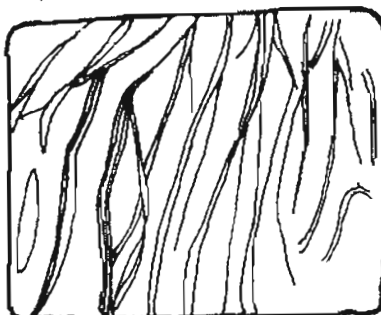


**COMPARATIVE TABLE 1**  
**Pelts & Surface Decoration**  
**Animal & Bird Representations**  
**Utilitarian Objects**

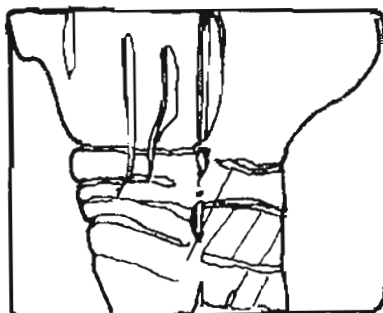
**Ovis 26**



**Ovis 103**



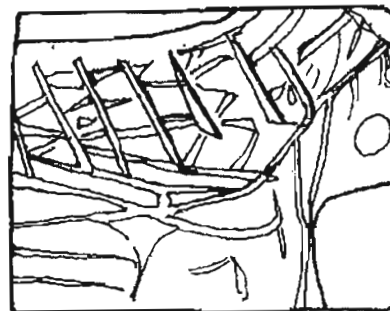
**Ovis 33**



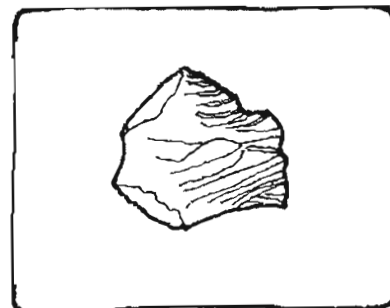
**Ovis 304**



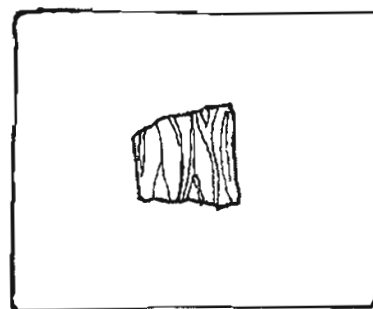
**Felis 26**



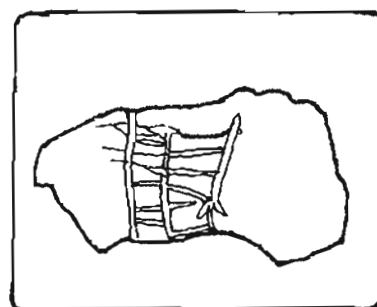
**Felis 24**



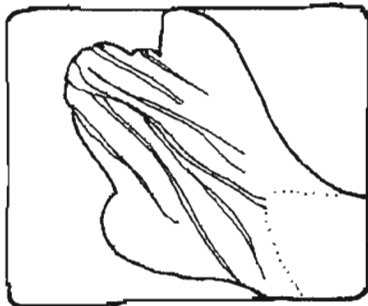
**Felis 109**



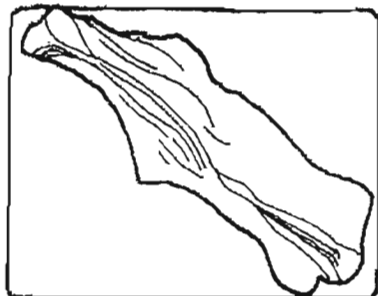
**Bos 300**



*Felis 14*



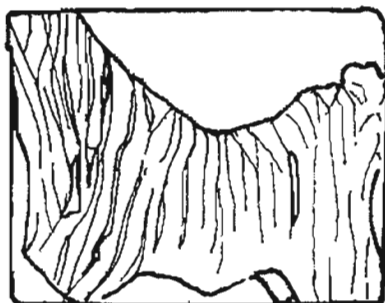
*fera 402*



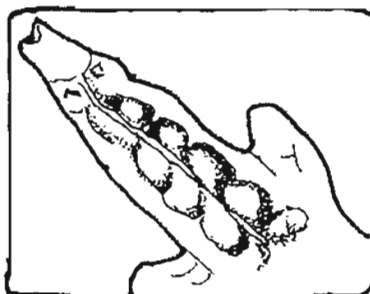
*Capra 7*



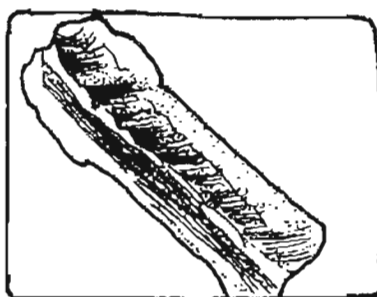
*Capra 1*



*Equus 23*



*Equus 36*

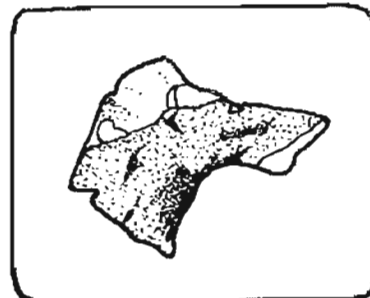


*Equus 212 & 301*

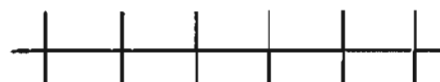
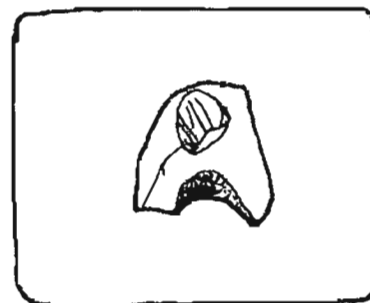


COMPARATIVE TABLE 1A  
Pelts & Surface Decoration  
Animal Representations

*Equus 21*

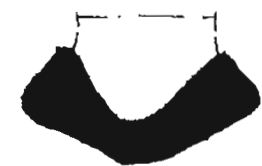
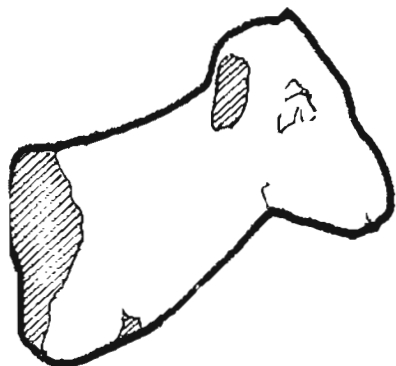


*Equus 31*



1 cm SCALE

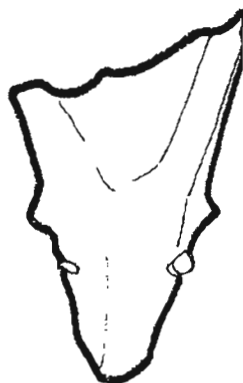
**Capra 9**



**Capra 13**



**Capra 200**



**Capra 3**



**COMPARATIVE TABLE 2**  
The Way Horns Join at the Crown of  
*Ovis & Capra*

Renderings Claudia Wettstein K715, K716, K7171, I714.

1 cm SCALE



456

**Capra 17**



**COMPARATIVE  
TABLE 2A**  
The Way Horns Join  
at the Crown of  
*Ovis* & *Capra*



***Capra* 201**



***Ovis* 41**



***Ovis* 52**

457



# COMPARATIVE TABLE 3 APPENDAGES

## Horns (*Bos*)

Renderings Claudia Wettstein I708, L709

**Bos 18**



**Bos 109**



**Bos 17**



**Bos 16**



**Bos 14**



**Bos 105**



**Bos 106**



**Bos 110**



**Bos 19**



**Bos 108**



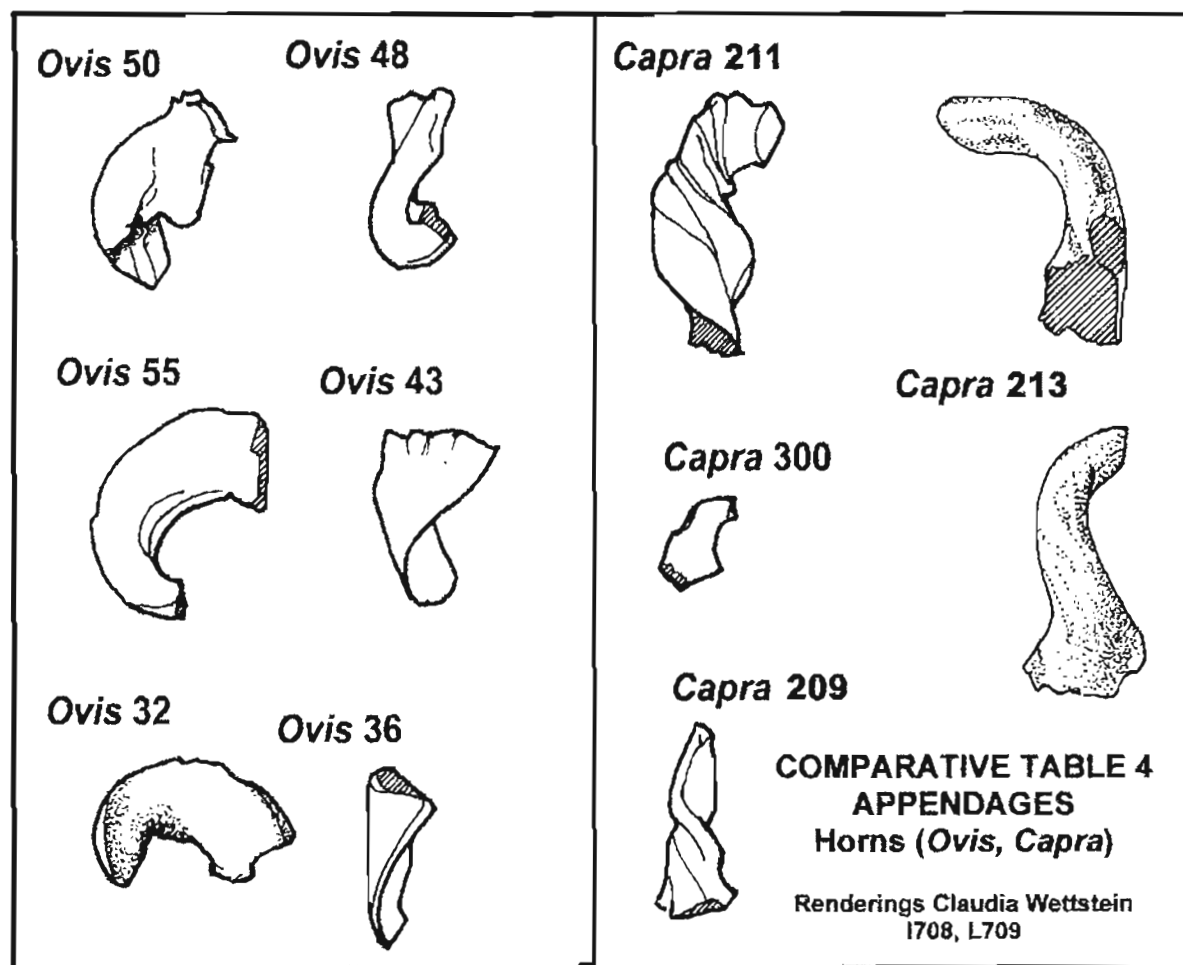
**Bos 104**



**Bos 15**







# COMPARATIVE TABLE 5

## APPENDAGES

Tails (Capra, Canis, Felis, Ovis)

Ears (Capra, Ovis)

Capra 20



Felis 11



Ovis 37



Capra 33



Felis 106



Ovis 35



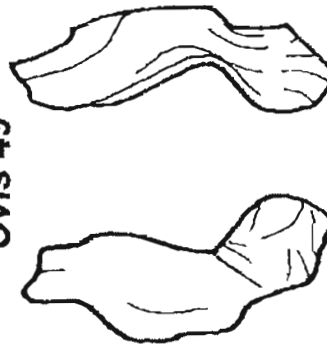
Canis 104



Felis 105



Ovis 49



Caprinae ears

Capra 104



Ovis 41



Ovis 33



Renderings  
Claudia Wettstein I707

Ovis A9q112.3

Ovis 44



**COMPARATIVE TABLE 6  
APPENDAGES**

Legs (Ovis)

Renderings Claudia Wettstein  
1710, N818, N823

Ovis 39



Ovis 46



Ovis 108



Ovis 38



Ovis 42



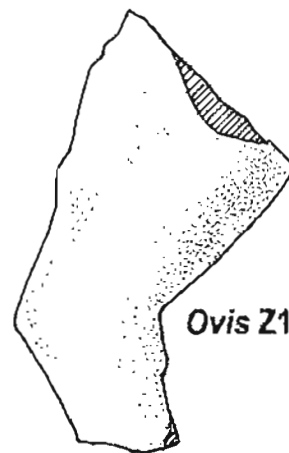
Ovis 45



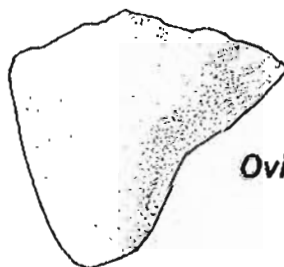
Ovis A9q312



Ovis Z1.419



Ovis A10q110.2



1 cm. scale

*Canis* 8



*Felis* 28



## COMPARATIVE TABLE 6A APPENDAGES

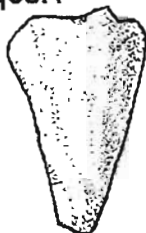
Legs (*Canis*, *Felis*, *Equus*)

Renderings Claudia Wettstein I710, N818, N823

*Equus* 2



*Equus* J1q68.1



*Equus* A14q323.1

*Equus* 20



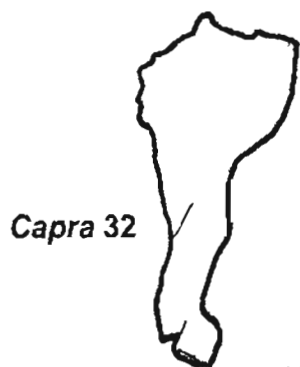
*Equus* 117



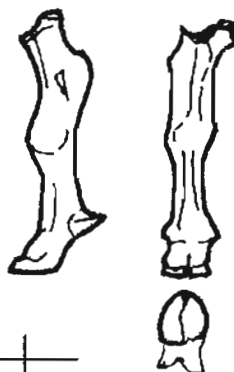
*Equus* A14.50



*Equus* 100



Capra 32



Capra 23



1 cm. scale



Capra 25



Capra 28

**COMPARATIVE TABLE 7**  
**APPENDAGES**  
Legs (Capra)

Renderings Claudia Wettstein 1709



Capra 208



Capra 22



Capra 106



Capra 27



Capra 24



Capra 31



Capra 105

Capra 18



Capra 214



**COMPARATIVE TABLE 7A  
APPENDAGES  
Legs (Capra)**

Renderings Claudia Wettstein  
I709, L727, N823

Capra J1q67.1



Capra 29



Capra 30



Capra 34



Capra 19



Capra 26



Capra B4.18



Capra 210



Capra B1q292.1

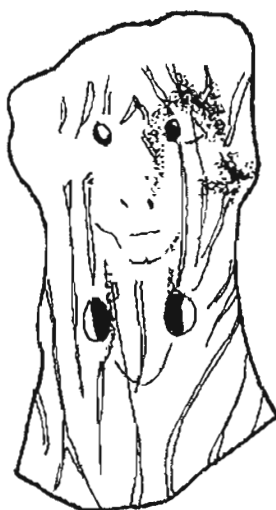


Capra 212

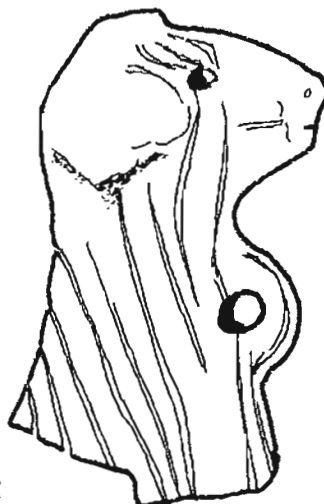


Capra 21



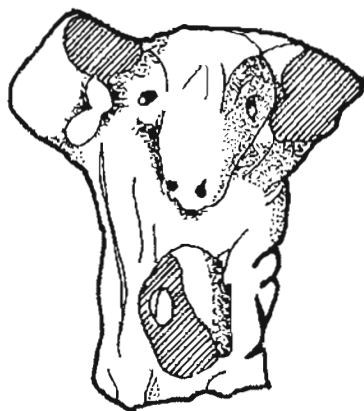


*Ovis 302*

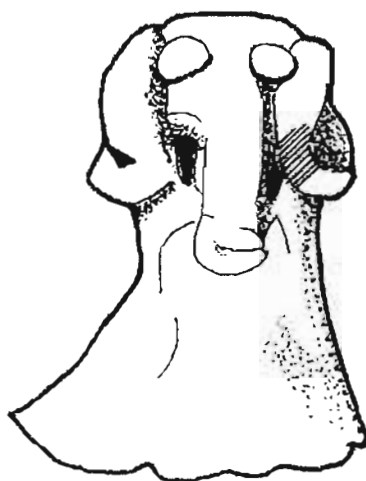
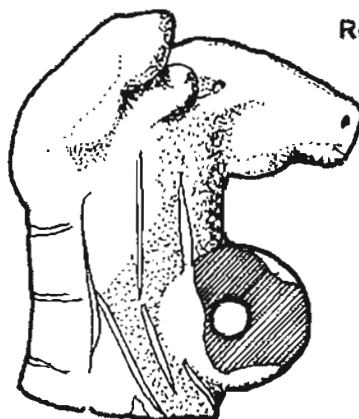


**COMPARATIVE TABLE 8**  
**Heads**  
**with Perforated Muzzle or Tab**

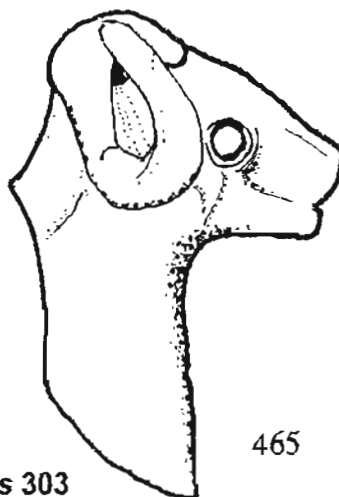
Rendering Claudia Wettstein 1719



*Ovis 33*



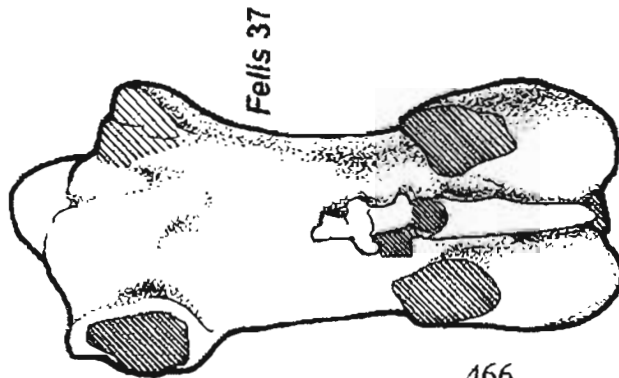
*Ovis 303*



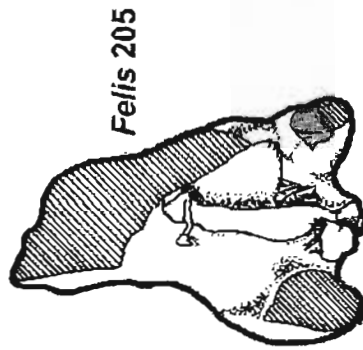
465

# COMPARATIVE TABLE 9A

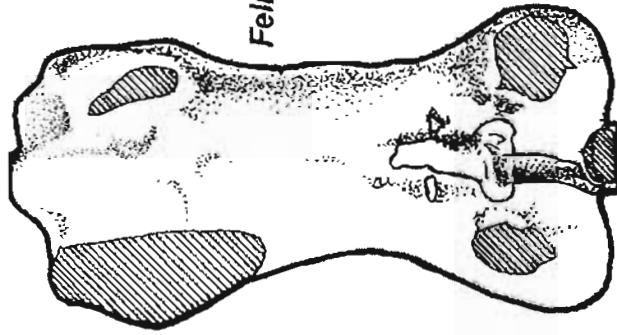
Veterinary Intervention (penile strap & caudal band)



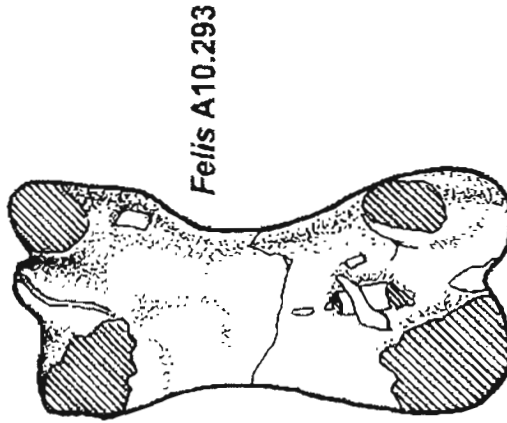
*Felis* 37



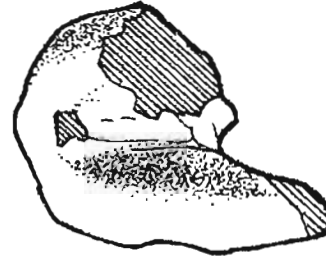
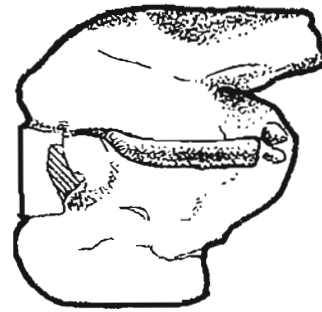
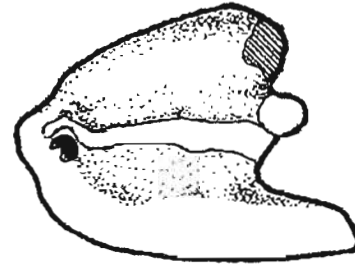
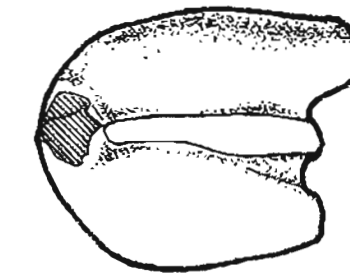
*Felis* 205



*Felis* 208



*Felis* A10.293

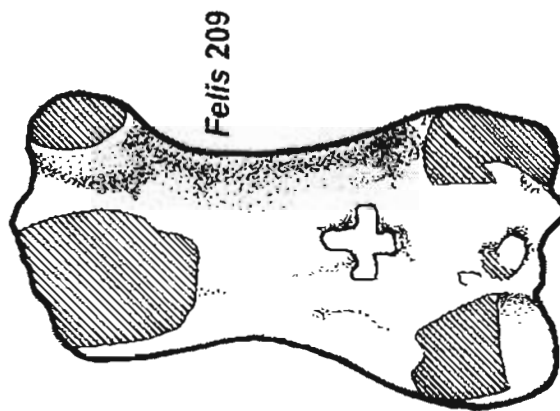


Renderings Claudia Wettstein K709, K711

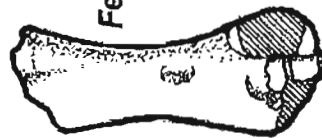


# COMPARATIVE TABLE 9B

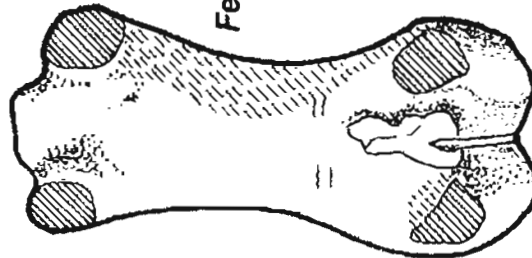
Veterinary Intervention (penile strap & caudal band)



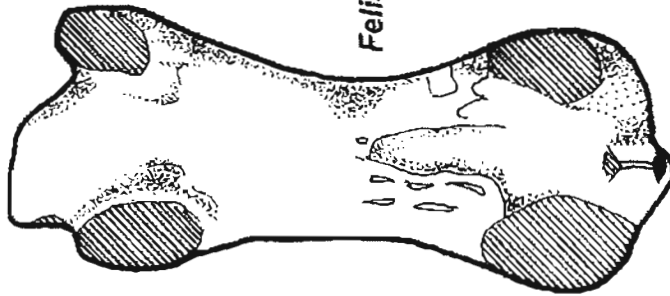
*Felis* 209



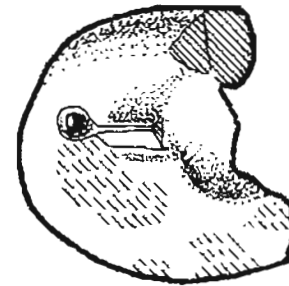
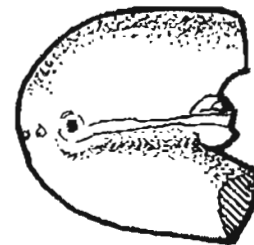
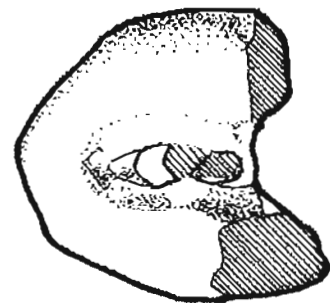
*Felis* 206



*Felis* 210



*Felis* 202

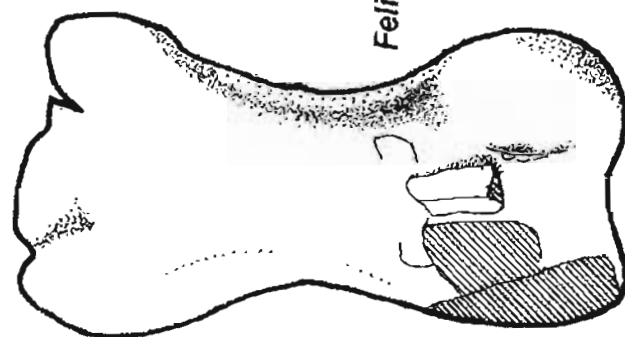


1 cm. scale

Rendering Claudia Wettstein K709

# COMPARATIVE TABLE 9C

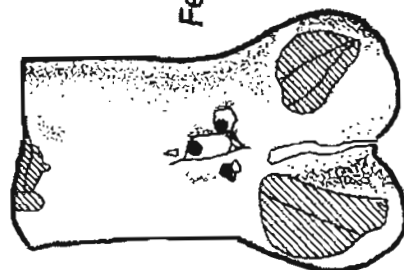
Veterinary Intervention (penile strap & caudal band)



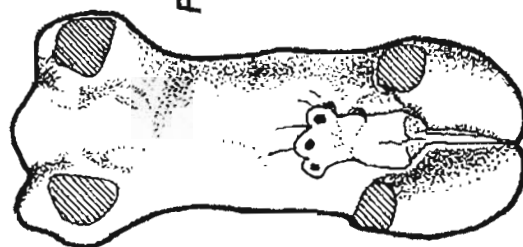
Felis 113



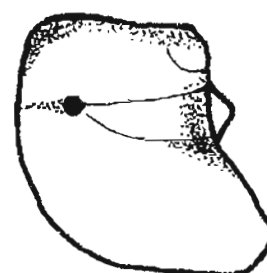
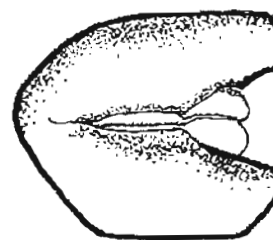
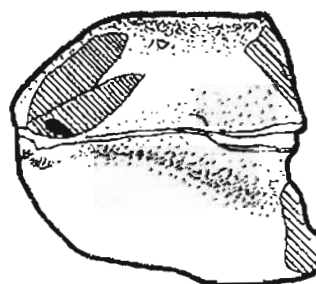
Felis 38



Felis 35

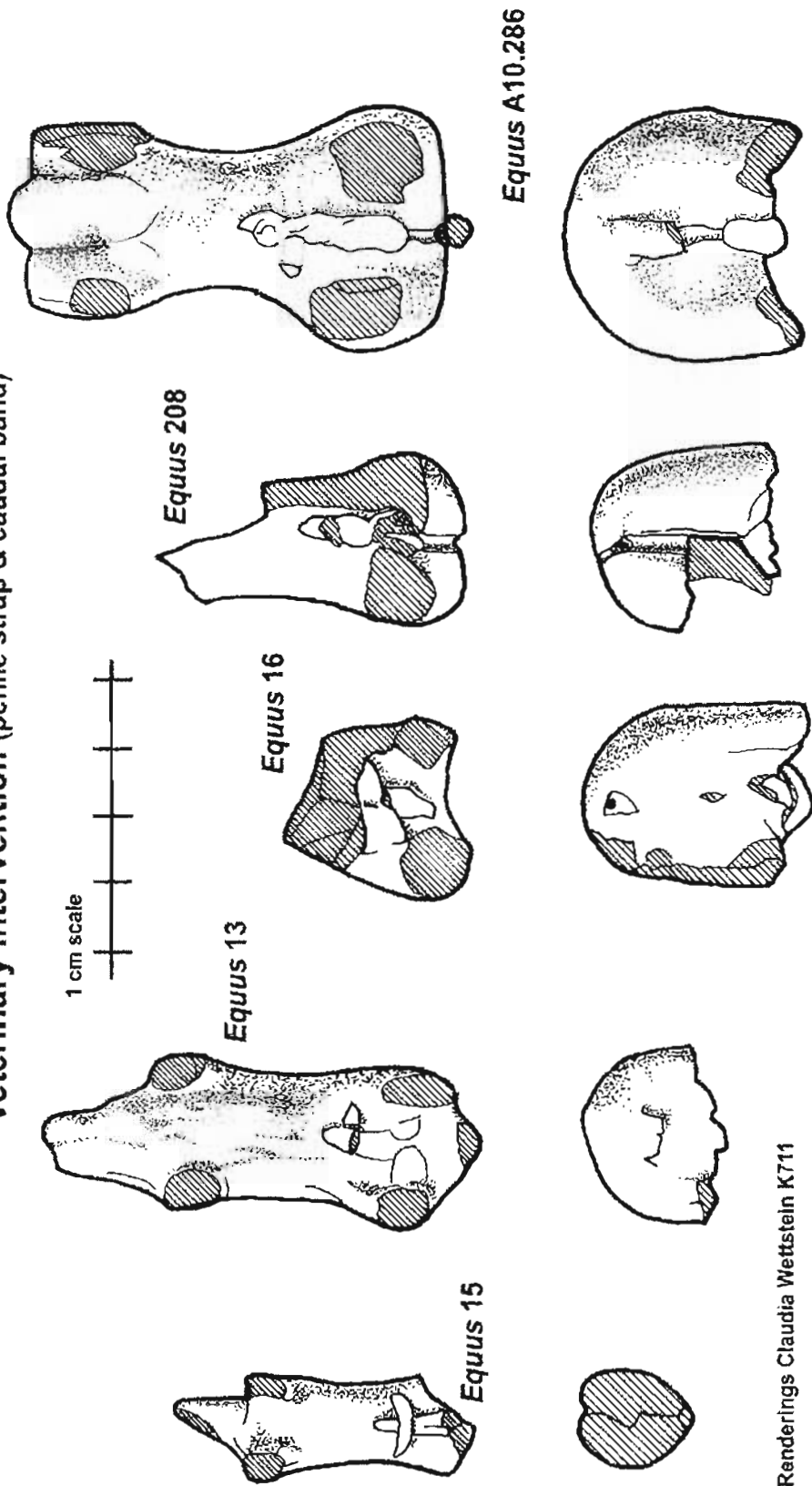


Felis 302



Renderings Claudia Wettstein K709, K727

**COMPARATIVE TABLE 10**  
**Veterinary Intervention (penile strap & caudal band)**



Renderings Claudia Wettstein K711

ANIMAL REPRESENTATIONS  
IN TERRA COTTA  
FROM ROYAL BUILDING AK  
at Urkesh (Tell Mozan)

PLATES

PLATES for each genus in this study have been collected here and follow in the order presented in this volume. **COMPARATIVE TABLES** that display only one secondary characteristic either of one genus — as, **APPENDAGES Legs (*Capra*)** — or a differentiating aspect across genera — as, **Pelts, Surface Decoration, & Treatment** — precede these plates.

Within each set of PLATES, the artifacts are displayed in order of discovery within excavation unit. While it is possible to see this arrangement as accidental and arbitrary, I have found it useful, for as a rule one works on a stratum at a time within a given excavation unit; there is a heightened possibility that the objects recovered bear some relationship each to the other. Occasionally, this may be seen upon visual inspection. Even if an artifact were to be introduced from another contemporaneous context, it still exists within the unity of the square; and some inferences may be made.

All artifacts are reproduced 1 : 1, except where noted. Measurements are taken at the full extension of the object, that is, in draftsperson's view. In taking measurements from the lines that indicate the limits of these measurements, it is important to remember that some accidental aspect of the conformation or depositional damage may not be fully visible in the section. To the extent that this is true, only reading the actual object can provide a full statement of the object in three dimensions.

The animal representations are ideally reproduced in six views, as explained in the INTRODUCTION to this volume. This is an approach to a complete diagnostic evaluation of the object. Some renderings have already been fully reproduced in the DISCUSSION or CATALOG relating to a given genus and therefore are not reprinted a second time.

This said, here follow

PLATES I–V

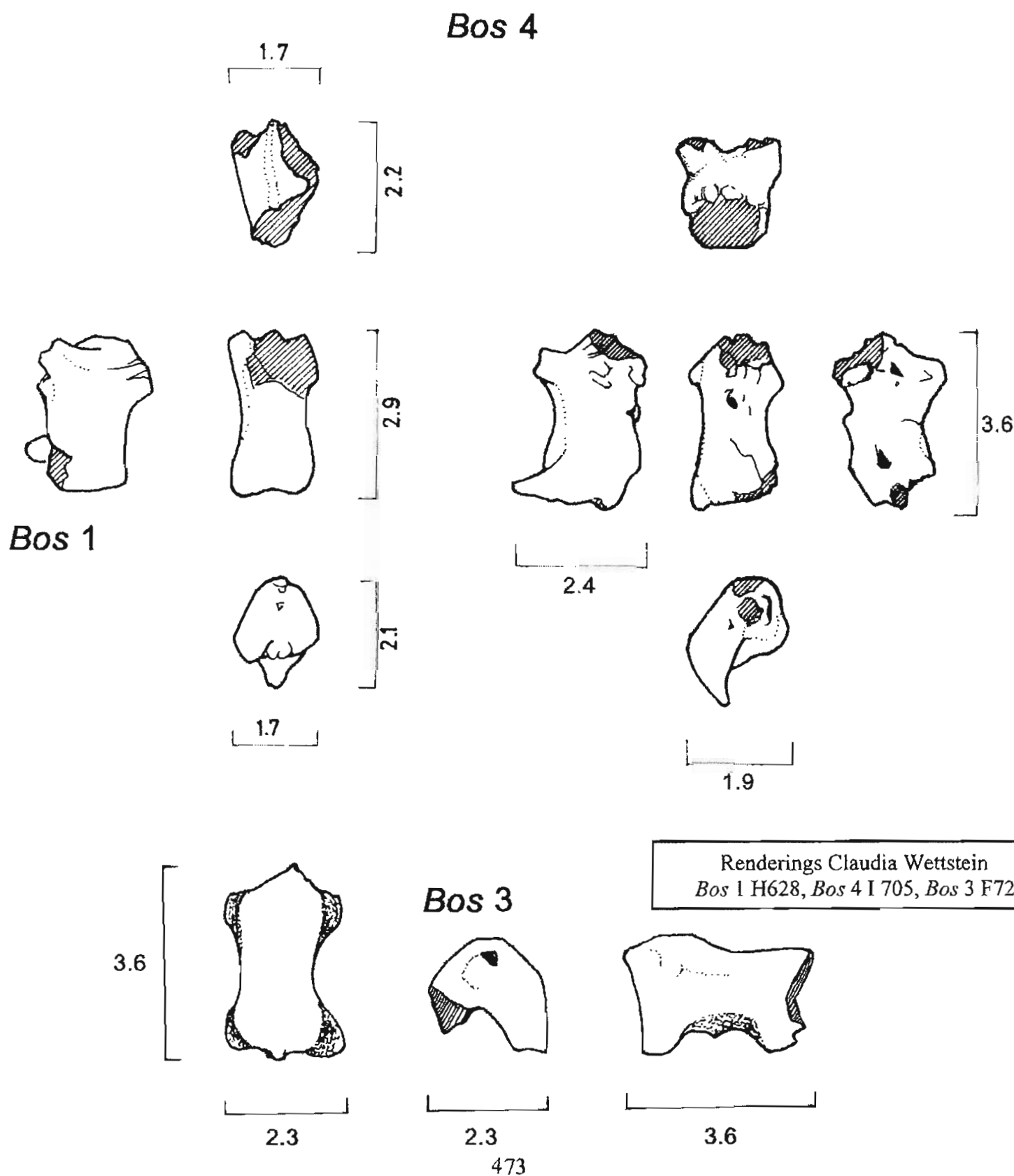
ORDER Artiodactyla

FAMILY Bovidae (SUBFAMILY Bovinae)

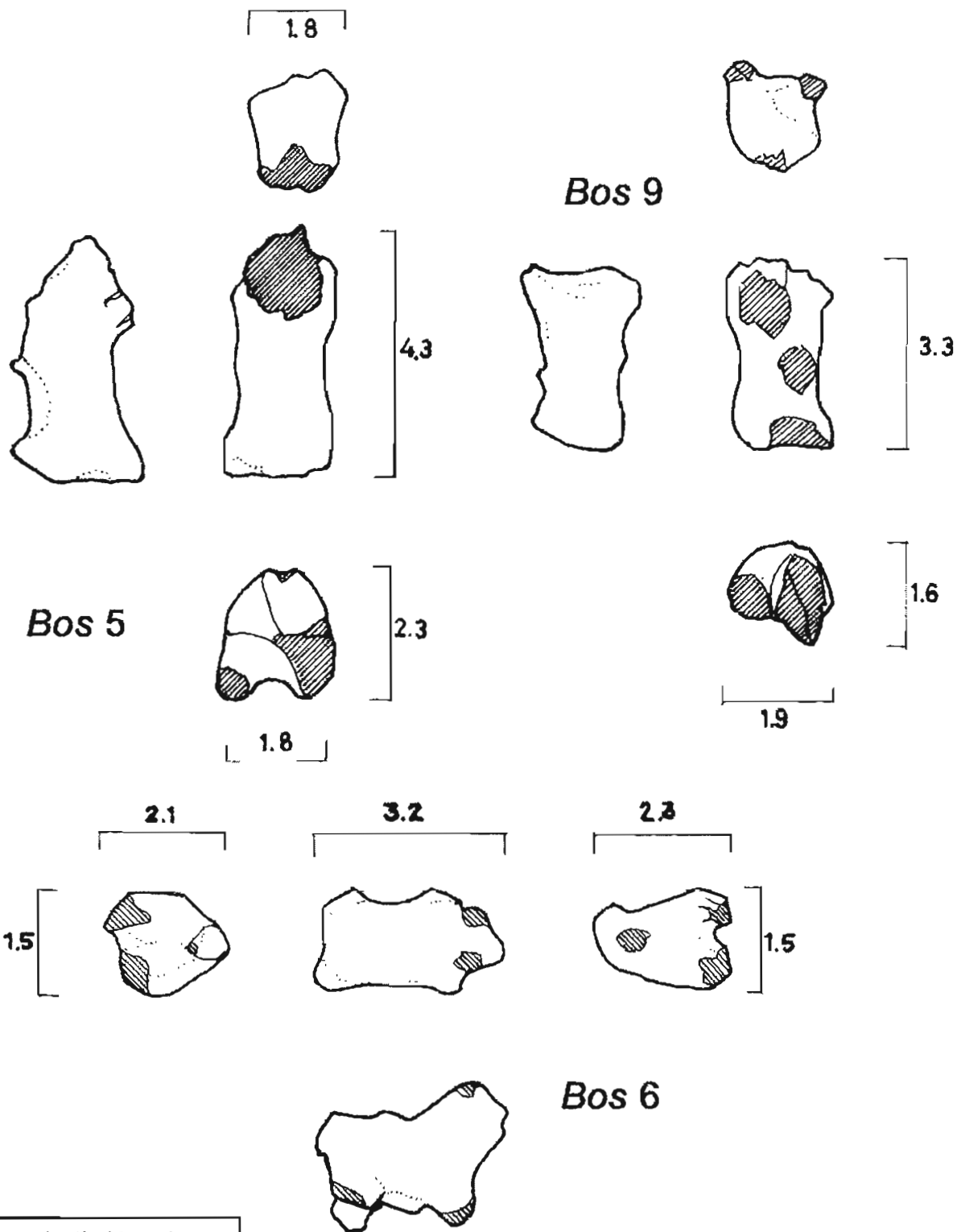
GENUS *Bos*

THE CORPUS

RELATED STRATIFIED FINDS

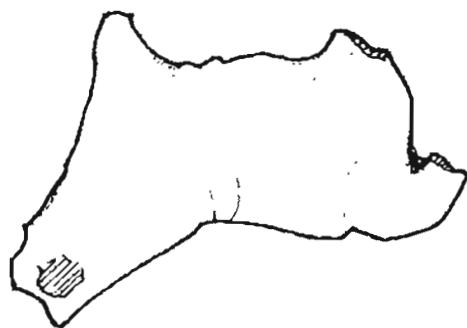


*Bos*

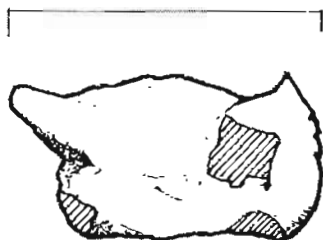


Renderings Claudia Wettstein  
*Bos* 5 H628, *Bos* 6 I305, *Bos* 9 H628

*Bos* 10



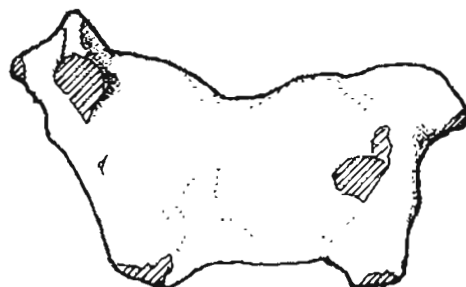
4.3



3.0

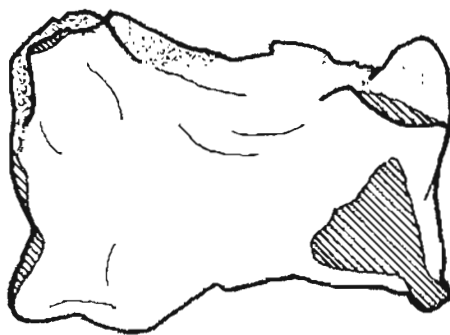


2.4

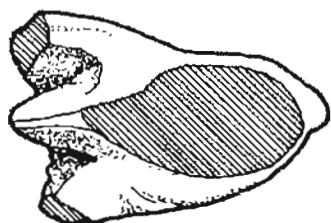


6.3

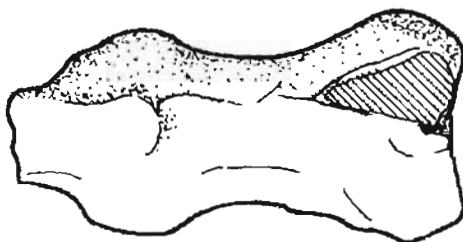
Rendering Claudia Wettstein  
*Bos* 10 I705



Rendering Claudia Wettstein  
*Bos* 204 J709



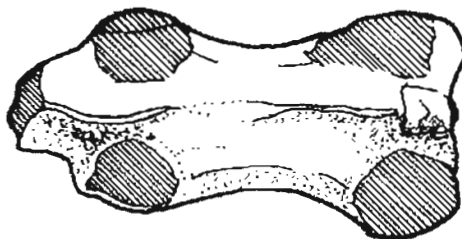
4.3



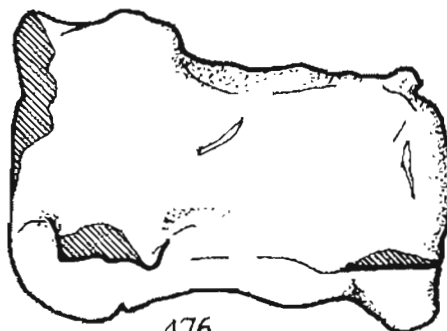
6.3



3.8

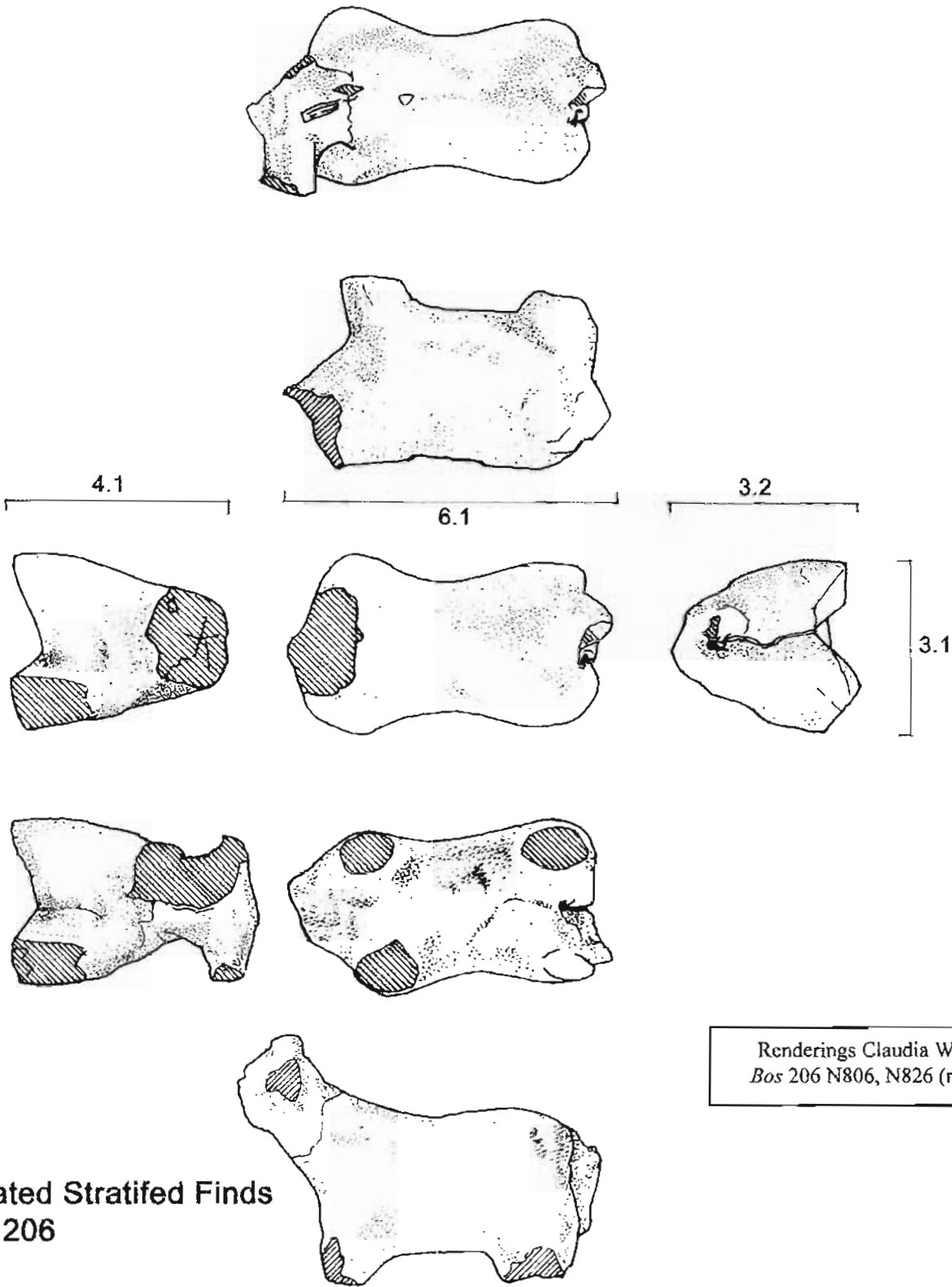


Related Stratified Finds  
*Bos* 204



476





Related Stratified Finds  
*Bos* 206

Renderings Claudia Wettstein  
*Bos* 206 N806, N826 (repaired)

# READING FIGURINES

ANIMAL REPRESENTATIONS  
IN TERRA COTTA  
FROM ROYAL BUILDING AK  
AT URKESH (TELL MOZAN)

## PLATES

ORDER Artiodactyla

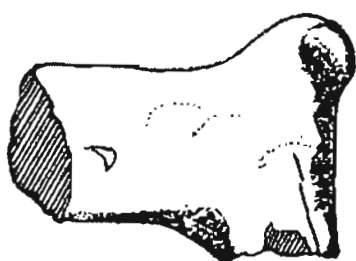
FAMILY Bovidae (SUBFAMILY Caprinae)

GENUS *Ovis*

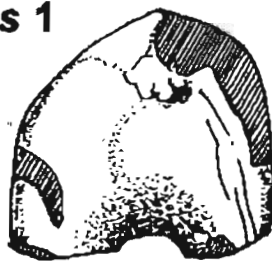
TYPE I  
VI - X

TYPE II  
XI - XV

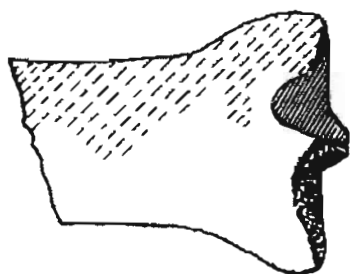
*Ovis*



**Ovis 1**

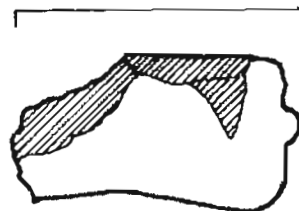


**Ovis TYPE I**



3.5

3.9



**Ovis 6**

4.7



2.8



2.9

Renderings Claudia Wertstein  
Ovis 1 F725. Ovis 3 F716, Ovis 6 H721  
Scale 1 : 1

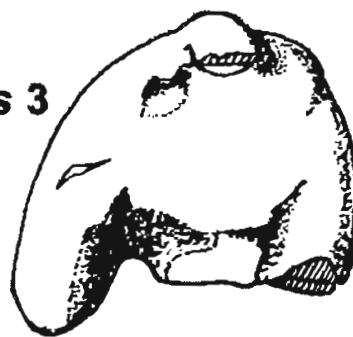
4.6



**Ovis 3**

8.0

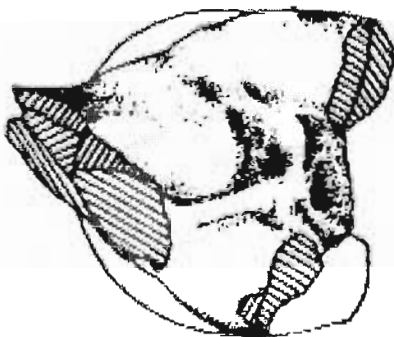
479



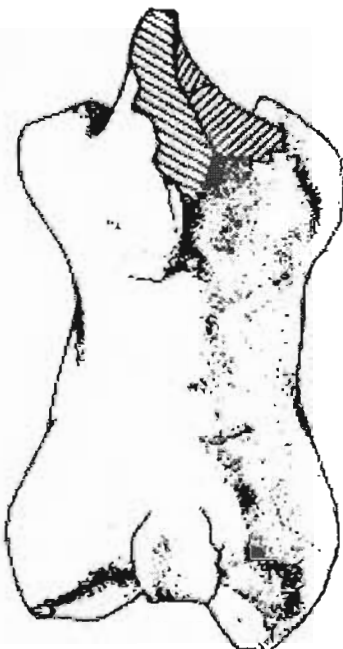
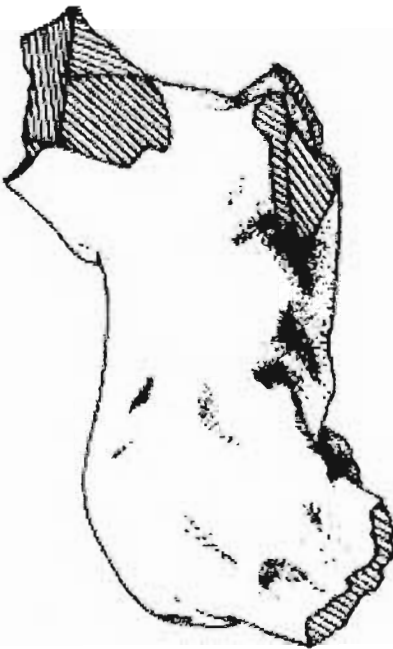
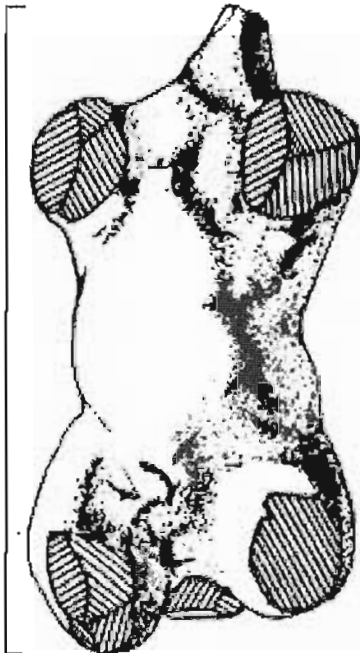
4.5

***Ovis* TYPE I**

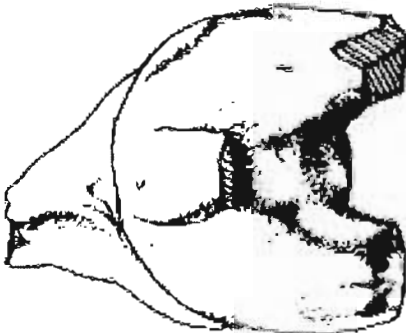
***Ovis* 7**



8.85



4.5

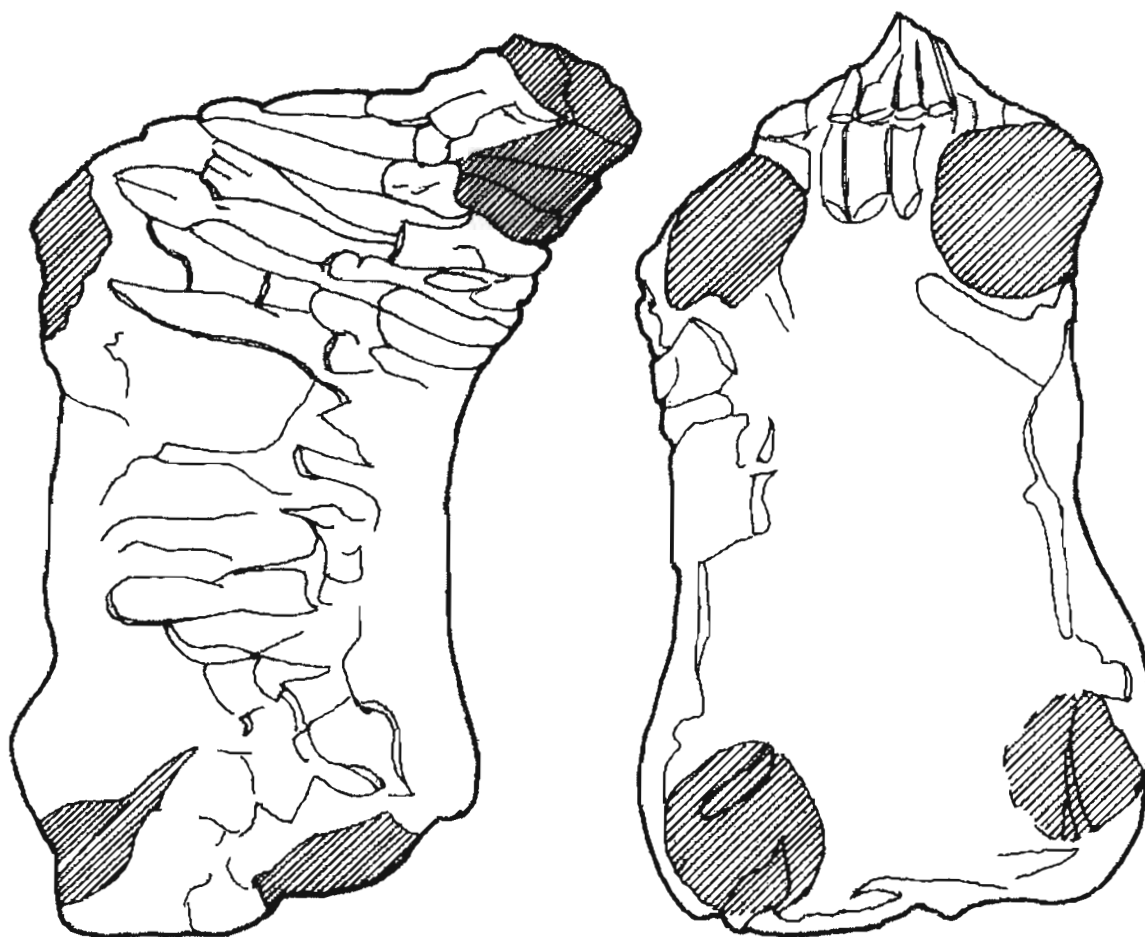


5.5

480

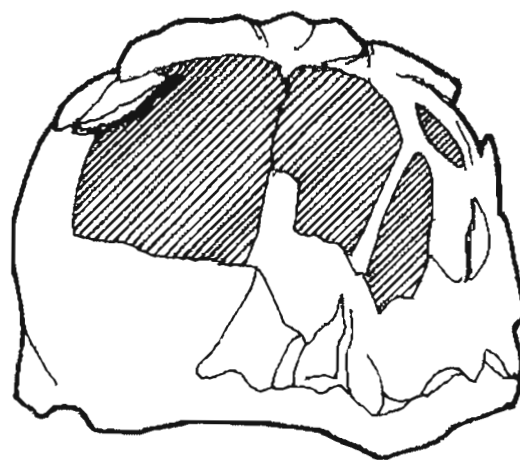
Rendering Pietro Pozzi F709  
Scale 1 : 1

*Ovis*



***Ovis* TYPE I**

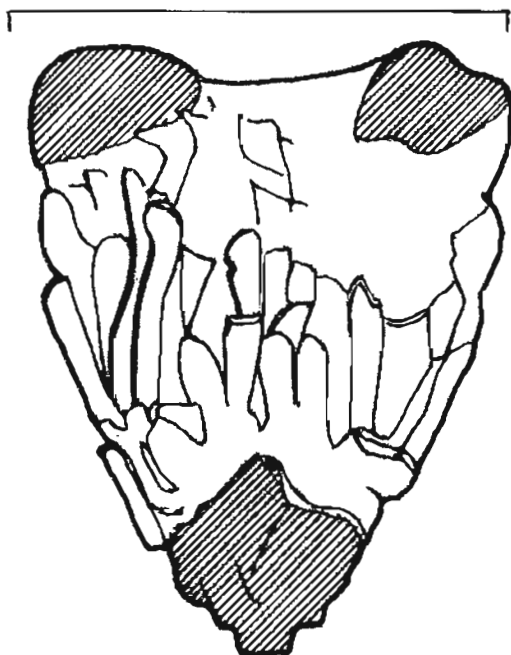
*Ovis* 13



481

6.9

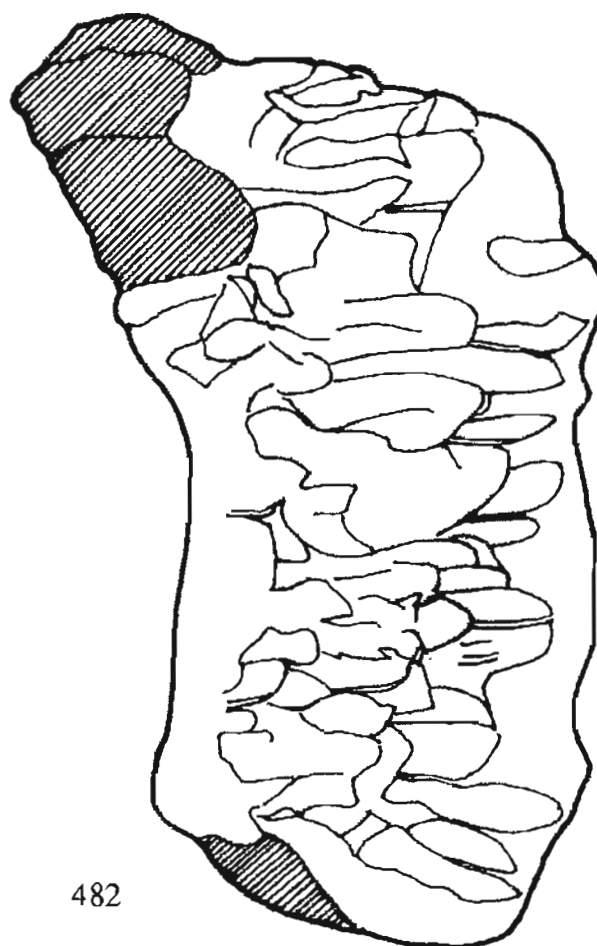
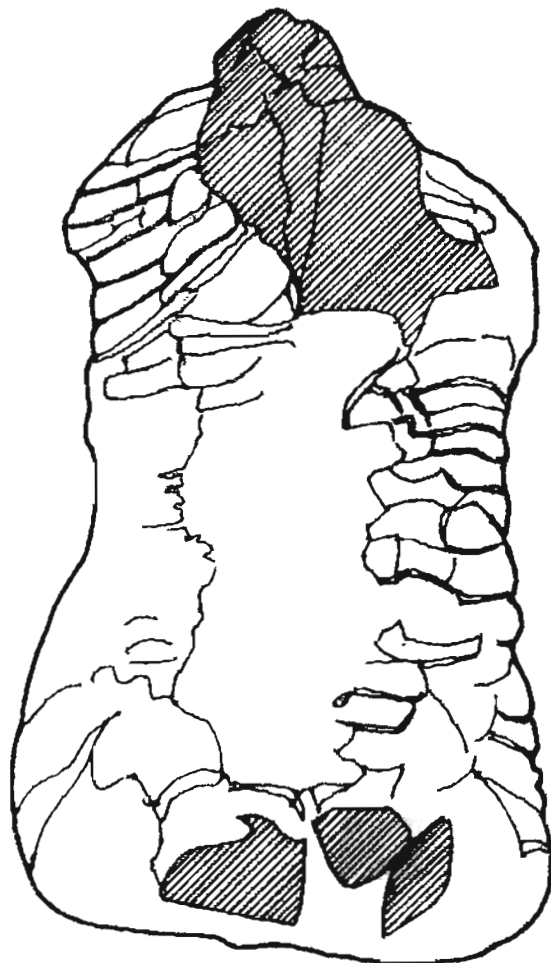
6.1



## ***Ovis* TYPE I**

***Ovis* 13**

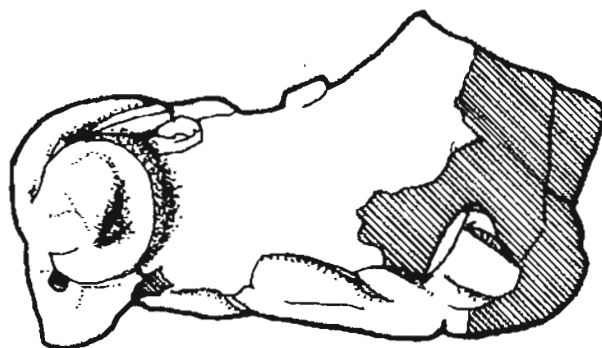
Renderings Claudia Wettstein J704  
Scale 1 : 1



12.64

# ***Ovis* TYPE I**

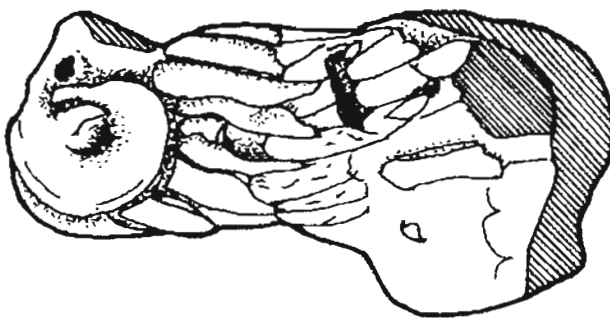
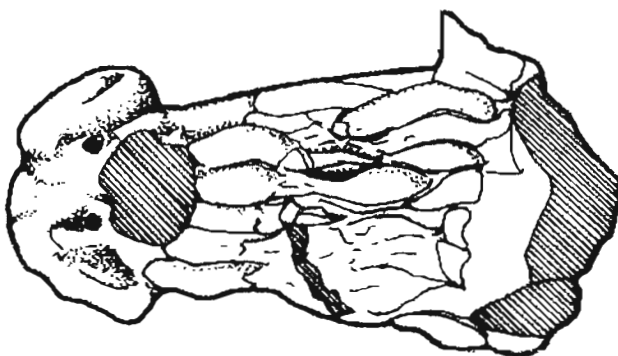
*Ovis* 14



3.3



4.5

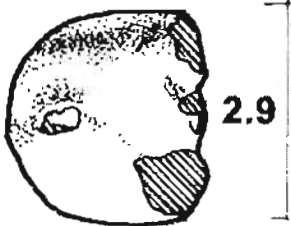
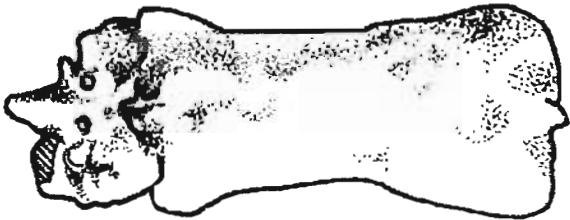
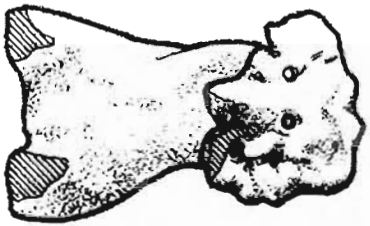
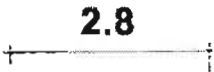
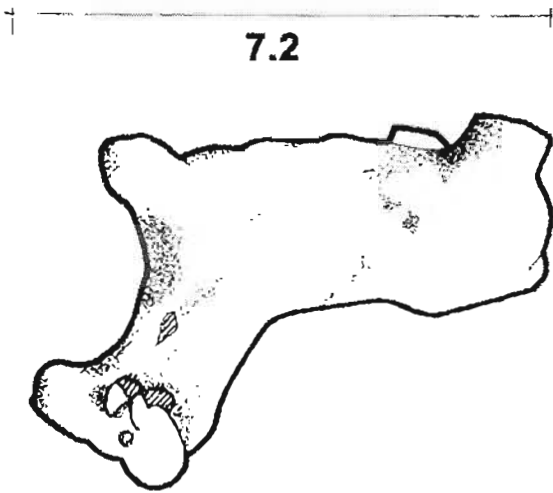


8.2

483

Rendering Claudia Wettstein J703  
Scale 1 : 1

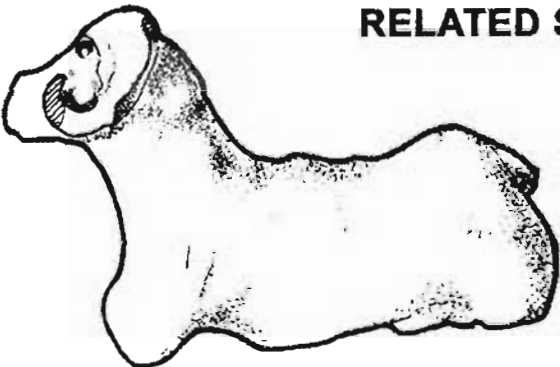
Rendering Claudia Wettstein K725  
Scale 1 : 1



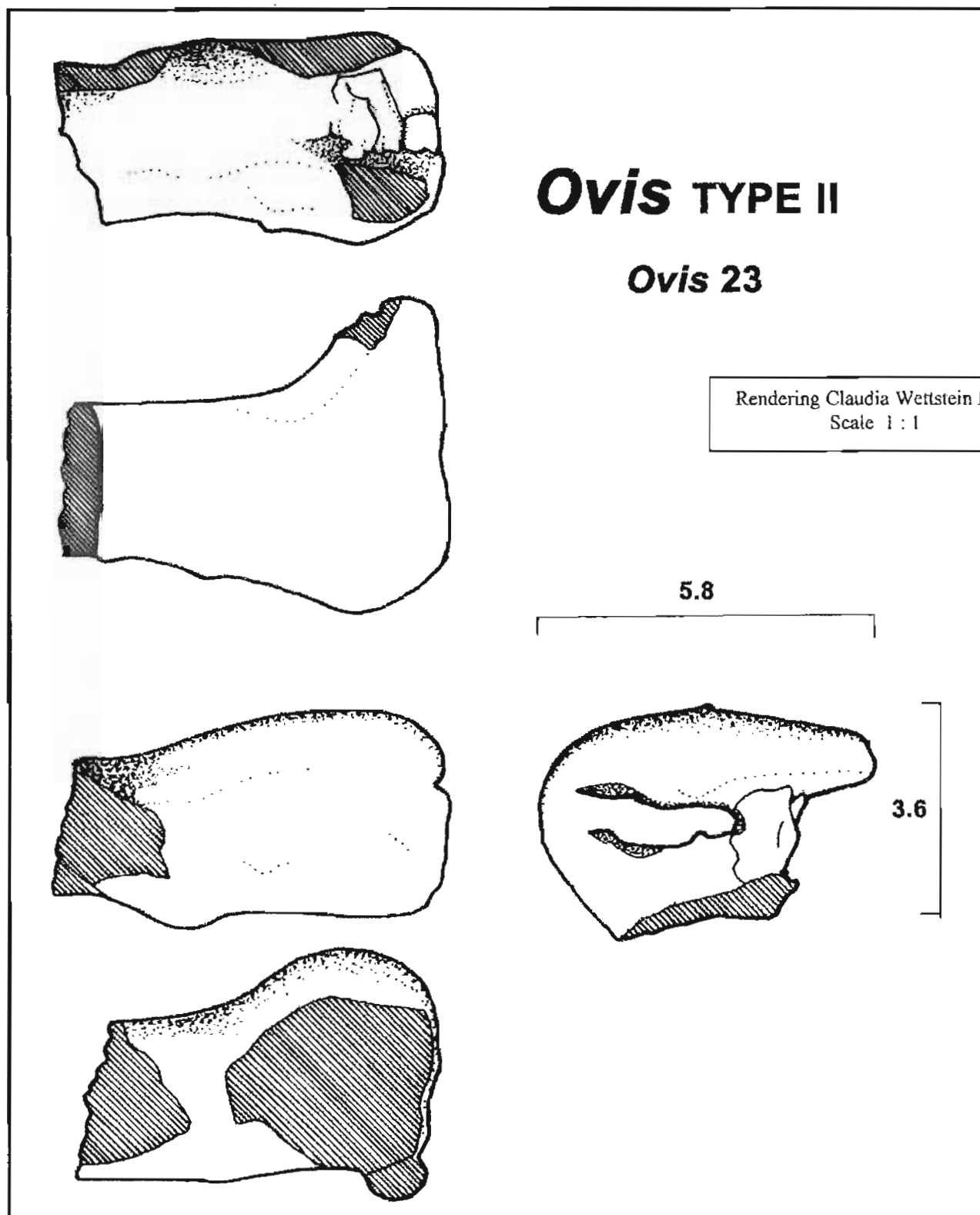
RELATED STRATIFIED FIND

***Ovis*** TYPE I

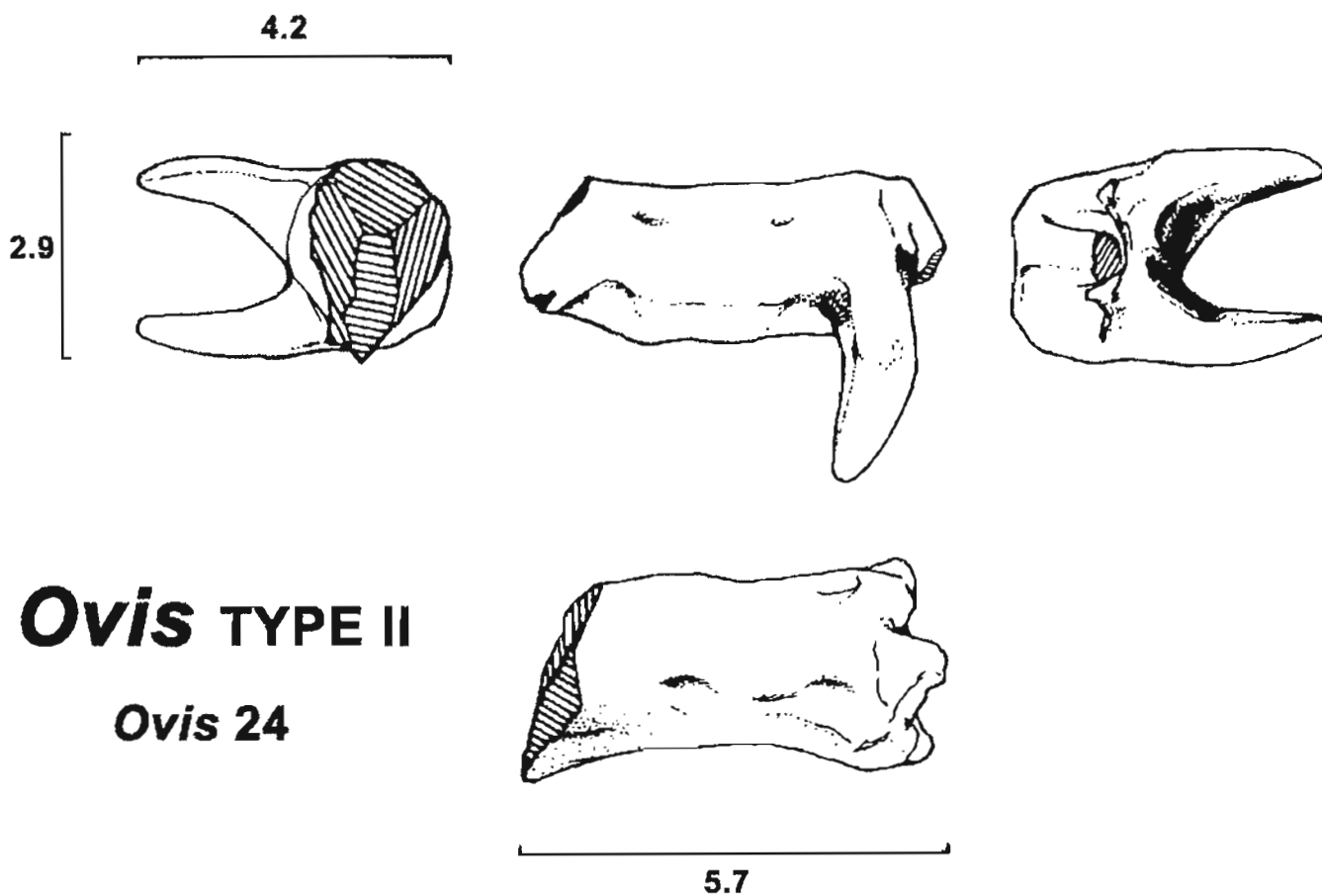
*Ovis* 202



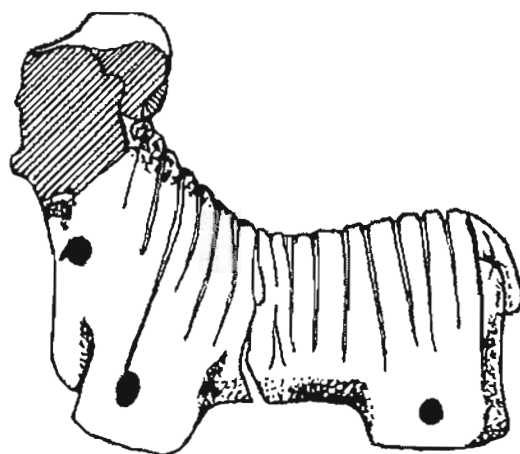
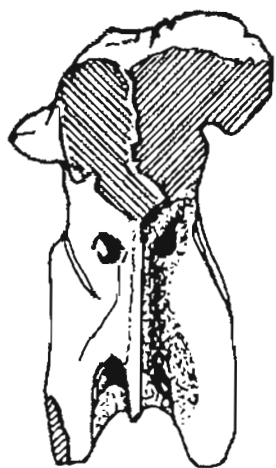




Rendering Pietro Pozzi F707  
Scale 1 : 1



Rendering Claudia Wettstein F718  
Scale 1: 1



6.0

3.5

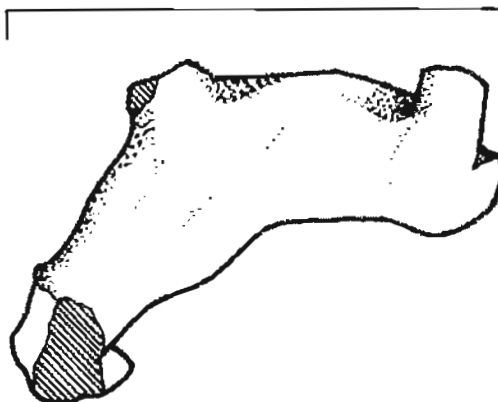


7.0

***Ovis* TYPE II**

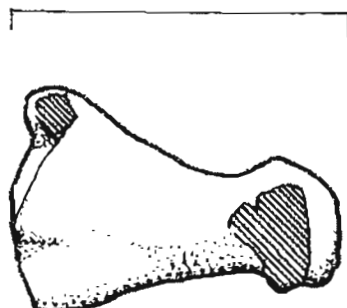
***Ovis* 27  
(RESTORED)**

6.8



Rendering Claudia Wettstein 1718  
Scale 1 : 1

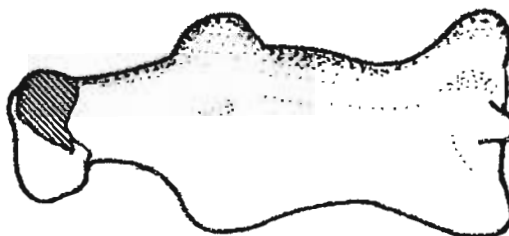
4.6



2.2



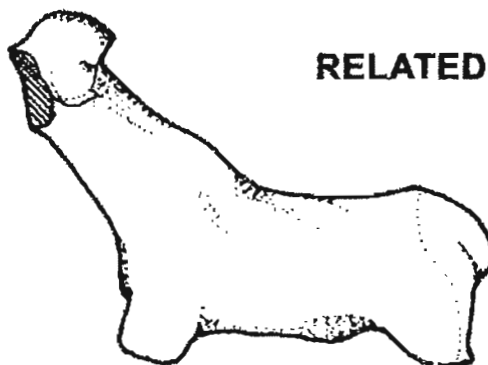
3.2



RELATED STRATIFIED FIND

***Ovis* TYPE II**

***Ovis* 203**



488

READING FIGURINES

ANIMAL REPRESENTATIONS  
IN TERRA COTTA  
FROM ROYAL BUILDING AK  
AT URKESH [TELL MOZAN]

PLATES XVI - XXVII

ORDER Carnivora

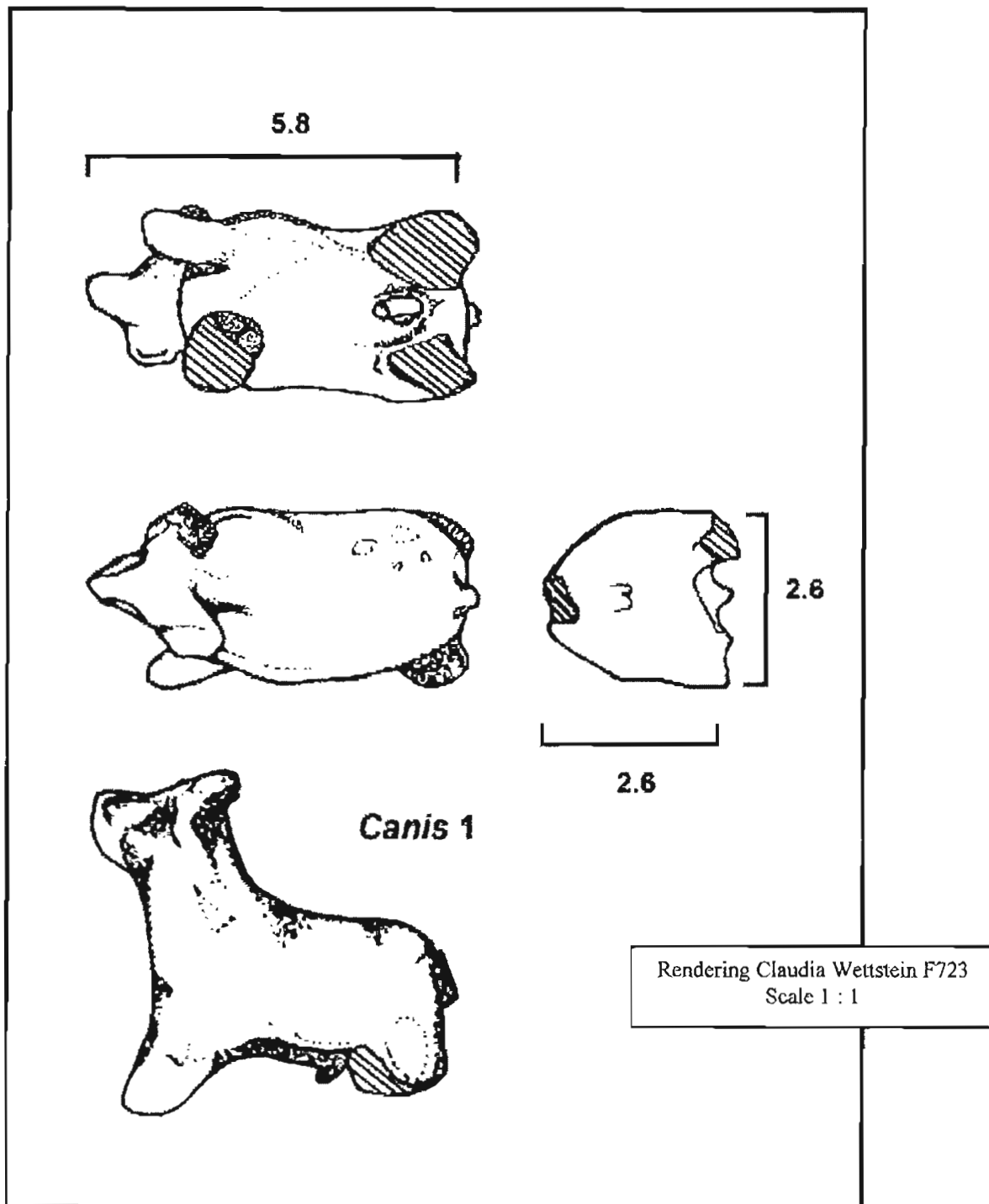
FAMILY Canidae

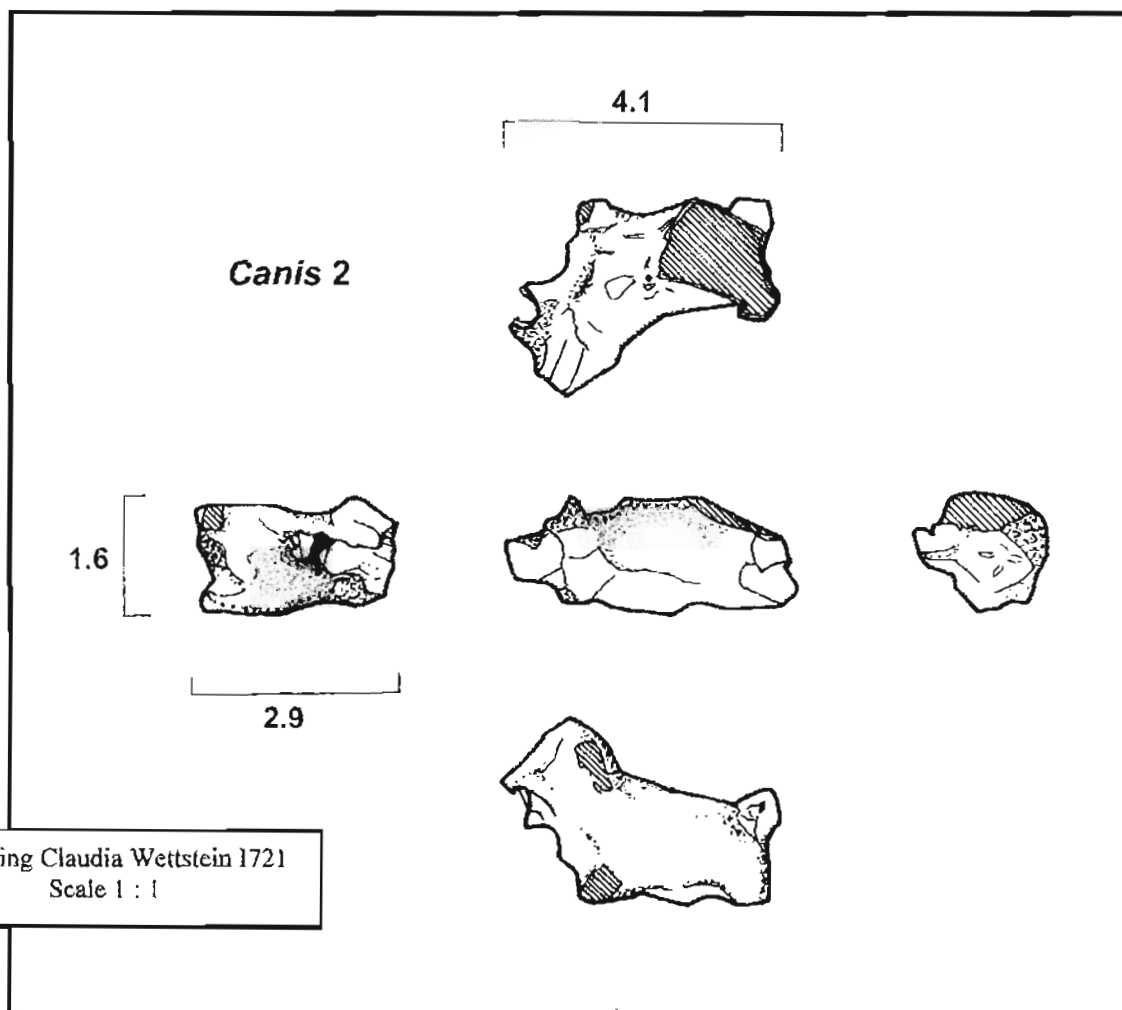
GENUS *Canis*

THE CORPUS

FIND TENTATIVELY IDENTIFIED AS *Canis*

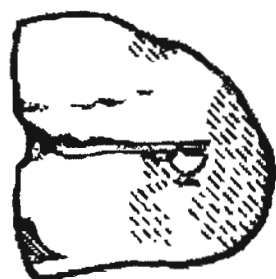
RELATED STRATIFIED FINDS



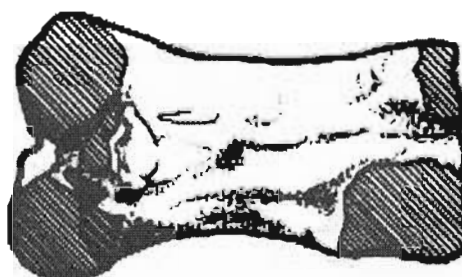


*Canis 4*

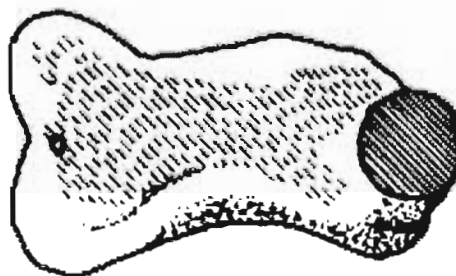
4.0



3.2



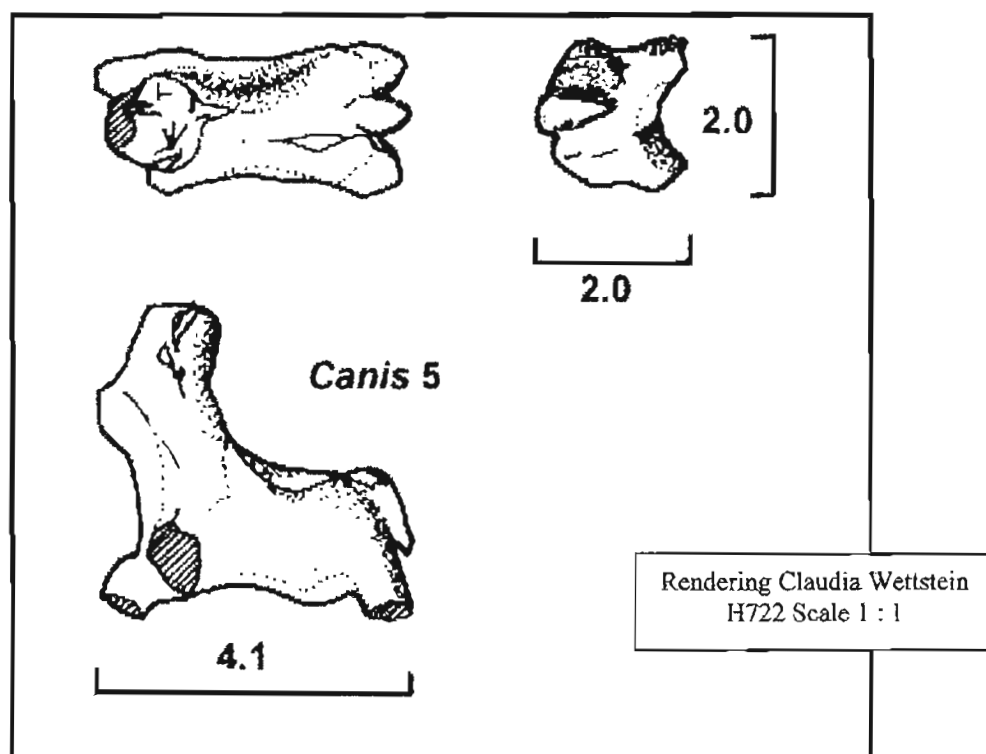
3.3



5.6

Renderings Claudia Wettstein 1721, K721  
Scale 1 : 1

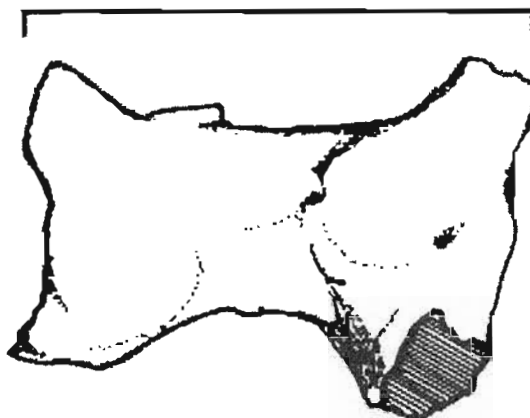




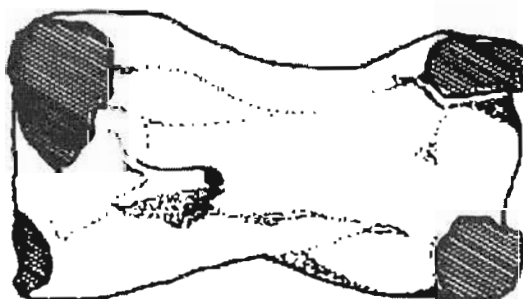
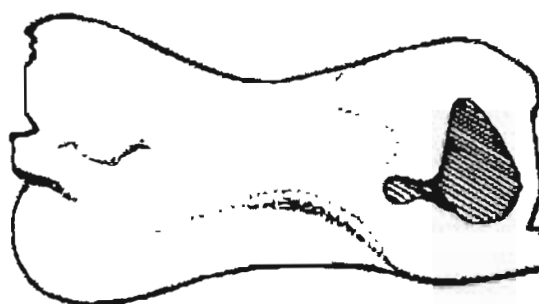
*Canis*

*Canis 7*

6.9



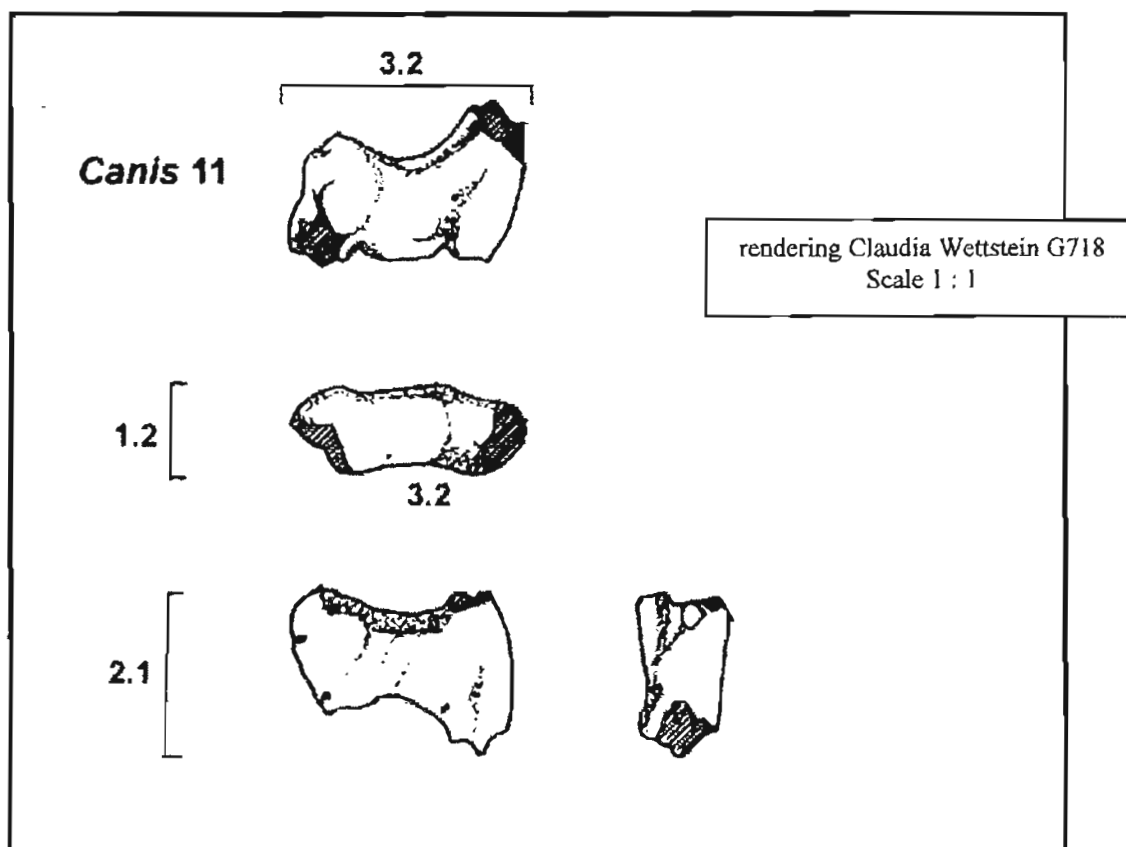
4.0



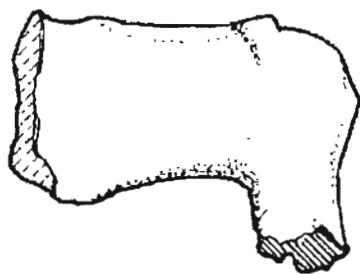
Rendering Claudia Wettstein F722  
Scale 1 : 1

494





*Canis*

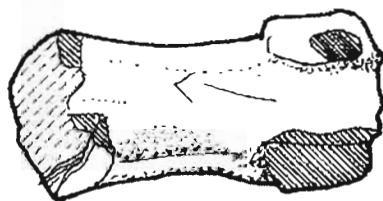
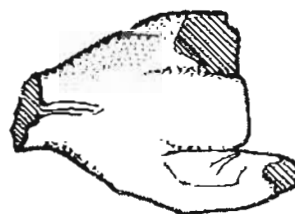
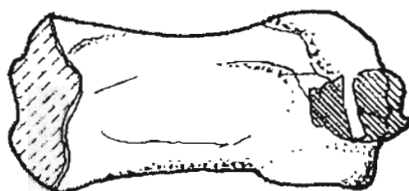


***Canis 15***

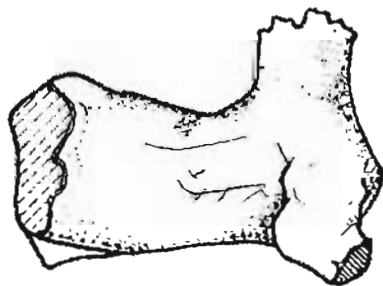
2.6



2.6



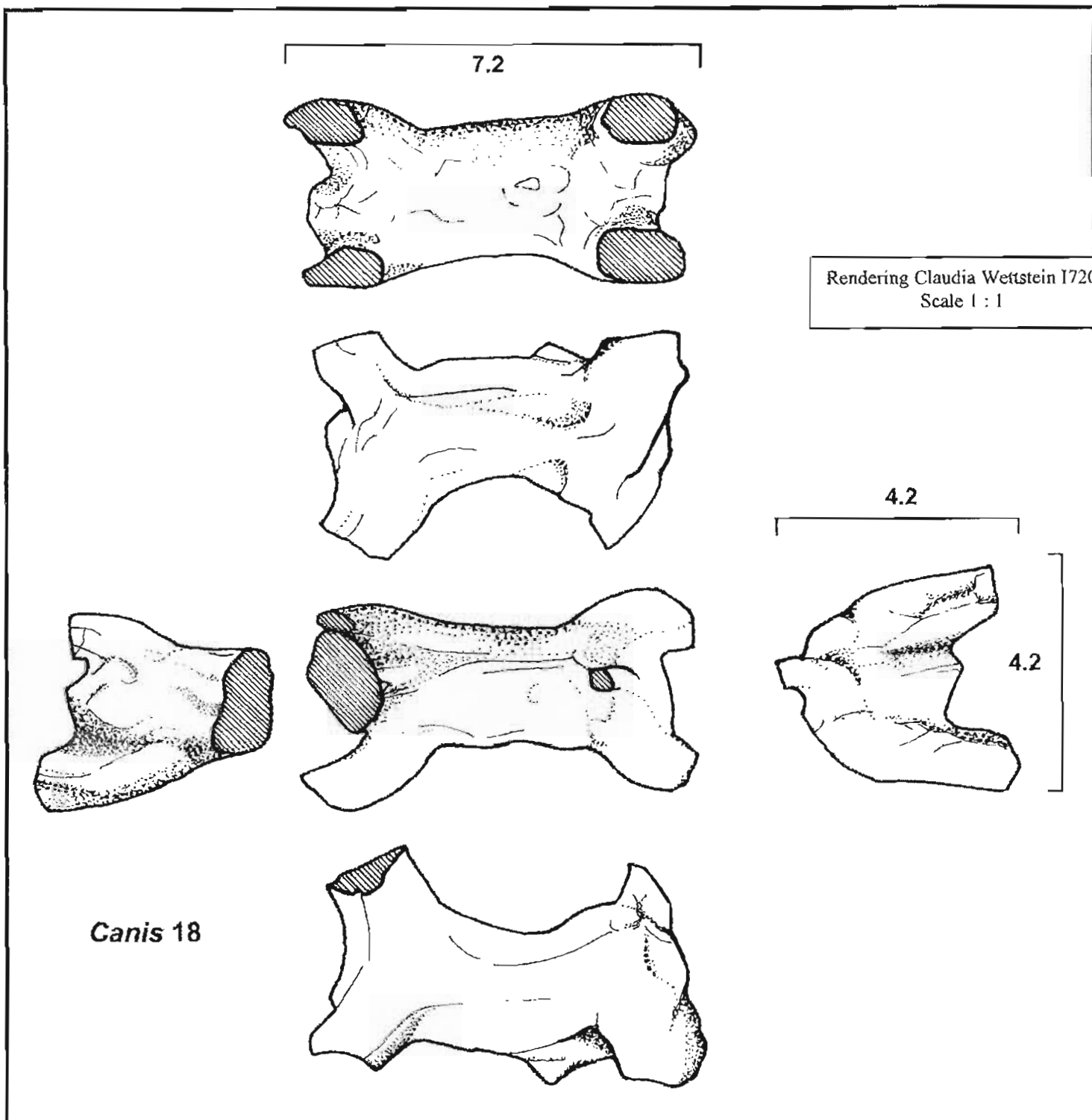
Rendering Claudia Wettstein 1720  
Scale 1 : 1



3.8

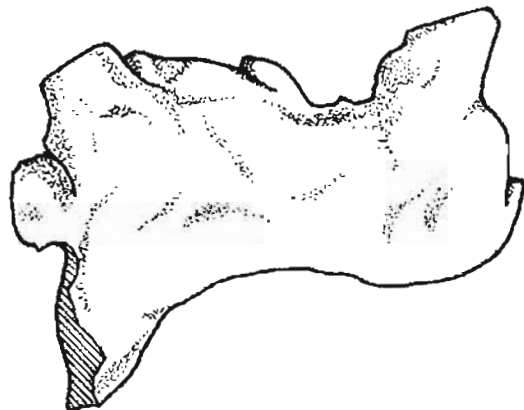
5.0

496



*Canis*

***Canis* 103**

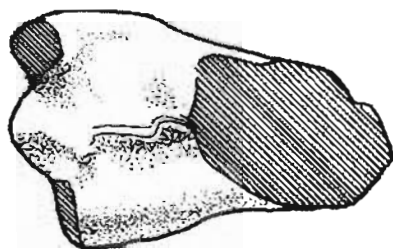


Rendering Claudia Wettstein L727  
Scale 1 : 1

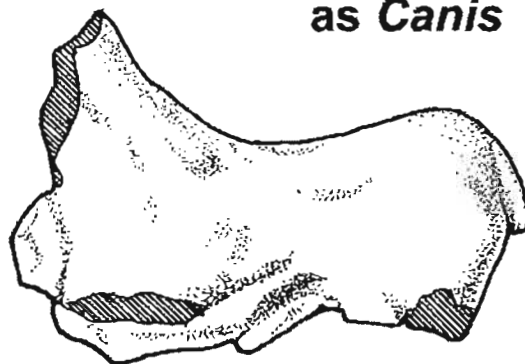
5.2

7.1

3.7



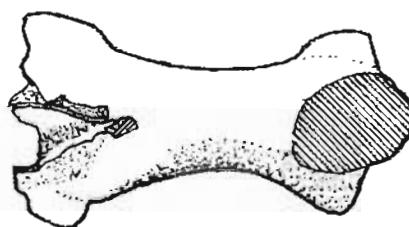
**Find Tentatively Identified  
as *Canis***



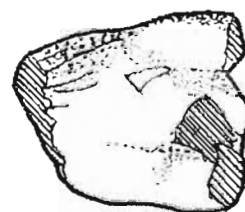
**Canis 201**



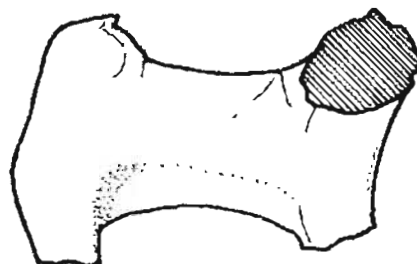
2.9



2.5

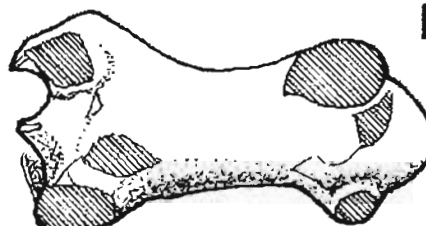


2.9



Rendering Claudia Wettstein J712  
Scale 1 : 1

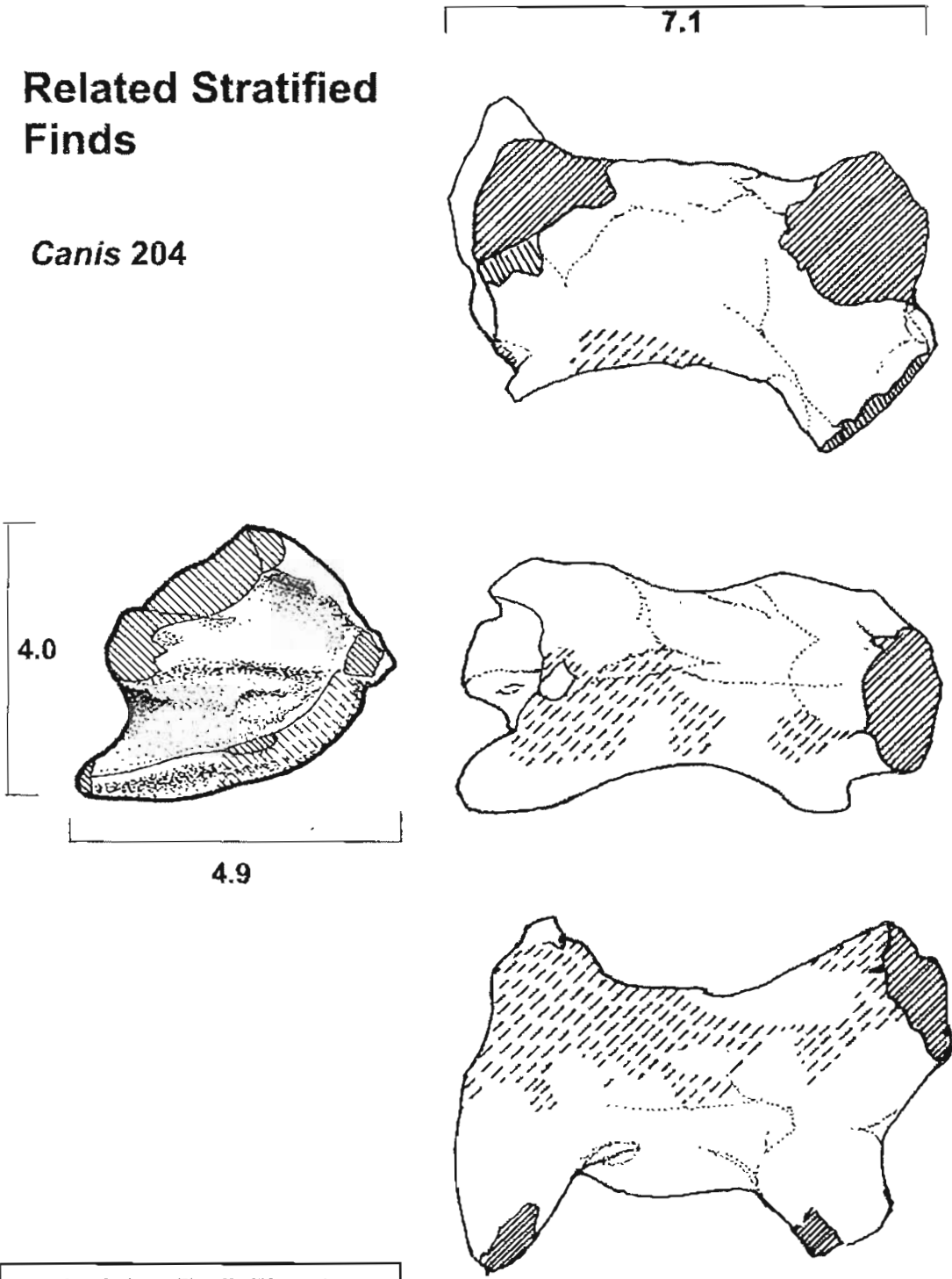
**Related Stratified  
Finds**



5.4

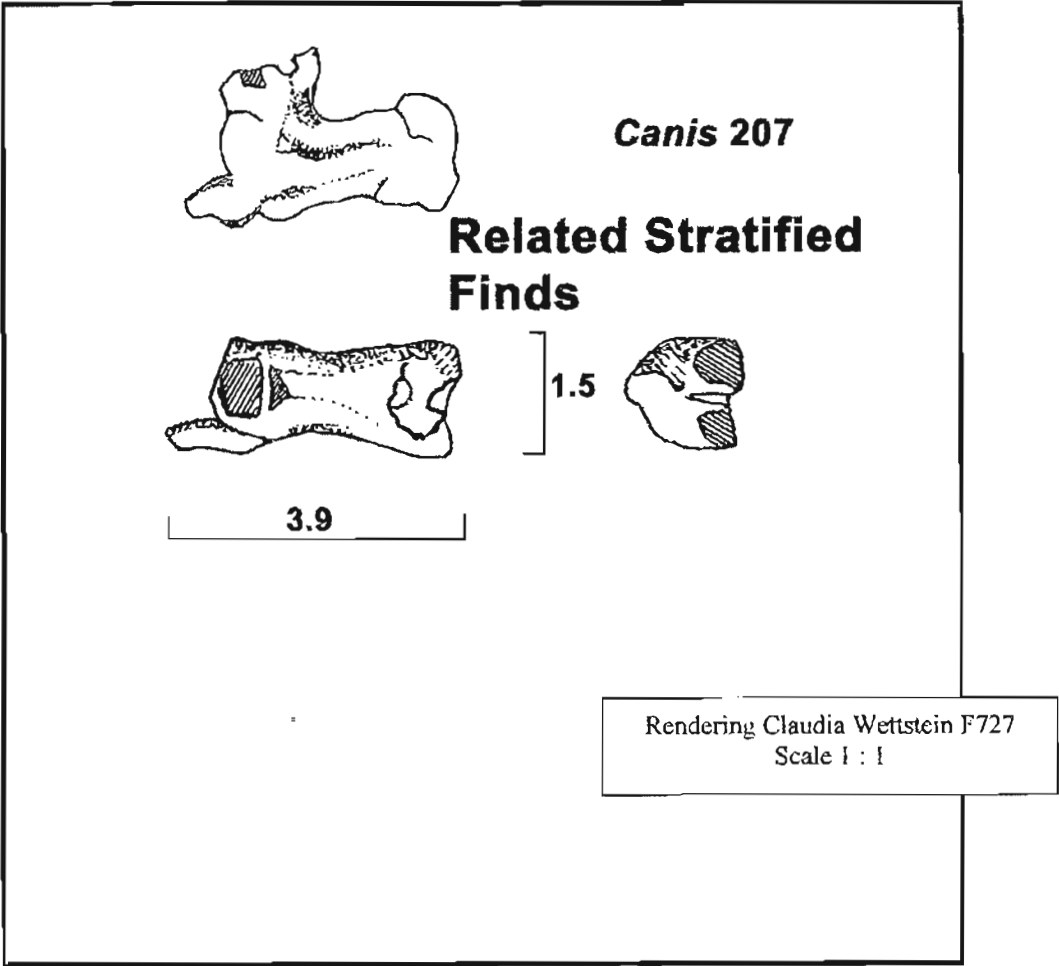
**Related Stratified  
Finds**

*Canis* 204



Renderings Claudia Wettstein  
G720, K723 (caudal section)  
Scale 1 : 1





READING FIGURINES  
ANIMAL REPRESENTATIONS  
IN TERRA COTTA  
FROM ROYAL BUILDING AK  
AT URKESH (TELL MOZAN)

PLATES (*Felis*) XXVIII–XL

PLATE (*Ursus*) XLI

ORDER Carnivora

FAMILY

Felidae • Ursidae

GENUS

*Felis* • *Ursus*

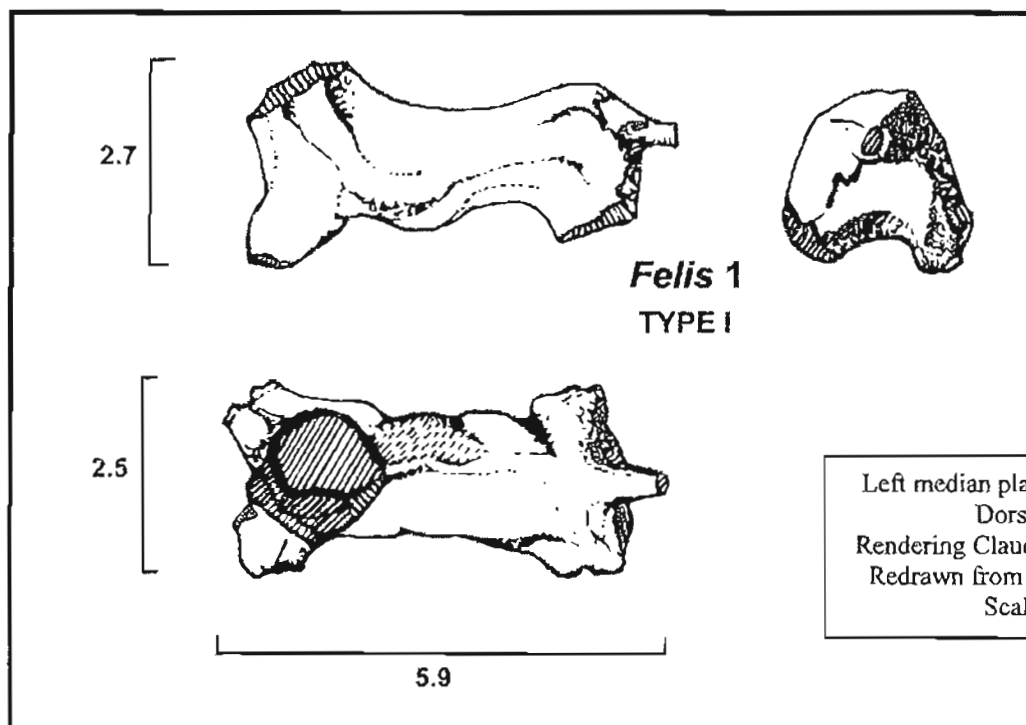
THE CORPUS

FIND TENTATIVELY IDENTIFIED AS *Felis*

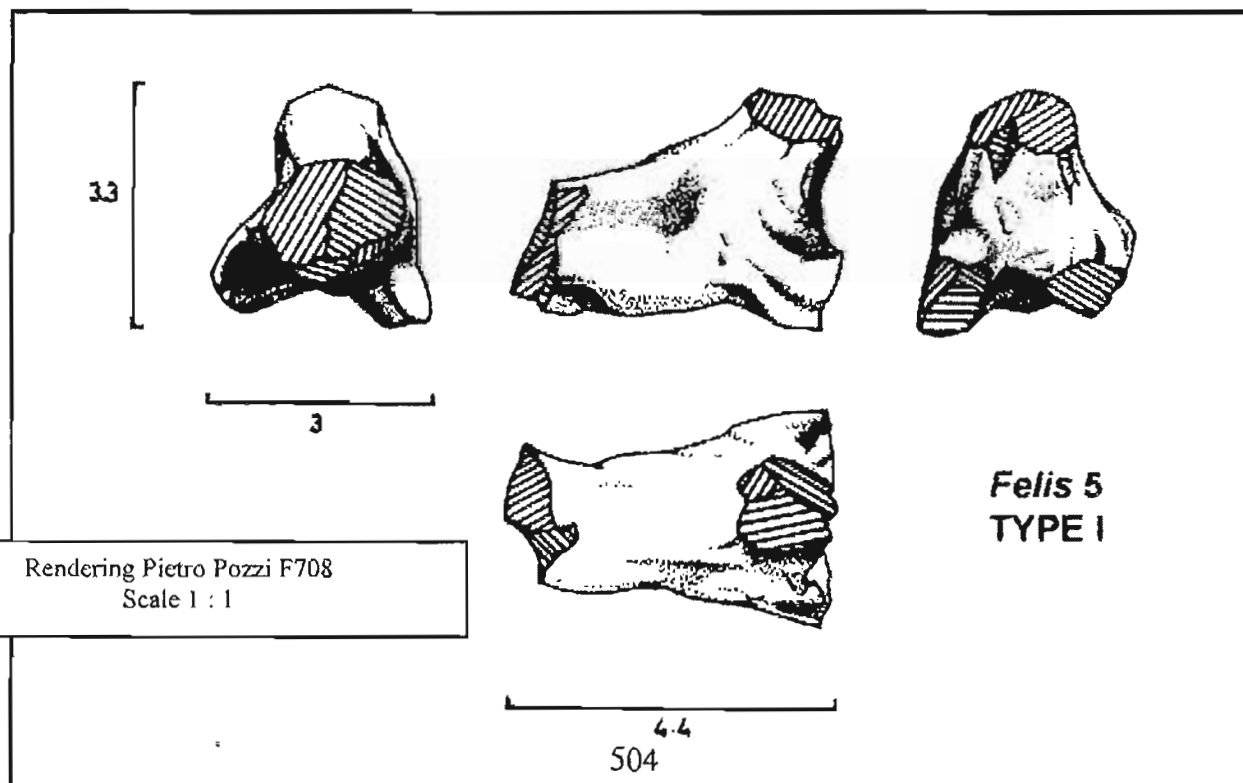
RELATED STRATIFIED FINDS

RELATED UNSTRATIFIED FINDS

*Felis*

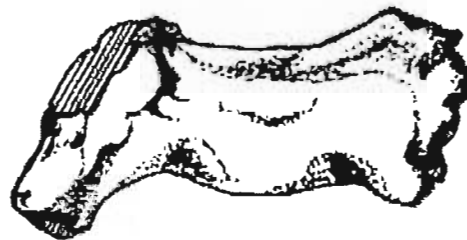
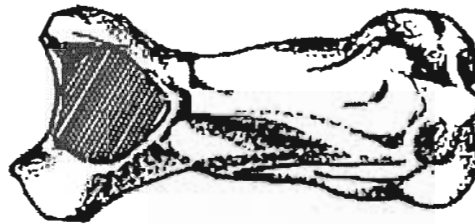
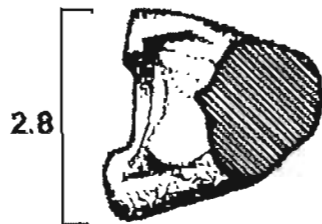
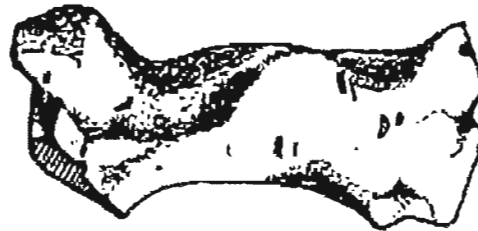
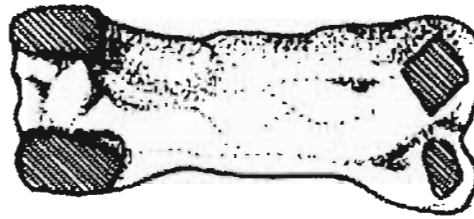


Left median plane • Caudal view,  
Dorsal view  
Rendering Claudia Wettstein F713  
Redrawn from photocopy M820  
Scale 1 : 1



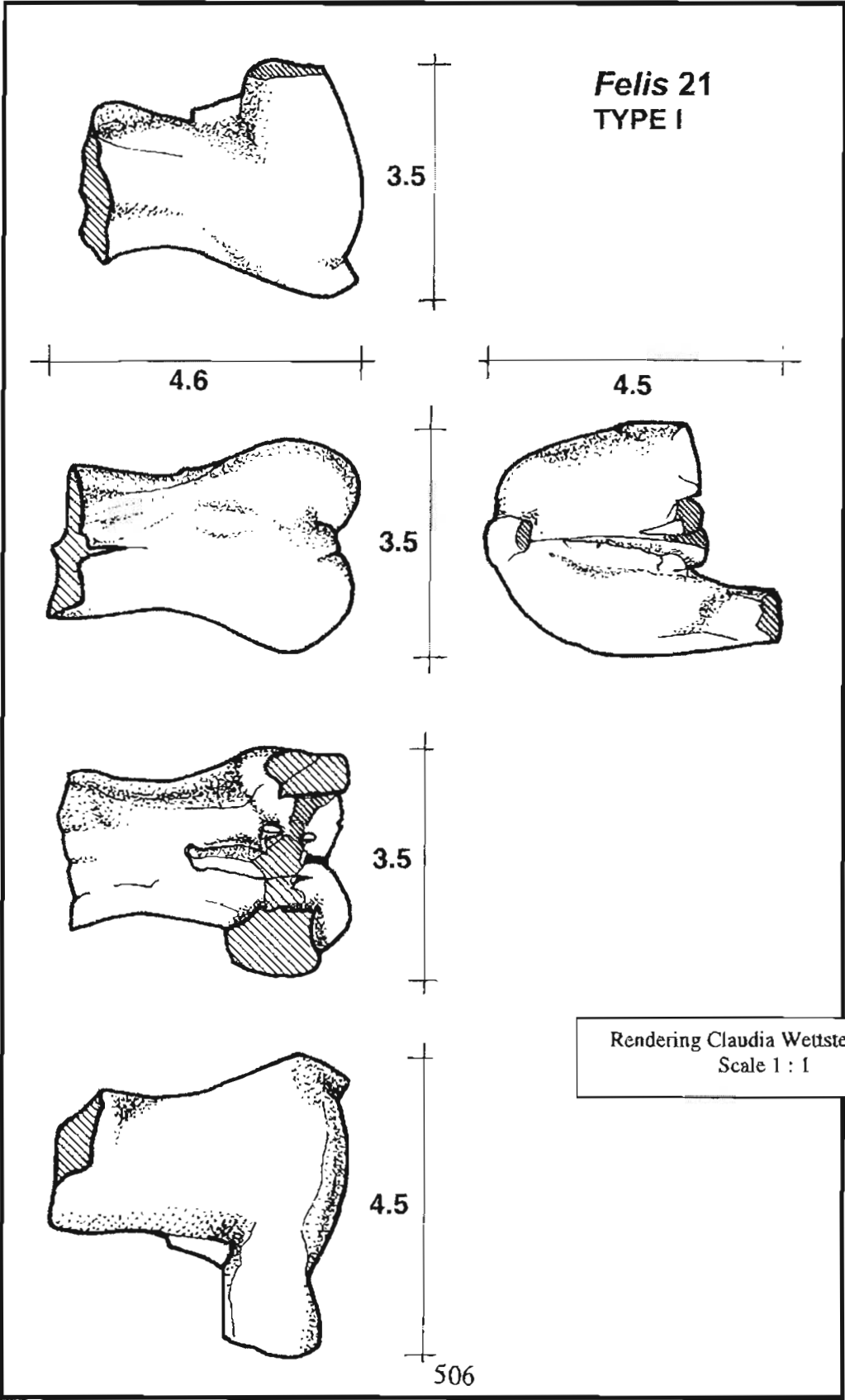
Rendering Pietro Pozzi F708  
Scale 1 : 1

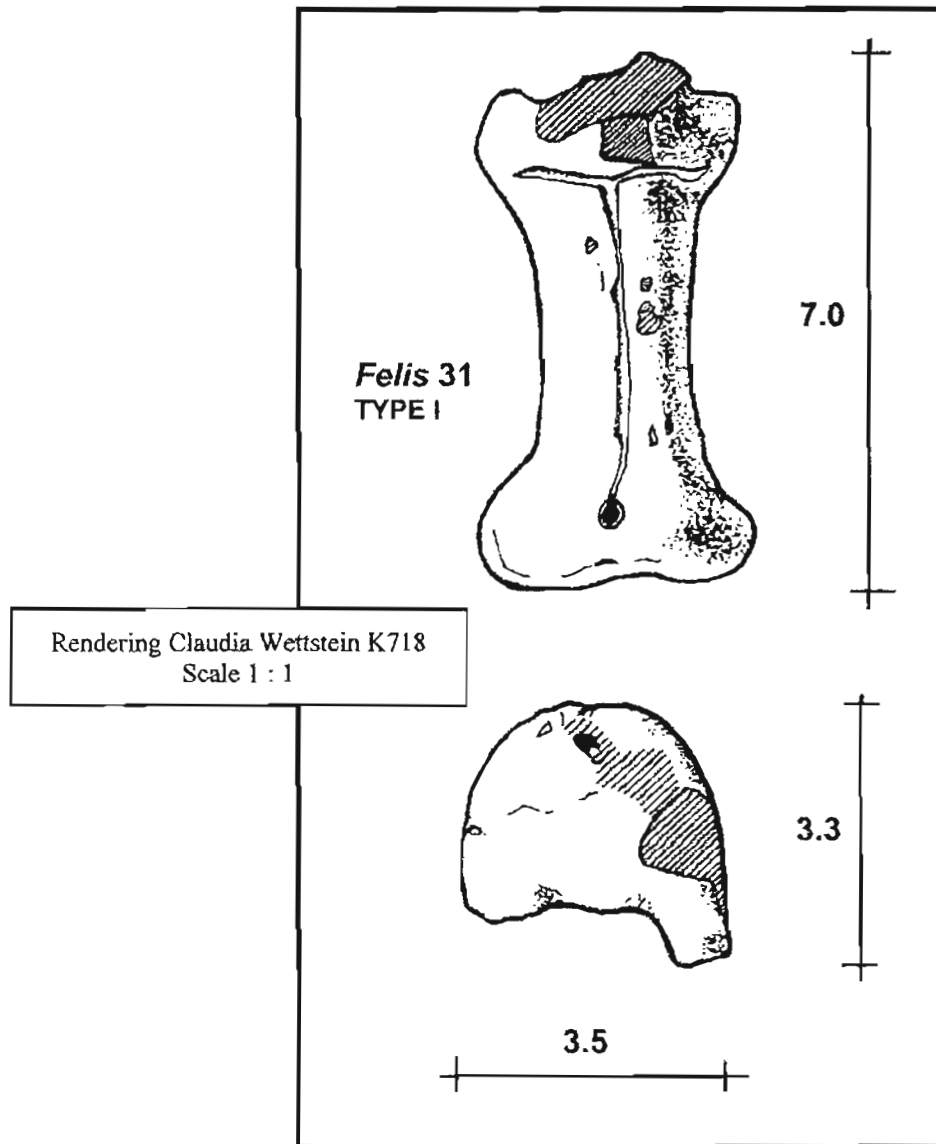
*Felis* 8  
TYPE I



6.0

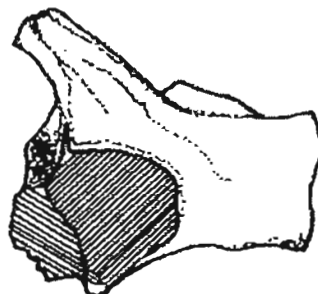
Right median plane  
Left median plane  
Cranial • Dorsal • Caudal views F714  
• Ventral view I730  
Renderings Claudia Wettstein  
Scale 1 : 1





**Related  
Stratified Finds**

***Felis* 203  
TYPE I**



Rendering Claudia Wettstein G713  
Scale 1 : 1

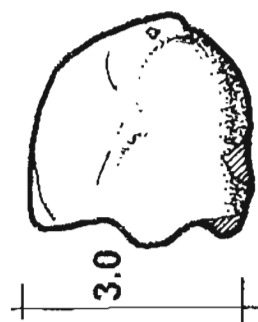
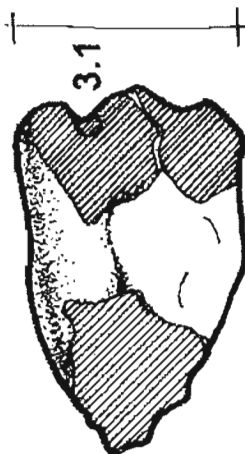
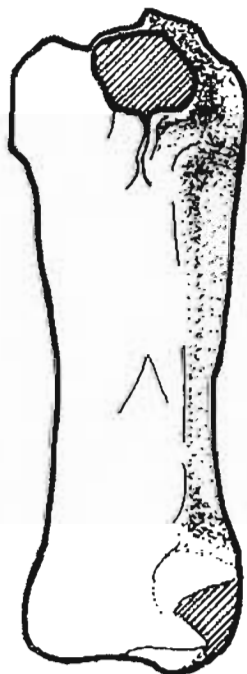
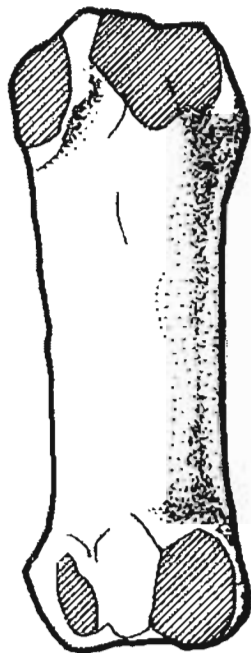
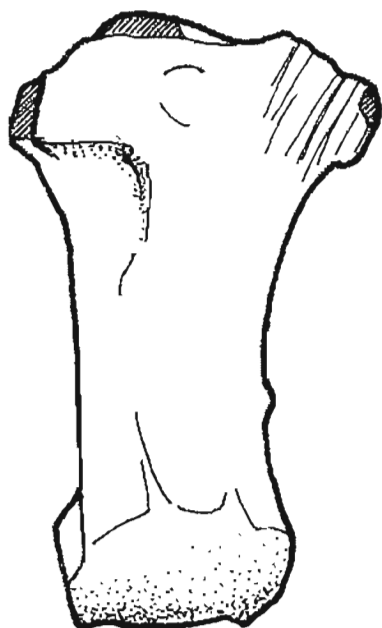


3.2

4.0

Related  
Stratified Finds

*Felis* 204  
TYPE I



3.1

5.0

8.4

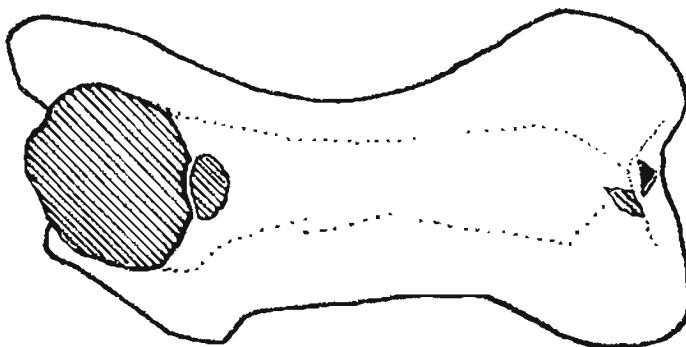
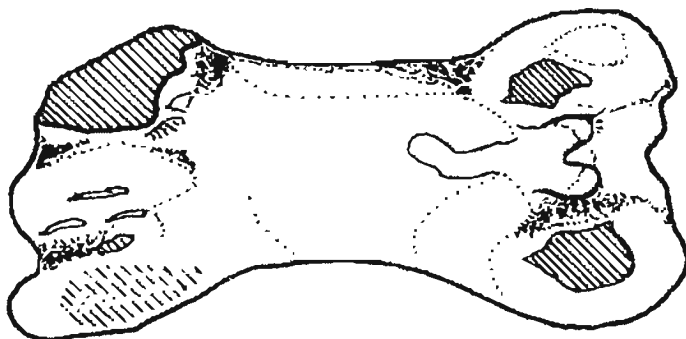
3.3

3.0

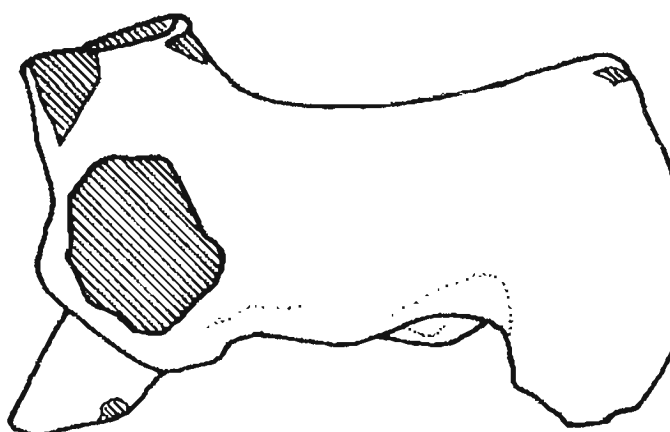
Rendering Claudia Wettstein K702  
Scale 1 : 1



Ventral • Dorsal views  
Left median plane  
Rendering Claudia Wettstein H626  
Scale 1 : 1



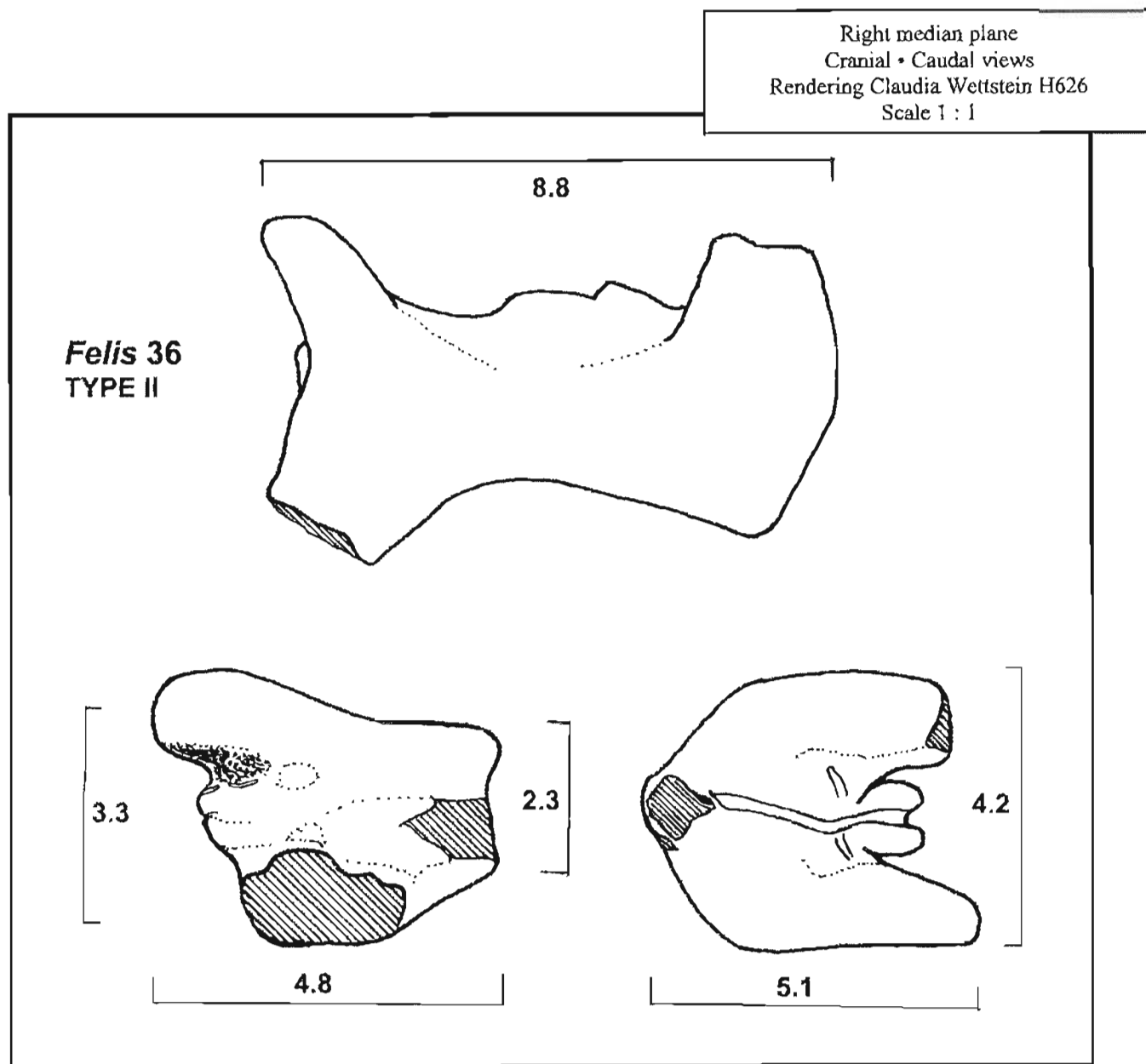
***Felis* 36  
TYPE II**

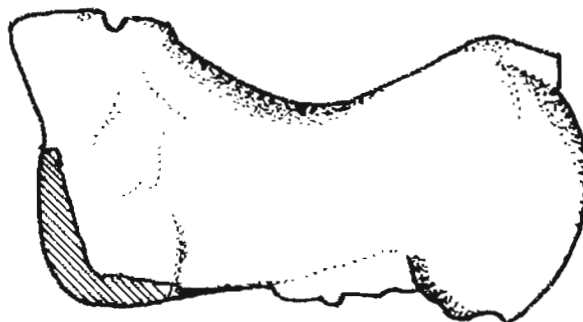
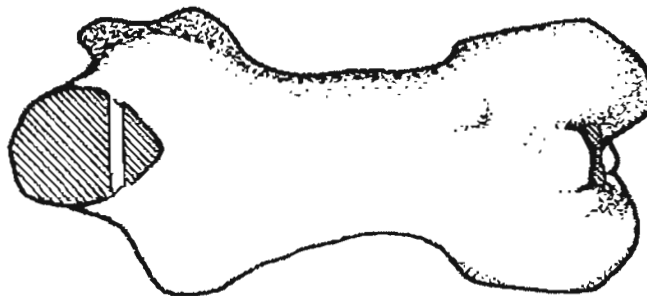
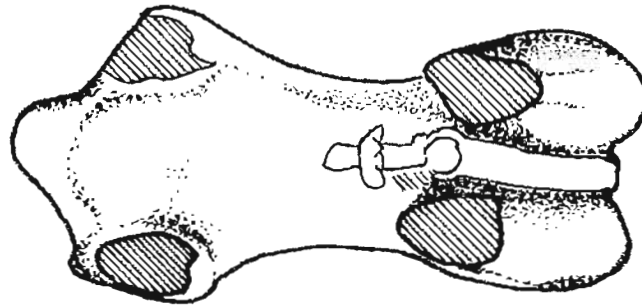
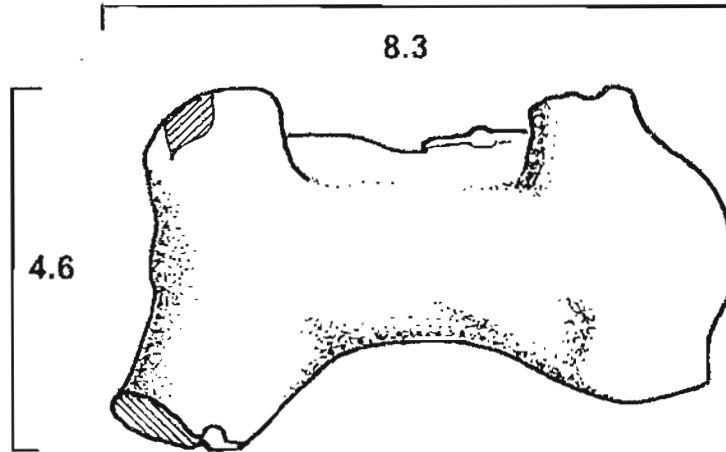


8.4

8.8

510

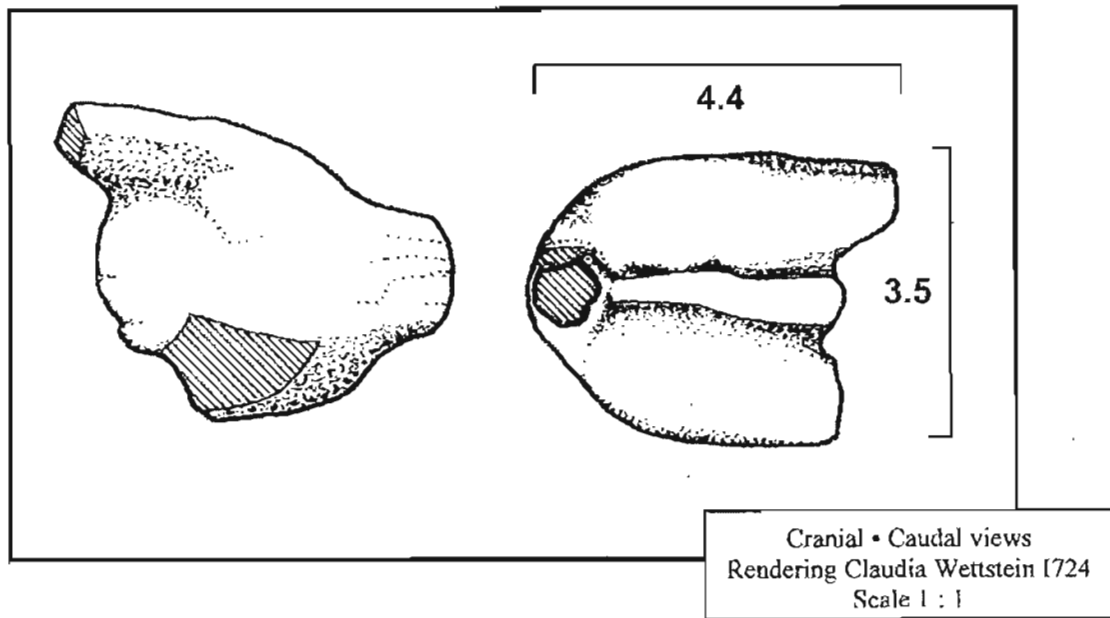


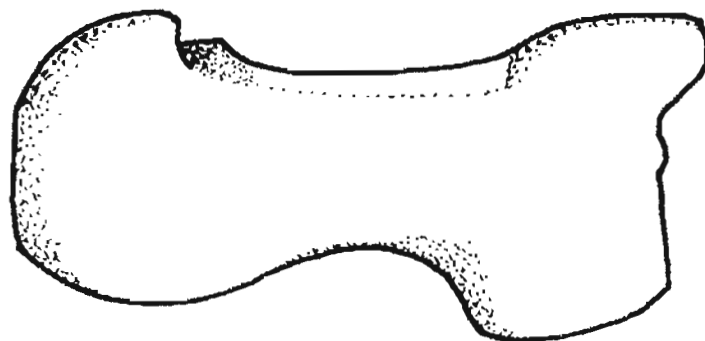


512

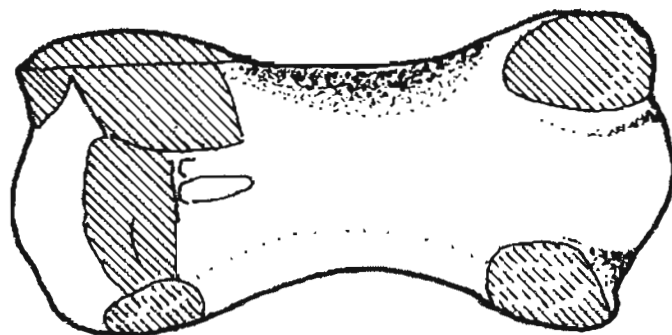
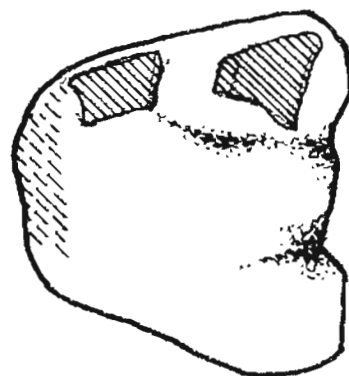
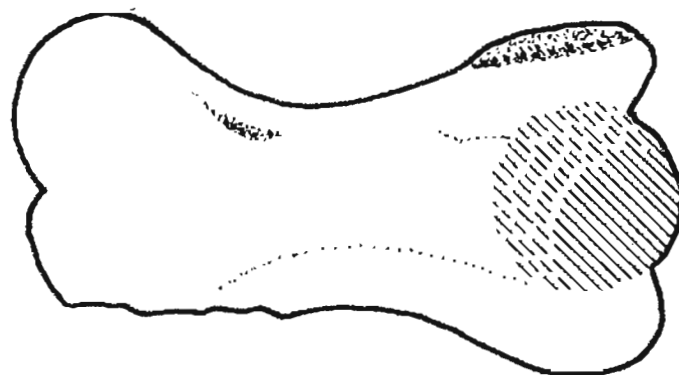
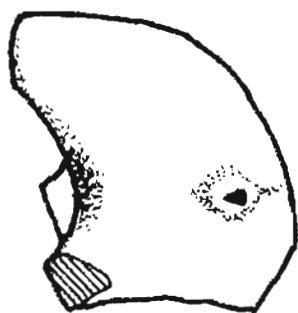
*Felis* 37  
TYPE II

Left median • Right median plane  
Dorsal • Ventral views  
Rendering Claudia Wettstein 1724

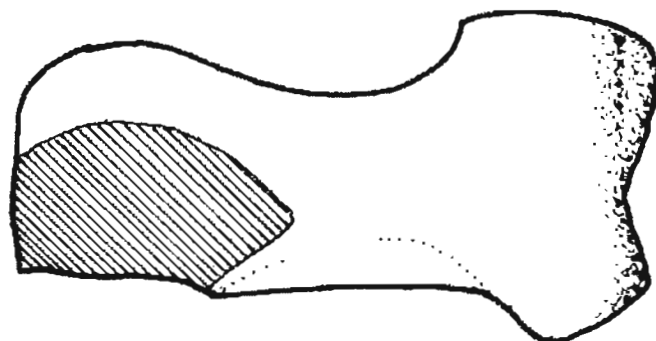




4.0

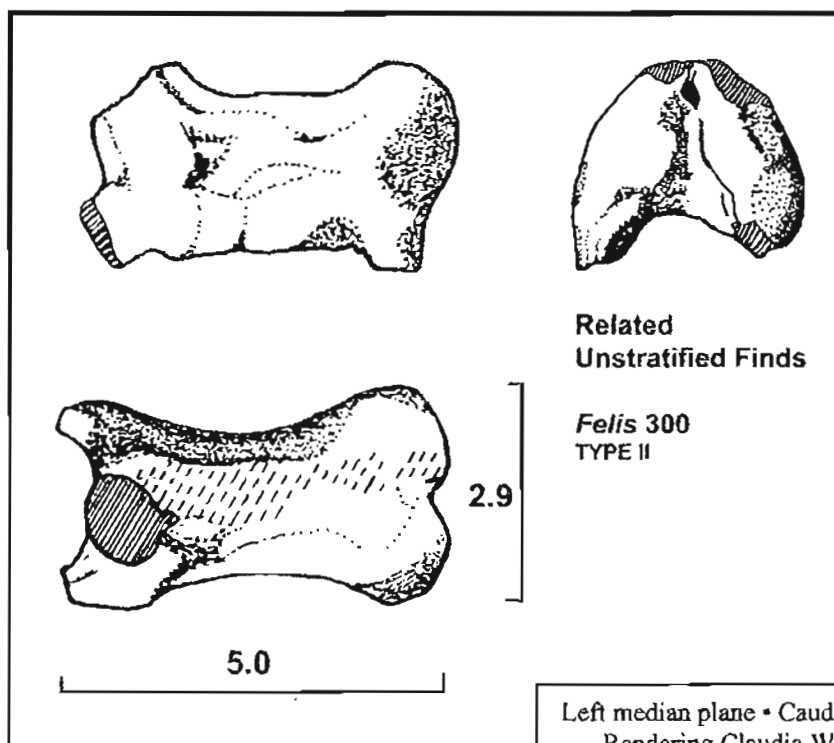


***Felis* 38**  
TYPE II



7.9 514

Rendering Claudia Wettstein 1724  
Scale 1 : 1



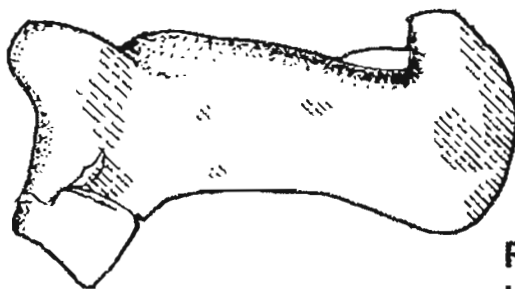
Related  
Unstratified Finds

*Felis* 300  
TYPE II

Left median plane • Caudal • Dorsal views  
Rendering Claudia Wettstein F727  
(redrawn M826 from photocopy)

*Felis*

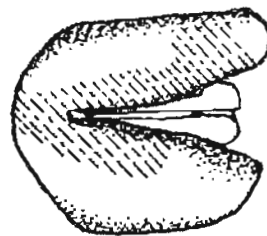
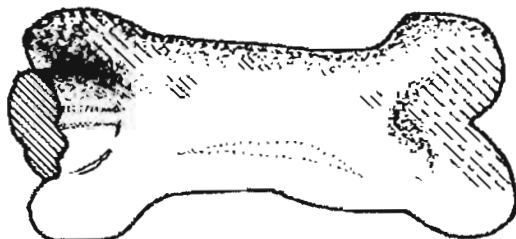
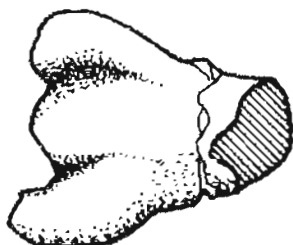
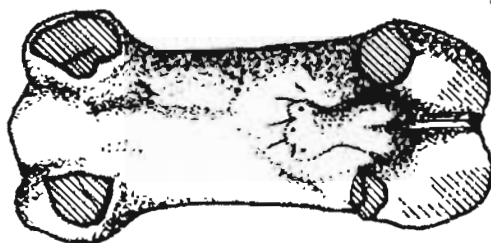
Rendering Claudia Wettstein 1727  
Scale 1 : 1



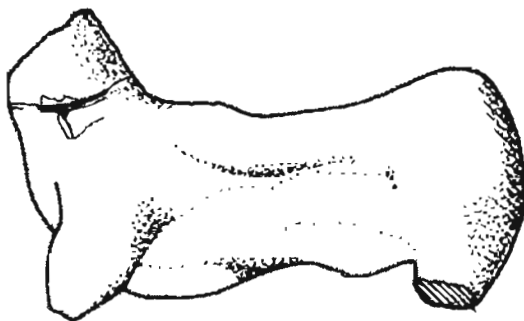
**RELATED  
UNSTRATIFIED FINDS**

*Felis* 302  
TYPE II

3.1



3.9



3.3

7.0

**RELATED  
STRATIFIED FINDS**  
*Ursus* 405

2.6



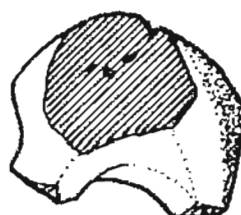
3.0



5.1



Rendering Claudia Wettstein H705.  
Scale 1 : 1



2.5

3.1



READING FIGURINES

ANIMAL REPRESENTATIONS  
IN TERRA COTTA  
FROM ROYAL BUILDING AK  
AT URKESH (TELL MOZAN)

PLATES XLII–L

ORDER Artiodactyla

FAMILY Bovidae

(SUBFAMILY Caprinae)

GENUS *Capra*

THE CORPUS

RELATED STRATIFIED FINDS

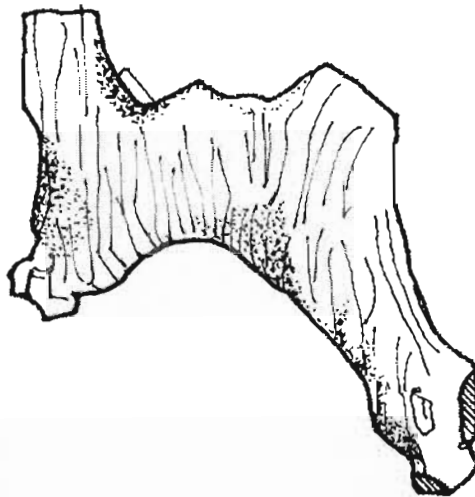
*Capra*

**Capra 1**

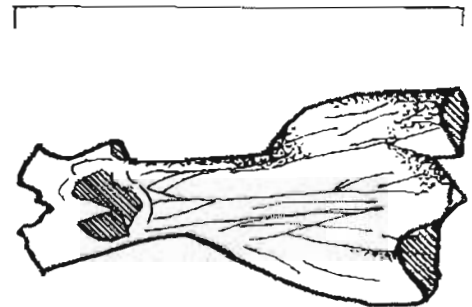
**A1.44**

TYPE (TEMPLATE)

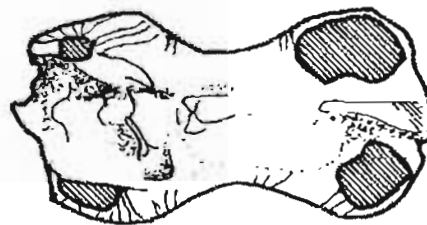
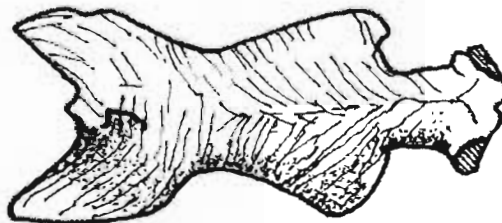
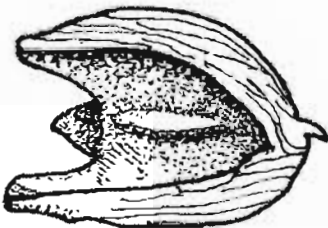
6.3



6.0

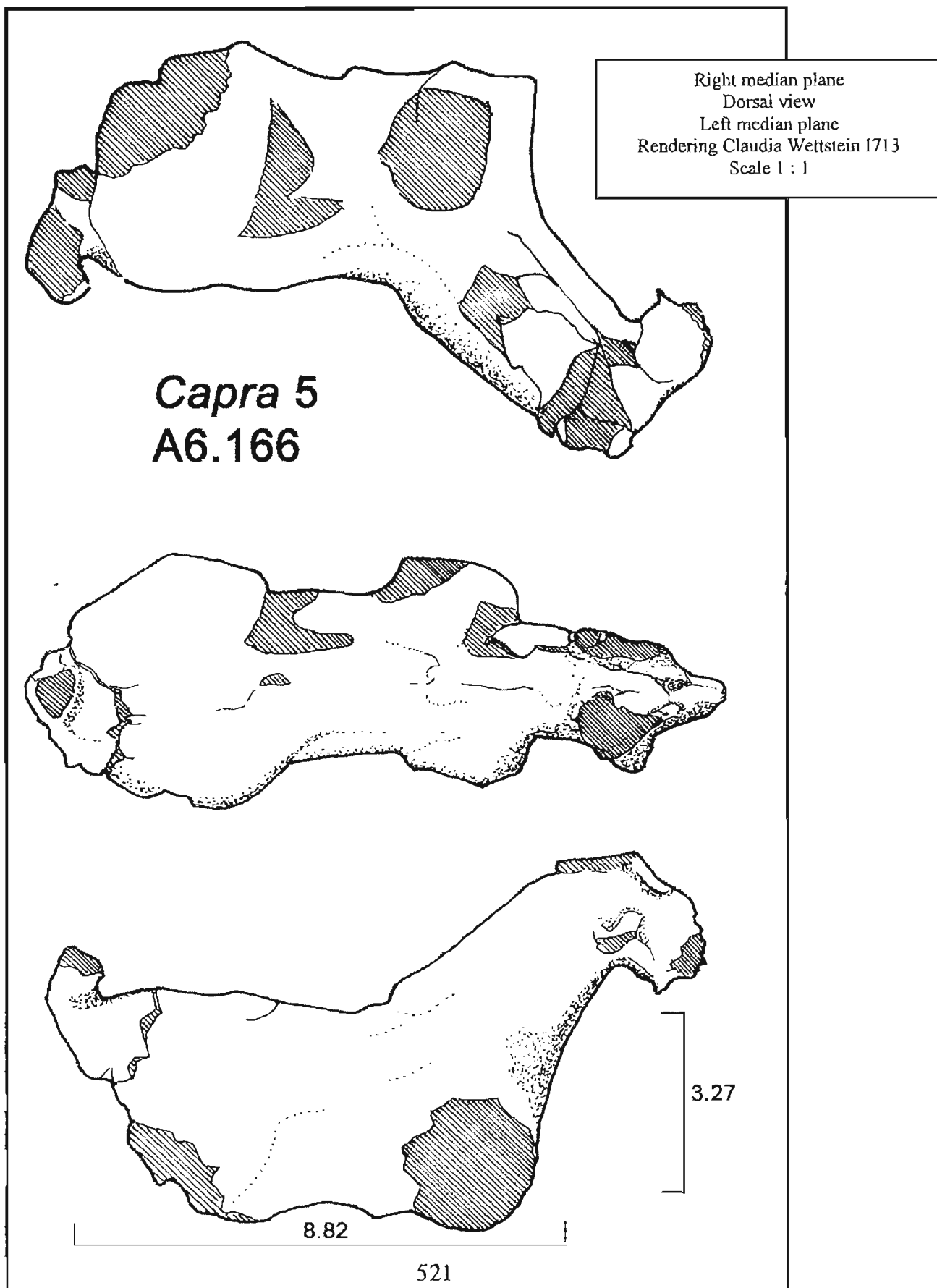


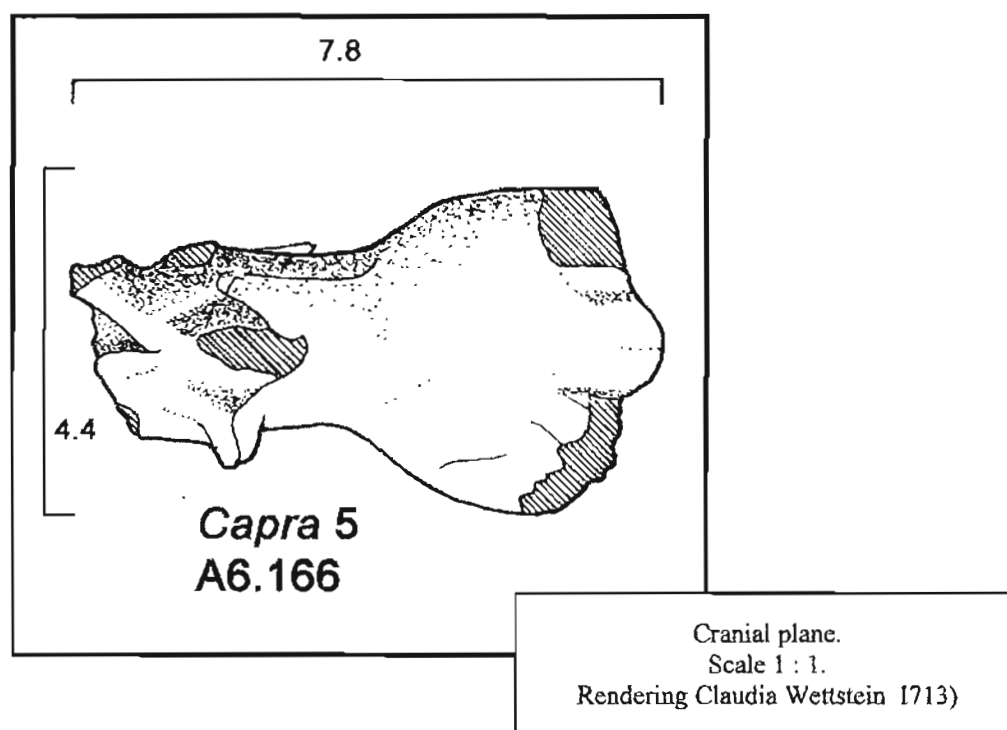
3.0

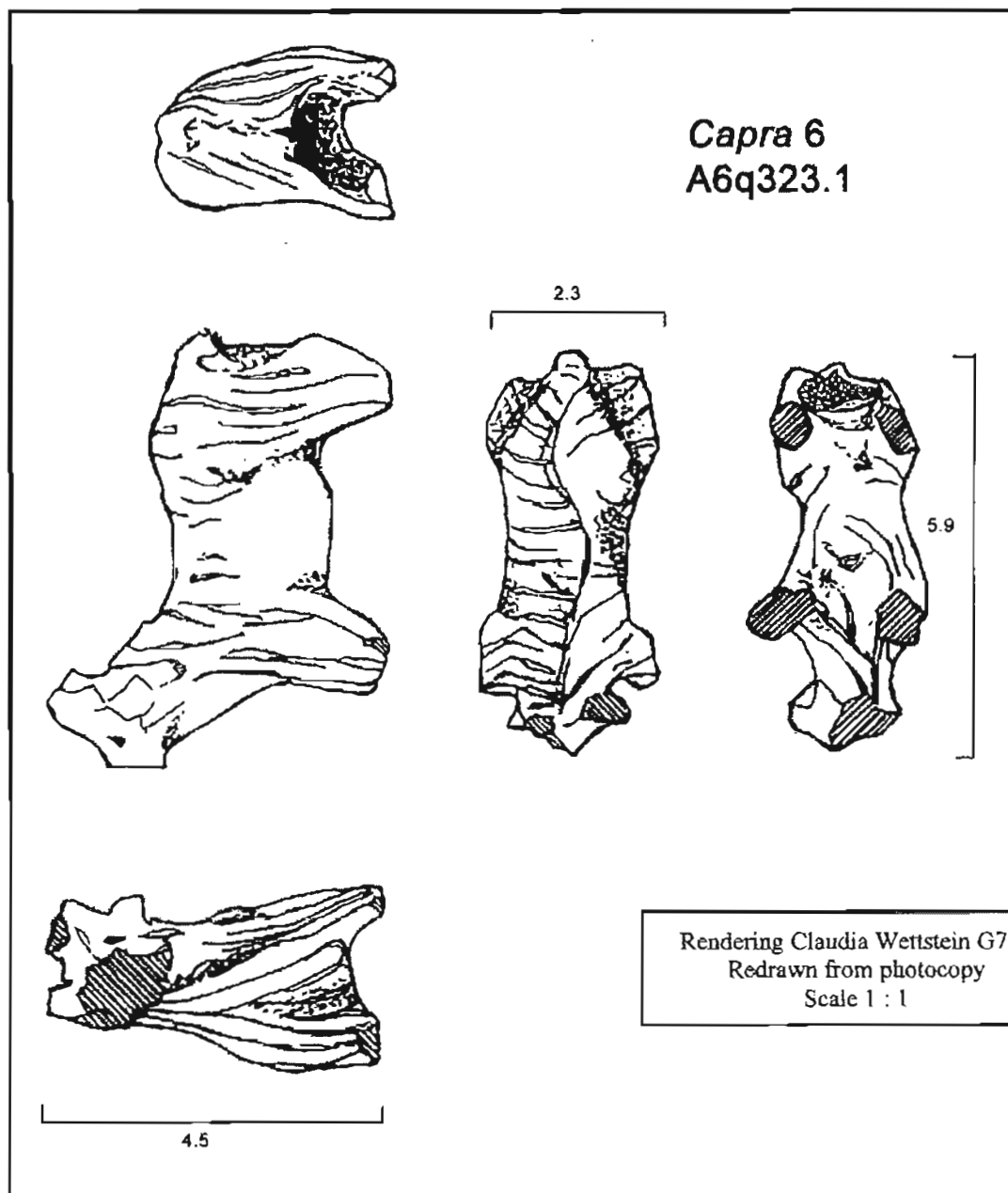


520

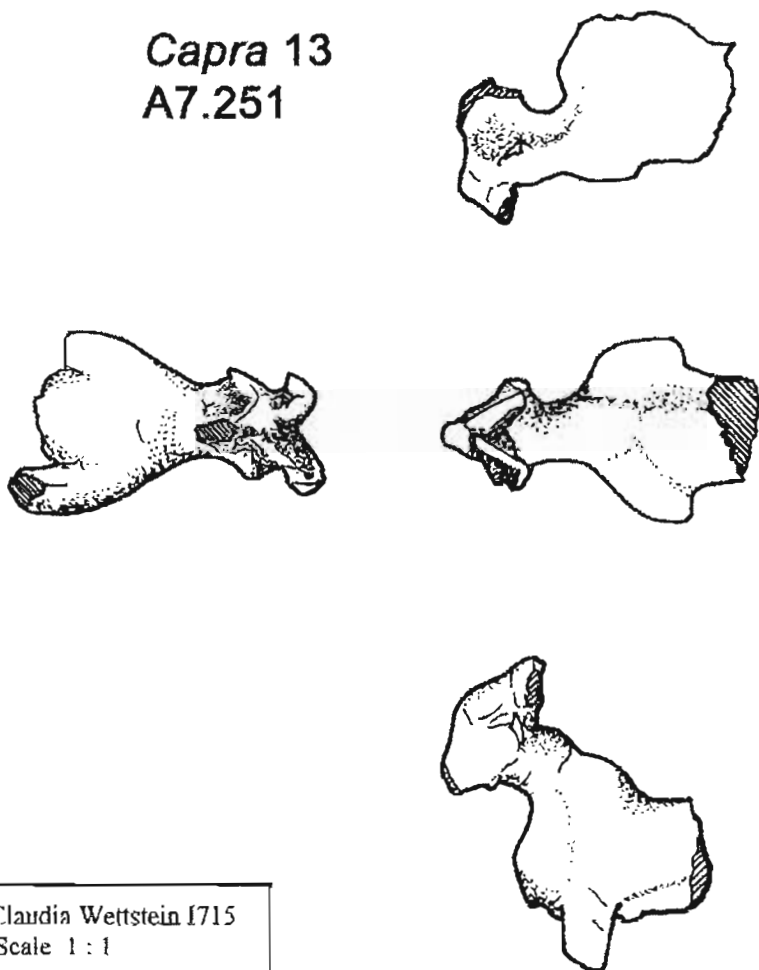
Rendering Claudia Wettstein I722  
Scale 1 : 1



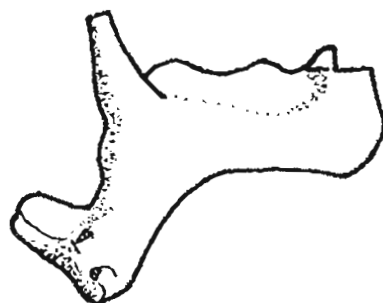




*Capra* 13  
A7.251



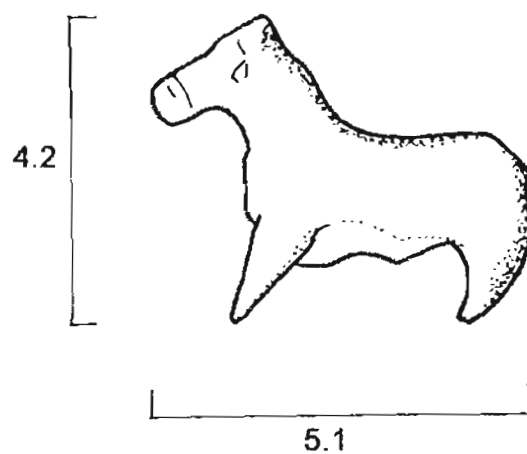
Rendering Claudia Wettstein 1715  
Scale 1 : 1



2.4



2.4

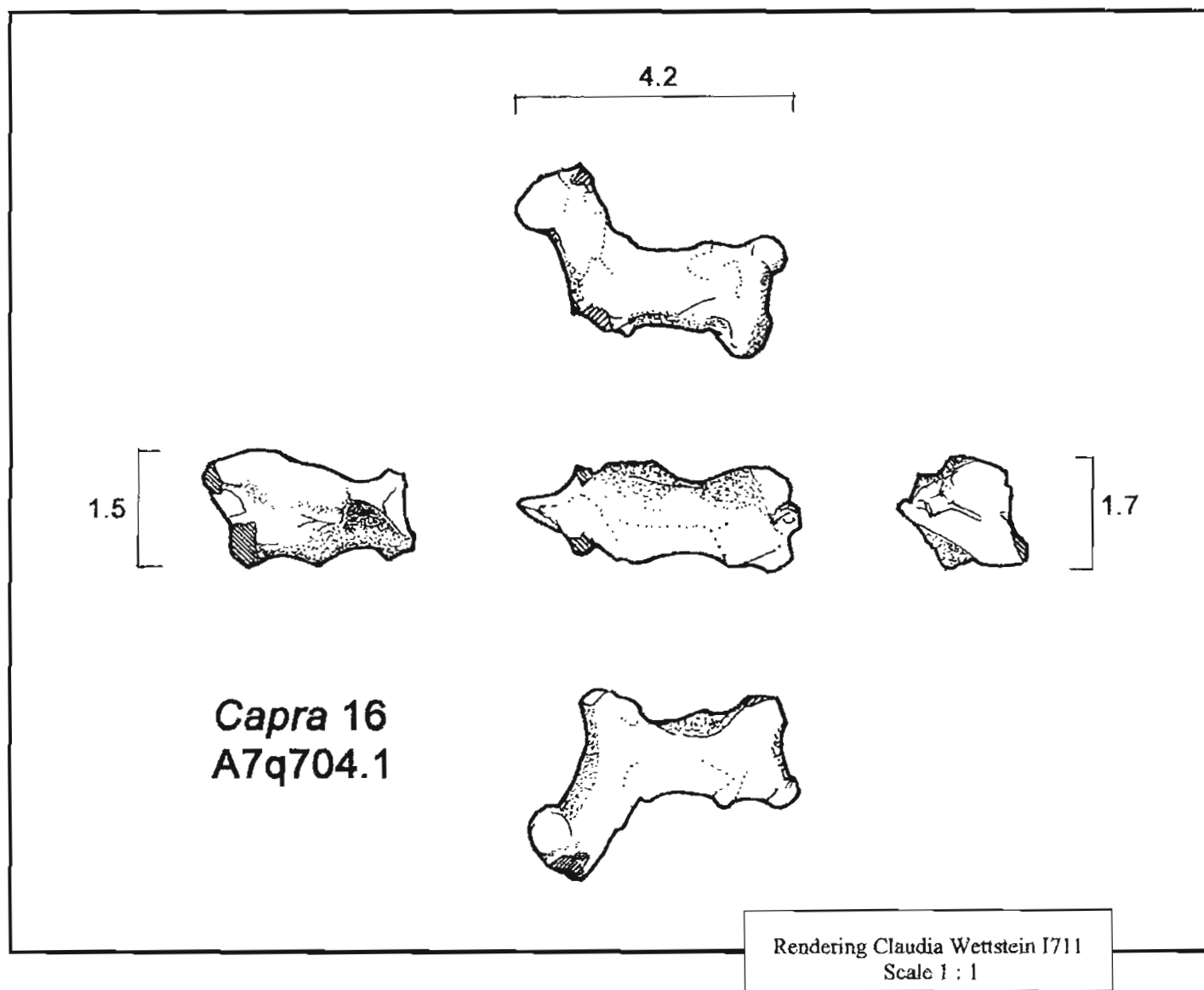


4.2

5.1

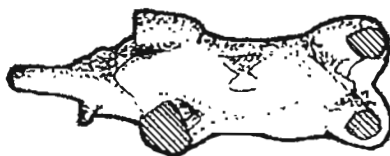
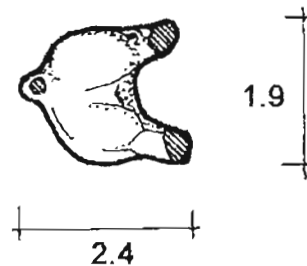
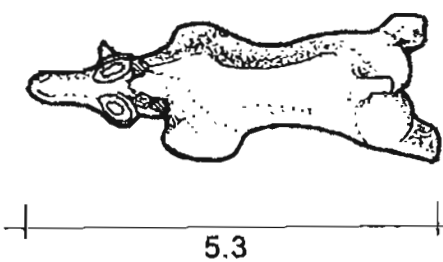
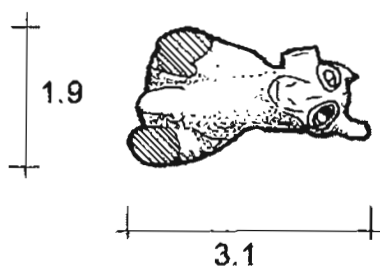
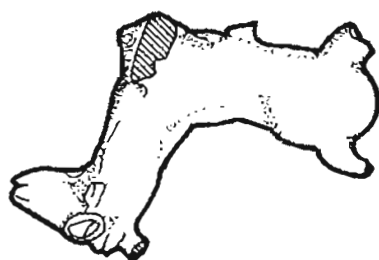
**Capra 14**  
**A7.319**

Rendering Claudia Wettstein I713  
Scale 1 : 1





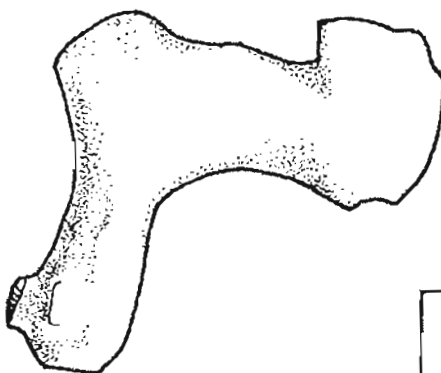
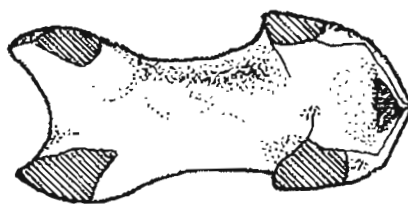
Rendering Claudia Wettstein J706  
Scale 1: 1



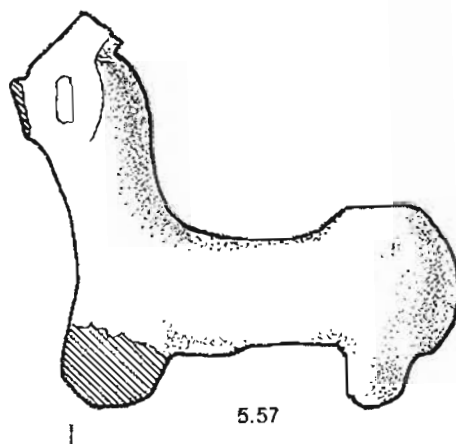
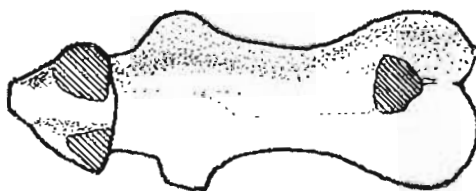
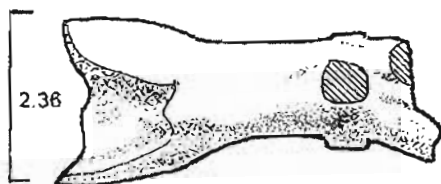
Related Stratified Finds  
*Capra* 204 A10.129



Related Stratified Finds  
*Capra* 205 A10.249



Rendering Claudia Wettstein L801  
Scale 1 : 1



READING FIGURINES

ANIMAL REPRESENTATIONS  
IN TERRA COTTA  
FROM ROYAL BUILDING AK  
AT URKESH (TELL MOZAN)

PLATES LI–LIX

ORDER Perissodactyla

FAMILY Equidae

GENUS *Equus*

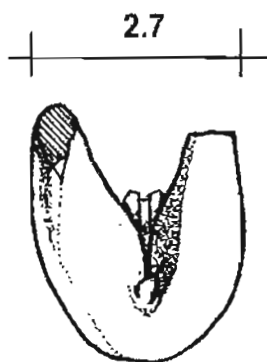
TYPE I ASINID

THE CORPUS

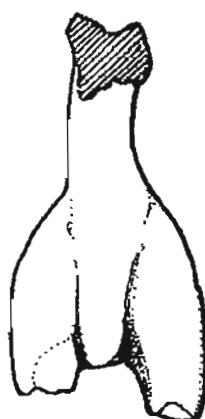
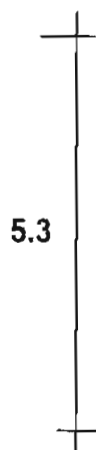
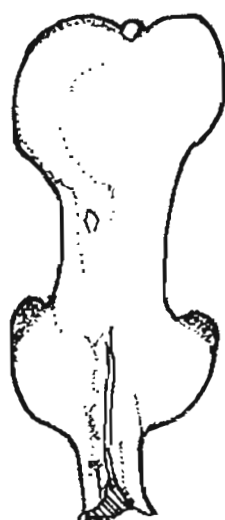
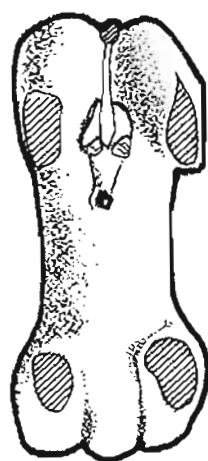
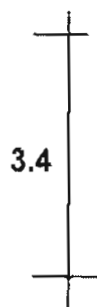
FIND TENTATIVELY IDENTIFIED AS *EQUUS* TYPE I

RELATED STRATIFIED FINDS

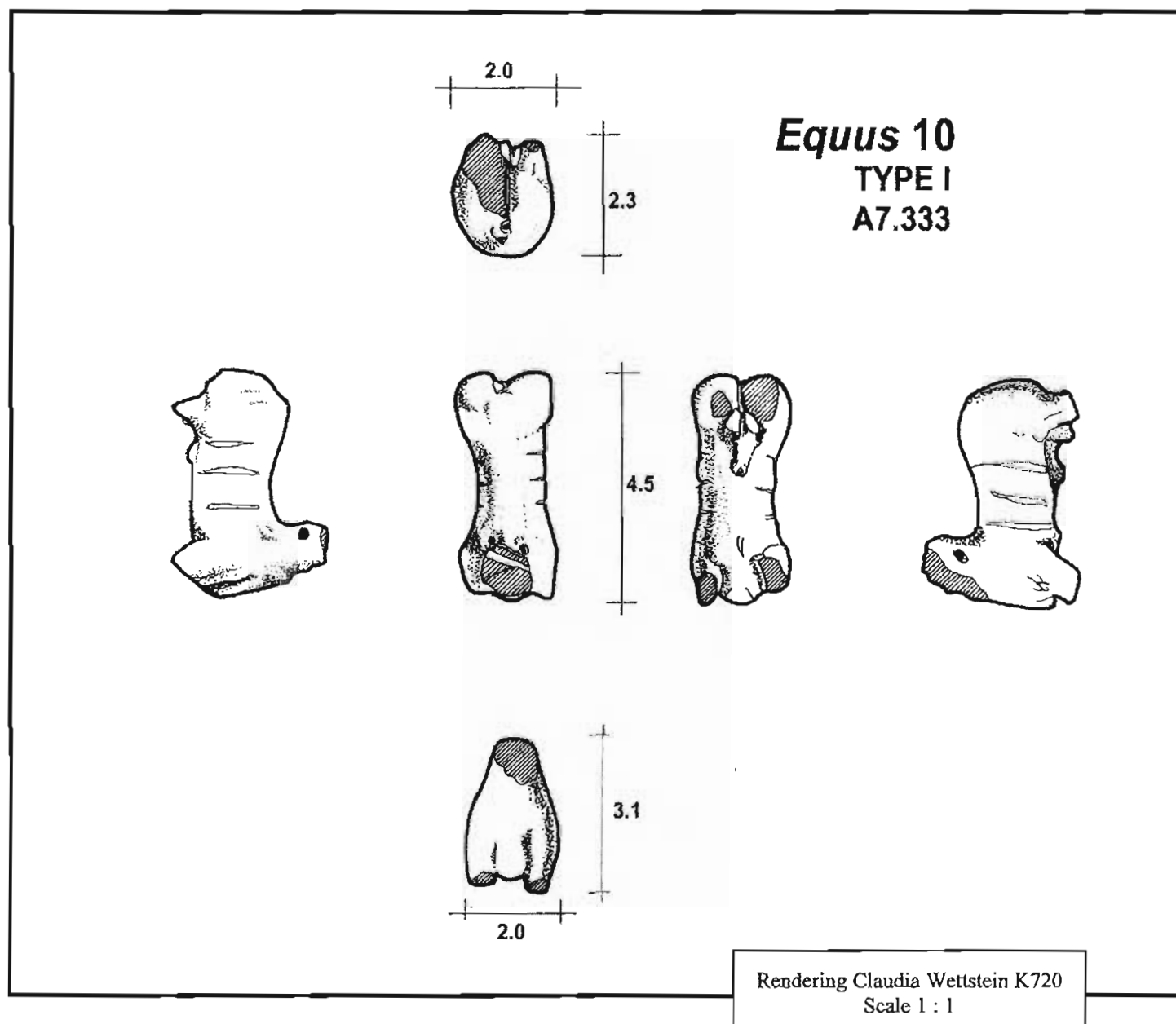
RELATED UNSTRATIFIED FIND



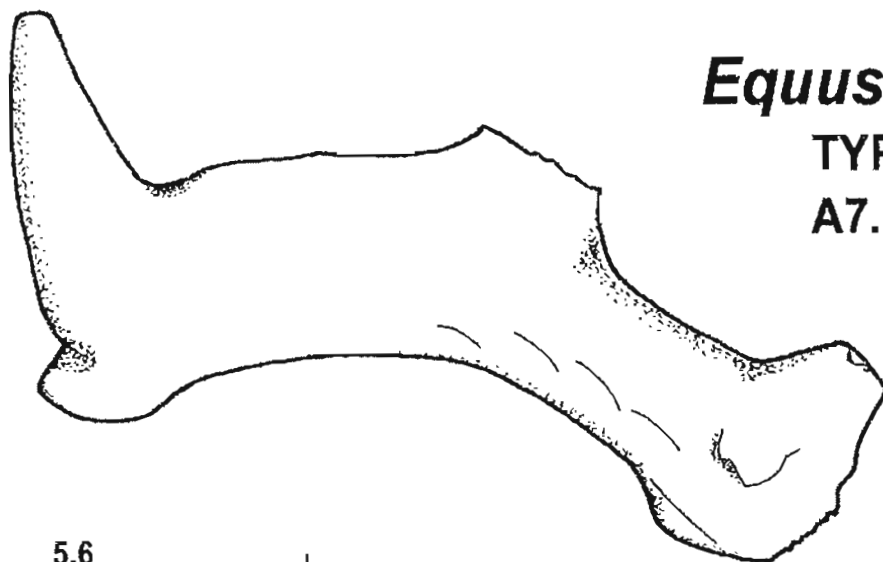
***Equus 5***  
**TYPE I (TEMPLATE)**  
**A6:238**



Rendering Claudia Wettstein H720  
Scale 1 : 1

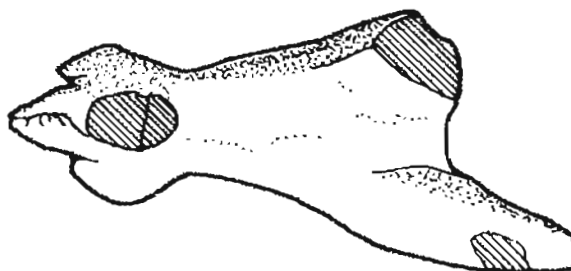
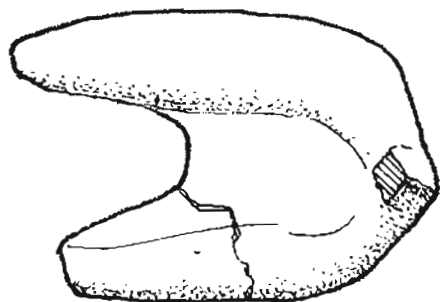


***Equus 11***  
**TYPE I**  
**A7.510**



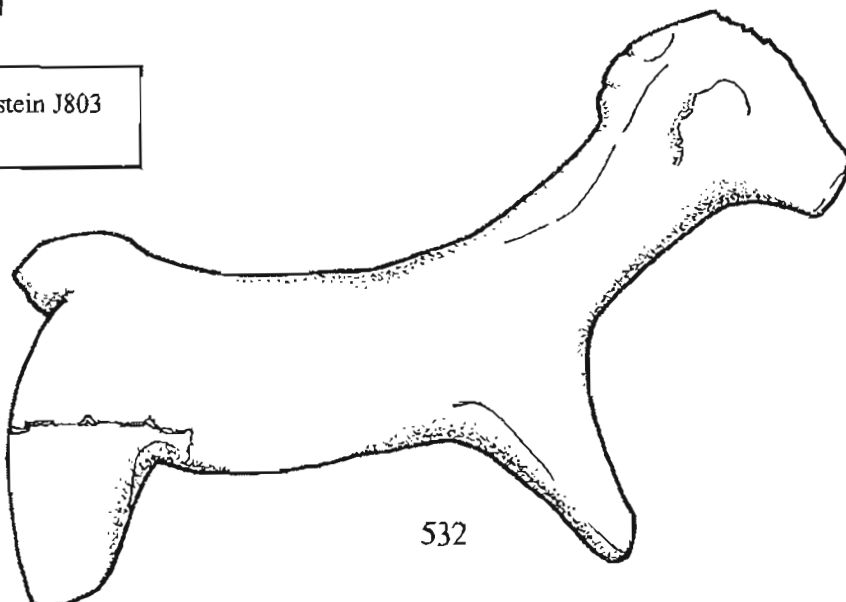
5.6

7.5

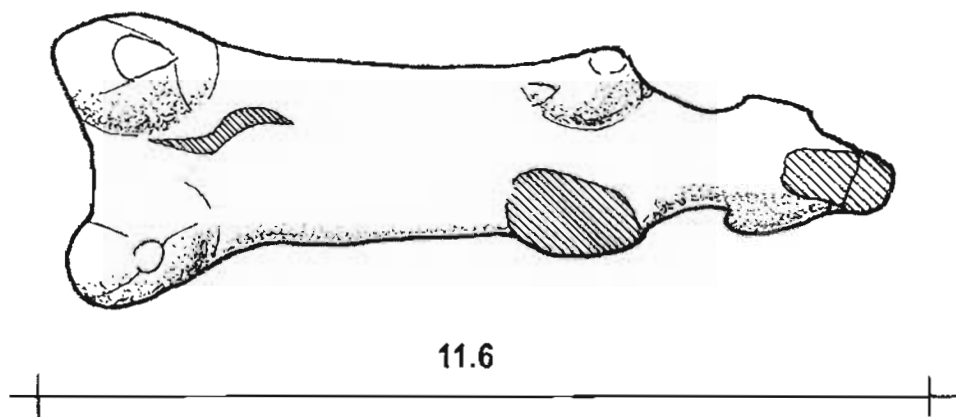


11.6

Rendering Claudia Wettstein J803  
Scale 1 : 1

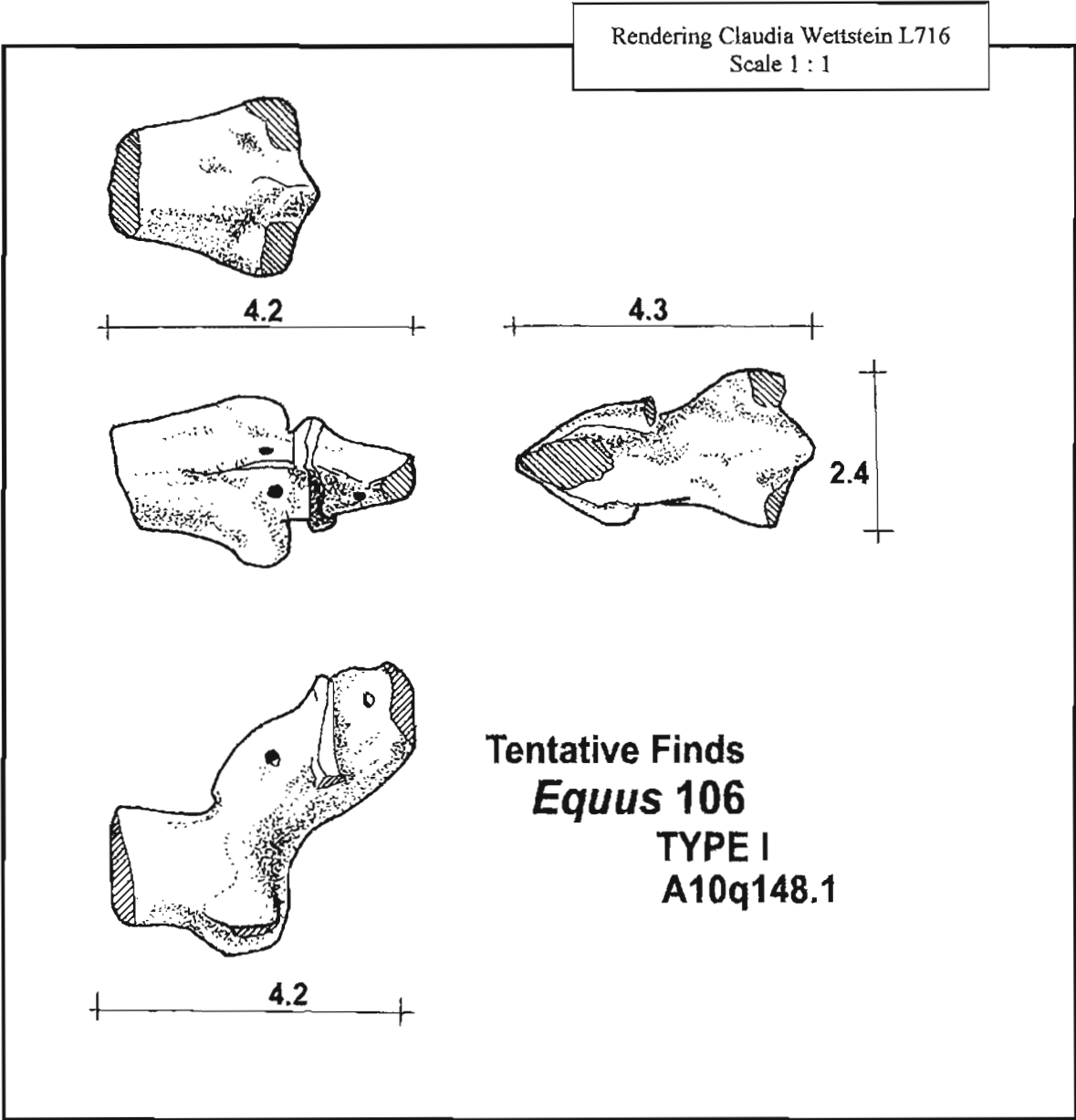


532

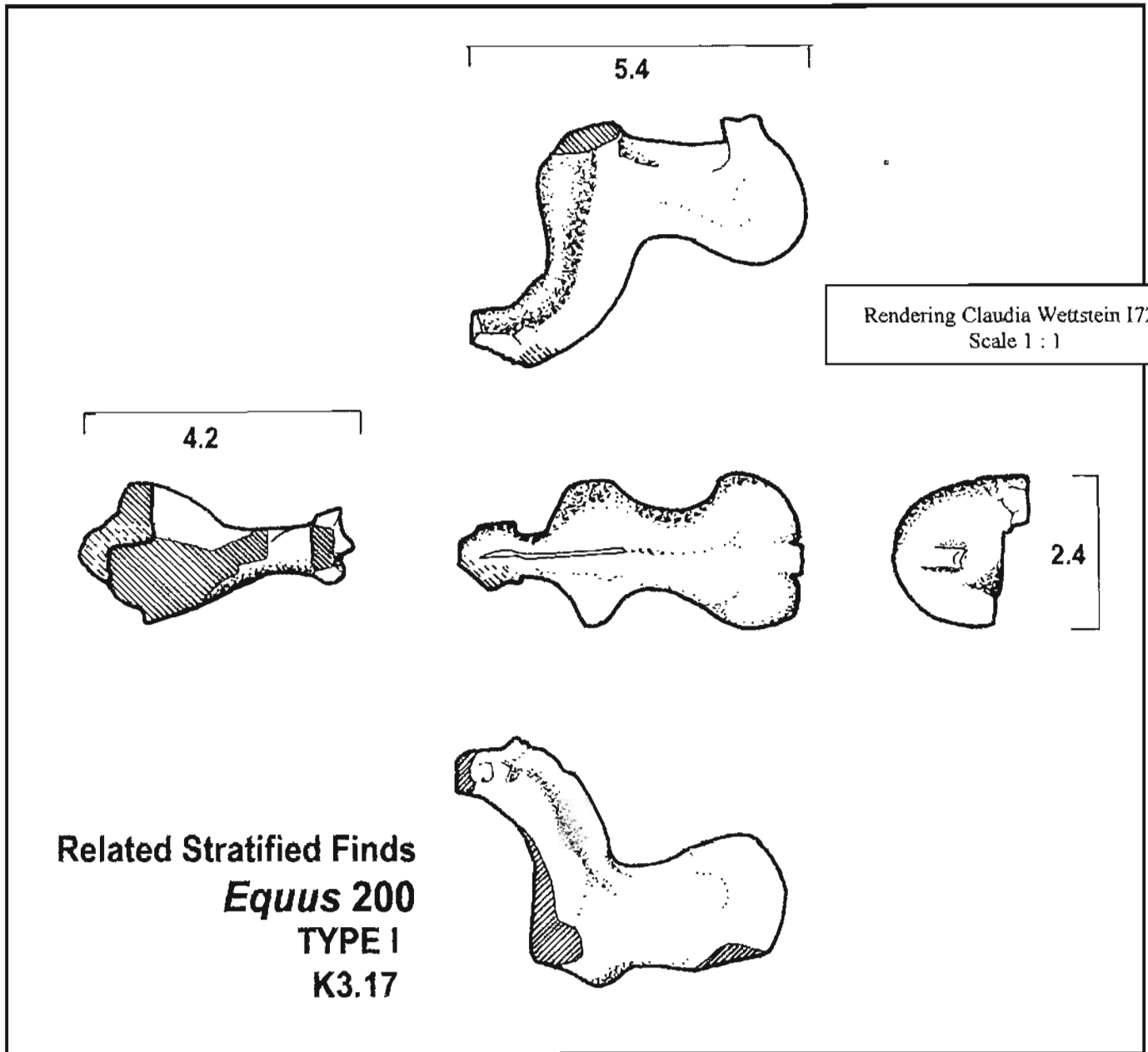


***Equus* 11**  
**TYPE I**  
**A7.510**

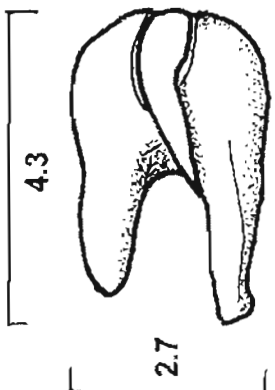
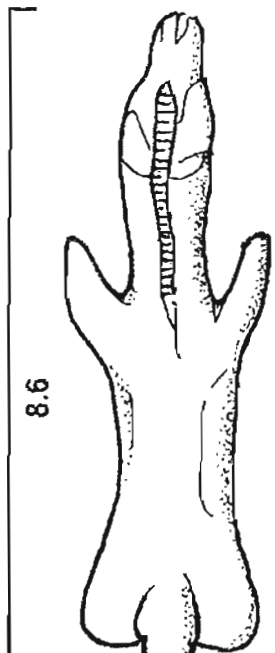
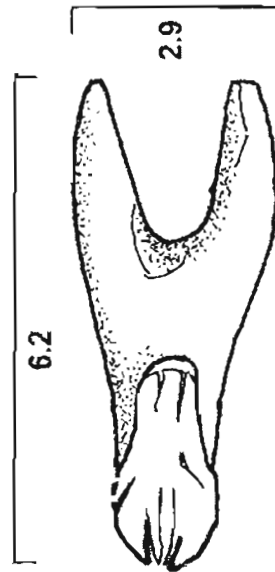
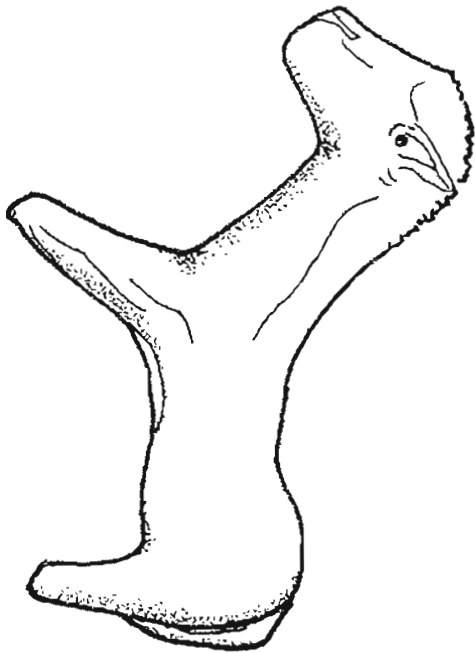
Rendering Claudia Wettstein J803  
Scale 1 : 1



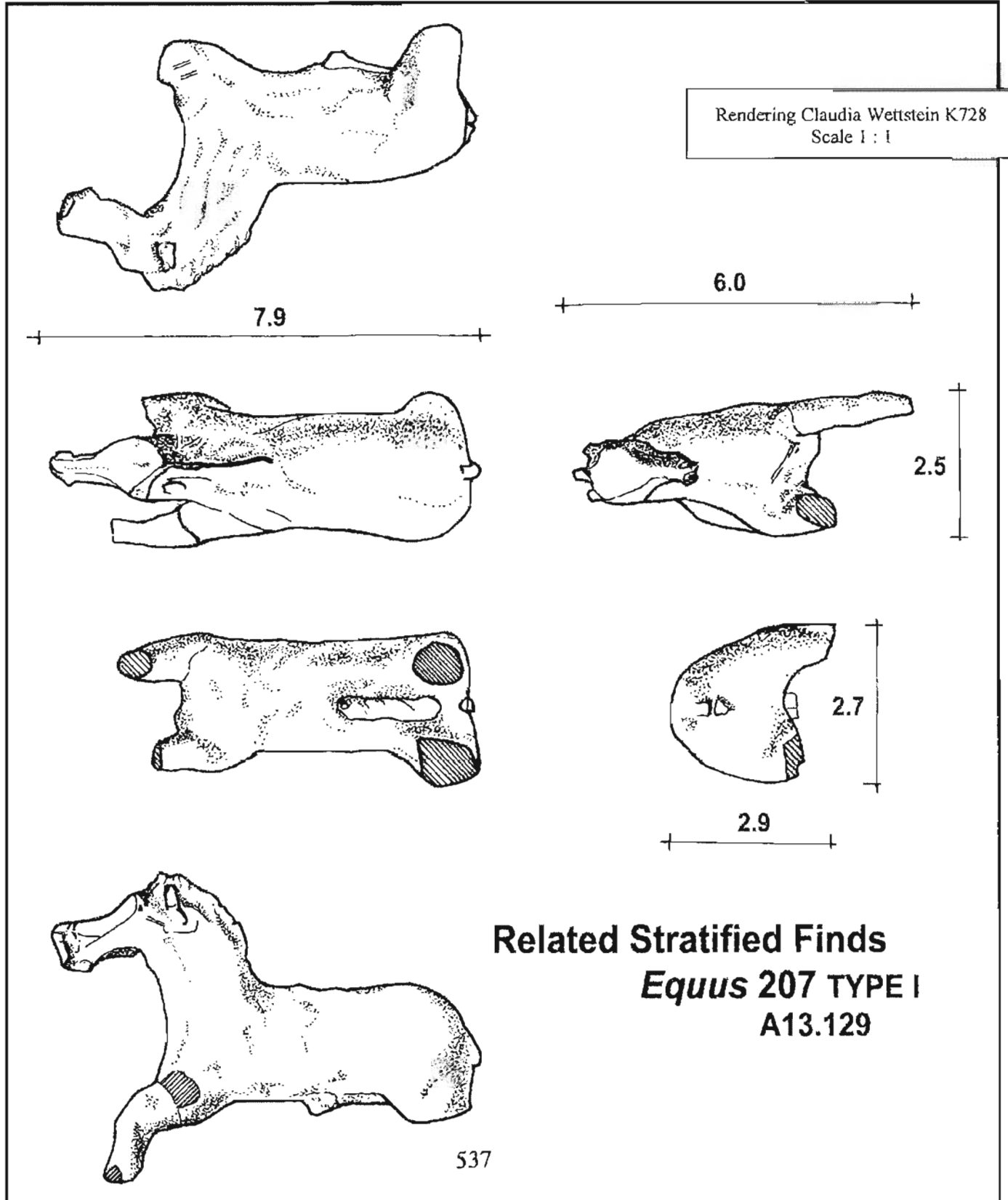


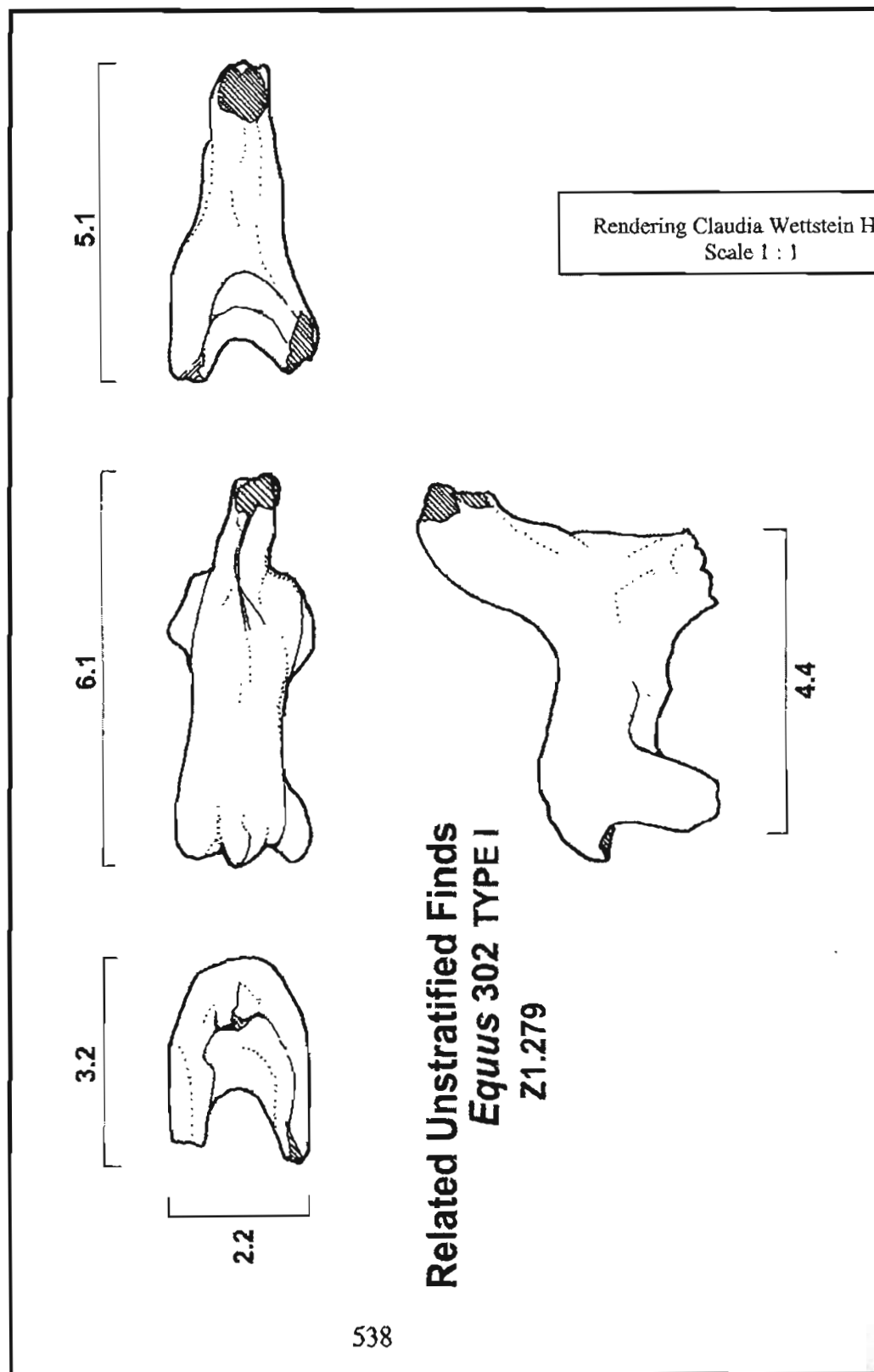


Rendering Claudia Wettstein J711, J801  
Scale : 1



Related Stratified Finds  
*Equus* 204 TYPE I  
A10.79





READING FIGURINES

ANIMAL REPRESENTATIONS  
IN TERRA COTTA  
FROM ROYAL BUILDING AK  
AT URKESH (TELL MOZAN)

PLATES LX–LXIV

ORDER Perissodactyla

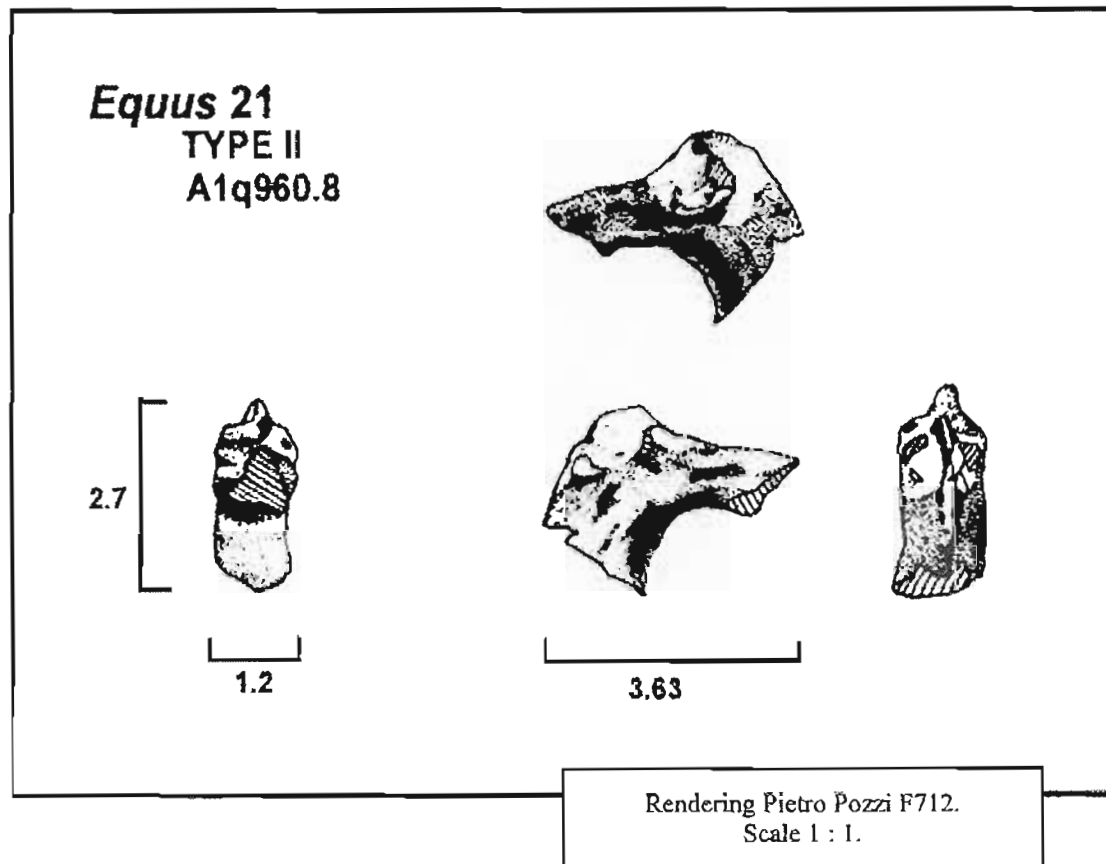
FAMILY Equidae

GENUS *Equus*

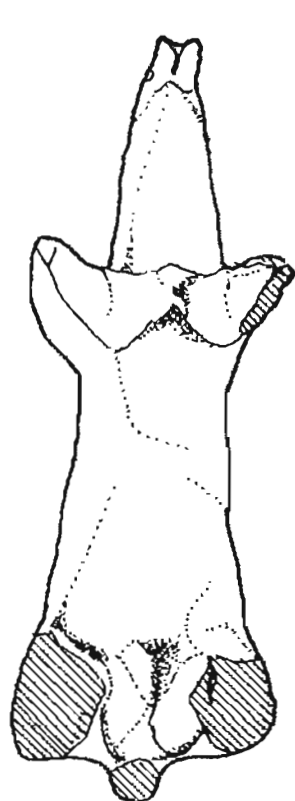
TYPE II HEMIONE

THE CORPUS

FIND TENTATIVELY IDENTIFIED AS *EQUUS* TYPE II



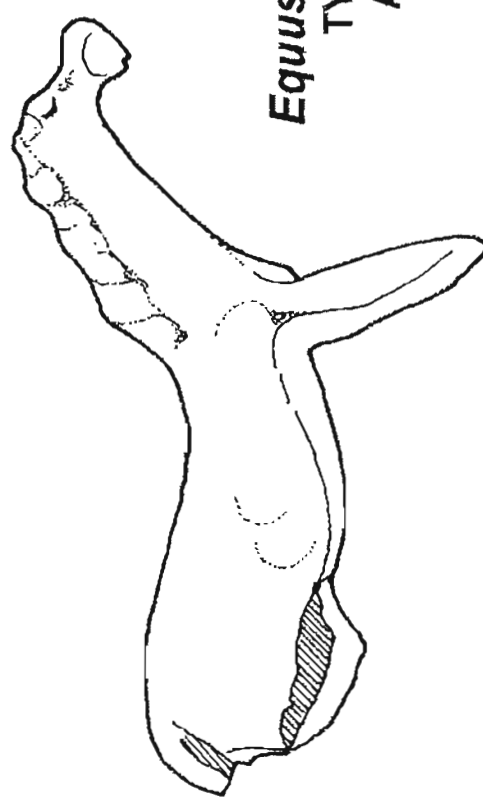
Ventral • Dorsal views • Right median plane  
Scale 1 : 1  
Rendering Claudia Wettstein H714



10.5



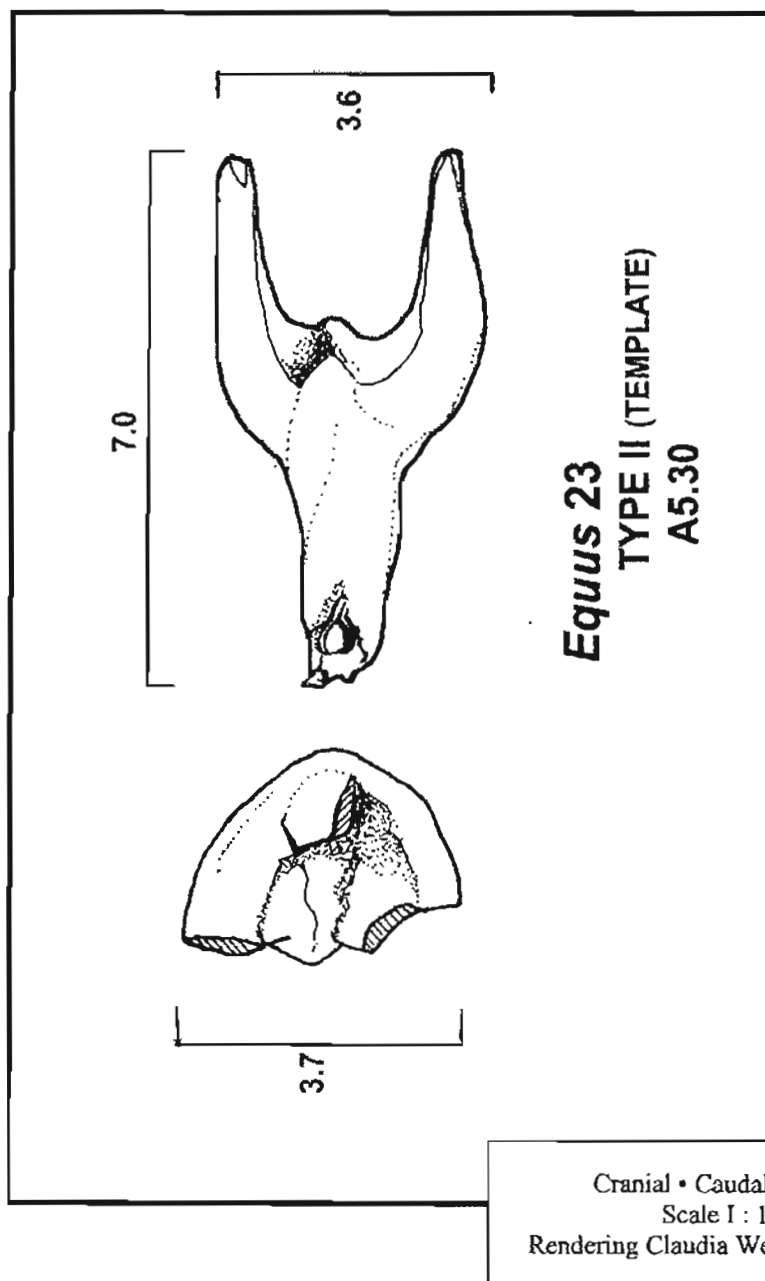
3.7



*Equus 23*

TYPE II (TEMPLATE)

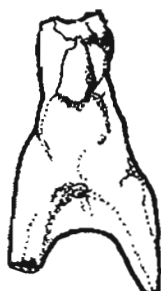
A5.30





Rendering Claudia Wettstein H719  
Scale 1 : 1

3.5



5.5



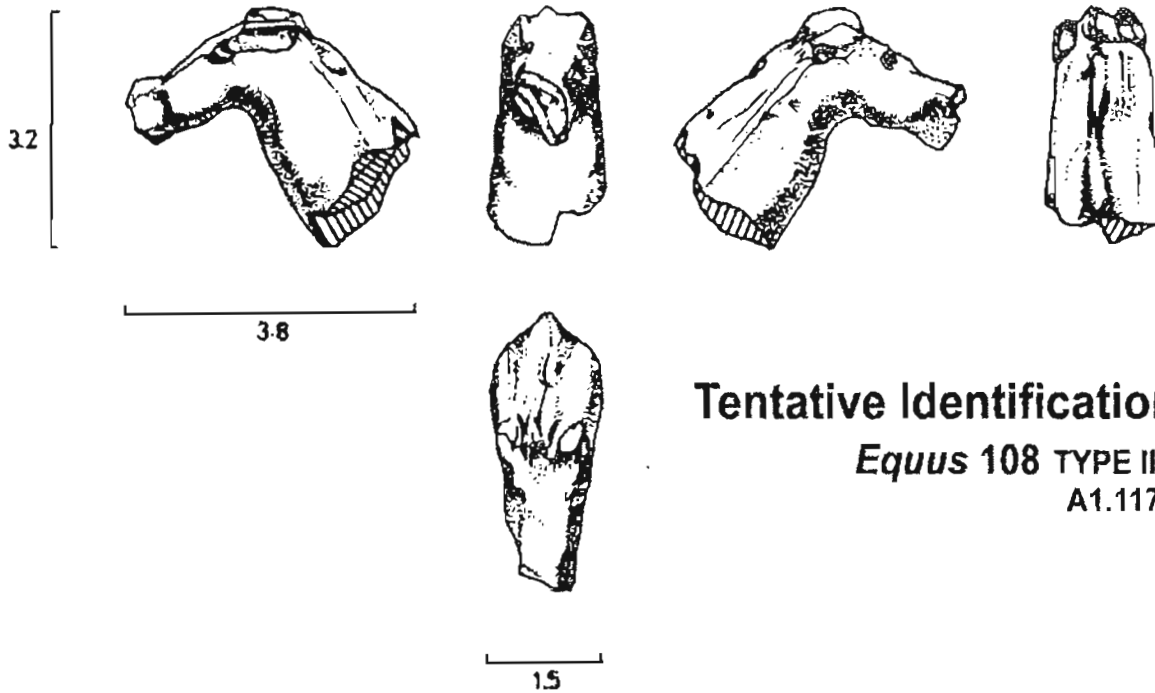
1.9



2.0

***Equus* 31**  
**TYPE II**  
**A7.256**

Rendering Pietro Pozzi F707  
Scale 1 : 1



**Tentative Identification**

*Equus* 108 TYPE II  
A1.117

READING FIGURINES

ANIMAL REPRESENTATIONS  
IN TERRA COTTA  
FROM ROYAL BUILDING AK  
AT URKESH (TELL MOZAN)

PLATES LXV–LXVII

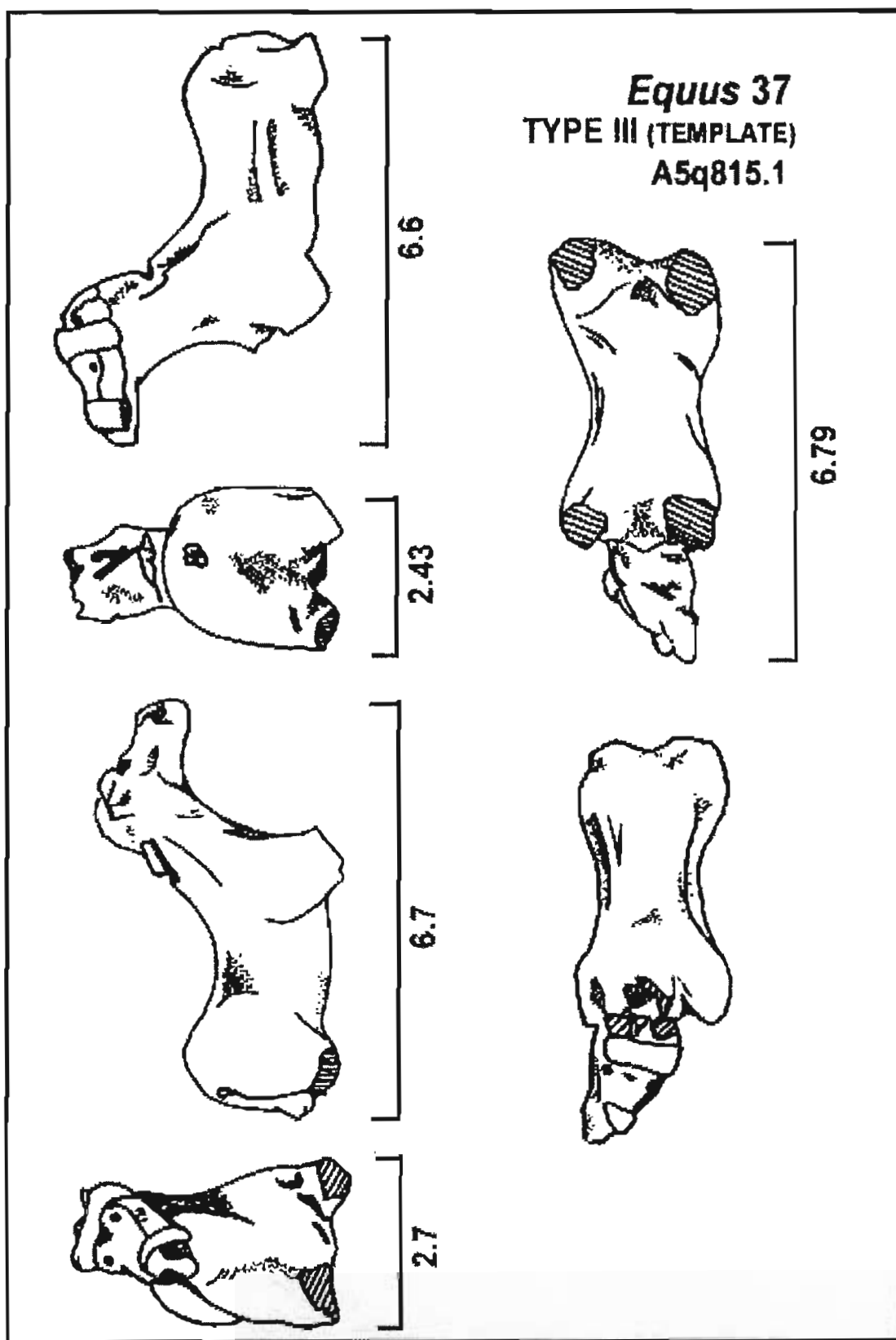
ORDER Perissodactyla

FAMILY Equidae

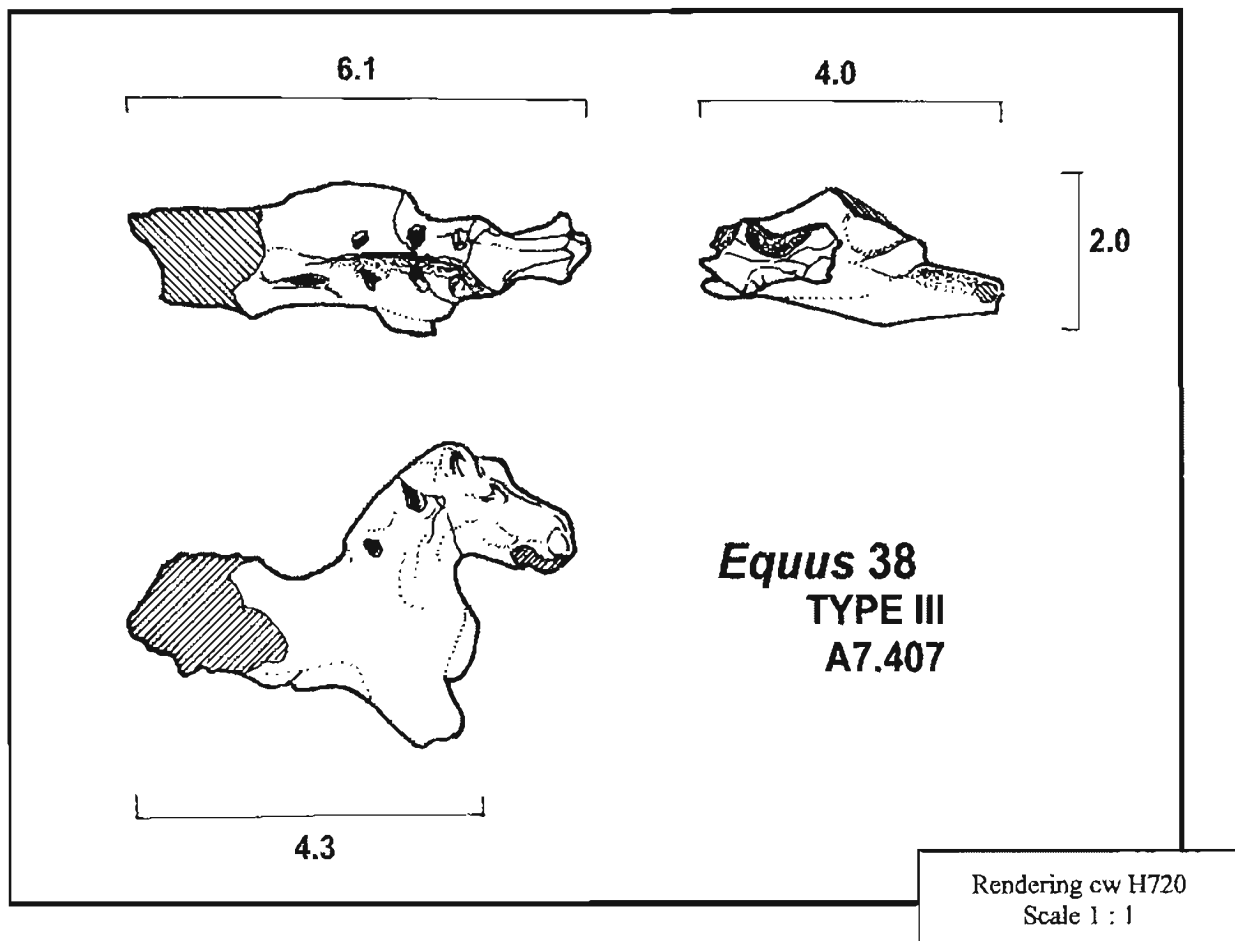
GENUS *Equus*

TYPE III CABALLINE

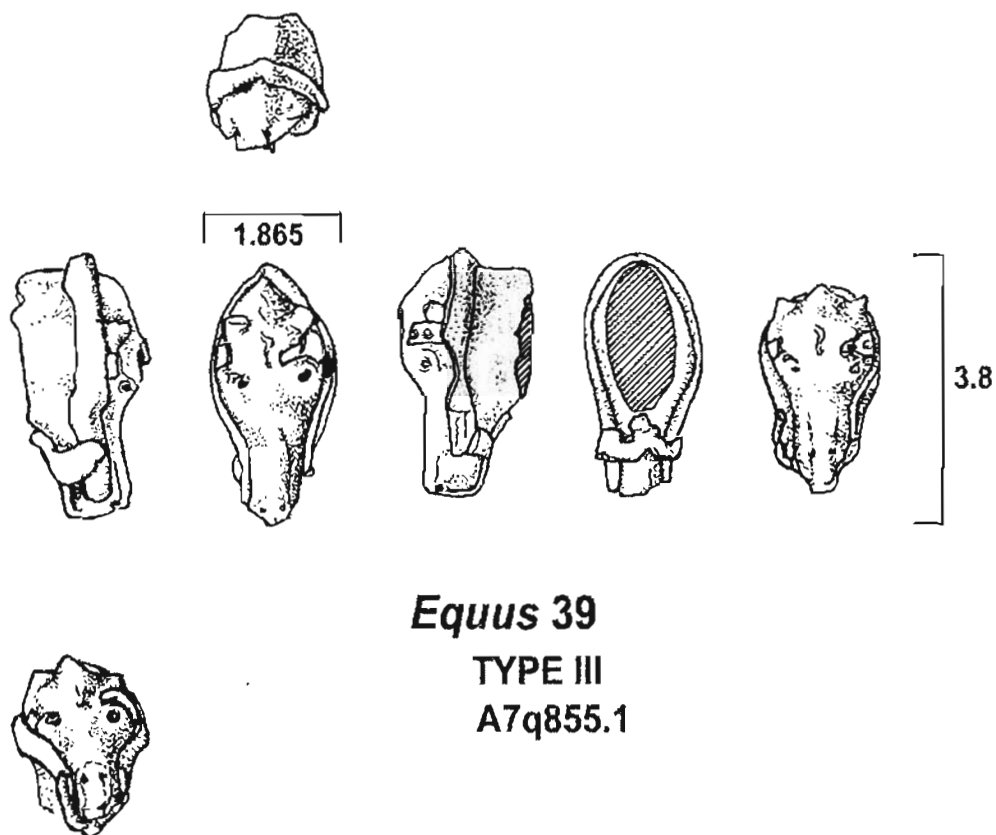
THE CORPUS



*Equus*



Rendering Claudia Wettstein  
Scale 1 : 1



## WORKS CITED

- Akkermans, P. M. M. G., and G. M. Schwartz (2003), *The Archaeology of Syria From Complex Hunter-Gatherers to Early Urban Societies (ca. 16,000–300 BC)*. Cambridge: Cambridge University Press.
- Akkermans, Peter M. M. G., and Kim Duistermaat (1997), "Of Storage and Nomads: The Sealings from Late Neolithic Sabi Abyad, Syria." *Paléorient*, 22/2: 17–44.
- Amiet, P., and D. Arnaud (1980), *Sumer Assur Babylone: Chefs-d'oeuvre du Musée de Baghdad*. Paris: Les Presses Artistiques, Ministère des Affaires Étrangères, Association Française d'Action Artistique.
- Anthony, D. W. (1991), "The Domestication of the Horse," pp. 250–277. In *Equids in the Ancient World, Volume II*. H.-P. Uerpmann. Wiesbaden: Dr. Ludwig Reichert.
- Anthony, D., D. Y. Telegin, et al. (1991), "The Origin of Horseback Riding." *Scientific American Magazine*, 265: 94–101.
- Anthony, D. W., and D. R. Brown (1991), "The Origins of Horseback Riding." *Antiquity*, 65: 22–38.
- Anthony, D. W., and D. R. Brown (2000), "Eneolithic Horse Exploitation in the Eurasian Steppes: Diet, Ritual and Riding." *Antiquity*, 74: 75–86.
- Ardeleanu-Jansen, A. (1993), *Die Terrakotten in Mohenjo-Daro: Eine untersuchung zur keramischen Kleinplastik in Mohenjo-Daro, Pakistan, ca. 2300–1900 v. Ch.* Aachen: Aachen University Mission.
- Aynard, J. M. (1972), "Animals in Mesopotamia," pp. 42–68. In A. H. Brodrick, *Animals in Archaeology*. London: Barrie & Jenkins.
- Azarpay, G. (1995), "Proportions in Ancient Near Eastern Art," pp. 2507–2520. In *Civilisations of the Ancient Near East, Volume IV*, J. M. Sasson, Ed., John Baines, Gary Beckman, Karen S. Robinson, Assoc. Eds. Peabody, Massachusetts: Hendrickson.
- Badre, L. (1980), *Les figurines anthropomorphes en terre cuite à l'âge du Bronze en Syrie: Bibliothèque archéologique et historique. T. CIII*. Paris: Librairie Orientaliste Paul Geuthner/Beyrouth: Institut Français d'Archéologie du Proche Orient.
- Bailey, D. W. (1996), "The Interpretation of Figurines: The Emergence of Illusion and New Ways of Seeing." *Cambridge Archaeological Journal*, 6 (2): 291–295.
- Barrelet, M.-T. (1968), *Figurines et reliefs en terre cuite de la Mésopotamie antique*. Paris: Librairie Orientaliste Paul Geuthner.
- Beit-Arieh, I. (1995), *Horvat Qitmit: An Edomite Shrine in the Biblical Negev*. Jerusalem: Institute of Archaeology of Tel Aviv University. [Catalogue of Cult Objects and Commentary by Pirhiya Beck].
- Benoit, A. (1992), "Drinking Bear (catalog entry)," p. 67. In *The Royal City of Susa*, P.O. Harper, J. Aruz, and F. Tallon, Eds. New York: Metropolitan Museum of Art.
- Bertin, L., M. Burton, et al. (1967), *Larousse Encyclopedia of Animal Life*. Paris: Larousse. [Subsequently published in English by Hamlyn.]
- Bohac, K. J. (2001), conversation with the then assistant curator of Egyptian art regarding pelt treatment and the lions of Urkesh as compared to CMA holdings, R. Hauser.
- Bökönyi, S. (1976), "Development of early stock raising in the Near East." *Nature*, 264 (No. 5581): 19–23.
- Bökönyi, S. (1989), "Definitions of animal domestication," pp. 22–27. In *The Walking Larder: Patterns of Domestication, Pastoralism and Predation*. J. Clutton-Brock, Ed. London: Unwin Hyman.
- Bökönyi, S. (1993), "Hunting in Arslantepe, Anatolia," pp. 342–359. In *Between the Rivers and Over the Mountains Archaeologica Anatolica et Mesopotamica Alba Palmieri Dedicata*. M. Frangipane, H. Hauptmann, M. Liverani, P. Matthiae, M. Mellink, Eds. Rome: La Sapienza (Dipartimento de Scienze Archeologiche e Antropologiche dell' Antichità Università di Roma. [Includes tables and bibliography.]

Bökönyi, S. (1994), letter to Giorgio Buccellati.

Bökönyi, S. (1994), *Prehistoric Domestic and Wild Fauna of Mozan, Syria: A Preliminary Report*. Malibu: International Institute for Mesopotamian Area Studies.

Bökönyi, S., and R. Hauser (1993), discussions about animal figurines excavated at Urkesh (Tell Mozan). Unpublished.

Braidwood, L. S., R. J. Braidwood, et al., Eds. (1983), *Prehistoric Archeology Along the Zagros Flanks*. Chicago: University of Chicago Press.

Braidwood, R. J., and Bruce Howe with contributions by Hans Helbaek, Frederick R. Matson, Charles A. Reed, Herbert E. Wright, Jr. (1960), *Prehistoric Investigations in Iraqi Kurdistan*. Chicago: University of Chicago Press.

Brewer, D., Terence Clark, et al. (2001), "The Path to Domestication," pp. 21–27. In D. Brewster, T. Clark, and A. Phillips, *Dogs in Antiquity: Anubis to Cerebrus. The Origins of the Domestic Dog*. Warminster England: Aris & Phillips.

Buccellati, G. (1999), marginalia, draft manuscript of *Reading Figurines*.

Buccellati, G., and M. Kelly-Buccellati (1988), *Mozan I: The Soundings of the First Two Seasons*. Malibu: Undena Publications.

Buccellati, G., and M. Kelly-Buccellati (1995/1996), "The Royal Storehouse of Urkesh: The Glyptic Evidence from the Southwestern Wing," *Archiv für Orientforschung*, XLII/XLIII: 1–32.

Buccellati, G., and M. Kelly-Buccellati (1996), "The Courtiers of the Queen of Urkesh: Glyptic Evidence from the Western Wing of the Royal Storehouse AK," *Subartu*, 4/2: 192–215.

Buccellati, G., and M. Kelly-Buccellati (1996), "The Seals of the King of Urkesh: Evidence from the Western Wing of the Royal Storehouse AK," pp. 65–103. In *Festschrift für Hans Hirsch Wiener Zeitschrift für die Kunde des Morgenlandes*, C. Römer, Ed. Vienna: Im Selbstverlag des Institutes für Orientalistik.

Buccellati, G., and Marilyn Kelly-Buccellati (1996), "Una manciata di secoli," *Bullettino dell' Associazione Archeologica Ticinese*, 9: 16–23.

Buccellati, G., and M. Kelly-Buccellati (1997), *Toward a Functional Definition of the Royal Building AK at Tell Mozan/Urkesh Report on the 10th Season of Excavations (Summer 1997)*. Malibu: International Institute for Mesopotamian Area Studies.

Buccellati, G., M. Kelly-Buccellati, et al. (1997), "The First Hurrian Capital," *Biblical Archaeologist* 60, No. 2 (June): 77–96.

Buccellati, G., M. Kelly-Buccellati, et al. (1997), "Archeology in Syria: Excavations and Surveys Tell Mozan," *American Journal of Archaeology*, 101: 133–135.

Clark, T. (2001), "The Dogs of the Ancient Near East," pp. 49–80. In *Dogs in Antiquity: Anubis to Cerebrus. The Origins of the Domestic Dog*. Warminster England: Aris & Phillips.

Clusan, S., Eric Deport, and Jeanne Mouliérac, Eds. (1993), *Syrie: Mémoire et Civilisation*. Nantes: Flammarion, for the Institut du Monde Arabe.

Clutton-Brock, J. (1981), *Domesticated Animals from Early Times*. Austin: University of Texas Press/British Museum.

Clutton-Brock, J. (1987), *A Natural History of Domesticated Animals*. London: British Museum/Cambridge: Press Syndicate of the University of Cambridge.

Clutton-Brock, J. (1992), *Horse Power: A History of the Horse and the Donkey in Human Societies*. Cambridge, Massachusetts: Harvard University Press.

Clutton-Brock, J. (1993), *Cats: Ancient and Modern*. Cambridge, Massachusetts: Harvard University Press.



- Clutton-Brock, J. (1994), "The Unnatural World: Behavioural Aspects of Humans and Animals in the Process of Domestication," pp. 23–35. In *Animals and Human Society: Changing Perspectives*. A. Manning and J. Serpell, Eds. London: Routledge.
- Clutton-Brock, J., and S. Davies (1993), "More Donkeys from Tell Brak." *Iraq*, LV: 209–221.
- Clutton-Brock, J., E. R. Izquierdo, et al. (2001). "Ritual Burials of a Dog and Six Domestic Donkeys," pp. 327–338. *Excavations at Tell Brak. Vol. 2: Nagar in the Third Millennium B.C.* Cambridge: McDonald Institute for Archaeological Research, British School of Archaeology in Iraq.
- Cole, S. (1972), "Animals of the New Stone Age," pp. 15–41. In A. H. Brodrick, *Animals in Archaeology*. London: Barrie & Jenkins.
- Collon, D. (1987), *First Impressions: Cylinder Seals in the Ancient Near East*. Chicago: University of Chicago Press.
- Collon, D. (1990), *Near Eastern Seals*. Berkeley: University of California Press/British Museum.
- Collon, D. (2004), correspondence regarding provenience of an object from the collections of the British Museum, R. Hauser.
- Cooke, B. (2004), *The Heritage of the Horse: A History of Humans and Their Relationship with the Horse*. Lexington, Kentucky: International Museum of the Horse.
- Czichon, R. M., P. Werner, et al. (1998), *Tall Munbaqa — Ekalt I: Die Bronzezeitlichen Kleinfunde*. Saarbrücken: Saarbrücker Druckerai und Verlag.
- Davis, S. J. M. (1987), *The Archaeology of Animals*. New Haven, Connecticut: Yale University Press.
- Dornemann, R. H. (1997), "Tell Halaf," Vol. 2, pp. 460–462. *The Oxford Encyclopedia of Archaeology in the Near East*. E. M. Meyers, Ed. Oxford: Oxford University Press.
- Edwards, E. H. (1993), *Horses: The Visual Guide to over 100 Horse Breeds from Around the World*. New York: DK Publishing.
- Edwards, E. H. (1994), *The Encyclopedia of the Horse*. London: Dorling Kindersley.
- Erlich, R. W., Ed. (1992), *Chronologies in Old World Archaeology*. Chicago: University of Chicago Press.
- Evans, J. (Fall 2003), "Recent Acquisitions: A Selection: 2002–2003," pp. 6–7. *Metropolitan Museum of Art Bulletin*, LXI, No. 2 (Fall).
- Forsyth, D., J. Malik, et al. (1997), "Finding Horses Piece by Piece," pp. 90–93. Sidebar in "Searching for Digital Pictures." *Scientific American Magazine* (June).
- Frankfort, H. (1939), *Sculpture of the Third Millennium B.C. from Tell Asmar and Khafajah*. Chicago: University of Chicago Press.
- Frankfort, H. (1943), *More Sculpture from the Diyala Region*. Chicago: University of Chicago Press.
- Frankfort, H. (1970), *The Art and Architecture of the Ancient Orient*. New Haven, Connecticut: Yale University Press.
- Frankfort, H., S. Lloyd, et al. (1940), *The Gimilsin Temple and the Palace of the Rulers at Tell Asmar*. Chicago: University of Chicago Press.
- Fugmann, E. (1958), *Hama: Fouilles et Recherches de la Fondation Carlsberg, 1931–1938. L'Architecture des Périodes Pré-Hellénistiques*. Copenhagen: Nationalmuseet.
- Genouillac, H. de (1934), *Fouilles de Telloh I: Époques présargoniques*. Paris: Librairie Orientaliste Paul Geuthner.
- Ghirshman, R. (1964), *The Arts of Ancient Iran*. New York: Golden Press.
- Goff, B. L. (1963), *Symbols of Prehistoric Mesopotamia*. New Haven, Connecticut: Yale University Press.

- Goodell, M. (2000), conversations regarding human intervention in the lives of animals and signs of domestication in dogs of antiquity. R. Hauser.
- Gouin, P. (1993), "Bovins et laitages en Mésopotamie méridionale au 3ème millénaire." *Iraq*, LV: 135-145.
- Harper, P. O., J. Aruz, et al., Eds. (1992), *The Royal City of Susa: Ancient Near Eastern Treasures in the Louvre*. New York: Metropolitan Museum of Art.
- Hauser, R. (1998), "The Equids of Urkesh: What the Figurines Say," pp. 63-74. In *Urkesh and the Hurrians: Studies in Honor of Lloyd Cotsen*. G. Buccellati and M. Kelly-Buccellati, Eds. Malibu: Undena Publications.
- Hawley, D. (2000), "By a Nose: Strips Adapted for Racehorses." *Saint Paul Pioneer Press*. Saint Paul, Minnesota: 1A, 12A.
- Helmig, M., and S. E. Sewell (1998), *Donkey and Mule Handbook: A Guide to the Conformation, Judging and Showing of Donkeys and Mules*. Alberta, Canada: Canadian Donkey and Mule Association.
- Hodder, I., Ed. (2000), *Towards Reflexive Method in Archaeology: The Example at Çatal Höyük*. Cambridge: MacDonald Institute for Archaeological Research.
- Hole, F. (1989), "A two-part, two-stage model of domestication," pp. 97-104. In J. Clutton-Brock, *The Walking Larder*. London: Unwin Hyman.
- Holland, T. A. (forthcoming), *The Excavations at Tell Es-Sweyhat (proof pages)*. Chicago: Oriental Institute.
- Hruby, J. (2001), communications regarding differences among finger modeling, scraping and finishing by cloth, R. Hauser.
- Hyland, A. (2003), *The Horse in the Ancient World*. Westport, Connecticut/London: Praeger.
- Ivanov, V. V. (1998), "Horse Symbols and the Name of the Horse in Hurrian," pp. 145-166. In *Urkesh and the Hurrians: Studies in Honor of Lloyd Cotsen*. G. Buccellati, and M. Kelly-Buccellati, Eds. Malibu: Undena Publications.
- Kelly-Buccellati, M. (1990), "A New Third Millennium Sculpture from Mozan," pp. 149-154. In *Essays in Ancient Civilization Presented to Helene J. Kantor*. A. Leonard, Jr., and Bruce B. Williams, Eds. Chicago: Oriental Institute.
- Kelly-Buccellati, M. (1990), "Three Seasons of Excavation at Tell Mozan," pp. 129-132. In *Symposium: Recent Excavations in the Upper Khabur Region*. S. Eichler, M. Wäfler, D. Warburton, Eds. Freiburg, Switzerland; Universitätsverlag and Göttingen: Vandenhoeck & Ruprecht.
- Kelly-Buccellati, M. (1998), "The Workshops of Urkesh," pp. 35-50. In *Urkesh and the Hurrians: Studies in Honor of Lloyd Cotsen*. G. Buccellati, and M. Kelly-Buccellati, Eds. Malibu: Undena Publications.
- Kenoyer, J. M. (1998), *Ancient Cities of the Indus Valley Civilization*. Oxford: Oxford University Press/New York: American Institute of Pakistan Studies.
- Kimbrough, C. (1998), notes about textiles and other general features of the figurine corpus at Urkesh (Tell Mozan), unpublished, but entered into the global record of MZ11.
- Klengel-Brandt, E. (1978), *Die Terrakotten aus Assur im Vorderasiatischen Museum Berlin*. Berlin: Deutscher Verlag der Wissenschaften.
- Klengel-Brandt, E. (1995), "Assyrian Terracotta Figurines," pp. 114-118. In *Discoveries at Ashur on the Tigris: Assyrian Origins. Antiquities in the Vorderasiatisches Museum, Berlin*. P. O. Harper, Evelyn Klengel-Brandt, Joan Aruz, and Kim Benzel, Eds. New York: Metropolitan Museum of Art.
- Kozloff, A. P., Ed. (1981), *Animals in Ancient Art from the Leo Mildenberg Collection*. Cleveland, Ohio: Cleveland Museum of Art/Bloomington, Indiana: Indiana University Press.
- Krieger, A. D. (1944), "The Typological Concept." *American Antiquity*, IX (No. 3/January), 271-288.
- LeBeau, M. and A. Suleiman (1997), *Tell Beydar, Three Seasons of Excavations (1992-1994). A Preliminary Report*. Turnhout, Belgium: Brepols.

- Liebowitz, H. (1988), *Terra-Cotta Figurines and Model Vehicles*. Malibu: Undena Publications.
- Littauer, M. A. (2002), "Slit Nostrils of Equids," pp. 519–520. In *Selected Writings on Chariots and Other Early Vehicles, Riding and Harness*. P. Raulwing, Ed. Leiden: E. J. Brill.
- Littauer, M. A., J. H. Crouwel, et al. (2002), *Selected Writings on Chariots and Other Early Vehicles, Riding and Harness*. Leiden: E. J. Brill.
- Littauer, M. A., and J. H. Crouwel (1979), *Wheeled Vehicles and Ridden Animals in the Ancient Near East*. Leiden: E. J. Brill.
- Lloyd, S. (1978), *The Archaeology of Mesopotamia from the Old Stone Age to the Persian Conquest*. London: Thames and Hudson.
- MacDonald, D., Ed. (1984), *The Encyclopedia of Mammals*. New York: Facts on File.
- Mackay, E. J. H. (1934), "Further Excavations at Mohenjo-Daro," *Journal of the Royal Society of Arts*, 82 (No. 4233): 205–224.
- Mackay, E. J. H., B. S. Guha, et al. (1937), *Further Excavations at Mohenjo-Daro*. New Delhi: Government of India Press.
- MacKenzie, W. (1999), conversation with the author regarding surface preparation of ceramic vessels, R. Hauser.
- Mallory, J. P. (1989), *In Search of the Indo-Europeans: Language, Archaeology and Myth*. London: Thames and Hudson.
- Mallowan, M. E. L. (1936), *The Excavations at Tall Chagar Bazar, and an Archaeological Survey of the Habur Region 1934–5. Iraq, Part III: 1–86*. [29 plates.]
- Mallowan, M. E. L. (1937), "Chagar Bazar from 3000 B.C. to 1400 B.C.; Fresh Revelations from a North Syrian Mound in the Habur Region Containing Remains of Fifteen Superimposed Cities: Discoveries during the British Expedition's Second Season, ranging from Sumerian to Assyrian Times." *The Illustrated London News*, March 27: 518–521.
- Mallowan, M. E. L. (1937), "The Excavations at Tall Chagar Bazar and an Archaeological Survey of the Habur Region, Second Campaign, 1936 *Iraq*, IV: 91–177.
- Mallowan, M. E. L. (1947), "Excavations at Brak and Chagar Bazar, Parts I and U." *Iraq*, IX: 1–87. [86 Plates.]
- Mallowan, M. E. L. (1948), "Excavations at Brak and Chagar Bazar, Part III: Catalogue." *Iraq* X: 89–267. [includes index, no plates.]
- Mallowan, M. E. L., and J. C. Rose (1935), "Excavations at Tall Arpachiyah, 1933." *Iraq*, II (Part 1): 1–178.
- Marchetti, N. (2001), *La Coroplastica Eblaita e Siriana nel Bronzo Medio Campagne 1964–1980*. Rome: La Sapienza, Università degli Studi di Roma.
- Matthews, R. J. (1995), "Excavations at Tell Brak, 1995." *Iraq*, LVII: 87–112.
- Matthews, R. J. (1996), "Excavations at Tell Brak, 1996." *Iraq*, LVIII: 65–78.
- Matthews, R. J., W. Matthews, and H. McDonald (1994), "Excavations at Tell Brak, 1994." *Iraq*, LVI: 177–194.
- Matthiae, P. (1980), *Ebla: An Empire Rediscovered. The Exciting Discovery of the Ancient Empire of Ebla by the Director of the Excavation at Tell Mardikh*. C. Holme, Trans. Garden City, New York: Doubleday/Turin: Einaudi. [Originally published in 1977 as *Ebla: Un Impero Ritrovato*.]
- McCown, D. E., R. C. Haines, et al. (1967), *Nippur I: Temple of Enlil, Scribal Quarter, and Soundings Excavation of the Joint Expedition to Nippur of The University Museum of Philadelphia and The Oriental Institute of the University of Chicago*. Chicago: University of Chicago Press/Toronto: University of Toronto Press.
- McCown, D. E., R. C. Haines, and R. D. Biggs, assisted by E. F. Carter, (1978), *Nippur II: The North Temple and Sounding E. Excavations of the Joint Expedition to Nippur of The American Schools of Oriental Research and The Oriental Institute of the University of Chicago*. Chicago: Oriental Institute.

- McGreevy, P., Ed. (1999), *Dogs: The Little Guides*. San Francisco: Fog City Press.
- Mecquenem, R. de, L. L. Breton, et al. (1947), *Archéologie Susienne*. Paris: Presses Universitaires de France.
- Mellaart, J. (1967), *Çatal Hüyük: A Neolithic Town in Anatolia*. London: Thames and Hudson.
- Meyer, J.-W., A. Pruss, et al. (1994), *Ausgrabungen in Halawa 2: Die Kleinfunde von Tell Halawa A*. Saarbrücken: Saarbrücker Druckerei und Verlag.
- Miller, N. F. (2000), "Plant Forms in Jewellery from the Royal Cemetery at Ur." *Iraq*, LXII: 149–155.
- Moorey, P. R. S. (1970), "Pictorial Evidence for the History of Horse-riding in Iraq before the Kassites." *Iraq*, XXXII: 36–50.
- Moorey, P. R. S. (1994), *Ancient Mesopotamian Materials and Industries: The Archaeological Evidence*. Oxford: Clarendon Press.
- Moorey, P. R. S. (2003), *Idols of the People: Miniature Images of Clay in the Ancient Near East*. Oxford: Oxford University Press, for The British Academy.
- Moortgat, A. (1965), *Tell Chuera in Nordost-Syrien: Bericht über die Vierte Grabungskampagne 1963*. Cologne: West-deutscher Verlag.
- Moortgat, A., and Ursula Moortgat-Correns (1978), *Tell Chuera in Nordost-Syrie: Vorläufiger Bericht über die Achte Grabungskampagne 1976*. Berlin: Gebr. Mann Verlag.
- Morales, V. B. (1983), "Jarmo Figurines and Other Clay Objects," pp. 369–423. In *Prehistoric Archaeology Along the Zagros Flanks*. L. S. Braidwood, R.J. Braidwood, B. Howe, C.A. Reed, and P. J. Watson. Chicago: Oriental Institute.
- Morales, V. B. (1990), *Figurines and Other Clay Objects from Sarab and Cayönü*. Chicago: Oriental Institute.
- Muscarella, O. W. (1988), *Bronze and Iron: Ancient Near Eastern Artifacts in the Metropolitan Museum of Art*. New York: Metropolitan Museum of Art.
- Oates, D., and J. Oates (1991), "Excavations at Tell Brak 1990–1991." *Iraq*, LIII: 127–146. [plates XXI–XXXI.]
- Oates, D., J. Oates, and H. McDonald, Eds. (1997), *Excavations at Tell Brak. Vol. 1: The Mitanni and Old Babylonian Periods*. Cambridge: McDonald Institute for Archaeological Research, British School of Archaeology in Iraq.
- Oates, D., J. Oates, et al. (2001), *Excavations at Tell Brak, Vol. 2: Nagar in the Third Millennium B. C.* Cambridge: McDonald Institute for Archaeological Research, British School of Archaeology in Iraq.
- Oates, D., and J. Oates (1994), "Tell Brak: A Stratigraphic Summary, 1976–1993." *Iraq*, LVI: 167–176.
- Oates, J. (2001), "Equid Figurines and 'Chariot' Models," pp. 279–293. In *Excavation at Tell Brak, Vol. 2: Nagar in the Third Millennium B. C.* Cambridge: McDonald Institute for Archaeological Research, British School of Archaeology in Iraq.
- Orthmann, W., and R. Hempelmenn, et al. (1995), *Ausgrabungen in Tell Chuera in Nordost-Syrien: Vobericht über die Grabungskampagnen 1986 bis 1992*. Saarbrücken: Saarbrücker Druckerei und Verlag.
- Orthmann, W., J. W. Meyer, et al. (1994), *Ausgrabungen in Halawa*. Saarbrücken: Saarbrücker Druckerei und Verlag.
- Orthmann, W. and A. Pruss (1995), "Der Palast F," pp. 121–172. In *Ausgrabungen in Tell Chuera in Nordost-Syrien: Vobericht über die Grabungskampagnen 1986 bis 1992*. Saarbrücken: Saarbrücker Druckerei und Verlag.
- Orton, C., P. Tyers, and A. Vince (1993), *Pottery in Archaeology*. Cambridge: Press Syndicate of the University of Cambridge.
- Owen, D. I. (1991), "The 'First' Equestrian: An Ur III Glyptic Scene." *Acta Sumerologica*, 13: 259–273.
- Parrot, A. (1946, 1953), *Archéologie Mésopotamienne I: Les Etapes, II: Technique et Problèmes*. Paris: Albin Michel.

- Parrot, A. (1948), *Tello: Vingt Campagnes de Fouilles (1877-1933)*. Paris: Éditions Albin Michel.
- Parrot, A. (1956), *Mission Archéologique de Mari. Tome I: Le Temple d'Ishtar*. Paris: Librairie Orientaliste Paul Geuthner.
- Parrot, A. (1969), *Assur*. Paris: Gallimard.
- Parrot, A. (1969), *Supplément Sumer-Assur*. Paris: Gallimard.
- Parrot, A., M.-T. Barrelet-Clemental, et al. (1959), *Mission Archéologique de Mari, Vol. II: Le Palais*. Paris: Librairie Orientaliste Paul Geuthner.
- Parrot, A., and G. Dossin (1968), *Tome IV: Le "Trésor" d'Ur*. Paris: Librairie Orientaliste Paul Geuthner.
- Pittman, H. (2002), "Bears at Brak," pp. 287-296. In *Of Pots and Plans: Papers on the Archaeology and History of Mesopotamia and Syria Presented to David Oates in Honour of His 75th Birthday*. L. al-Gailani Werr, J. Curtis, H. Martin, A. McMahon, J. Oates, and J. Reade, Eds. London: Nabu Publications.
- Postgate, J. N. (1992), *Early Mesopotamia: Society and Economy at the Dawn of History*. London: Routledge.
- Postgate, J. N. (1994), "Text and Figure in Ancient Mesopotamia: Match and Mismatch," pp. 176-184. In *The Ancient Mind: Elements of Cognitive Archaeology*. Colin Renfrew and E. B. W. Zubrow, Eds. Cambridge: Press Syndicate of the University of Cambridge.
- Quenel, P. (1997), "La séquence stratigraphique du III<sup>e</sup> millénaire (chantier G)," p. 244. In *Tell Beydar: Three Seasons of Excavations (1992-1994) A Preliminary Report*. M. Lebeau and A. Sulieman. Turnhout, Belgium: Brepols.
- Rawson, P. (1984), *Ceramics*. Philadelphia: University of Pennsylvania Press.
- Reitz, E. J. and E. S. Wing (1999), *Zooarchaeology*. Cambridge, University Press.
- Riggs, D. (1999), conversation about circuses and the taming of animals, R. Hauser.
- Riis, P. J. and M.-L. Buhl (1990), *Hama: Fouilles et Recherches de la Fondation Carlsberg 1931-1938. Les Objets de la Période dite Syro-Hittite (Âge du Fer)*. Copenhagen: Nationalmuseet.
- Rincon, P. (2004), "Dig discovery is oldest 'pet cat'," BBC News Online Front Page.
- Robins, G. (1994), *Proportion and Style in Ancient Egyptian Art*. London: Thames and Hudson.
- Rossmcisl, I., and P. Vencma (1988), "The Other Clay Finds," pp. 561-602. In *Hammam et-Turkman II: Report on the University of Amsterdam's 1981-84 Excavations in Syria*. Istanbul: Nederlands Historisch-Archeologisch Instituut te Istanbul.
- Schmandt-Besserat, D. (1974), "The Use of Clay: Before Pottery in the Zagros." *Expedition*, 16 (No. 2): 11-17.
- Schmandt-Besserat, D. (1996), letter including unpublished manuscript about 'Ain Ghazal excavations, R. Hauser.
- Schmandt-Besserat, D. (1997), "Animal Symbols at 'Ain Ghazal." *Expedition*, 39 (No. 1): 48-58.
- Schmid, E. and O. Garraux (1972), *Atlas of Animal Bones for Prehistorians, Archaeologists and Quaternary Geologists*. Amsterdam: Elsevier.
- Sewell, S. E. (2005), conversations and correspondence regarding the distinguishing traits of the mule and the hinney, from the point of view of the judge and breeder, R. Hauser.
- Sigrist, M. (1992), *Drehem*. Bethesda, Maryland: CDL Press.
- Speiser, E. A., with a chapter by Dorothy Cross and notes by Paul Beidler and Charles Bache (1935), *Excavations at Tepe Gawra, Vol. I: Levels I-VIII*. Philadelphia: University of Pennsylvania Press, for the American Schools of Oriental Research/Oxford University Press.

- Spycket, A. (1992), *Les Figurines de Suse, Vol. I: Les Figurines Humaines IVe-IIe Millénaires av. J.-C.* Paris: Gabalda.
- Steinkeller, P. (1995), "Sheep and Goat Terminology in Ur III Sources from Drehem." *Bull. Sumerian Agric* 8: 49-70.
- Steinkeller, P. (1998), "The Historical Background of Urkesh and the Hurrian Beginnings in Northern Mesopotamia," pp.75-98. In *Urkesh and the Hurrians: Studies in Honor of Lloyd Cotsen*. G. Buccellati and M. Kelly-Buccellati, Eds. Malibu: Undena Publications.
- Strommenger, E. (1992), "Buchbesprechungen," *Zeitschrift der Assyriologie*, 82: 162-163.
- Tchernov, E. and F. F. Valla (1997), "Two new dogs and other Natufian dogs, from the Southern Levant." *Journal of Archaeological Science*, 24: 65-95.
- Teissier, B. (1984), *Ancient Near Eastern Cylinder Seals from the Marcopoli Collection*. Berkeley: University of California Press.
- Thompson, E. E. S. (1896), *Anatomy of Animals: Being a Brief Analysis of the Visible Forms of the More Familiar Mammals and Birds. Designed for the Use of Sculptors, Painters, Illustrators, Naturalists and Taxidermists*. New York: Macmillan. [1990 reprint: Studio Editions.]
- Thompson-Miragliuolo, J., G. Buccellati, and M. Kelly-Buccellati (1988), "The Outer City: Introduction and Surface Collection," pp. 49-56. In *Mozan I: The Soundings of the First Two Seasons*. G. Buccellati and M. Kelly-Buccellati, Eds. Malibu: Undena Publications.
- Toueir, K. (1978), *The Syrian Archaeological Expedition to Tell Al-Abd Zrejehey: Clay Figurines of the Third Millennium B. C. Syro-Mesopotamian Studies*, 2/4. Malibu: Undena Publications.
- Uerpmann, H.-P. (1982), "Faunal remains from Shams ed-din Tannira, a Halafian Site in Northern Syria." *Berytus*, 30: 3-52.
- Van Buren, E. D. (1930), *Clay Figurines of Babylonia and Assyria*. London: Oxford University Press.
- Van Buren, E. D. (1931), *Foundation Figurines and Offerings*. Berlin: Hans Schoetz & Co.
- Van Buren, E. D. (1939), *The Fauna of Ancient Mesopotamia as Represented in Art*. Rome: Pontificio Istituto Biblico.
- Van Loon, M. N. (1988), *Hammam et-Turkman, I: Report on the University of Amsterdam's 1981-84 Excavations in Syria*. Istanbul: Nederlands Historisch-Archeologisch Instituut te Istanbul.
- Vigne, J.-D., and J. Guilane (2004), "Les premiers animaux de compagnie, 8500 ans avant notre ère? ou comment j'ai mangé mon chat, mon chien et mon renard." *Anthropozoologica*, 39 (No. 1): 249-273.
- Weintraub, B. (1998), "Geographica: Life at the Top in a Mesopotamian Kingdom. *National Geographic Magazine* (October).
- Wengrow, D., (2003), "Interpreting Animal Art in the Prehistoric Near East," pp. 139-160. In *Culture Through Objects: Ancient Near Eastern Studies in Honour of P. R. S. Moorey*. Timothy Potts, M. Roaf, and D. Stein, Eds. Oxford: Griffith Institute.
- Werner, P., R. Busch, et al. (1998), *Tall Munbāqa Bronzezeit in Syrien: Begleitbuch zu einer Ausstellung in Verbindung mit dem Arbeitsbereich Städtebau/Stadtplanung der TU Hamburg-Harburg*. Neumünster: Wachholtz.
- Wilford, J. N. (1993), "Old Statuette Traces Horse to 2300 B. C." *The New York Times (International)*, January 3, New York.
- Woolley, C. L. (1934), *Ur Excavations: The Royal Cemetery*. Philadelphia: Museum of the University of Pennsylvania/Trustees of the British Museum. [Vol. I text, Vol. II plates.]
- Woolley, C. L. (1935), *The Development of Sumerian Art*. London: Faber and Faber.
- Woolley, C. L. (1954), *Excavations at Ur*. London: E. Benn.

Wrede, N. (1990). *Katalog des Terrakotten des archäologischen Oberflächenuntersuchung des Stadtgebietes von Uruk. Baghdader Mitteilungen*, 21: 216–301. [34 plates.]

Zahlhaas, G., (1997), *Out of Noah's Ark: Animals in Ancient Art from the Leo Mildenberg Collection*. P. E. Mottahadeh, Trans. and Ed. Mainz am Rhein: Philipp von Zabern. [From the German *Aus Nochs Arche: Tierbilder des Sammlung Mildenberg aus fünf Jahrtausenden*, 1996.]

Zarins, J. (2007), *The Domestication of Equidae in Third Millennium B. C. Mesopotamia*. Malibu: Undena Publications.

Zeder, M. A. (1986), "The Equid Remains from Tal-e Malyan, Southern Iran," pp. 366–412. In Vol. I, *Equids in the Ancient World*, R. H. Meadow and H.-P. Uerpmann, Eds. Weisbaden: Dr. Ludwig Reichert Verlag.

Zeuner, F. E. (1963), *A History of Domesticated Animals*. London: Hutchinson & Co.

Ziegler, C. (1962), *Die Terrakotten von Warka*. Berlin: Verlag Gebr. Mann.

# READING FIGURINES

## ANIMAL REPRESENTATIONS IN TERRA COTTA FROM ROYAL BUILDING AK AT URKESH (TELL MOZAN)

### DESCRIPTIVE TABLES

<i>Bos</i>	561
<i>Ovis</i>	567
<i>Canis</i>	577
<i>Carnivora (Felis)</i>	584
<i>Carnivora (Ursus)</i>	596
<i>Capra</i>	599
<i>Equus</i>	605

For each artifact recovered at Urkesh, the tables that close this volume list measurements of body parts, taken in the manner we have described, ratios and proportions derived from these measurements, and characteristics of the representation that consistently appear in the genus. For each genus, the manner in which these attributes are recorded will of course change, as explained in the text.

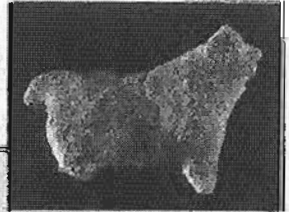
Representations are given a name that corresponds to the excavation square or lot where they were found and are listed according to an order explained in the GUIDE FOR READERS, at the beginning of this volume:

THE CORPUS (1, 2, 3 . . .)  
TENTATIVE EXAMPLES (100, 101, 102, 103 . . .)  
RELATED STRATIFIED FINDS (200, 201, 202, 203 . . .)  
RELATED UNSTRATIFIED FINDS (300, 301, 302 . . .)  
OTHER GENERA (400, 401, 402 . . .)

These tables were designed, laid out, and repeatedly revised by Aaron Strozinsky, graphic artist.



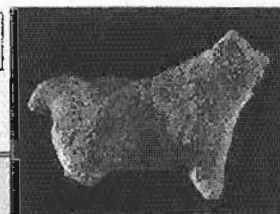
Bos 10 (A7.396). Right median plane.  
(photograph V13D2538)



# GENUS *Bos*

OBJECT			MEASUREMENTS					
CORPUS	FIELD	DESCRIPTION	w1	w2	w3	lg	w1 @neck	w3 @tail
1	A1.12	torso MINIATURE	1.48 w	1.45	1.47	2.8		
2	A5.148	torso MINIATURE	1.7	1.37	1.7	3.5	1.34	0.43
3	A5q792.1	torso MINIATURE	2.0	1.6	1.9	3.65		
4	A6.156	torso with left hindleg MINIATURE	1.55	1.45	1.5	3.08		
5	A6q439.1	torso	1.82	1.75	1.89	4.28	1.64	0.885
6	A6q538.1	torso tail intact MINIATURE	1.31	1.4	1.45	2.7	1.25	0.83
7	A6q569.1	forequarters bearded bull MINIATURE			1.6	1.75		
8	A6q626.1	torso in process of manufacture MINIATURE	1.18	1.2		3.11		
9	A7.95	torso MINIATURE	1.75	1.65	1.8	2.96	not measur- able	not measur- able
10	A7.396	torso crown & right foreleg intact TEMPLATE	2.18	1.99	2.23	4.7	2.1	0.8
11	A7q814.1	hindquarters		1.74	1.83	2.55		0.91
12	A7q821.1	torso MINIATURE	1.63	1.52	1.63	3.89		0.79
13	A7q867.1	head theriomorphic attachment		1.95 (across horns)		1.38 (cranial)		

Bos 10 (A7.396). Right median plane.  
(photograph V13D2538)



# GENUS *Bos*

BODY JOIN				STANCE (OUTSIDE)	STANCE (INSIDE) (°)	COMMENTS
CORPUS	FIELD	foreleg (°)	buttocks			
1	A1.12	130°	fused	solidly founded inverted U	open V (90°)	Head carried high, as with <i>Canis</i>
2	A5.148	130°	fused	open inverted U		Body join of legs at buttocks is high, although buttocks fused
3	A5q792.1	135°	fused	inverted U	open V (80°)	1 : 0.8 : 0.9; w1 open inverted V (80°)
4	A6.156		fused	gently incurving inverted U; solidly founded	open V (80°)	W1 solidly founded; narrow inverted U outside
5	A6q439.1	135°	fused	solidly founded; inverted U	open V (90°)	Tail cut (tentative measurement); W1 solidly founded
6	A6q538.1	120°	fused	narrow outcurving inverted U		Tail measured at fullest possible extent; abraded
7	A6q569.1					Human-headed bull; fragment, kneeling
8	A6q626.1	140°				In process of manufacture
9	A7.95	130°	fused	inverted U	open V (80°)	
10	A7.396	130°	fused	inverted U	open V (85°)	1 : 0.9 : 1.02; forelegs meet at 80°
11	A7q814.1		fused	solidly founded inverted U		Hindquarters only; tail thick
12	A7q821.1	120°	fused	solidly founded inverted U		
13	A7q867.1					Theriomorphic attachment

Bos 10 (A7.396). Right median plane.  
(photograph V13D2538)



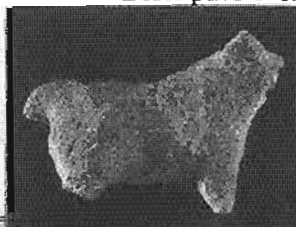
# GENUS *Bos*

## TENTATIVE IDENTIFICATION

OBJECT			MEASUREMENTS					
CORPUS	FIELD	DESCRIPTION	w1	w2	w3	lg	w1 @neck	w3 @tail
100	A5q294	torso in process of manufacture MINIATURE	1.3	1.15	1.3	4.34		
101	A6q681.1	forequarters	1.52				1.51	
102	A7q747.6	torso MINIATURE	1.4	1.15	1.41	3.32		
103	A7q917.1	torso (zebu?)	2.2	1.87	2.26	4.255		0.08

BODY JOIN			STANCE (OUTSIDE)	STANCE (INSIDE) (°)	COMMENTS
CORPUS	foreleg (°)	buttocks			
100					1.0 : 0.91 : 1.0; in process of manufacture
101					Forequarters only 1 : 1 = w1 : w1@neck
102			rounded, inverted U		
103			solidly founded inverted U		<i>Zebu</i> (?) 1 : 0.85 : 1; lg = 1.9w1; perforated tab at base of neck; w1 solidly founded slightly incurving inverted U (outside); truncated inverted V (inside)

Bos 10 (A7.396). Right median plane.  
(photograph V13D2538)



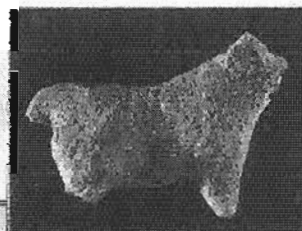
# GENUS *Bos*

## RELATED STRATIFIED FINDS

OBJECT			MEASUREMENTS					
CORPUS	FIELD	DESCRIPTION	w1	w2	w3	lg	w1 @neck	w3 @tail
200	A8.6	torso MINIATURE	1.44	1.31	1.3	2.55		
201	A8q189.1	forequarters & neck		1.72		2.74		
202	BH.15	torso (zebu) MINIATURE	1.4	0.925	1.425	2.78		
203	BH.516	head, horns broken away	3.56 (ht)	3.92 (across horns)		4.47 (cranial)		
204	A12q18	torso	2.6	2.375	2.965	6.3	1.94	
205	A12q207.1	head & horns MINIATURE		2.03 (across horns)		1.81 (cranial)	1.14	
206	A14q275.3	torso with partially intact head & horns	2.54	2.47	2.555	5.05	2.01	1.175

BODY JOIN			STANCE (OUTSIDE)	STANCE (INSIDE) (°)	COMMENTS
CORPUS	foreleg (°)	buttocks			
200	140°			open V (90°)	1.1 : 1 : 1 ; w1 open inverted V inside (80°)
201					Forequarters only; W2 diagnostic
202					Zebu 1 : 0.7 : 1 Lg = 3.3w1
203					Head, horns broken away; Caudal section → rostral section: Inverted triangle → rectangle
204	110°	fused	solidly founded narrow inverted U		W1: solidly founded, narrow inverted U
205					Caudal section → rostral section: inverted triangle → rectangle
206	110°	Fused (breakage)	solidly founded slightly outcurving inverted U	open V (90°)	w3@tail : w3 > 1 : 3 (?)

*Bos* 10 (A7.396). Right median plane.  
(photograph V13D2538)



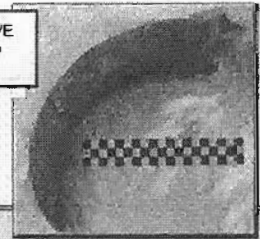
# GENUS *Bos*

## RELATED UNSTRATIFIED FINDS

OBJECT			MEASUREMENTS					
CORPUS	FIELD	DESCRIPTION	w1	w2	w3	lg	w1 @neck	w3 @tail
300	Z1.164	torso with incised geometric pattern	2.2	1.86	2.15	4.05		0.5525

BODY JOIN			STANCE (OUTSIDE)	STANCE (INSIDE) (°)	COMMENTS
CORPUS	foreleg (°)	buttocks			
300					Incisions applied ventrally in 2 bands around mid-section; contained in rectangular box

Bos horn (A12q743) COMPARATIVE  
EXAMPLE. (photograph from video  
RAH L708, MZ14)



## GENUS *Bos*

### HORNS

OBJECT		LENGTH	BODY JOIN (TRANSVERSE SECTION)		TIP (TRANSVERSE SECTION)		SECTION	FORM	COMMENTS
CORP- US	FIELD		LONG AXIS	SHORT AXIS	LONG AXIS	SHORT AXIS			
14	A1.401	2.3	1.05	0.7	0.45	0.3	parallelogram (off-set rectangle)	flat above curved tapering	Likely right horn
15	A1q980.1		2.43	0.885	0.78	0.67	oval → rectangle	flat above curved tapering	One horn missing, crown
16	A5q338	2.37	1.35	1.27	0.42	0.625	oval	flat above curved tapering	Tip chipped, difficult to measure
17	A7q266.1	2.78	0.99	0.91	0.71	0.38	oval → lozenge	flat above curved tapering	Tip chipped
18	A7q667.1	5.39	2.09	1.89	0.85	0.63	oval → oval (axes reverse)	flat above curved tapering	Slight twist from body join to tip
19	A9q112.3	2.02	1.55	1.25	0.715	0.55	oval	flat above curved tapering	Tip blunt, chipped

## GENUS *Bos*

### HORNS TENTATIVE IDENTIFICATION

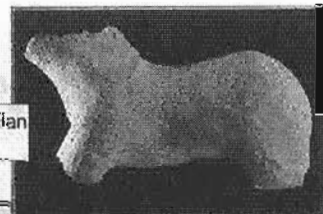
OBJECT		LENGTH	BODY JOIN (TRANSVERSE SECTION)		TIP (TRANSVERSE SECTION)		SECTION	FORM	COMMENTS
CORP- US	FIELD		LONG AXIS	SHORT AXIS	LONG AXIS	SHORT AXIS			
104	A1q147.1	1.64	0.07	not meas- urable	not meas- urable	not meas- urable	oval	flat above curved tapering	Fragmentary
105	A5q805.1	2.6	0.0745	0.0695	0.034	0.735	rectangle → point	geometric curved tapering	One of several "hooks" in the corpus polished
106	A5q946.2	1.75	not meas- urable	not meas- urable	0.0635	0.078	oval/rectangle @ tip	flat above curved	
107	A7.73	1.79	1.25	1.1	0.5	0.32	oval	flat above curved tapering	Flat side smoothed
108	A9q112.1	3.06	1.86	1.57	0.44	0.88	oval → rectangle	flat above curved tapering	
109	A10q70.2	4.13	1.49	1.53	1.115	0.79	circle/oval → oval	curved tapering	Body join not flattened nor wedge-shaped to adhere to crown; broken at body join fabric friable 2.5YR 7/8 – 2.5YR 5/3
110	A10q84.1	2.72 horn to horn	0.087	0.068	0.048 horn	0.037 horn	oval	curved tapering	Scraped head and horn, perhaps a vessel attachment



# GENUS *Ovis*

## TYPE I

Ovis 7 (A5q353.1) TYPE I. Left median plane. (photograph V13D0045)

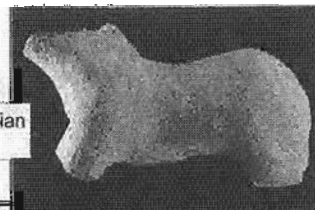


OBJECT			FOREQUARTERS : TORSO : HINDQUARTERS			
			PROPORTION			
CORPUS	FIELD	DESCRIPTION	w1	w2	w3	$1 \geq 0.9 (0.75)w1 \leq 1$
1	A1.52	hindquarters		2.215	3.3	♦ (0.61 ≤ 1)
2	A1.156	forequarters & neck	3.68			
3	A1q474.1	hindquarters & torso		3.125	4.5	♦ (0.69 ≤ 1)
4	A1q558.1	hindquarters & torso MINIATURE		0.9	1.12	♦ (0.8 ≤ 1)
5	A1q627.1	forequarters	not diagnostic	3.4	not diagnostic	not diagnostic
6	A1q773.1	hindquarters		2.01	2.9	♦ (0.7 ≤ 1)
7	A5q353.1	torso TEMPLATE	4.27	3.2	4.3	♦ (1 ≥ 0.74 ≤ 1)
8	A5q790.3	hindquarters MINIATURE		> 1.4 not measurable	1.45	
9	A6q19.1	hindquarters		1.68	3.2	♦ (0.525 ≤ 1) see comments
10	A7.128	hindquarters		2.53	3.03	♦ (0.84 ≤ 1)
11	A7q16.1	hindquarters		2.5	3.6	♦ (0.69 ≤ 1)
12	A7q195	forequarters	2.69	2.31		♦ (1 ≥ 0.86)
13	A7.501	torso	5.855	5.03	6.8	♦ 0.87 ≥ 0.74 ≤ 1
14	A7.506	forequarters	4.5 not diagnostic			
15	A7q622.1	hindquarters			4.245	
16	A7q667.2	hindquarters & torso		1.7	2.15	♦ (0.8 ≤ 1)
17	A7q860.1	hindquarters		2.76	4.18	♦ (0.64 ≤ 1)
18	A7q867.1	hindquarters & torso MINIATURE		1.255	1.49	(0.87 ≤ 1)
19	A7q888.1	hindquarters & torso		1.96	2.82	♦ (0.696 ≤ 1)
20	A9q112.2	hindquarters & torso		1.57	1.59	(0.985 ≤ 1)
21	A9q148.1	torso	3.5	2.24	2.2 not diagnostic	♦ (1 ≥ 0.63)

# GENUS *Ovis*

## TYPE I

Ovis 7 (A5q353.1) TYPE I. Left median plane. (photograph V13D0045)

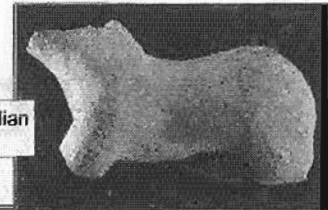


LENGTH • RATIO				NECK • RATIO		TAIL • RATIO	
CORPUS	FIELD	lg	lg ≥ 2w1	w1@neck	≥ 2/3w1	w3@tail	TYPE I = 1/3w3
1	A1.52	4.475				1.5	♦ (1 : 2.2)
2	A1.156			2.35	♦		
3	A1q474.1	7.55 not diagnostic				1.7	♦ (1 : 3.8)
4	A1q558.1	1.5 not diagnostic					
5	A1q627.1	3.2 not diagnostic					
6	A1q773.1	3.82				0.86	♦ (1 : 3.4)
7	A5q353.1	7.2	♦	not measurable		1.25	♦ (1 : 3.4)
8	A5q790.3	1.5 not diagnostic				0.0445	♦ (1 : 3.2)
9	A6q19.1	3.2 not diagnostic				1.18	♦ (1 : 3.7)
10	A7.128	3.03 not diagnostic				1.38	♦ (1 : 2.2)
11	A7q16.1	3.65 not diagnostic				1.255	♦ (1 : 2.8)
12	A7q195	4.2 not diagnostic		2.34	♦		
13	A7.501	10.765	♦	4.42	♦	2.49	♦ (1 : 2.7)
14	A7.506	4.57 not diagnostic					
15	A7q622.1	3.6 not diagnostic				0.097	♦ (1 : 2.3)
16	A7q667.2	3.13 not diagnostic				0.0815	♦ (1 : 3.7)
17	A7q860.1	4.6 not diagnostic				1.5	♦ (1 : 3.6)
18	A7q867.1	1.9 not diagnostic				0.05875	♦ (1 : 2.5)
19	A7q888.1	4.49 not diagnostic				1.06	♦ (1 : 2.5)
20	A9q112.2	2.78 not diagnostic				0.46	♦ (1 : 3.5)
21	A9q148.1	3.63		1.69	♦		



**GENUS *Ovis*****TYPE I**

*Ovis* 7 (A5q353.1) TYPE I. Left median plane. (photograph V13D0045)

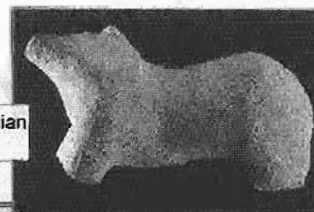


OBJECT		SHARED CHARACTERISTICS					COMMENTS
CORPUS	FIELD	RUMP	BUTTOCKS	STANCE (OUTSIDE)	STANCE (INSIDE)	HAUNCHES	
1	A1.52	rounded	fused	inverted U	tight V (30°)	herbivore	
2	A1.156				outcurving inverted V (45°) (forequarters)	herbivore	Breast ridge; lightly pinched mane; angle of neck join & thickness never encountered with equids
3	A1q474.1	rounded	fused buttocks separate manufacture	inverted U	inverted open V (60°)	herbivore	Wheeled object Possible udder
4	A1q558.1	rounded	fused	inverted U	inverted open V (60°)	herbivore	Possible udder
5	A1q627.1			foursquare (forequarters)	open inverted U (75°) (forequarters)		Neck thick & fused with torso; torso & possibly legs built on core
6	A1q773.1	rounded	fused	foursquare inverted U	not measurable	herbivore	
7	A5q353.1	rounded	recessed (impressed for tail)	foursquare gently incurving inverted U	tight inverted V (30°) open inverted U (60°)	herbivore	Tail 1 : 3 at rump; full modeling accounts for 2 readings for hindleg join
8	A5q790.3	rounded	recessed possibly incised	wide inverted V	not measurable	herbivore	
9	A6q19.1	rounded	recessed	four-square	tight inverted V (25°) inverted U (55°)	herbivore left hind leg knee-joint expressed	Torso uncharacteristically thin; full modeling accounts for 2 readings for hindleg join
10	A7.128	rounded	recessed buttocks separate manufacture	four-square rounded inverted U	narrow inverted U open inverted U (60°)	herbivore	Torso uncharacteristically thin; full modeling accounts for 2 readings for hindleg join; possible udder
11	A7q16.1	rounded	recessed (impressed for tail)	inverted U	not measurable	herbivore	Protective fold

# GENUS *Ovis*

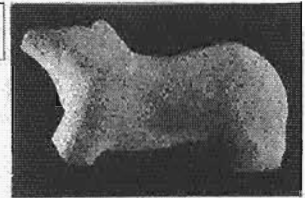
## TYPE I

Ovis 7 (A5q353.1) TYPE I. Left median plane. (photograph V13D0045)



OBJECT		SHARED CHARACTERISTICS					COMMENTS
CORPUS	FIELD	RUMP	BUTTOCKS	STANCE (OUTSIDE)	STANCE (INSIDE)	HAUNCHES	
12	A7q195			foursquare gently incurving inverted U	inverted U (55°)	herbivore	Neck & forequarters width, possible breast ridge are problematic (taken together)
13	A7.501	rounded	fused	solidly founded inverted U	not measurable	herbivore	Layered pelt
14	A7.506						Layered pelt; Ovis horns intact; cranial width/length ratio may prove diagnostic, if intact
15	A7q622.1	rounded	fused	very narrow slightly incurving inverted U			
16	A7q667.2	rounded	fused	slightly incurving inverted U	not measurable	herbivore	Hindleg/body join (120°) not typical of corpus
17	A7q860.1	rounded	fused	open outcurving inverted V	not measurable	herbivore	
18	A7q867.1	rounded	fused	open inverted U	not measurable	herbivore	
19	A7q888.1	rounded	fused	solidly founded slightly outcurving inverted U	not measurable	herbivore	When carried high, tail ratio reads as less than it actually appears
20	A9q112.2	rounded	fused	wide inverted V	not measurable	herbivore	Inside stance probably quite wide, although body join in left median place is 110°
21	A9q148.1	rounded	fused	solidly founded, narrow incurving inverted U (forequarters)			Heavily abraded, difficult to read

Ovis 7 (A5q353.1) TYPE I. Left median plane. (photograph V13D0045)



# GENUS *Ovis*

## TYPE I TENTATIVE IDENTIFICATION

### RELATED STRATIFIED & UNSTRATIFIED FINDS

OBJECT			FOREQUARTERS : TORSO : HINDQUARTERS • PROPORTION			
CORPUS	FIELD	DESCRIPTION	w1	w2	w3	$1 \geq 0.9 (0.75)w1 \leq 1$
100	A6.133	hindquarters		2.15	not diagnostic	
200	A2q223.1	hindquarters		2.86	4.2	♦ (.68 ≤ 1)
201	A2q243.1	hindquarters		1.38	2.04	♦ (.68 ≤ 1)
202	A10.18	torso	2.34	2.36	2.88	♦ (.8 ≥ .8 ≤ 1)
300	A5q715.4	hindquarters MINIATURE		1.3	1.8	♦ 0.84 ≤ 1

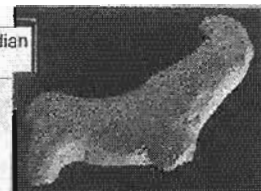
LENGTH • RATIO				NECK • RATIO		TAIL • RATIO	
CORPUS	FIELD	lg	lg ≥ 2w1	w1@neck	≥ 2/3w1	w3@tail	TYPE I = 1/3w3 TYPE II = w3/4
100	A6.133	2.245 not diagnostic					
200	A2q223.1	4.3				1.57	♦ (1 : 2.7)
201	A2q243.1	2.475				.76	♦ (1 : 2.7)
202	A10.18	5.52	> 2w1	1.68	♦	1.05	♦ (1 : 2.7)
300	A5q715.4	3.3 not diagnostic				0.87	♦ (1 : 2.1)

OBJECT		SHARED CHARACTERISTICS					COMMENTS
CORPUS	FIELD	RUMP	BUTTOCKS	STANCE (OUTSIDE)	STANCE (INSIDE)	HAUNCHES	
100	A6.133	rounded	fused	inverted U		herbivore	Hindquarters are split in half, but object is readable to the extent noted
200	A2q223.1	rounded	fused	inverted U	narrow V (35°)	herbivore	Slight ridge along top of torso
201	A2q243.1	rounded	fused	rounded inverted U	open inverted U	herbivore	Tail carried high
202	A10.18	rounded	fused	solidly founded inverted U	leg/body join 130° (forequarters)	herbivore	
300	A5q715.4	rounded	fused	inverted U	not measurable	herbivore	Tail terminated

# GENUS *Ovis*

## TYPE II

Ovis 203 (A10.20) TYPE II. Right median plane. (photograph V13D0619)

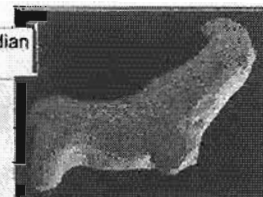


OBJECT			FOREQUARTERS : TORSO : HINDQUARTERS • PROPORTION			
CORPUS	FIELD	DESCRIPTION	w1	w2	w3	$1 \geq 0.9 (0.75)w1 \leq 1$
22	A1.16	torso MINIATURE	1.285	1.3	1.38	$\diamond 0.9 \geq 0.9 \leq 1$
23	A1.53	hindquarters		3.37	3.7 not diagnostic	
24	A1.91	hindquarters		2.18	2.58	$\diamond 0.85 \leq 1$
25	A1.385	hindquarters		2.21	3.06	$\diamond 0.72 \leq 1$
26	A5q135.1/ A5.199	torso (restored)	2.45	2.32	2.55	$\diamond 0.96 \geq 0.88 \leq 1$
27	A5.146	hindquarters		2.92	3.84	$\diamond 0.76 \leq 1$
28	A6q595.2	hindquarters		1.78	2.38	$\diamond 0.75 \leq 1$
29	A7.137	hindquarters		2.06 not diagnostic	2.96	$0.63 \leq 1$ not diagnostic
30	A7.370	hindquarters		2.92	3.77	$\diamond 0.76 \leq 1$

LENGTH • RATIO				NECK • RATIO		TAIL • RATIO	
CORPUS	FIELD	lg	$lg \geq 2w1$	w1@neck	$\geq 2/3w1$	w3@tail	TYPE II = $1/4w3$
22	A1.16	2.6	$\diamond$	0.84	$\diamond$	0.27 (?)	$\diamond (1 : 4.3)$
23	A1.53	6.42				0.67	
24	A1.91	5.18	$\diamond$				(1 : 2.5 at base) (1 : 3.5 above break)
25	A1.385	4.17 not diagnostic				1.02	(1 : 3)
26	A5q135.1/ A5.199	6.37	$\diamond$	2.02	$\diamond$	0.65	$\diamond (1 : 3.9)$
27	A5.146	6.6				0.9	$\diamond (1 : 4.3)$
28	A6q595.2	2.83 not diagnostic				0.58	(1 : 4.4)
29	A7.137	2.75 not diagnostic				1.02	(1 : 2.9)
30	A7.370	6.11 not diagnostic				1.365	(1 : 2.7 at base) (1 : 3.8 at frontal plane)

**GENUS *Ovis*****TYPE II**

Ovis 203 (A10.20) TYPE II. Right median plane. (photograph V13D0819)



OBJECT		SHARED CHARACTERISTICS						COMMENTS
CORP-US	FIELD	RUMP	BUTTOCKS	TAIL	STANCE (OUTSIDE)	STANCE (INSIDE)	HAUNCHES	
22	A1.16	narrow rounded	recessed to carry tail (?)	pendant	solidly founded wide inverted U	not measurable	herbivore	Snout long, hindquarters chipped; tail reading tentative
23	A1.53	narrow rounded	recessed to carry tail	pendant	solidly founded foursquare	not measurable	herbivore	Tail intact
24	A1.91	narrow flat at rump	recessed to carry tail	pendant	solidly founded slightly incurving inverted U	narrow inverted U	herbivore	
25	A1.385	narrow rounded	slightly recessed to carry tail	pendant	slightly open inverted U	open V (50°)	herbivore	Left hindleg terminated
26	A5q135.1/ A5.199	narrow rounded	fused tail applied as separate piece	pendant	solidly founded narrow inverted U	slightly open inverted V (45°)	herbivore	Cart (perforated tabs)
27	A5.146	flat at rump rounded	recessed to carry tail	pendant	solidly founded inverted U	incurving V (60°)	herbivore hind leg/body join (60°)	
28	A6q595.2	rounded	recessed to carry tail	tab negative outline (pendant)	solidly founded narrow inverted U	wide inverted V (45°)	herbivore	
29	A7.137	rounded	recessed to carry tail	pendant	narrow slightly outcurving inverted U	open inverted V (60°)	herbivore	
30	A7.370	flat at rump rounded	fused	pendant	solidly founded flat inverted U	not measurable	herbivore	

Ovis 203 (A10.20) TYPE II. Right median plane. (photograph V13D0619)



# GENUS *Ovis*

## TYPE II TENTATIVE IDENTIFICATION

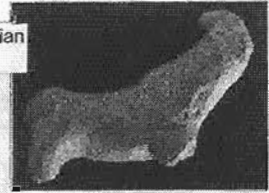
### RELATED STRATIFIED & UNSTRATIFIED FINDS

OBJECT			FOREQUARTERS : TORSO : HINDQUARTERS • PROPORTION			
CORPUS	FIELD	DESCRIPTION	w1	w2	w3	$1 \geq 0.9 (0.75)w1 \leq 1$
101	A1q147.1	hindquarters			2.8	
102	A7q379.1	hindquarters		2.75	3.02	$\diamond 0.93 \leq 1$
103	A10.1	forequarter (wheeled)	3.44	3.92		$0.88 \leq 1$
203	A10.20	torso TEMPLATE	2.36	2.1	2.59	$\diamond 0.92 \geq 0.8 \leq 1$
301	Z1.93	hindquarters			5.16	
302	Z1.324	hindquarters		1.46	2.04	$0.75 \leq 1$

LENGTH • RATIO				NECK • RATIO		TAIL • RATIO	
CORPUS	FIELD	lg	$lg \geq 2w1$	w1@neck	$\geq 2/3w1$	w3@tail	TYPE II = 1/4w3
101	A1q147.1	3.365 not diagnostic				0.69 negative impression	$\diamond (1 : 4)$
102	A7q379.1	6.275 not diagnostic				0.98	$\diamond (1 : 4)$
103	A10.1	8.59 not diagnostic					
203	A10.20	4.86	$\diamond$	1.79	$\diamond$	0.068	$\diamond (1 : 4)$
301	Z1.93	4.77 not diagnostic				1.81	$\diamond (1 : 3.5)$
302	Z1.324	2.59 not diagnostic				0.51 0.073 (slot)	$\diamond (1 : 4)$



Ovis 203 (A10.20) TYPE II. Right median plane. (photograph V13D0619)



# GENUS *Ovis*

## TYPE II TENTATIVE IDENTIFICATION

### RELATED STRATIFIED & UNSTRATIFIED FINDS

OBJECT		SHARED CHARACTERISTICS						COMMENTS
CORP-US	FIELD	RUMP	BUTTOCKS	TAIL	STANCE (OUTSIDE)	STANCE (INSIDE)	HAUNCHES	
101	A1q147.1	rounded	recessed to carry tail (?)	pendant		narrow inverted U	herbivore	Reading must be tentative as the figurine is heavily eroded
102	A7q379.1	rounded	recessed to carry tail	pendant	rounded V	incurving V	herbivore	
103	A10.1						herbivore	Compare pelt treatment and body type with Ovis 27; usage as wheeled vehicle may influence body type
203	A10.20	rounded	fused tail applied as separate piece	pendant	open inverted V	not measurable	herbivore	
301	Z1.93	rounded	fused tail applied	pendant	solidly founded inverted U		herbivore	Cart (perforated hindlegs)
302	Z1.324	rounded	recessed to carry tail	pendant	inverted U		herbivore	The tail has fallen out of buttocks (cut to accommodate it)

Ovis 38 (A1q1045.3) leg. Right median plane. (photograph V8aB1734)

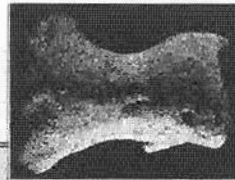


# GENUS *Ovis* LEGS, INCLUDING TENTATIVE IDENTIFICATION AND RELATED STRATIFIED FINDS

OBJECT			HEIGHT	BODY JOIN (TRANSVERSE SECTION)		TIP (TRANSVERSE SECTION)		SECTION	KNEE-JOINT?	COMMENTS
CORPUS	FIELD	DESCRIPTION		LONG AXIS	SHORT AXIS	LONG AXIS	SHORT AXIS			
38	A1q1045.3	leg/"hook"	2.4	1.23	0.925	0.825	0.615	oval→ rounded rectangle	♦	Heavily modeled
39	A1q1048.3	right hindleg	1.3	0.74	0.69	0.52	0.48	oval→ circle	♦	Fabric folded to shape
42	A5q260	right hindleg	1.96	1.225	1.035	0.78	0.78	oval→ circle	♦	Minimally articulated knee joint
44	A5q719.2	right foreleg	2.02	1.35	1.11	0.96	0.935	oval→ circle	♦	Slight taper
45	A5q842.2	left hindleg	5.36	3.5	2.9	1.16	0.825	oval→ rounded rectangle	♦	Slight articulation of knee joint. TYPE I (?)
46	A6.268	foreleg	2.28	1.83	1.27	1.12	0.92	rounded rectangle → rounded rectangle	♦	
108	A7q624.1	left hindleg	3.65	1.59	1.155	1.85	0.675	oval→ rounded rectangle	♦	Tip measured above hoof
109	A10q200.1	leg/knee-joint	3.48	1.5	1.27	0.785	0.73	oval→ oval	♦	Minimal articulation of knee joint
208	A8q174.4	tip	1.94	1.39	1.16	0.78	0.76	oval→ rounded rectangle	♦	Tip measured above blunt termination



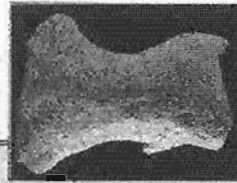
# GENUS *Canis*



Canis 7 (A5q82.1). Left median plane.  
(photograph V13D6323)

OBJECT			MEASUREMENTS				RATIOS				
CORP-US	FIELD	DESCRIP-TION	w1	w1 @neck	w2	w3	lg	w1 ≤ w3	w2 > 3/4w3	w1 ≥ w2 ≤ w3	lg ≤ 2w3
1	A1.62	torso	2.44	2.0	2.67	2.65	4.61	♦	♦	w1 ≤ w2 ≤ w3	♦
2	A1.118	torso	1.55	1.35	1.57	not measurable	3.02			w1 ≤ w2	
3	A1.323	torso	1.37	1.04	1.27	1.37	4.7	♦	♦	♦	≥ 3w3
4	A1q760.1	torso	2.7	2.35	1.57	2.9	5.6	♦	♦	♦	♦
5	A1q798.1	torso & head	1.67	1.47	1.53	1.89	3.23	♦	♦	♦	♦
6	A1q1058.9	forequarters	1.8	1.24	1.57		2.73 not diagnostic			w1 ≥ w2	
7	A5q82.1	torso TEMPLATE	3.23	2.2	2.76	3.57	6.56	♦	♦	♦	♦
8	A5q529.1	right foreleg	3.76 height		2.44/1.98 body join	0.09/0.072 tip					
9	A5q797.1	torso & head	1.43	1.14		1.155	2.64 not diagnostic	♦	♦		
10	A6q327.1	hindquarters			2.31	3.01	4.5 not diagnostic		♦	w2 ≤ w3	
11	A6q344.1	torso MINIATURE	1.195	0.93	1.185	1.195	2.9	♦	♦	♦	
12	A7.35	torso	2.45	1.7	2.02	2.50	5.05	♦	♦	♦	♦
13	A7.89	hindquarters			2.83	3.28	3.15		♦		
14	A7.235	torso	2.53	2.26	2.33	3.49	4.045	♦	w2 > 3/2w3	♦	♦
15	A7.259	torso	2.39	1.21	1.97	2.4	4.81	♦	w2 > 3/5w3	♦	♦
16	A7.365	torso MINIATURE	1.07	0.086	0.095	1.07	2.64	♦	♦	♦	≥ 2w3
17	A7q432.1	torso MINIATURE	1.02	0.85	1.06	1.41	2.65	♦	♦	w1 ≤ w2 ≤ w3	♦
18	A7q975.1	torso	3.13	1.96	2.47	3.44	6.39	♦	♦	♦	♦

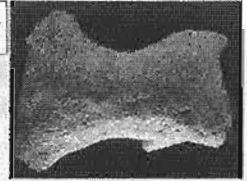
# GENUS *Canis*



*Canis* 7 (A5q82.1). Left median plane.  
(photograph V13D6323)

SHARED CHARACTERISTICS								COMMENTS
CORP-US	FIELD	foreleg body join (°)	neck forequarter join	back	buttocks	tail	sexual parts	
1	A1.62	140°/85° left/right	1 : 1.3		fused; inverted U	hangs down	♦	Attitude alert (head, neck held up)
2	A1.118	130°	1 : 1.1		fused; inverted U	curly	♦ (?)	
3	A1.323	120°	1 : 1.3	curved	fused; inverted U	carried high	♦ (?)	Attitude alert (head, neck held up)
4	A1q760.1	130°	1 : 1.1	curved	fused; incised inverted U	hole; carried high	♦	Attitude alert (head, neck held up); the sexual parts may be carried far forward or there may be a band across the penis, the only such example in the <i>Canis</i> corpus
5	A1q798.1	130°	1 : 1.1		fused; inverted U	hangs down	♦ (?)	Attitude alert (head, neck held up)
6	A1q1058.9	135°	1 : 1.5	curved	narrow inverted U (forequarters)	carried high		
7	A5q82.1	130°	1 : 1.5	curved	fused; inverted U	carried high	♦	Attitude alert (head, neck held up); <i>spitz</i> type
8	A5q529.1	130°–140°			open inverted U (forequarters)			Leg at body joint is oval in section
9	A5q797.1	135°	1 : 1.3			curly		Attitude alert (head, neck held up)
10	A6q327.1			curved	inverted V caudal flaps	carried high	♦	Herbivora body/leg join; legs triangular in section; hindquarters similar to Khabur examples
11	A6q344.1	130°	1 : 1.3	curved	narrow inverted U	carried high		Attitude alert (head, neck held up)
12	A7.35	120°	1 : 1.4		solidly founded narrow inverted U			Attitude alert (head, neck held up)
13	A7.89				open inverted U	carried high		
14	A7.235	not measure-able	1 : 1.2	curved	recessed slightly incurving inverted U	carried high		Attitude alert ( <i>spitz</i> type, neck held up)
15	A7.259	130°	1 : 1.9	curved	incurving inverted U	carried high	♦	Breast ridge; carnivore body/leg join; attitude alert (head, neck held up)
16	A7.365	125°	1 : 1.3	curved	slightly incurving inverted V	curly? carried high		Hindquarters triangular in vertical caudal section; attitude alert (head, neck held up)
17	A7q432.1		1 : 1.2	curved		carried high		
18	A7q975.1	120°	1 : 1.6	curved	solidly founded inverted U	curly carried high	♦	Attitude alert (head, neck held up); <i>spitz</i> type

Canis 7 (A5q82.1). Left median plane.  
(photograph V13D6323)

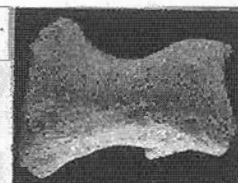


# GENUS *Canis*

## TENTATIVE IDENTIFICATION

OBJECT			MEASUREMENTS				RATIOS				
CORP-US	FIELD	DESCRIPTION	w1	w1 @neck	w2	w3	lg	w1 ≤ w3	w2 > 3/4w3	w1 ≥ w2 ≤ w3	lg ≤ 2w3
100	A5.155	torso MINIATURE	1.6	1.31	1.5	1.92	1.335 not diag- nostic	♦	♦	♦	
101	A5.167	forequarters MINIATURE	1.75	1.365	1.38		6.34 exclu- sive of breast ridge flap			w1 ≥ w2	
102	A5q706.2	hindquarters			1.14	1.335	2.15 not diag- nostic		♦	w2 ≤ w3	
103	A7.166	torso	2.88	2.19	2.39	3.15	2.375 not diag- nostic	♦	♦	♦	
104	A7q370.1	tail	2.15 length	0.086/ 0.068 base	0.85/ 0.58 curl		1.83 not diag- nostic				
105	A7q417.1	sexual parts, penis & testes	2.375 length	0.4525/ 0.5175 tip	0.6525/ 0.6925 penis	0.78/ 0.5.75 testes					
106	A7q715.1	model	2.53		2.29	2.57		♦	♦	♦	
107	A9q112.5	forequarters	1.46	1.14 (?)						w1 ≥ w2	

*Canis 7* (A5q82.1). Left median plane.  
(photograph V13D6323)

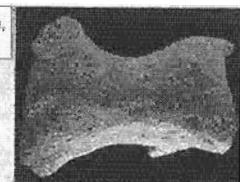


# GENUS *Canis*

## TENTATIVE IDENTIFICATION

SHARED CHARACTERISTICS								COMMENTS
CORPUS	FIELD	foreleg body join (°)	neck forequarter join	back	buttocks	tail	sexual parts	
100	A5.155	110°– 120°	1 : 1.2	curved	fused solidly founded	carried high; hangs down	♦ (?)	Attitude alert (head, neck held up); forequarters and hindquarters typically canid; mane problematic
101	A5.167	110°	1 : 1.3					Legs project forward; forequarters typically canid
102	A5q706.2				incised; inverted U	curly (?)		Hindlegs project back
103	A7.166	130°	1 : 1.3	curved	narrow inverted U	carried high; hangs down	♦	Pinched breast ridge, carried onto belly
104	A7q370.1					curly (?)		Exact reproduction of curly tail on <i>Canis 2</i> (A1.118), although length of appendage and how attached are problematic
105	A7q417.1							Point of attachment is small and argues against the identification; although piece would be crafted separately and applied to the underbelly
106	A7q715.1	130°		curved	narrow inverted U			The object might well be a loom weight, but is noteworthy for its similarity to the "mental template" of genus <i>Canis</i> , so consistently realized throughout the corpus — perhaps a "blank"
107	A9q112.5	120°	1 : 1.3					Breast ridge

Canis 7 (A5q82.1). Left median plane.  
(photograph V13D6323)

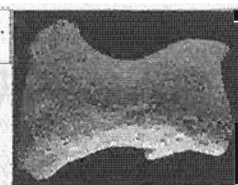


# GENUS *Canis*

## RELATED STRATIFIED FINDS

OBJECT			MEASUREMENTS				RATIOS				
CORP-US	FIELD	DESCRIPTION	w1	w1 @neck	w2	w3	lg	w1 ≤ w3	w2 > 3/4w3	w1 ≥ w2 ≤ w3	lg ≤ 2w3
200	A2q244.2	torso	1.4	not measure-able	1.43		3.5			w1 ≥ w2	♦
201	A2q389.1	torso	2.0	1.8	1.74	2.49	5.008 not diagnostic	♦	♦	♦	
202	A2q437.1	torso in process of manufacture	2.0	1.37	1.5	2.2	2.175 not diagnostic	♦	w2 = 7/10w3	♦	
203	A6.274	head & forequarters MINIATURE	0.575	1.49 under ears	0.525	1.5375 snout to torso beak	1.5375 snout to torso beak				
204	A8q12.3	torso	3.3	2.4	3.0	4.0	6.4	♦	♦	♦	♦
205	A10q146.2	torso	not measurable	not measure-able	2.74	3.96	6.75	♦	w2 > 0.69w3	♦	♦
206	A10q719.1	theriomorphic vessel with two dogs at the base									
207	K3.8	torso MINIATURE	1.425	1.4	1.125	1.5	3.21	♦	♦	♦	♦

Canis 7 (A5q82.1). Left median plane.  
(photograph V13D6323)

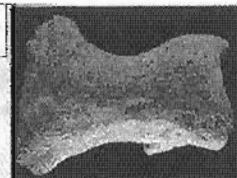


# GENUS *Canis*

## RELATED STRATIFIED FINDS

SHARED CHARACTERISTICS								COMMENTS
CORP-US	FIELD	foreleg body join (°)	neck forequarter join	back	buttocks	tall	sexual parts	
200	A2q244.2	140°		curved				Post-palace occupation levels; fragmentary; attitude alert (head, neck held up)
201	A2q389.1	120°	1 : 1.1		open inverted U caudal flaps raised ridge	carried high	♦ (?)	Post-palace occupation levels
202	A2q437.1	110°	1 : 1.5	curved	open inverted U	carried high; may curl back onto rump	♦	Post-palace occupation levels
203	A6.274							Executed in ivory or bone
204	A8q12.3	120°	1 : 1.4	curved	open slightly incurving inverted V  caudal flaps	carried high	♦	Khabur levels; attitude alert (head, neck held up); <i>spitz</i> type
205	A10q146. 2			curved	slightly open inverted U	carried high	♦ (?)	Attitude alert (neck approaches vertical). Within AK walls, above first floors.
206	A10q719. 1							Within AK walls; comparative artifact only; identification based on attitude, muzzle shape and blocky body type. as contrasted with <i>Felis</i> (function takes precedence over typology)
207	K3.8	*	1 : 1	curved	solidly founded inverted U	curly carried high	♦ (?)	*Not measurable, but body join is similar to <i>Canis</i> 4 and <i>Canis</i> 8; See INTRODUCTION for discussion of extended forelegs, typical of the genus; attitude alert (head, neck held up)

*Canis* 7 (A5q82.1). Left median plane.  
(photograph V13D6323)



# GENUS *Canis*

## RELATED UNSTRATIFIED FINDS

OBJECT			MEASUREMENTS				RATIOS				
CORP-US	FIELD	DESCRIPTION	w1	w1 @neck	w2	w3	lg	w1 ≤ w3	w2 > 3/4w3	w1 ≥ w2 ≤ w3	lg ≤ 2w3
300	Z1.298	forequarters	2.73 (?)	1.94	2.69		4.62			w1 ≥ w2	

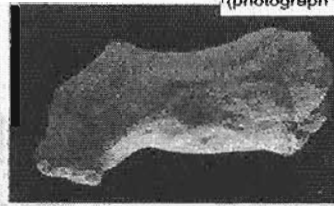
SHARED CHARACTERISTICS								COMMENTS
CORPUS	FIELD	foreleg body join (°)	neck forequarter join	back	buttocks	tail	sexual parts	
300	Z1.298	135° (?)	1 : 1.4	curved			♦ (?)	Sexual parts visible on underbelly



# GENUS *Felis*

## TYPE I (or not designated by TYPE) INCLUDING FRAGMENTS

*Felis* 8 (A5.25.1). Left median plane.  
(photograph V13D2987)



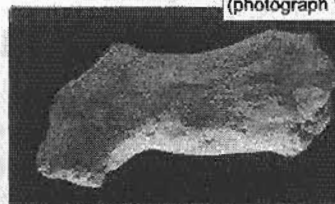
OBJECT			MEASUREMENTS					RATIOS				
CORP-US	FIELD	DESCRIP-TION	w1	w1@neck	w2	w3	lg	w1 ≤ w3	w1 @neck ~ w2	w2 ≤ 4/5w1	length	
											~ 3w2	~ 2w2
1	A1.19	torso	2.10	1.6	1.74			♦	♦	♦	♦	
2	A1q48.1	forequarters	2.85	1.73	2.35		4.6 not diag- nostic			♦		
3	A1.414	head			1.11 cranial		2.57 cranial					
4	A1q558.3	torso	2.02	1.45	1.5	2.19	4.32	♦	♦	♦	♦	
5	A1q581.1	forequarters	2.12	1.40	1.74		3.72 not diag- nostic		<	♦		
6	A1q637.1	forequarters	2.72	2.33	2.125		5.56 not diag- nostic		♦	♦		
7	A1q1058. 9	forequarters	1.92	1.15	1.5		2.6 not diag- nostic		♦	♦		
8	A5.25.1	torso TEMPLATE	2.23	1.76	1.75	2.54	5.85	♦	♦	♦	♦	
9	A5q172.1	forequarters	3.26	1.78	2.31 meas- ured verti- cally		4.24 not diag- nostic		<	♦ 3/5w1		
10	A5q656.1	hindquarters & torso			2.62	3.45	3.64 not diag- nostic					
11	A5q832.1	tail	0.84 body join		0.65 tip		2.39					
12	A5q929.1 1	torso MINIATURE	1.23									
13	A6.77	hindquarters			2.47	3.77	3.85 not diag- nostic					
14	A6q106.1	torso	3.02 5	1.69	2.1	3.5	7.025	♦	♦ neck/ body join is 1:1	♦	♦	
15	A6.129	torso (upper half only)		1.14 not diag- nostic	1.74		3.06 not diag- nostic					



# GENUS *Felis*

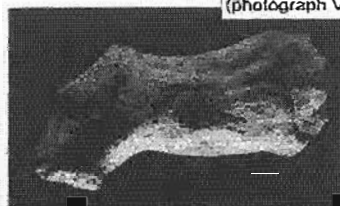
TYPE I (or not designated by TYPE)  
INCLUDING FRAGMENTS

*Felis* 8 (A5.25.1). Left median plane.  
(photograph V13D2987)



SHARED CHARACTERISTICS								COMMENTS
CORP-US	FIELD	leg/body join (°)	musculature	buttocks	sexual parts	VETERINARY INTERVENTION		
						caudal band	penile strap	
1	A1.19	Carnivora 140°	◆	fused rat tail				
2	A1q48.1	Carnivora 140°	◆					Wide forequarters
3	A1.414							Neck /muzzle join = 100°
4	A1q558.3	Carnivora 140°	smoothed	recessed rat tail				
5	A1q581.1	Carnivora 140°	◆					
6	A1q637.1	Carnivora 140°	◆					
7	A1q1058.9	Carnivora 140°	◆ ?					
8	A5.25.1	Carnivora 130°	◆	recessed rat tail?	◆			
9	A5q172.1	Carnivora 140°						
10	A5q656.1		◆	fused wide & raised centrally	◆ ?	◆ ?	◆ ? scraped away?	
11	A5q832.1							"Rat tail" — as it might be executed in clay — with slight tuft at termination; medium folded to model
12	A5q929.11							Fragmentary; only dorsal section remains
13	A6.77	Carnivora rump curves to hindleg	◆	fused, cut away to hold tail, incised line	◆		perhaps negative impression	Thin "rat tail" applied to fused buttocks
14	A6q106.1	Carnivora 135°	◆ mane follows musculature	deeply incised to accommodate tail or high leg join				Note mane, tail carried high and thick
15	A6.129		incised pelt					Fragmentary

Felis 8 (A5.25.1). Left median plane.  
(photograph V13D2987)



# GENUS *Felis*

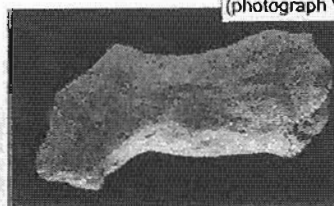
TYPE I (or not designated by TYPE)  
INCLUDING FRAGMENTS

OBJECT			MEASUREMENTS					RATIOS				
CORP-US	FIELD	DESCRIP-TION	w1	w1@neck	w2	w3	lg	w1 ≤ w3	w1 @neck ~ w2	w2 ≤ 4/5w1	length	
											~ 3w2	~ 2w2
16	A6.146	hindquarters			2.84	4.49	6.05 not diagnostic					
17	A6q502.1	forequarters	2.57	1.92	2.01		2.69 not diagnostic					
18	A6q607.1	head	1.59 base		1.34 cranial		1.66 cranial					
19	A6q614.1	torso MINIATURE	1.53		1.3	1.78	3.6					
20	A6q758.1	forequarters	2.78	2.2	2.2		3.67 not diagnostic	♦	♦			
21	A6q1090. 1	hindquarters			2.14	3.38	3.51 not diagnostic					
22	A7.23	hindquarters			1.78	2.5	3.85 not diagnostic					
23	A7.83	torso	2.87	2.43	2.56	3.23	6.39	♦	♦	♦	♦	
24	A7.125	forequarters (right median only)			1.7		2.33 not diagnostic					
25	A7.135	torso MINIATURE	1.33	1.12	1.28	1.54	3.13	♦	♦	♦	♦	
26	A7.142	forequarters	4.11	3.17	4.11		7.67 not diagnostic		<	♦		
27	A7.335	torso	2.68 not diag- nostic	1.93	2.05	2.96	5.54	♦	< 1.1	♦	♦	
28	A7q398.1	paw & leg	1.91 body join		1.08 knee	0.87 tip	2.7 height					
29	A7q841.2	torso	3.45	2.37 5	2.54	3.46	7.02	♦	♦	< .7w1	♦	
30	A7q871.5	torso	3.46	2.42	2.565	3.59	7.9	♦	♦	< .68w1	♦	
31	A7q966.1	torso	3.06	2.4 not diag- nostic	2.225	3.32	6.73	♦	♦	♦	♦	

# GENUS *Felis*

## TYPE I (or not designated by TYPE) INCLUDING FRAGMENTS

*Felis* 8 (A5.25.1). Left median plane.  
(photograph V13D2987)

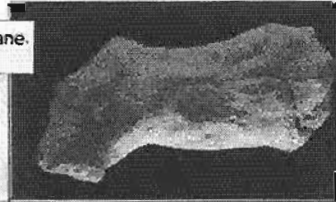


SHARED CHARACTERISTICS								COMMENTS
CORP-US	FIELD	leg/body join (°)	musculature	buttocks	sexual parts	VETERINARY INTERVENTION		
						caudal band	penile strap	
16	A6.146	Carnivora rump curves to hindleg		incised, scratched groove hole for tail	◆			Heavily abraded ventral plane
17	A6q502.1	Carnivora 150°						Heavily abraded; orientation difficult
18	A6q607.1							Heavily abraded; perhaps terminated
19	A6q614.1							
20	A6q758.1	Carnivora 130°	decorative markings?					Repaired with bitumen
21	A6q1090.1	Carnivora	◆	deeply incised rat tail	◆			Sexual parts broken
22	A7.23	rump curves to hindleg	◆ ?	deeply incised (cleft) tail?				Heavily abraded
23	A7.83	Carnivora 130°	◆	fused tail, abraded	◆ ?			Underbelly damaged; bitumen repair
24	A7.125		◆ pelt					Incised pelt on a fragment; orientation certain
25	A7.135	Carnivora 130°	◆ incised pelt	fused tail, legs extend far back				Deep incision along back ridge
26	A7.142	wheeled vehicle	disordered highly detailed incised pelt					Wheeled representation; deep incision on back ridge; perhaps decorative on right median
27	A7.335	not found	◆ scraping	fused tail carried high, flattened				
28	A7q398.1		◆ fingerprints pelt?					
29	A7q841.2	Carnivora		recessed raised ridge	◆			Heavily abraded
30	A7q871.5	Carnivora 115°	◆	recessed tail hangs down				
31	A7q966.1	Carnivora 110° rump curves to hindleg	◆ back ridge	fused tail hole	? broken away			Incised collar

Felis 8 (A5.25.1). Left median plane.  
(photograph V13D2987)

# GENUS *Felis*

## TYPE I TENTATIVE IDENTIFICATION



OBJECT			MEASUREMENTS					RATIOS				
CORP-US	FIELD	DESCRIP-TION	w1	w1@neck	w2	w3	lg	w1 ≤ w3	w1 @neck ~ w2	w2 ≤ 4/5w1	length	
											~ 3w2	~ 2w2
100	A1.55	torso & hindquarters (fore-quarters?) MINIATURE	1.2 (alter-nate reading)		1.0	1.2	3.375 not diag-nostic					
101	A1q808.1	torso	1.69 (ht)				2.37/ 1.24 (ht)					
102	A1q808.2	torso, possibly ventral portion MINIATURE	1.055		0.04		1.58					
103	A1q808.3	torso, possibly dorsal portion MINIATURE			1.36		1.81					
104	A1q809.2	hindquarters			0.975		1.8					
105	A1q976.1 6	tail	0.39 (tip)		0.62 (body attachment, short axis)	0.66 (body attachment, long axis)	1.83					
106	A1q1016. 3	tail			0.0425 (mid-point)		1.97					
107	A5.155	torso	1.525	1.275	1.475	1.85	4.96	♦	♦	♦	♦	
108	A5q638.1	torso, partially modeled	1.85		2.9	3.0 (height only measurable)	7.725			>	♦	
109	A5q790.1	torso with pelt MINIATURE			1.3		1.6					
110	A7 143	forequarters	3.92		3.59 (ht@w1)		6.36		?	?		
111	A7.357	head	5.45 (ht)		3.81 (cranial)		2.455 (cranial)					
112	A7q417.2	torso MINIATURE	1.19		1.93 (ht@w1) 1.65 (ht@w3)	1.48	2.7	♦				
113	A10q270. 7	torso with pelt	1.1 (broken)		1.465 (ht@w1)		1.685		?	?		♦

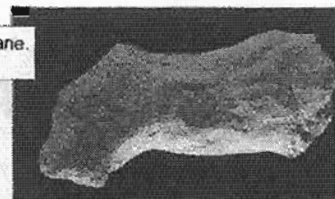
*Felis* 8 (A5.25.1). Left median plane.  
(photograph V13D2987)

# GENUS *Felis*

## TYPE I TENTATIVE IDENTIFICATION

SHARED CHARACTERISTICS								COMMENTS
CORP-US	FIELD	leg/body join (°)	musculature	buttocks	sexual parts	VETERINARY INTERVENTION caudal band      penile strap		
100	A1.55	Carnivora	♦ some modeling	fused rat tail	slightly recessed			Very problematic piece; wide forequarters, thick body join is the best way to "read" the piece; inside leg join must be taken as 90°, characteristic of carnivores other than <i>Felis</i>
101	A1q808.1			inverted U outside				Fragmentary, cylindrical in form
102	A1q808.2							Fabric impression
103	A1q808.3							Object measurable only in transverse section; cord impressions
104	A1q809.2			tail (0.7)				Torso pinched and pulled up to form hindquarters and tail
105	A1q976.1 6							Lightly tapered, tip blunt and rounded — did this appendage protrude and not hang down?
106	A1q1016. 3							Surface scraped. Fingerprints; no taper; possibly protrudes — a "rat-tail" variant
107	A5.155	carnivore	♦					Mane (or raised neck ridge); no breast ridge
108	A5q638.1							Surface piece of clay not molded on core; perhaps a discard — right hind leg (?)
109	A5q790.1							Striations on surface
110	A7.143							Right foreleg projects far forward; heavy breast ridge; incompletely fired
111	A7.357							Rectangle in vertical sections slight "beard" at chin; nostrils impressed, mouth a slit
112	A7q417.2		♦ (striations, scraping)		?			Perforation at neck; body not lean, yet Carnivora hindquarters and torso; "rat-tail"?
113	A10q270. 7							Fingerprints overall give impression of pelt; torso lean, forequarter join thick (?)

*Felis* 8 (A5.25.1). Left median plane.  
(photograph V13D2987)



# GENUS *Felis*

## TYPE I RELATED STRATIFIED FINDS

OBJECT			MEASUREMENTS					RATIOS				
CORP-US	FIELD	DESCRIP-TION	w1	w1@neck	w2	w3	lg	w1 ≤ w3	w1 @neck ~ w2	w2 ≤ 4/5w1	length	
											~ 3w2	~ 2w2
200	A2q392.1	hindquarters			2.35	2.55 not diagnostic	5.21 not diagnostic					
201	A2q424.1	forequarters	3.65	not meas- urable	2.52		4.86 not diagnostic					
202	A8q50.2	forequarters	2.57	1.85	1.73		3.48 not diagnostic		♦	< .7w1		
203	A9.17	torso	3.01	2.11	2.49	2.92 not diagnostic	8.23	> (but hind- quar- ters broken)	♦	♦	♦	
204	A9q105.1	hindquarters				3.37	4.955 not diagnostic					
205	A9q147.2	hindquarters & torso MINIATURE			1.13	1.785	3.9				♦	
206	A10.20.1	hindquarters & torso					5.8 not diagnostic					
207	A10q284. 4	forequarters	not meas- urable	2.51	2.2		3.52 not diagnostic		> 1.1 : 1	< .78w 1		

*Felis* 8 (A5.25.1). Left median plane.  
(photograph V13D2987)

# GENUS *Felis*

## TYPE I RELATED STRATIFIED FINDS

SHARED CHARACTERISTICS								COMMENTS
CORP-US	FIELD	leg/body join (°)	musculature	buttocks	sexual parts	VETERINARY INTERVENTION		
						caudal band	penile strap	
200	A2q392.1	Carnivora rump curves to hindleg	♦ scraping	fused tail hangs down				Leanness of torso is prime diagnostic factor; otherwise, <i>Ovis</i> hindquarters
201	A2q424.1							
202	A8q50.2	Carnivora 145°	♦					Wide forequarters; breast ridge
203	A9.17	Carnivora 130°	light incisions may mark a mane	fused	♦			Breast ridge ends at forequarters
204	A9q105.1	Carnivora		impressed tail hole	♦	♦	♦	Unequivocal example of veterinary intervention in TYPE I Carnivora; bitumen repair, left hindleg.
205	A9q147.2	Carnivora	♦	fused tail straight out	♦	♦	♦	Band quite broad; TYPE II second example, veterinary intervention
206	A10.20.1	Carnivora	♦	impressed rump curves down to hindleg				Breakage striking; figurine is bifurcated, entire dorsal section cut away
207	A10q284.4	Carnivora 140°	♦ incised mane					Prominent breast ridge, forequarters narrow; in order to support body, right foreleg would require an articulated knee joint (below break)



*Felis* 32 (A1.48) TYPE II. Ventral view.  
(photograph V10B1711)



# GENUS *Felis*

## TYPE II

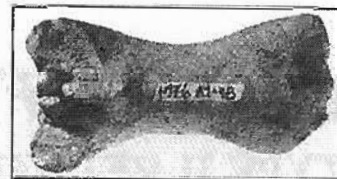
OBJECT			MEASUREMENTS					RATIOS				
CORP-US	FIELD	DESCRIP-TION	w1	w1@neck	w2	w3	lg	w1 ≤ w3	w1 @neck ~ w2	w2 ≤ 4/5w1	length	
											~ 3w2	~ 2w2
32	A1.48	torso	not meas-urable	not meas-urable	1.85	2.86	6.11					
33	A5.25.2	torso	2.3	1.625	1.6	2.93	4.75	♦	♦	< .7w1	♦	
34	A6q808.1	hindquarters			2.1	3.2	3.35					
35	A7.11	hindquarters			2.55	3.46	4.78 not diag-nostic					
36	A7q231.1	torso	3.55	2.53	2.98	4.00	8.42	♦	♦	♦	♦	
37	A7q684.2	torso	3.75	2.1	2.6	3.475	7.495	> .9w1	♦	< .6w1	♦	
38	A7q826.1	torso	3.84	2.79	2.75	not meas-ureable	7.85	♦	♦	< .7w1	♦	

SHARED CHARACTERISTICS							COMMENTS
CORP-US	leg/body join (°)	musculature	buttocks	sexual parts	VETERINARY INTERVENTION		
					caudal band	penile strap	
32	Carnivora 160°		fused tail hole	♦		♦ ?	Breast ridge, does not continue onto belly
33	Carnivora 140°	♦ scraped	recessed heavy incision rat tail	♦	♦ heavy incision		Breast ridge, does not continue onto belly
34	Carnivora		fused rump curves down to hindleg rat tail	♦	♦ negative impression continues tail?		
35	rump curves down to hindleg		recessed deeply incised tail hole	♦	♦ heavy incision	3 holes, 1 in and 2 to either side of penis	
36	Carnivora rump curves down to hindleg 130°	♦ scraped	recessed incised tail hole	♦	♦ scratched incision		
37	Carnivora rump curves down to hindleg 115°	♦	recessed tail	♦	♦ band	♦	Forequarters very wide, prominent breast ridge
38	Carnivora rump curves down to hindleg 145°	♦ scraped	recessed tail hole	♦	♦ light scratches		Heavily abraded; note disparity between apparently heavy neck/body join and lean body measurements



**GENUS *Felis***

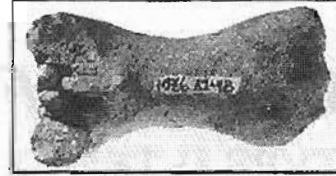
*Felis* 32 (A1.48) TYPE II. Ventral view.  
(photograph V10B1711)

**TYPE II TENTATIVE IDENTIFICATION**

OBJECT			MEASUREMENTS					RATIOS				
CORP-US	FIELD	DESCRIP-TION	w1	w1@neck	w2	w3	lg	w1 ≤ w3	w1 @neck ~ w2	w2 ≤ 4/5w1	length	
											~ 3w2	~ 2w2
114	A6q952.1	forequarters	3.56 (broken)	2.15	2.82		3.64		♦	♦		
115	A10q295.2	torso	2.65	1.9	1.9	2.83	5.37	♦	♦	♦		

SHARED CHARACTERISTICS						COMMENTS
CORP-US	leg/body join (°)	musculature	buttocks	sexual parts	VETERINARY INTERVENTION caudal band      penile strap	
114		light incisions (mane ?)				Narrow, pronounced breast ridge ~ <i>Equus</i> TYPE I
115		♦ scraped	inverted U outside			Tail, broken, may have extended out from body; mane is added piece of clay

*Felis* 32 (A1.48) TYPE II. Ventral view.  
(photograph V10B1711)



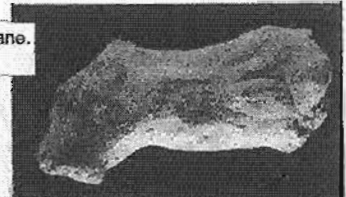
# GENUS *Felis*

## TYPE II RELATED STRATIFIED FINDS

OBJECT			MEASUREMENTS					RATIOS				
CORP-US	FIELD	DESCRIP-TION	w1	w1@neck	w2	w3	lg	w1 ≤ w3	w1 @neck ~ w2	w2 ≤ 4/5w1	length	
											~ 3w2	~ 2w2
208	A2q439.1	torso	3.45	2.28	2.37	3.85	7.94	♦	♦	< 7w1	♦	
209	A10.71	torso	3.84	3.0	2.76	3.07	7.66	> 1 : 1.3	♦	< .72w1	♦	
210	A10q146.5	torso	2.97 not diagnostic	2.47	2.64	3.8	7.17	♦	♦		♦	
211	BH.509	torso	2.63	2.04	2.31	3.05	6.55	♦	♦	♦	♦	

SHARED CHARACTERISTICS							COMMENTS
CORPUS	leg/body join (°)	musculature	buttocks	sexual parts	VETERINARY INTERVENTION		
					caudal band	penile strap	
208	Carnivora 120°	♦	fused tail hole; raised applied ridge rump curves down to hindleg	♦ negative impression of phallus	♦	♦ ?	Incision along back ridge
209	Carnivora 115°	♦	rump curves down to hindleg; thick tail	♦	♦ deep groove	♦	Hindquarters blocky, flat on top; forequarters wide
210	Carnivora 115°	♦ scraped	rump curves down to hindleg;	♦	♦ band	♦	
211	Carnivora 130°	♦ decorated regular lines of dots forming a grid overlaying the back	deeply recessed ♦ rump curves down to hindleg	♦	♦ heavy incision	♦ abraded band over penis & visible as negative impression either side	

*Felis* 8 (AS 25.1). Left median plane.  
(photograph V13D2987)



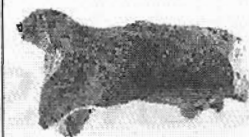
# GENUS *Felis*

## RELATED UNSTRATIFIED FINDS

OBJECT			MEASUREMENTS					RATIOS				
CORP-US	FIELD	DESCRIP-TION	w1	w1@neck	w2	w3	lg	w1 ≤ w3	w1 @neck ~ w2	w2 ≤ 4/5w1	length	
											~ 3w2	~ 2w2
300	A1q557.2 TYPE II	torso	2.03	1.31	1.93	2.89	4.72	♦	< 1 : 1.5	♦		♦
301	Z1.164	torso	2.31	1.65	1.91	2.155	3.3	> .9w1	♦	♦		♦
302	Z1.203	torso	2.46	1.70	2.31	2.93	6.85	♦	♦	♦	♦	

SHARED CHARACTERISTICS							COMMENTS
CORP-US	leg/body join (°)	musculature	buttocks	sexual parts	VETERINARY INTERVENTION		
					caudal band	penile strap	
300	Carnivora 140°	♦ scraped & modeled	recessed • rump curves down to hindleg				Recovered from backfill; one of two examples where the torso length is closer to 2w2
301	Carnivora 130°	♦ decorated with geometric pattern	fused tail heavy hangs down	♦ ?			
302	Carnivora 140°?	♦ modeled scraped	deeply recessed • rump curves down to hindleg	♦	♦ ridge within recessed buttocks; tail hole?	♦ splayed-out clover-shaped penis head; 3 holes (in head and to either side)	Incision completely around base of neck

*Ursus* 403 (A1.79) Left median plane.  
(photograph V10E0094)

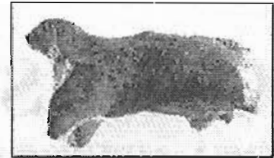


# GENUS *Ursus*

OBJECT			MEASUREMENTS					RATIOS				
CORP-US	FIELD	DESCRIP-TION	w1	w1@neck	w2	w3	lg	w1 ≤ w3	w1 @neck ~ w2	w2 ≤ 4/5w1	length	
											~ 3w2	~ 2w2
403	A1.79	torso MINIATURE	1.63	0.92	1.34	1.72	3.76	♦	< 1 : 1.5	♦	♦	
404	A5.32	torso	2.85	2.2	2.95	2.95	9.15	♦	< 1 : 1.3	♦	♦	
405	A6q487.1	torso	2.13		2.30	2.66/ 2.73 (bulge)	4.11	♦				
406	A7.239	muzzle & snout	1.78 snout long axis	0.96 snout short axis	3.45 height		3.22 cranial					

SHARED CHARACTERISTICS							COMMENTS
CORP-US	leg/body join (°)	musculature	buttocks	sexual parts	VETERINARY INTERVENTION		
					caudal band	penile strap	
403	Carnivora • 130° body/leg join • 90° foreleg join • 90° hindleg join	♦  modeled	  fused				Note neck/torso ratio; may possibly indicate species-specific ratio
404	Carnivora • 130° body/leg join • 60° foreleg join • 90° hindleg join	♦	fused sharp ridge	♦	♦ ? ridge		Note neck/torso ratio
405	Carnivora • 140° body/leg join • 90° hindleg join	♦	fused				
406							

*Ursus* 403 (A1.79) Left median plane.  
(photograph V10E0094)



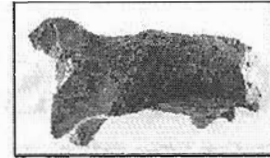
# GENUS *Ursus*

## TENTATIVE IDENTIFICATION

OBJECT			MEASUREMENTS					RATIOS				
CORP-US	FIELD	DESCRIP-TION	w1	w1@neck	w2	w3	lg	w1 ≤ w3	w1 @neck ~ w2	w2 ≤ 4/5w1	length	
											~ 3w2	~ 2w2
116	A5q706.2	hindquarters MINIATURE			0.925	1.33/ 1.44 (ht)	1.57 not diag- nostic					
117	A7q849.1	torso MINIATURE	1.15/ 1.16 (ht)		1.17	1.24/ 1.57 (ht)	2.24 not diag- nostic	♦	>			

SHARED CHARACTERISTICS							COMMENTS
CORP-US	leg/body join (°)	musculature	buttocks	sexual parts	VETERINARY INTERVENTION		
					caudal band	penile strap	
116	open inverted U		slightly recessed		incision		Hindlegs thrust out; tail wide; overfired
117	forelegs (145°)						Tail (?) 0.051, thick, hangs over; forequarters read as <i>Canis</i>

*Ursus* 403 (A1.79) Left median plane.  
(photograph V10E0094)



# GENUS *Ursus*

## RELATED STRATIFIED FINDS

OBJECT			MEASUREMENTS					RATIOS				
CORP-US	FIELD	DESCRIP-TION	w1	w1@neck	w2	w3	lg	w1 ≤ w3	w1 @neck ~ w2	w2 ≤ 4/5w1	length	
											~ 3w2	~ 2w2
212	A10q56.1	torso & forequarters MINIATURE	1.09	00.71	1.09		1.155			> 1:1		♦

SHARED CHARACTERISTICS							COMMENTS
CORPUS	leg/body join (°)	musculature	buttocks	sexual parts	VETERINARY INTERVENTION		
					caudal band	penile strap	
212	Carnivora • 150° body/leg join • 140° foreleg join	♦ scraped & modeled					

Capra 1 (A1.44). Left median plane,  
(photograph V13D6295)

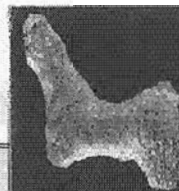


# GENUS *Capra*

OBJECT			MEASUREMENTS					RATIOS		
CORPUS	FIELD	DESCRIPTION	w1	w1@neck	w2	w3	lg	w1 ~ w3	w2 ≥ 2/3w1	lg ≥ 2w2
1	A1.44	torso TEMPLATE	2.91	1.47	2.08	2.97	5.11	♦	♦	♦
2	A1q577.1	hindquarters			1.49	1.78	3.79 not diagnostic		♦ 0.8 : 1 hind- quarters	
3	A5q443.1	head & forequarters	1.9 not diagnostic		1.65 cranial		2.2 cranial			
4	A6q144.2	torso MINIATURE	1.25	0.08 7	0.95	1.256	3.12	♦	♦	♦
5	A6.166	torso	4.22	2.5	3.27	4.35	8.82	♦	♦	♦
6	A6q323.1	torso & head	2.3	1.6	1.9	2.2	4.89	♦	♦	♦
7	A6q648.2	forequarters	1.63	1.11 5	1.25		2.21 not diagnostic		♦	
8	A6q1072.1	hindquarters with pelt				2.93	4.855 not diagnostic			
9	A6q1100.1	head & neck	2.92	2.0	3.98 cranial		2.8 cranial			
10	A7.7	torso	2.41	1.65	1.98	2.21		♦	♦	
11	A7q12.1	torso	1.07		1.66	2.02	4.42			♦
12	A7.157	torso	2.47		2.06	2.49	4.63	♦	♦	♦
13	A7.251	forequarters muzzle & horns	2.24	1.12	1.64		4.855 not diagnostic		♦	
14	A7.319	torso	1.93	1.3	1.44	1.95	3.6	♦	♦	lg = 1.86w1
15	A7q358.1	hindquarters and tail			1.87	2.67	3.365 not diagnostic			
16	A7q704.1	torso & neck (head)	1.42	1.1	1.29	1.64	3.2	♦	♦	♦
17	A7q813.2	hindquarters right hindleg and tail			1.33	1.98	3.11 not diagnostic			



Capra 1 (A1.44). Left median plane.  
(photograph V13D6295)

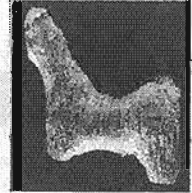


# GENUS *Capra*

SHARED CHARACTERISTICS							COMMENTS
CORPUS	FIELD	cranial/ forequarters ▼/▲	hindquarters (°)	tail	leg/body join	pelt	
1	A1.44	▼/▲	deeply recessed caudal flaps 25°	carried high curves up	herbivore	♦	
2	A1q577.1		deeply recessed caudal flaps	carried high hangs down	herbivore		Tail/hindquarters 1 : 2.8 scraped; unusual in corpus
3	A5q443.1	▼/▲			herbivore		Horn join is flat atop crown (~Ovis)
4	A6q144.2	▲	deeply recessed caudal flaps 25°	carried high curves up	herbivore		
5	A6.166	▼/▲	not measurable	carried high curves up	herbivore		
6	A6q323.1	▼/▲	recessed caudal flaps 35°	carried high curves down	herbivore	♦	Tail broken
7	A6q648.2	▲			herbivore	♦?	
8	A6q1072. 1		recessed; incision	carried high curves up	herbivore	♦	
9	A6q1100. 1	▼/▲					Forequarters/neck proportions determine genus; ear flaps; horns (lozenge-shaped in section) likely curve down & back, not forward, as with Ovis
10	A7.7		recessed caudal flaps	tail carried down	herbivore	♦	
11	A7q12.1		recessed caudal flaps	rounded; tail curves up	herbivore		
12	A7.157	▲	fused	rounded; tail straight out & carried high	herbivore		Leg/body join (forequarters) 120°
13	A7.251	▼/▲			herbivore		
14	A7.319	▼/▲	fused open inverted U	rounded; abraded knob	herbivore		Udder
15	A7q358.1		fused narrow inverted U	tail carried high; "knob"	herbivore		Tail long; compare form with <i>Capra</i> 4, where tail starts low on hindquarters and terminates above rump in a knob
16	A7q704.1	▼/▲	fused outcurving inverted V	carried high curves up	herbivore		
17	A7q813.2		fused narrow inverted U	carried high "swishes"	herbivore		Realistic tail detail typical of genus



Capra 1 (A1.44). Left median plane.  
(photograph V13D6295)



# GENUS *Capra*

## TENTATIVE IDENTIFICATION

OBJECT			MEASUREMENTS					RATIOS		
CORP-US	FIELD	DESCRIPTION	w1	w1@neck	w2	w3	lg	w1 ~ w3	w2 ≥ 2/3w1	lg ≥ 2w2
100	A1q959.3	head with collar (?)	1.505	0.9	not measurable		1.455 not diagnostic			
101	A6q594.1	head with horns	2.24 across horns	1.31			4.3 cranial			
102	A10q293.2	theriomorphic attachment for a vessel		2.97	3.94 cranial not diagnostic		4.645 cranial not diagnostic			
103	A10q295.1	head & horn	2.84 across muzzle				1.58 cranial not diagnostic			

SHARED CHARACTERISTICS							COMMENTS
CORPUS	FIELD	cranial/ forequarters ▼/▲	hindquarters (°)	tail	leg /body join	pelt	
100	A1q959.3	▼/▲					Heavily damaged, possibly a discard
101	A6q594.1	▼ ?				?	Problematic piece, orientation uncertain; horns do not extend back; depending on orientation, neck join could be thick and <i>Bos</i> -like
102	A10q293.2	▼/▲					
103	A10q295.1	▼					Horn terminated, ovoid in section; object is free-standing on a "base" — anomalous

Capra 1 (A1.44). Left median plane.  
(photograph V13D6295)



# GENUS *Capra*

## RELATED STRATIFIED FINDS

OBJECT			MEASUREMENTS					RATIOS		
CORP-US	FIELD	DESCRIP-TION	w1	w1@neck	w2	w3	lg	w1 ~ w3	w2 ≥ 2/3w1	lg ≥ 2w2
200	A2.113	head & horns			3.06 cranial width		4.79 cranial length			
201	A2q392.2	head (perforation in neck)			2.22 cranial width		3.9 cranial length			
202	A9q8.1	torso	1.21	0.91	not measurable	1.28	3.54	♦		
203	A10q114.1	torso	2.765	1.8	2.37	2.53	5.47	♦	♦	♦
204	A10.129	torso	1.85	1.5	1.42	1.8525	3.95	♦	♦	♦
205	A10.249	torso	2.36	1.48	1.7	2.5	5.57	♦	♦	♦
206	A10q293.1	torso & neck	2.8	1.58	1.69	2.77	5.0	♦	♦	♦

SHARED CHARACTERISTICS							COMMENTS
CORPUS	FIELD	cranial/ forequarters: ▼/▲	hindquarters (°)	tail	leg/body join	pelt	
200	A2.113	▼					
201	A2q392.2	▼					
202	A9q8.1	▼/▲	fused narrow inverted U	carried high	herbivore		Post-palace levels
203	A10q114.1	▼/▲	recessed caudal flaps 40°				
204	A10.129	▼/▲	recessed narrow inverted U	carried high	herbivore		
205	A10.249	▼/▲	deeply recessed caudal flaps 45°	carried high broken	herbivore	♦	
206	A10q293.1	▼/▲	fused incurving inverted V	carried high curves up	herbivore		

Capra 23 (A5.154) leg. Left median plane.  
(photograph V8bB0817)



# GENUS *Capra*

## FRAGMENTS LEGS ONLY

OBJECT			HEIGHT	BODY JOIN (TRANSVERSE SECTION)		TIP (TRANSVERSE SECTION)		SECTION	KNEE-JOINT (°)	COMMENTS
CORPUS	FIELD	DESCRIPTION		LONG AXIS	SHORT AXIS	LONG AXIS	SHORT AXIS			
18	A1.330	leg & hoof	3.6775	1.22	0.795	0.95	0.865	oval → oval	♦ 75° spur, hoof	Cleft hoof, perpendicular to section
19	A1q855.1	upper leg partial hoof	3.565	1.33	1.0325	0.76	0.6	oval → oval	♦ 35° hoof, indented	Expressed knee-joint
21	A1q899	hoof & leg	3.3005	0.92	0.675	0.8	0.7	oval → oval	♦ 45° hoof, indented	Pelt, scraped
22	A1q931.2 9	hoof MINIATURE	0.835	0.565 lower leg	0.46 lower leg	0.4925	0.5	oval → oval	hoof	Cleft hoof
23	A5.154	leg hoof & spur	3.315	1.79	1.67	0.595	0.675	oval → oval	♦ 10° spur, hoof	Cleft hoof
24	A5q948.1	hoof right foreleg	1.91	1.16	1.02	0.7625	0.6575	oval → oval	♦ 10° hoof	Cleft hoof; possible <i>Bos</i> horn, curved rather than articulated
25	A5q1016. 4	leg & hoof	2.92	0.93	0.66	0.58	0.41	oval → oval	♦ 10° fold in fabric	Leg section rotates by 90°
26	A6q72.1	left hindleg	2.91	1.89	1.52	0.7125	0.564	oval → oval	♦ 15° terminated	Quite blocky; similar to <i>Ovis</i> , even though articulated
27	A6q148.1	hoof MINIATURE	1.65	0.86 lower leg	0.7525 lower leg	0.65	0.61	oval → oval	♦ 5° hoof	Cleft hoof; antler
28	A6q324.1	right (?) hindleg	2.6	1.59	1.265	0.67	0.5	oval → oval	♦ 10°	
29	A6q854.3	left (?) hindleg	5.9	1.57	1.05	0.645	0.51	oval → oval	♦ 20° terminated	
30	A6q1049. 1	left hindleg	4.28	1.7	0.86	0.81	0.7225	oval → oval	♦ 45° terminated (?)	Articulated knee joint
31	A7q206.1	leg	1.93	1.05	1.025	0.795	0.795	circle → circle	♦ 25°	Expressed knee joint
32	A7.301	right (?) foreleg & hoof	4.57	1.07 below haunch	0.94 below haunch	0.7	0.57	oval → oval	♦ 25° spur, hoof	
34	A7q964.1	leg & hoof <i>crochet</i>	3.55	1.4525	0.98	0.6	0.58	oval → oval	♦ 30° hoof, indented	

Capra 23 (A5.154) leg. Left median plane.  
(photograph V8bB0817)



# GENUS *Capra*

## FRAGMENTS LEGS ONLY

### TENTATIVE IDENTIFICATION

OBJECT			HEIGHT	BODY JOIN (TRANSVERSE SECTION)		TIP (TRANSVERSE SECTION)		SECTION	KNEE-JOINT (°)	COMMENTS
CORP-US	FIELD	DESCRIPTION		LONG AXIS	SHORT AXIS	LONG AXIS	SHORT AXIS			
105	A5Q915.1	right hindleg <i>gracile</i>	2.47	1.09	0.74	0.745	0.5	oval → oval	terminated	Possible pelt
106	A6q80.1	leg	1.91	0.93	0.85	0.755	0.73	circle → circle	terminated (?)	Abraded — anomalous

# GENUS *Capra*

## FRAGMENTS LEGS ONLY

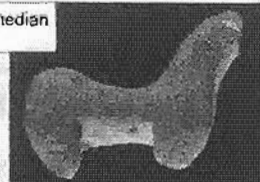
### RELATED STRATIFIED FINDS

Capra 23 (A5.154) leg. Left median plane.  
(photograph V8bB0817)



OBJECT			HEIGHT	BODY JOIN (TRANSVERSE SECTION)		TIP (TRANSVERSE SECTION)		SECTION	KNEE-JOINT (°)	COMMENTS
CORP-US	FIELD	DESCRIPTION		LONG AXIS	SHORT AXIS	LONG AXIS	SHORT AXIS			
207	A8q6.1	herbivore leg	0.8	0.7	not found	0.4	not found	circle →	expressed	
208	A9q64.3	leg	3.96	1.71	1.58	0.64	not found	oval → square	hoof	<i>Crochet</i> at termination
210	A10q197.1	left hindleg	4.11	1.82	1.26	0.61	0.585	oval → oval	♦ 30° spur, termination	Also haunch
212	A10q200.1	left hindleg	3.5	1.29	1.1	0.78	0.7	oval → oval	♦ 20°	
214	B3.35	hoof & lower leg	5.93	1.87 lower leg	1.545 lower leg	1.78	1.71	oval → oval	spur, hoof	Large animal representation; cleft hoof

*Equus* 5 (A6.238) TYPE I. Right median plane. (photograph V13D6821)



# GENUS *Equus*

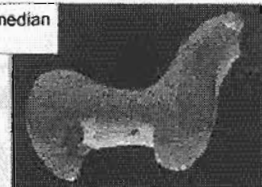
## TYPE I ASINID

OBJECT			RATIOS & PROPORTIONS								
CORP-US	FIELD	DESCR-PTION	w1	w1@neck		w2	w3	lg	w1 > w2 < w3	w1@neck (lg) ≥ lg/2	lg ≥ 2w3
				w	lg				~ 5 : 4 : 6		
1	A1q836.1	head		1.97		2.2 cranial		4.0 cranial	~ 5 : 4 : 6		
3	A5q171.2	fore-quarters	3.13	2.025	3.63	2.85		4.315 not diagnostic	~ 2 : 3		
4	A5q530.1	fore-quarters	2.84	1.57	2.95			3.63 not diagnostic			
5	A6.238	torso TEMPLATE	2.55	1.14	2.89	1.66	2.67	5.75	♦ 6 : 4 : 6	♦	♦
6	A6q493.5	fore-quarters	3.15	2.15	2.16 ?	2.43		4.12 not diagnostic	♦ 5 : 4 : _		
7	A7.3	head with mane		1.6		1.55 cranial		3.62 cranial			
8	A7.13	fore-quarters	3.38	1.85	3.72	2.415		4.36 not diagnostic	♦ 5.7 : 4 : _	♦	
9	A7.85	torso and neck	2.42	1.59	2.82	2.06	2.97	5.23	4.6 : 4 : 5.6	♦	♦
10	A7.333	torso	1.98	1.07	1.75	1.56	2.0	4.56	4.3 : 4 : 5.8	<	<
11	A7.510	torso	2.84	1.98	4.86	2.56	3.87	7.76	4.3 : 4 : 5.8	♦	♦

*Equus* 5 (A6.238) TYPE I. Right median plane. (photograph V13D6621)

# GENUS *Equus*

## TYPE I ASINID

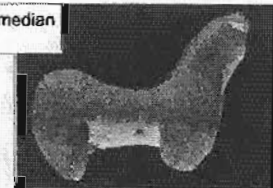


SIGNS OF DOMESTICATION						
CORPUS	FIELD	forequarters		foreleg/ body join (°)	breast ridge pronounced	
		narrow	wide		yes	no
1	A1q836.1					
3	A5q171.2	♦			♦	
4	A5q530.1	♦		120°		♦
5	A6.238	♦		90° inside	♦	
6	A6q493.5		♦	130°	♦	
7	A7.3					
8	A7.13	♦		120°		♦
9	A7.85	♦		120°	♦	
10	A7.333	♦		130°	♦	
11	A7.510	♦		130°		

SIGNS OF DOMESTICATION									
CORPUS	FIELD	muzzle				mane		tail	
		blunt		ears short eyes wide	■ → ▼ section	erect	flowing	narrow tufted	broad at base
		yes	no						
1	A1q836.1	♦		♦	♦	♦			
3	A5q171.2								
4	A5q530.1					♦			
5	A6.238					♦		♦ rat tail	
6	A6q493.5	♦			■ → ■	♦			
7	A7.3								
8	A7.13					♦		thin incised	
9	A7.85					♦		tail hole ridge	
10	A7.333			♦	■ → ■	♦ onto crown		♦	
11	A7.510					♦		thin incised	



*Equus* 5 (A8.238) TYPE I. Right median plane, (photograph V13D6621)



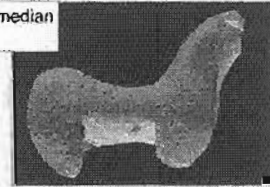
# GENUS *Equus*

## TYPE I ASINID

### TENTATIVE IDENTIFICATION

OBJECT			RATIOS & PROPORTIONS								
CORP-US	FIELD	DESCRIP-TION	w1	w1@neck		w2	w3	lg	w1 > w2 < w3	w1@neck (lg) ≥ lg/2	lg ≥ 2w3
				w	lg				~ 6 : 4 : 6		
101	A7q424.1	muzzle & neck		1.53		1.36 cranial		3.11 cranial			
102	A7.316	torso	3.11	2.03	2.82	2.63	3.13	6.865	4.7 : 4 : 4.7	<	♦
103	A7q747.4	torso & fore-quarters	2.56	not measurable	1.67	1.81		4.815 ?	5.6 : 4 : —		
104	A9.18	torso	2.48	2.04	2.63	2.27	3.31	6.02	4.5 : 4 : 6	<	<
105	A10.45	fore-quarters	2.48	1.01	2.0	2.01		4.73 not diagnostic	5 : 4 : —		
106	A10q148.1	fore-quarters, partial muzzle with yoke	2.4	1.49	3.05	1.88		4.26 not diagnostic	5 : 4 : —		

*Equus* 5 (A6.238) TYPE I. Right median plane. (photograph V13D6621)



# GENUS *Equus*

## TYPE I ASINID

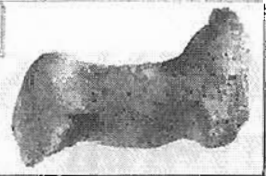
### TENTATIVE IDENTIFICATION

SIGNS OF DOMESTICATION						
CORPUS	FIELD	forequarters		foreleg/ body join (°)	breast ridge pronounced	
		narrow	wide		yes	no
101	A7q424.1					
102	A7.316	♦		130°	♦	
103	A7q747.4	♦		140°	♦	
104	A9.18	♦		130°		♦
105	A10.45	♦		130°	♦	
106	A10q148.1	♦		140°	♦	

SIGNS OF DOMESTICATION									
CORPUS	FIELD	muzzle				mane		tail	
		blunt		ears short eyes wide	■ → ▼ section	erect	flowing	narrow tufted	broad at base
		yes	no						
101	A7q424.1	♦		ears long	■ → ■	♦			
102	A7.316					♦			♦
103	A7q747.4					♦			
104	A9.18					♦			♦ ? carried high
105	A10.45					♦			
106	A10q148.1					♦			



*Equus* 17 (A7.320) TYPE I-II. Right median plane. (photograph V8aE1601)



# GENUS *Equus*

## TYPE I/II

OBJECT			RATIOS & PROPORTIONS								
CORP-US	FIELD	DESCRIP-TION	w1	w1@neck		w2	w3	lg	w1 > w2 < w3 ~ 5 : 4 : 6	w1@neck (lg) ≥ lg/2	lg ≥ 2w3
				w	lg						
12	A1q618.1	torso	2.46	1.28	2.14	1.65	2.68	5.1	5.7 : 4 : 5.7	<	♦
13	A5q843.1	torso	2.02	1.27	1.64	1.86	2.38	5.42	4.2 : 4 : 5	<	♦
14	A6.149	torso	2.65	1.95	2.34	2.35	3.25	7.45	4.5 : 4 : 5.5	<	♦
15	A7.121	torso	1.69	not mea-surable	not mea-surable	1.51	1.55	3.17	4.4 : 4 : 4		♦
16	A7q204.5	hind-quarters					2.69 not diag-nostic	2.78 not diag-nostic			♦
17	A7.320	torso	3.45	1.74	3.45	3.17	4.05	8.65	5.2 : 4 : 6	<	♦

# GENUS *Equus*

## TYPE I/II

*Equus* 17 (A7.320) TYPE I-II. Right median plane. (photograph V8aE1601)



SIGNS OF DOMESTICATION						
CORPUS	FIELD	forequarters		foreleg/ body join (°)	breast ridge pronounced	
		narrow	wide		yes	no
12	A1q618.1	♦		90°	♦	
13	A5q843.1	♦		130°	♦	
14	A6.149	♦		140°		♦
15	A7.121	♦		120°		♦
16	A7q204.5					
17	A7.320	♦ ?		120°	♦	

SIGNS OF DOMESTICATION									
CORPUS	FIELD	muzzle				mane		tail	
		blunt		ears short eyes wide	■ → ▼ section	erect	flowing	narrow tufted	broad at base
		yes	no						
12	A1q618.1					♦		tail hole	
13	A5q843.1					♦			♦
14	A6.149					♦		tail hole	
15	A7.121								
16	A7q204.5							tail hole	
17	A7.320					♦		tail hole	

*Equus* 23 (A5.30) TYPE II.  
(photograph V13D7121)

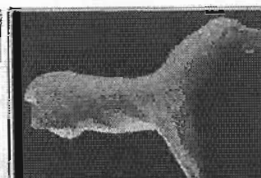


# GENUS *Equus*

## TYPE II HEMIONE

OBJECT			RATIOS & PROPORTIONS								
CORP-US	FIELD	DESCRIP-TION	w1	w1@neck		w2	w3	lg	w1 > w2 < w3	w1@neck (lg) ≥ lg/2	lg ≥ 2w3
				w	lg				~ 5 : 4 : 6		
18	A1.481	torso & head MINIATURE	1.15	0.82	1.26	1.24	1.54	2.78	3.7 : 4 : 3.7	<	<
19	A1q615.1	forequarters (mare?)	2.6	1.625	2.29	2.4		2.55	6 : 4 : __		
21	A1q960.8	head				1.22 cranial		3.8 cranial			
22	A5.10	torso & head	2.6	1.9	3.09	2.3	2.3	5.5	4 : 4 : 4	♦	♦
23	A5.30	torso & forequarters TEMPLATE	3.25	1.55	4.17	2.16	3.20	6.48	6.2 : 4 : 6.1	♦	♦
24	A5.109	head ("blank")		1.59		1.51 cranial		4.07 cranial			
25	A6.257	head				1.59 cranial		4.3 cranial			
26	A6q271.1	plaque with tethered equid		0.785	3.03	1.2					
27	A6q548.5	torso MINIATURE	1.645	1.01	1.79	1.38	2.11	3.57	4.8 : 4 : 6.1	♦	<
28	A6q1010. 1	forequarters	2.29	1.21	2.29	1.7225			5.5 : 4 : __		
29	A7q11	head with halter		1.96		2.24 cranial		4.01 cranial			
30	A7.210	head				1.67 cranial		3.32 cranial			
31	A7.256	torso	1.75	1.16	2.16	1.47	1.73	3.52	4 : 4 : 4	♦	♦
32	A7q822.1	torso	3.01	2.25	2.75	2.46	3.9	6.3	4.8 : 4 : 6.2	<	<
33	A7q865.1	neck partial muzzle ("blank")				2.07 cranial		3.325 cranial			
34	A7q964.2	torso MINIATURE	1.17	0.74	1.16	0.92	1.06	2.12	5.2 : 4 : 4.7	<	♦

*Equus* 23 (A5.30) TYPE II.  
(photograph V13D7121)



# GENUS *Equus*

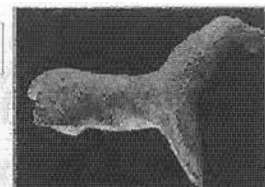
## TYPE II HEMIONE

SIGNS OF DOMESTICATION						
CORPUS	FIELD	forequarters		foreleg/ body join (°)	breast ridge pronounced	
		narrow	wide		yes	no
18	A1.481		♦	125°	♦ ?	
19	A1q615.1		♦	130°		
21	A1q960.8					
22	A5.10		♦	80°		♦
23	A5.30	♦		120°	♦	
24	A5.109					
25	A6.257					
26	A6q271.1			115°		♦
27	A6q548.5		♦	130°		♦
28	A6q1010.1		♦	130°	♦	
29	A7q11					
30	A7.210					
31	A7.256		♦	120°		♦
32	A7q822.1	♦		120°		♦
33	A7q865.1					
34	A7q964.2		♦	120°	♦	

# GENUS *Equus*

## TYPE II HEMIONE

*Equus* 23 (A5.30) TYPE II.  
(photograph V13D7121)



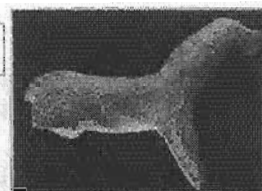
SIGNS OF DOMESTICATION									
CORPUS	FIELD	muzzle			mane		tail		
		blunt		ears short eyes wide	■ → ▼ section	erect	flowing	narrow tufted	broad at base
		yes	no						
18	A1.481		♦	ears short	■ → ▼ section	♦		carried high	
19	A1q615.1								
21	A1q960.8		♦	♦	■ → ▼ section	♦			
22	A5.10	♦ ?		♦		♦			♦
23	A5.30		♦	♦	■ → ▼ section	♦ comes onto crown			♦
24	A5.109		♦	♦	■ → ■ section	♦ comes onto crown			
25	A6.257	♦	♦		■ → ■ section	♦ comes onto crown			
26	A6q271.1	♦		♦					
27	A6q548.5					♦			
28	A6q1010.1						♦		
29	A7q11		♦ ?	♦	■ → ? section	♦			
30	A7.210		♦	♦	■ → ■ section	♦ comes onto crown			
31	A7.256			♦	■ → ▼ section	♦			♦ incised
32	A7q822.1						♦		♦
33	A7q865.1		♦ ?	♦	■ → ■ section	♦ comes onto crown	♦		
34	A7q964.2					♦			

# GENUS *Equus*

## TYPE II HEMIONE

### TENTATIVE IDENTIFICATION

*Equus* 23 (A5.30) TYPE II.  
(photograph V13D7121)



OBJECT			RATIOS & PROPORTIONS								
CORP-US	FIELD	DESCRIP-TION	w1	w1@neck		w2	w3	lg	w1 > w2 < w3	w1@neck (lg) ≥ lg/2	lg ≥ 2w3
				w	lg				~ 5 : 4 : 6		
107	A1.117	head		1.89		1.255 cranial		2.4 cranial			
108	A1.363	head		3.12		1.92 cranial		2.61 (not diag-nostic)			
109	A1q773.2	decorated head				1.1 cranial		3.885 cranial (not diag-nostic)			
110	A5q593.1	neck fragment	3.8 height	2.0				2.41 cranial (not diag-nostic)			
111	A6q462.2	head		1.81 (base)		1.69 cranial		3.47 cranial			
112	A7.138	fore-quarters	3.2	1.88		2.48		2.69 (not diag-nostic)			
113	A7q603.1	fore-quarters	2.07 not diag-nostic	1.01		1.57			3.1 : 4 : —		
114	A7q899.1	muzzle ("blank")				1.685 cranial		3.865 cranial			

**GENUS *Equus*****TYPE II HEMIONE****TENTATIVE IDENTIFICATION**

*Equus* 23 (A5.30) TYPE II.  
(photograph V13D7121)



SIGNS OF DOMESTICATION						
CORPUS	FIELD	forequarters		foreleg/ body join (°)	breast ridge pronounced	
		narrow	wide		yes	no
107	A1.117					
108	A1.363					
109	A1q773.2					
110	A5q593.1					
111	A6q952.1					
112	A7.138		w1@neck: neck=1 : 2	♦ 130°	♦	
113	A7q603.1		♦	♦		
114	A7q899.1					

SIGNS OF DOMESTICATION									
CORPUS	FIELD	muzzle				mane		tail	
		blunt		ears short eyes wide	■ → ▼ section	erect	flowing	narrow tufted	broad at base
		yes	no						
107	A1.117		♦	♦	■ → ▼ section	♦			
108	A1.363		♦ ?	♦	■ → ? section	♦			
109	A1q773.2		♦		▲ → ■				
110	A5q593.1		♦ ?	♦	▲ → ?	♦			
111	A6q952.1	♦		♦	■ → ■ section	♦ (perforated tab)			
112	A7.138								
113	A7q603.1								
114	A7q899.1	♦	♦		■ → ■ section	♦			



# GENUS *Equus*

## TYPE III CABALLINE

Equus 36 (A5q815.1) TYPE III. Left median plane. (photograph V13D6396)



OBJECT			RATIOS & PROPORTIONS								
CORP-US	FIELD	DESCRI-PTION	w1	w1@neck		w2	w3	lg	w1 > w2 < w3	w1@neck (lg) ≥ lg/2	lg ≥ 2w3
				w	lg				~ 5 : 4 : 6		
35	A5q63.1	head & neck with mane	4.8 height	1.52				2.475 cranial			
36	A5q815.1	torso with harness TEMPLATE	1.95	1.1	2.53	1.65	2.225	4.4	3.5 : 4 : 4	♦	♦
37	A7.407	fore-quarters & head, muzzle		1.37		1.09 cranial		2.95 cranial			
38	A7q855.1	head with harness		1.71 cranial				3.55 cranial			

SIGNS OF DOMESTICATION						
CORPUS	FIELD	forequarters		foreleg/ body join (°)	breast ridge pronounced	
		narrow	wide		yes	no
35	A5q63.1					
36	A5815.1		♦	140°	♦	
37	A7.407		♦	140°	♦	
38	A7q855.1					

SIGNS OF DOMESTICATION									
CORPUS	FIELD	muzzle				mane		tail	
		blunt		ears short eyes wide	■ → ▼ section	erect	flowing	narrow tufted	broad at base
		yes	no						
35	A5q63.1		♦ ?	♦	■ → ▲ section	♦	4-stage manufacture		
36	A5815.1		♦	♦	■ → ▼ section				tail hole
37	A7.407		♦	♦	■ → ■ section	♦			
38	A7q855.1		♦	♦	■ → ■ section		♦ possible forelock		



# GENUS *Equus*

## TYPE III CABALLINE

### TENTATIVE IDENTIFICATION

*Equus* 36 (A5q815.1) TYPE III. Left median plane. (photograph V13D8396)



OBJECT			RATIOS & PROPORTIONS								
CORPUS	FIELD	DESCRIP- TION	w1	w1@neck		w2	w3	lg	w1 > w2 < w3	w1@neck (lg) ≥ lg/2	lg ≥ 2w3
				w	lg				~ 5 : 4 : 6		
115	A1.429	head (foal?)		1.08		1.94 cranial		3.1 cranial			
116	A5q928.8	head & mane		1.4		1.55 cranial		1.65 cranial			

SIGNS OF DOMESTICATION						
CORPUS	FIELD	forequarters		foreleg/ body join (°)	breast ridge pronounced	
		narrow	wide		yes	no
115	A1.429					
116	A5q928.8					

SIGNS OF DOMESTICATION									
CORPUS	FIELD	muzzle				mane		tail	
		blunt		ears short eyes wide	■ → ▼ section	erect	flowing	narrow tufted	broad at base
		yes	no						
115	A1.429		♦	♦ ears short	■ → ▼ section	♦			
116	A5q928.8		♦ ?	♦	■ → ? section	♦			

# GENUS *Equus*

## TYPE III CABALLINE

### RELATED UNSTRATIFIED FINDS

*Equus* 36 (A5q815.1) TYPE III. Left median plane. (photograph V13D6396)

OBJECT			RATIOS & PROPORTIONS								
CORPUS	FIELD	DESCRIPTION	w1	w1@neck		w2	w3	lg	w1 > w2 < w3	w1@neck (lg) ≥ lg/2	lg ≥ 2w3
				w	lg				~ 5 : 4 : 6		
300	Z1.104	head with indentations		1.5				2.8 cranial			
301	Z1.188	muzzle MINIATURE				0.59 cranial		1.245 cranial			
302	Z1.279	torso TYPE I	1.96	1.3	2.54	1.77	1.96	4.35	4.3 : 4 : 4.3	♦	♦
303	Z1.296	torso with traces of paint TYPE I/II	2.89			2.32		2.87 not diagnostic			

SIGNS OF DOMESTICATION						
CORPUS	FIELD	forequarters		foreleg/ body join (°)	breast ridge pronounced	
		narrow	wide		yes	no
300	Z1.104					
301	Z1.188					
302	Z1.279	♦		80° – 120°		♦
303	Z1.296	♦		130°	♦	

SIGNS OF DOMESTICATION								
CORPUS	muzzle				mane		tail	
	blunt		ears short eyes wide	■ → ▼ section	erect	flowing	narrow tufted	broad at base
	yes	no						
300	♦			■ → ■ section	♦			
301		♦	♦	? → ■ section				
302		♦	♦	■ → ? section	♦ comes onto crown			♦
303						♦ ?		♦ incised

\_\_\_\_\_

[illegible]

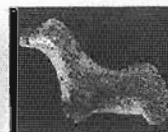
# GENUS *Equus*

TYPE I, I/II, II, & III

RELATED STRATIFIED FINDS



SIGNS OF DOMESTICATION						
CORPUS	FIELD	forequarters		foreleg/ body join (°)	breast ridge pronounced	
		narrow	wide		yes	no
200	K3.17		♦	♦		
201	A8.32					
202	A8q138.3					
203	A10.62	♦			♦ ?	
204	A10.79	♦		120°		♦
205	A10q146.3		♦	130°		♦
206	A10q312.2	♦		130°?		
207	A13.129	♦		135°		♦
208	A2.111					
209	A2q251.1					
210	A2q378.1	♦		140°	♦	
211	A10.9		♦	120°	♦	
212	K3.16					
215	A13q41.2	♦			♦	
216	M.207 (B1.16)	♦		130°		♦

**GENUS *Equus*****TYPE I, VII, II, & III****RELATED STRATIFIED FINDS**

SIGNS OF DOMESTICATION									
CORPUS	FIELD	blunt		muzzle		mane		tail	
		yes	no	ears short eyes wide	■ → ▼ section	erect	flowing	narrow tufted	broad at base
200	K3.17	♦			■ → ? section	♦		♦	
201	A8.32			ears long? eyes wide	■ → ? section	♦			
202	A8q138.3		♦	ears short	■ → ▼ section	♦			
203	A10.62						♦		broad at base
204	A10.79	♦		ears long	■ → ■ section	♦		tapers to rat tail	broad at base
205	A10q146. 3								
206	A10q312. 2	♦					♦		
207	A13.129		♦	♦	■ → ▼ section	♦		♦ rat tail	
208	A2.111							slight rise at rump/ tail hole	deep groove to sexual parts
209	A2q251.1	♦					♦ ?		
210	A2q378.1					♦			
211	A10.9								♦
212	K3.16	♦		♦	■ → ▼		♦ (forelock)		
215	A13q41.2		♦	ears short	■ → ▼ section	♦		♦ narrow at base	
216	M.207 (B1.16)	♦ ?			■ → ? section	♦			♦

# GENUS *Equus*

## NOT IDENTIFIED BY TYPE

### TENTATIVE IDENTIFICATION

OBJECT			RATIOS & PROPORTIONS								
CORP-US	FIELD	DESCRIP-TION	w1	w1@neck		w2	w3	lg	w1 > w2 < w3	w1@neck (lg) ≥ lg/2	lg ≥ 2w3
				w	lg				~ 5 : 4 : 6		
119	A5q166.1	neck/muzzle MINIATURE	1.12	1.1185	2.15	0.95 cranial		1.31 cranial			
120	A6q383.1	torso	2.4			1.55		3.1 (not diag- nostic)	~3 : 2 : _		
121	A6q624.2	neck & mane	2.26	1.092	3.09						

SIGNS OF DOMESTICATION						
CORPUS	FIELD	forequarters		foreleg/ body join (°)	breast ridge pronounced	
		narrow	wide		yes	no
119	A5q166.1					
120	A6q383.1		♦			
121	A6q624.2					

SIGNS OF DOMESTICATION									
CORPUS	FIELD	muzzle				mane		tail	
		blunt		ears short eyes wide	■ → ▼ section	erect	flowing	narrow tufted	broad at base
		yes	no						
119	A5q166.1			eyes high on crown	■ → ? section	♦			
120	A6q383.1								
121	A6q624.2					♦ ?			



# GENUS *Equus*

NOT IDENTIFIED BY TYPE

RELATED STRATIFIED FINDS

OBJECT			RATIOS & PROPORTIONS								
CORPUS	FIELD	DESCRIP- TION	w1	w1@neck		w2	w3	lg	w1 > w2 < w3	w1@neck (lg) ≥ lg/2	lg ≥ 2w3
				w	lg				~ 5 : 4 : 6		
214	F1.154	muzzle, tip only	.66 vertical/ 0.73 horizontal/ @ snout					2.0 cranial (not diag- nostic)			

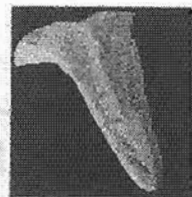
SIGNS OF DOMESTICATION						
CORPUS	FIELD	forequarters		foreleg/ body join (°)	breast ridge pronounced	
		narrow	wide		yes	no
214	F1.154					

SIGNS OF DOMESTICATION									
CORPUS	FIELD	muzzle				mane		tail	
		blunt		ears short eyes wide	■ → ▼ section	erect	flowing	narrow tufted	broad at base
		yes	no						
214	F1.154								

# GENUS *Equus*

## LEGS, INCLUDING TENTATIVE IDENTIFICATION

*Equus* 23 (A5.30) TYPE II. Right foreleg.  
(photograph V13D7121 DETAIL)



OBJECT			HEIGHT	BODY JOIN (TRANSVERSE SECTION)		TIP (TRANSVERSE SECTION)		SECTION	KNEE- JOINT?
CORP- US	FIELD	DESCRIP- TION		LONG AXIS	SHORT AXIS	LONG AXIS	SHORT AXIS		
2	A1q885.7	right front foreleg TYPE I	2.13	1.28	0.95	0.047	0.035	oval → oval	♦
20	A1q718.1	right foreleg TYPE II	3.2	1.6	2.75	0.7	0.64	oval → oval	♦
100	A1q1058. 1	left foreleg TYPE I	3.0295	1.825	1.74	0.0065	0.054	oval → oval	♦
117	A1q927.6	terminated leg MINIATURE	1.38	0.7	0.5	0.5	0.39	oval → oval	possible articulation



*Equus* 212 (K3.16) TYPE III. Dorsal view.  
(photograph V5B8120)



# GENUS *Equus*

## SIGNS OF HUMAN INTERVENTION

OBJECT			SHARED CHARACTERISTICS					
#	FIELD	TYPE	slit nostrils	caudal band	penile strap	decoration	halter trappings	oestrus (husbandry)
9	A7.85	I		incision				
10	A7.333	I		ridge				
12	A1q618.1	I/II						♦
13	A5q843.1	I/II			♦			
14	A6.149	I/II						♦
15	A7.121	I/II		raised ridge (broken)	♦			
16	A7q204.5	I/II			♦			
17	A7.320	I/II						♦
18	A1.481	II					halter?	
25	A6.257	II	♦					
26	A6q271.1	II					tether	
29	A7q11	II					wide halter	
34	A7q964.2	II		deep incision				
36	A5q815.1	III					harness	
37	A7.407	III					perforated mane	
38	A7q855.1	III					harness	
108	A10q148.1	I					yoke	
109	A1q773.2	II				dots in a row	halter?	
111	A6q462.2	II				tethering ring (perforation)		
114	A7q899.1	II				tethering ring (perforation)		
208	A2.111	I/II		deep incision	♦			
209	A2q251.1	II				tethering ring (perforation) harness		
212	K3.16	III				harness		
213	BH383.2	III				bit or trapping from harness		
303	Z1.296	I/II			painting decoration or trappings			

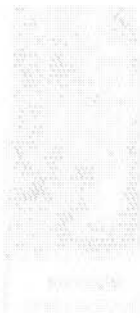


TABLE 1						
Summary of Data						
Year	Month	Day	Time	Location	Event	Remarks
1998	Jan	15	10:00	Room 101	Meeting	Initial discussion
1998	Jan	22	14:30	Room 101	Meeting	Review progress
1998	Feb	05	09:00	Room 101	Meeting	Final report

1. The first part of the report is a summary of the data collected during the study. This includes information about the participants, the procedures used, and the results of the study. The second part of the report is a discussion of the results, where the researcher interprets the findings and compares them to previous research. The third part of the report is a conclusion, where the researcher summarizes the main findings and provides recommendations for future research. The fourth part of the report is a list of references, where the researcher lists the sources of information used in the study. The fifth part of the report is an appendix, where the researcher provides additional information that is not included in the main body of the report. The sixth part of the report is a glossary, where the researcher defines the key terms used in the study. The seventh part of the report is a bibliography, where the researcher lists the sources of information used in the study. The eighth part of the report is a list of figures and tables, where the researcher lists the visual aids used in the study. The ninth part of the report is a list of abbreviations, where the researcher lists the abbreviations used in the study. The tenth part of the report is a list of symbols, where the researcher lists the symbols used in the study. The eleventh part of the report is a list of units, where the researcher lists the units used in the study. The twelfth part of the report is a list of variables, where the researcher lists the variables used in the study. The thirteenth part of the report is a list of hypotheses, where the researcher lists the hypotheses tested in the study. The fourteenth part of the report is a list of results, where the researcher lists the results of the study. The fifteenth part of the report is a list of conclusions, where the researcher lists the conclusions drawn from the study. 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### THE DOMESTICATION OF EQUIDAE IN THIRD MILLENNIUM B.C. MESOPOTAMIA

JURIS ZARINS

*Department of Sociology and Anthropology, Southwest Missouri State University*

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