

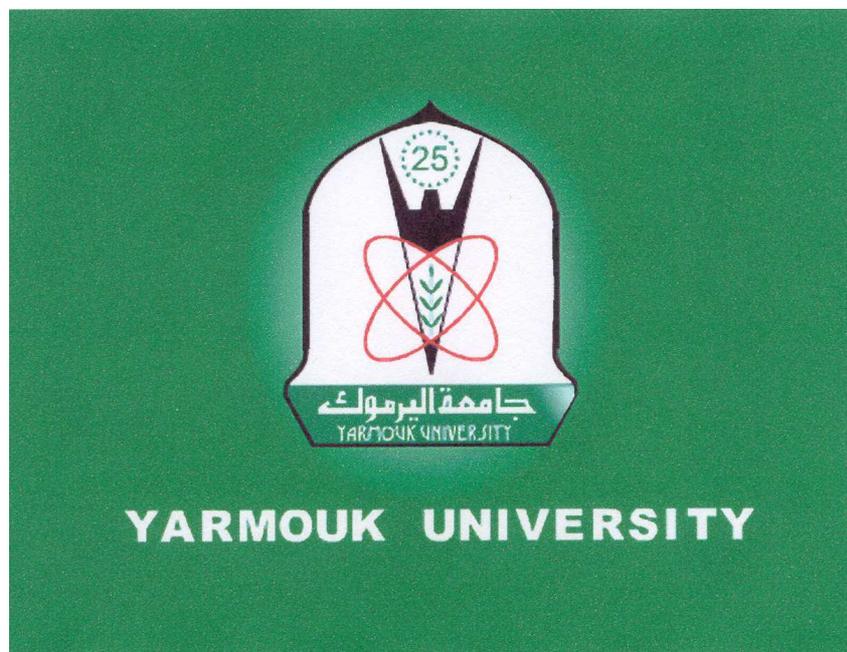
ARCHAEOZOOLOGY OF THE NEAR EAST

V

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archaeozoology of southwestern Asia and adjacent areas

edited by

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PRELIMINARY REPORT ON THE FAUNAL REMAINS FROM THE EARLY BRONZE AGE SITE OF TITRIS HÖYÜK IN SOUTHEASTERN TURKEY

Haskel J. Greenfield¹

Abstract

While a great deal of zooarchaeological research has been undertaken on the early urban societies of the Near East, few samples are spatially representative of a variety of depositional contexts. The faunal remains from Titrıs Höyük represent the first sample from an EBA context that has been excavated from a number of different spatial contexts. As such, a great deal of information can be extracted from the sample concerning the spatial distribution of zooarchaeological remains from the site. By examining the spatial distribution of the different animal taxa and body parts in each of the excavated contexts, we will begin to unravel taphonomic issues from economic and social relations within the excavated community. This report examines a preliminary sample of the faunal remains from Titrıs Höyük, a small city-state system that developed in southeastern Turkey circa 2500 BC. A general overview of the various taxonomic classes that comprise the collection will be provided, as well as some insights into the archaeological aspects of the faunal assemblage.

Résumé

Alors qu'un grand nombre de recherches archéozoologique a été entrepris sur les débuts des sociétés urbaines au Proche-Orient, peu d'échantillons est spatialement représentative de la variété des contextes depositionnels. Les restes fauniques de Titrıs Höyük représentent le premier échantillon d'un contexte de Bronze Récent issu d'un certain nombre de contexte spatial différent. De ce fait, une grande nombre d'information peut être fourni par l'échantillon sur la répartition zoo-archéologique des restes du site. En examinant la répartition spatiale de différents taxons et parties du squelette dans chaque contexte fouillé, on peut considérer les questions taphonomiques pour les relations économiques et sociale à l'intérieur de chaque communauté. Ce rapport examine un échantillon préliminaire de restes fauniques de Titrıs Höyük, une petite cité-état qui se développa dans le Sud Est de la Turquie vers 2500 BC. Une vue générale des divers classes taxinomique compris dans cette collection est fournie, ainsi que certaines aperçus sur les aspects archéozoologiques de l'assemblage faunique.

Key Words: Early Bronze Age, Spatial distribution, Taphonomy, Urban settlements, Sampling

Mots Clés: Âge du Bronze Ancien, Répartition spatiale, Taphonomie, Établissement urbain, Échantillonnage

Introduction

Titrıs Höyük was the capital of a small (43 ha) city-state system in the Upper Euphrates basin of southeastern Turkey. The city-state of Titrıs Höyük developed and collapsed between the Middle Early Bronze Age (ca. 2600/2500-2400 BC) and the Late Early Bronze Age (ca. 2400-2200/2100 BC - Algaze *et al.* 1995).

Situated 45 km north of Urfa, the site lies partially under the modern village of Bahçeli in the Bozova district (Algaze *et al.* 1992: 34). The site is located in the center of a fertile agricultural plain flanked by low limestone hills, and sits alongside the Tavuk Çay, a small left bank perennial tributary of the Euphrates river (Algaze *et al.* 1995).

Titrıs Höyük was an important trade center on several routes (Algaze *et al.* 1992: 33-34). Its location astride the natural access route to the Samsat-Lidar ford enabled the city-state to control one of the principal east/west overland routes crossing the Syro-Anatolia region. As such, it may have represented an important nexus of overland and waterborne trade routes connecting the northern Mesopotamian plains east of the river, the southern Mesopotamian alluvium downstream and to the south, and the western routes into southern and western Anatolia.

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During the period of Titris Höyük's occupation, the settlement was delimited on three sides by streams. At its height, the site was composed of a central acropolis area surrounded by a much more extensive lower city. This lower city was in turn divided into a Lower Town adjacent to the acropolis area and an Outer Town to the north (Matney and Algaze n.d.: 1). The site covers 43 hectares. The central mound (3.3 hectares in extent) is surrounded by the Lower Town on the west, and the Outer Town on the north. During the third millennium BC, the entire site was occupied. However, there is evidence that the lower and outer towns were abandoned rapidly at the end of the late EBA (Algaze *et al.* 1992). The Outer Town was separated from the High Mound and the Lower Town by a shallow depression. Along with several cemetery areas, a number of external suburbs also existed north, south and east of the main mound (Algaze *et al.* 1992: 35). Many of the Early Bronze Age remains were found directly under plow zone and no later occupations occurred there. In many areas, the city appeared to be a single-phase site, with the center attaining its apex in the mid to late Early Bronze Age and declining at the beginning of the Middle Bronze Age. The site appears to be hierarchically structured into elite and non-elite sectors and the city appears to have been well-planned, indicating that its population did not outstrip its initial planned layout (Matney and Algaze n.d.: 22-23). The lack of substantial later deposits creates the opportunity to study neighborhood organization and everyday life in an Early Bronze Age urban center.

The goals of the excavation were to sample each of the areas in order to obtain a representative sample of material remains from different spatial contexts. Because Titris Höyük is from such a short temporal context, it provides an opportunity to examine the behavior of the site's occupants within a spatial framework. This is a relatively unique opportunity for the EBA of the Near East. Most such deposits are deeply buried under later occupations and are rarely sampled over a broad spatial context.

In terms of the faunal material, the Titris Höyük excavation was geared towards gathering a representative sample of faunal material from the non-elite sectors of the settlement, as there is relatively little data from non-elite sectors during this period and in this area. Hopefully, the information derived from the faunal analysis of the site can, in concert with the other archaeological investigations, help in the study of the process of urbanization and the nature and layout of early urban centers. The faunal remains discussed in this report come from the mid to late Early Bronze Age (ca. 2500-2100 BC) deposits in the Outer Town.

Regional context

The site is located in a fertile agricultural plain. In 1991, a regional survey was conducted which focused on a radius of 7.5 km around Titris Höyük. Covering an area of approximately 175 km², forty sites, ranging in time from the Neolithic to the Medieval period, were recorded (Algaze *et al.* 1992: 40).

The pattern of small dispersed communities in the earlier Neolithic periods are replaced in the middle and later parts of the Early Bronze Age by a hierarchically structured settlement pattern that had Titris Höyük at its apex. Titris Höyük was surrounded by villages and towns, and served as their regional center.

The regional survey also discovered that no contemporary mid-late Early Bronze Age sites were found within a 4 km radius of Titris Höyük and its immediate suburbs. It is thought that all of the land within this approximately 50 km² area was farmed from the central settlement. Beyond this range (approximately 4-5 km away), satellite communities, which seem to have been small villages or hamlets, start to appear (Algaze *et al.* 1992: 42).

Surrounding environment of the site

Currently, the environmental conditions surrounding Titris Höyük are much drier and the vegetation more sparse than during the site's original period of occupation. These conclusions are based upon information gathered at Titris Höyük since the initial (1991) field season. The recovery of acorn shells suggests that foraged wild fruits were used in addition to cultivated staples (Algaze *et al.* 1995: 31). This, along with evidence for additional tree crops (pistachios, almonds and prunes), indicate that the region surrounding Titris was significantly more forested at the time of site's occupation than at present (Algaze *et al.* 1995: 31).

Geomorphological work reveals a dramatically different landscape at present than in the past. There was an actively aggrading floodplain in the Holocene period terrace surrounding the site. This alluvial depositional phase was distinctly different from the modern regime of *wadi* incision. These aggrading alluvial deposits point to either the presence of a moister environmental regime, a landscape that was more heavily vegetated than at present, or both (Algaze *et al.* 1995: 38).

Context of the faunal sample

On the basis of surface collection, topography, augering, remote sensing, and excavation over six years of research, the excavators have been successful in documenting the subdivisions of the Early Bronze Age city and the nature of its domestic neighborhoods. The site has been divided into a series of morphological units by the excavators, including the High Mound, western Lower Town, eastern Lower Town, Outer Town, suburbs and extramural cemetery (Matney and Algaze, n.d.: fig.2). The Outer Town was the most spatially extensive sector of the site. It was never again occupied after the Early Bronze Age, apart from portions that were used as a cemetery. This sector primarily contained non-elite domestic quarters, with the possibility of gardens or wooded areas around its periphery. By the late Early Bronze Age, the Outer Town was defended by a massive wall and a large ditch or moat (Matney and Algaze n.d.: 5-7).

The faunal remains that are analyzed in this report are from the 1994 excavations of the domestic quarters in the eastern section of the Outer Town. This area contained small-roomed structures extending over large areas that were likely extended family households that contained both living space and areas for specialized production (Matney and Algaze n.d.: 8-9).

Method of excavation and recovery

Various areas of the site were initially sampled by means of a series of widely spaced exploratory trenches, each 10m x 10m in size (Algaze *et al.* 1992: 36). Subsequent field seasons added horizontally adjoining trenches, resulting in a matrix of trenches defined as an area. The basic recording unit for each area was the locus, which represents a minimal stratigraphic unit, whether a feature or a layer (Matney and Algaze n.d.: 20).

Because of the scale of the excavation and the limited resources for recovery, the various excavated deposits were divided into three levels of quality. Priority 1 remains are those from *in situ* primary deposits that reflect initial depositional activities (i.e. floors or pits). These deposits are assumed to provide an accurate depiction of the activities contemporary with the occupation of the area of the deposit. Priority 2 remains are from secondary deposits, in other words, those remains that have been moved from their primary use contexts and re-deposited elsewhere, for example, middens. These deposits represent an amalgamation of activity areas and therefore provide information relating to the range of activities presumed to have taken place in that general area. Priority 3 or tertiary deposits have generally poor stratigraphic integrity and represent an amalgamation of material from a variety of strata and deposits from across the site. These deposits often came from sediments that were collected from all over the site, usually during building activities. They often contained an amalgamation of material with coarse and heterogeneous sediments. They are usually result from the remains of building collapse, dismantling of architectural features and surface deposits, which are often used as fill elsewhere on the site (Greenfield 1996).

In each locus, sampling was done using either a dry or wet sieve, which was mandatory for all well preserved archaeological phases below the plow zone (Matney and Algaze n.d.: 21). Primary contexts, such as occupational deposits directly over floors or surfaces, pits cut from surfaces, etc., were dry or wet sieved at a ratio of 100%. Secondary deposits in well-preserved phases were sampled dry sieved at a rate varying from 10 to 25% (ibid). Tertiary deposits were only haphazardly dry sieved. This material was mostly hand collected, although some of it may have been screened in an unsystematic fashion (Greenfield 1996: 2). As a result, faunal remains were collected based upon the depositional integrity of deposits.

The specimens in this report come from a mixture of priority deposits. They are being presented simply as a preliminary sample of the larger assemblage under analysis and should therefore provide some insights into the activities that were being conducted in this section of the Outer Town.

Methods of analysis

The faunal remains were identified by element, taxon, certainty of identification, domestication, age, tooth wear, epiphyseal fusion, sex, side of the body, fracture pattern, butchering, gnawing, burning, weathering, cultural modification, and articulation with other elements. The fragments were numbered sequentially within each bag, and the observations for each variable were entered into an Excel spreadsheet. Taxonomic identifications were made by comparison of the specimens with standard osteological atlases (e.g. Sisson and Grossman 1954; Schmid 1972), and by comparison with specimens in the Department of Anthropology, University of Manitoba, comparative faunal collection. Sheep-goat distinctions were made following the morphological criteria recognized by a number of authors, including Boessneck (1969), Payne (1969), Prummel and Frisch (1986) and Clutton-Brock *et al.* (1990), and by comparison with specimens in the Department of Anthropology, University of Manitoba, comparative faunal collection. Equid (i.e. onager) distinctions were made following the morphological and morphometric criteria discussed in Meadow and Uerpmann (1986).

Because many taxa were identified in the faunal assemblage, age categories (cf. Greenfield 1986) were used rather than ages in years to facilitate inter-taxon comparisons of age-at-death. Age-at-death of the skeletal material was estimated using epiphyseal fusion, the tooth eruption sequence and tooth wear (e.g. Grant 1975; Grigson 1982; Payne 1973; Silver 1969; Watson 1978).

Taphonomy

Before one can discuss issues such as the behaviour of the occupants of the site, the integrity of the faunal remains must be examined. The taphonomic processes that may have had a role in shaping the current sample consist of perthotaxic, taphic, anataxic, sullegic and trephic influences (Hesse and Wapnish 1985:19; Lyman 1994: 29). Of these factors, the most influential in regards to this sample appear to comprise the taphic and anataxic categories.

Fragmentation

Except for the loose teeth, only a single *Bos* ulnar carpal and various rodent remains were whole. All of the other bone elements were recovered in various sized fragments. While most bones were highly fragmented, it is difficult to determine whether these fragments are the result of butchering practices, trampling or other variables.

Weathering

Only about 73% of the sample could be identified to a level of weathering (Table 1) because of calcium carbonate encrustation (27% was completely encrusted). The levels of weathering are those described in Greenfield (1986, vol. 2, appendix 1). Of these, most exhibited a medium weathering pattern (61.74%). These were followed by the light (20%) and heavy weathering (17%). In my experience, this is a highly

Table 1. Frequency of bones by stages of weathering.

Weathering stage	Total (TNF)	% of all	% of observable weathering
Light	358	15.2%	20.9%
Medium	1060	45.0%	61.7%
Heavy	299	12.7%	17.4%
Sub-total of observable weathering	1717		
Calcium carbonate encrusted	641	27.2%	
Grand Total	2358	100.0%	

Table 2. Distribution of gnawed bones.

Type of gnawing	Total (TNF)	%
Unknown *	283	12.0%
Canid-light	6	0.3%
Canid-medium	1	0.04%
None	2068	87.7%
Grand Total	2358	100.0%

* calcium carbonate encrusted

Table 3. Distribution of burnt bones.

Category	Total (TNF)	%
Burned	132	5.6%
Unburnt	2226	94.4%
Grand Total	2358	100.0%

Table 4. Frequency of butchered bones.

Butchering	No.	%
Butchered	8	0.3%
Not butchered	2350	99.7%
Grand Total	2358	100.0%

Table 5. Frequency distribution by taxa (phylum and classes) of remains.

Phyla and Classes	Total (TNF)	%
<i>Mammalia</i>	2353	99.8%
<i>Mollusca</i>	4	0.2%
<i>Pisces</i>	1	0.04%
Total	2358	100.0%

marks were slices and others were chop marks.

The morphology of the cut marks can be used to determine the instrument used in the butchering process (Greenfield 1999). Each of the samples clearly exhibits metal knife slices or cuts crosswise to the main axis of the shaft. Calcium carbonate encrustation hindered this part of the analysis.

weathered assemblage, and one that has experienced substantial attrition. In a medium stage of weathering, the compact surface of the bone is slightly pitted, lightly eroded and cracked, and there are depressions or pits in cortex of the bone due to acidity of the soil. This is usually the result of exposure for a long time on the surface to various erosional forces.

Gnawing

Gnawing by various agents can have a dramatic influence on bone preservation. Only one major bone gnawing agent has been identified to date – canids (Table 2). This was somewhat surprising given the numbers of rodent specimens found in the assemblage. The low frequency of gnawed remains may be partly a result of the high number of remains that were too encrusted with calcium carbonate to distinguish evidence for gnawing (12%). Only seven specimens or 0.29% of the assemblage exhibited evidence of being gnawed by canids. In spite of the presence of pigs, no specimens exhibited pig-like tooth marks (Greenfield 1988b). In general, this would indicate that gnawing was not a significant attritional agent at the site.

Heating

Calcium carbonate encrustation had less of an effect on the identification of burned specimens. A much larger percentage of the assemblage (5.6% - Table 3) exhibited evidence of being exposed to some degree heat. This is a much higher frequency of burnt bones than found in many contemporary assemblages from surrounding regions (Greenfield 1986, 1991), and would indicate that burning was a significant attritional agent.

Butchering

Insights into butchery techniques and other means of meat preparation can be obtained by examining: 1) body part distribution; 2) the nature of cut marks; and 3) the location of cut marks. Very few bones with any signs of butchering marks were identified in the assemblage (0.34% - Table 4). Some of the

Species

Two major classes and one phylum were identified in the collection (Table 5). These categories were:

1. Mammalia, which comprised 99.79% (n=2353);
2. Mollusca, which comprised 0.17% (n=4); and
3. Pisces, which comprised 0.04% (n=1) of the sample.

The specimens comprising these classes and phylum were then further divided into their corresponding orders or smaller taxonomic categories (Table 6). For the purposes of this preliminary report, the Total Number of Fragments (corrected for obvious articulations) is the measure of quantification. The Number of Identified Specimens (NISP) and the Minimum Number of Individuals (MNI) necessary to account for the specimens observed will be provided in the final report.

Levels of identification

When the material is sorted according to levels of identification (Table 7), there is a relatively balanced distribution of fragments between categories. In most cases where the sample is entirely sieved, the percentage of unknown and small size class far outweighs those identified to a taxonomic level (e.g. Greenfield 1991; Payne 1972). The relatively high quantity of bones identified to a taxon (32%) is probably a result of the hand-collection in certain loci. Over 50% of the bones described in this report come from priority 2 and 3 deposits, which were incompletely sieved (Table 8).

Table 6. Frequency and percentage of identified bone fragments (TNF)

State of domestication	Phylum		Total (TNF)	% of exploited taxa	TNF of Ovis/Capra reallocated to taxon	% of exploited taxa
?	Mammal	?	848			
		Mammal - large	196			
		Mammal - medium	544			
		Mammal - small	17			
Domestic	Mammal	<i>Bos taurus</i>	170	23.6%		
		<i>Capra hircus</i>	118	16.3%	251	34.8%
		<i>Ovis aries</i>	85	11.8%	181	25.1%
		<i>Ovis/Capra</i>	229	31.7%		
		<i>Sus scrofa</i>	6	0.8%		
Domestic Total		Domestic total	608	84.2%		
Wild	Mammal	<i>Canis lupus</i>	2	0.3%		
		<i>Capra aegagrus</i>	3	0.4%		
		<i>Capreolus capreolus</i>	1	0.1%		
		<i>Cervus elaphus</i>	8	1.1%		
		<i>Equus hemionus</i>	87	12.1%		
		<i>Felis silvestris</i>	3	0.4%		
		<i>Leo leo</i>	2	0.3%		
		<i>Lepus sp.</i>	7	1.0%		
	Pisces	<i>Pisces sp.</i>	1	0.1%		
Wild Total		Wild Total	114	15.8%		
Wild+Domestic Total	Domestic and Wild total		722	100.0%		
Not applicable	Mammal	<i>Homo sapiens</i>	21			
		<i>Rodentia sp.</i>	6			
	Mollusc	Mollusca	4			
Grand Total			2358			

Domestic vs wild

Domestic taxa (82.6%) far outnumber wild taxa (17%) in fragment frequency. The range of domestic taxa include the usual taxa, sheep, goat, cattle, and pigs. The range of wild taxa are also relatively limited, but include carnivores (cats, lions, wolves) and herbivores (onagers, red deer, roe deer). Few fish and mollusca remains were found in the sample. The low frequencies of wild remains can be used to argue for their low importance in the diet

Taxonomic frequency

The most common taxon at the site is the combined Ovis/Capra remains. Including both the identified sheep (11.5%) and goat (16%) specimens, with the combined Ovis/Capra specimens (31%), accounts for 57% of the identified food remains. If the Ovis/Capra remains are divided proportionately between sheep and goat, the frequencies of each would be dramatically increased. Goats would represent 34% and sheep 25% of the identified food taxa. Domestic cattle are the third most common taxon (23%) in the assemblage. Each of these taxa was probably used for both their primary and secondary products (Greenfield 1988a). Domestic pigs are woefully underrepresented in the sample, representing only a small fraction of the remains (<1%).

The most common wild taxon was onager (12%). The collection included both cranial and post-cranial onager remains. Most of the dental material appears to derive from a single individual, but the limb bones are from a variety of individuals. Identification was based on comparisons of the dental material with comparative osteological remains that from *Equus hemionus*, *Equus asinus* (ass), *Equus caballus*, and a mule. The specimens were too small to be an *Equus caballus*. In addition, the plicaballin area on the horse rM¹ is indented where as the Titris sample is not indented and is much more similar to that of the ass. Morphologically, the rM₁ of the Titris specimens and the lM₁ of the ass are remarkably similar in size and shape. They are both square shaped with rounded corners and are quite different from both the mule and the horse. The area of lobed enamel or the metaconid-metastylid valley (internal sinus) is a narrow "v" shape. This is a diagnostic character of the ass (Armitage and Chapman 1979: 344). Another diagnostic ass characteristic of the M₁ is found at the protoconid-hypoconid valley (external sulcus) which very rarely enters the neck of the metastylid-metaconid valley as in the sample species. In comparing both the size and shape of the rM¹ as

well as the morphological pattern of enamel of the sample species, the Titris specimens are strikingly similar to the ass. With these examples in mind the author is led to the conclusion that this particular species is very likely to be either *Equus asinus* or *Equus hemionus*. More than likely, the bones belong to the latter since this is the geographic range of *Equus hemionus*. *Equus asinus* is the domestic ass or donkey which inhabits the Algerian and Atlas Mountains (Clutton-Brock 1981: 93). There are two subspecies of *Equus hemionus*. The Asiatic ass, *Equus hemionus hemippus* or Syrian Onager, is a slim limbed species, now extinct, but which lived until the 1920's in the alluvial plains of the Near East from the Levant to Iraq (Clutton-Brock 1981: 93). The *Equus hemionus onager* or Persian onager was a larger species widespread throughout Iran that was hunted for its meat. Further study of the specimens should confirm these preliminary observations.

The equid in this sample seems to have been a burial since it was largely intact. There was no

Table 7. Frequency of fragments by levels of identification.

Level of identification	Total (TNF)	%
Unknown	848	36.0%
Size class	740	31.4%
Identified to taxon	770	32.7%
Total	2358	100.0%

Table 8. Frequency of fragments by collection priority.

Priority	Total	% of total	% of priority 1-3
1	464	19.7%	33.5%
2	122	5.2%	8.8%
3	801	34.0%	57.8%
Subtotal	1387	58.8%	100.0%
?	971	41.2%	
Grand Total	2358	100.0%	

evidence of butchering marks on any portion of the skeleton. Neither was any portion of the equid sample burnt or charred in any way. Both metacarpals suffered from breakage at the mid-shaft, at the same point along the diaphysis, during excavation. This indicates that the metacarpals were in close proximity to one another and suffered the damage from the same blow of the shovel. If this is the case, the animal in question very likely remained undisturbed in its anatomical position and did not suffer from the scattering effects of scavenging. This would indicate that the animal was buried intentionally or unintentionally, shortly after its demise. An equid radius and tibia had very light evidence of canine gnawing which may indicate that the equid in this sample lay exposed on the surface for a short period of time before scavenging animals had a chance to chew the soft articular ends of the bones completely off.

A relatively large quantity of human remains was identified. All appear to be from a variety of individuals, and are adult in age. The 1994 field season uncovered five stone-lined cist graves and two jar burials in the eastern section of the Outer Town. The majority of graves were found in simple pit inhumations, typically with a single individual in an extended position facing upwards. It was assumed by the excavators that those graves dated to the later periods of occupation of Titris, when only the High Mound and the eastern lobe of the Lower Town were inhabited (Algaze *et al.* 1995: 11). Parts of the Outer Town were obviously used for mortuary activities. At this point, it is difficult to determine if the loose bones in the faunal sample are the remains of unrecognized burials or stray bone elements from disturbed burials. Since most of the human remains in the sample are of a fragmentary nature, they probably represent the latter. Most come from priority 1 deposits which would indicate they were in their original depositional context. The fact that they were bagged together with faunal remains suggests that the excavators did not realize that they had encountered human remains.

Summary and conclusions

While it would appear that a great deal of zooarchaeological research has been undertaken on early urbanized complex societies of the Near East (e.g. Bökönyi 1978; Bökönyi and Flannery 1969; Hesse and Perkins 1974; Meadow 1986; Mudar 1982; Stein 1987, 1988; Zeder 1991), it pales by contrast to the focus on origins of food production and early food producing societies. Early complex societies are characterized by specialized economies, wherein the exploitation of domestic and wild animals is a vital component in a complex system of production and distribution. Faunal remains can be used to investigate this aspect of the urban economy (Crabtree 1989; Davis 1987; Maltby 1978).

The faunal remains from Titris Höyük represent an unusual sample. This is the first sample from an EBA context that has been spatially excavated over a large area. As such, a great deal of information can be extracted from the sample concerning the spatial organisation of zooarchaeological remains from the site. By examining the spatial distribution of the different animal species and body parts in each of the excavated contexts, we will begin to be able to unravel economic and social relations within the excavated community (Meadow 1978) and be able to examine disposal behavior, enhancing our understanding of site formation processes (Lyman 1994).

The main aim of this report was to present a preliminary analysis of the faunal remains in order to determine if the above objectives were reasonable and possible. The small preliminary sample presented above indicates some of the species diversity, cultural modification, food production and taphonomic processes that are prevalent through the sample. The analysis identified a substantial variety of wild and domestic taxa. These were likely used in the daily subsistence pattern. Sheep and goat were the most important taxa, followed closely by cattle. Pigs and a variety of wild resources may have been utilized as a dietary supplement in lean times as evidenced by their small numbers within the sample. However, many of the wild resources are carnivores, which would have been exploited for other purposes. The onager seems also to have been an important element in the lives of the population of this small city. It is unclear from the small amount of evidence gathered whether these animals were exploited for their meat, were used for traction or transportation or were utilized as symbols of status.

It is difficult at this time to make any conclusions concerning intra- or inter-site comparisons based upon these remains. While Matney *et al.* (1997) established that the architectural layout of Titris Höyük reflect differential status and access to wealth, the faunal remains from the other areas have not yet been analyzed.

Ultimately, remains from high and lower status areas might be identified.

Overall, this collection raised more questions than it did answer. Although not much information was gathered in regards to site activity areas or larger regional questions, the sample did provide a list of species that were present in and around the time of the site's occupation. It is hoped that when this report is added to other reports dealing with other samples from the site, a clearer picture of Titris Höyük and its surrounding occupants will emerge.

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