

CULTURAL AND ENVIRONMENTAL MATERIALS REPORTS

Animal Bone - *Katheryn Twiss, Louise Martin, Kamilla Pawlowska and Nerissa Russell*

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Abstract

Faunal analysis in 2005 concentrated on remains from the 4040, South, TP, and IST Areas. Notable deposits include a rich midden as well as a cattle skull and a dog crammed into a disused oven in the 4040 Area. Also in the 4040, Building 52 yielded several remarkable finds, including a complete bucranium next to a bench with embedded horn cores and beneath a cache of horn cores; a store of raw material for bone working; and a bin containing assorted unusual remains. TP produced remains from the latest levels of the East Mound that expanded our still-limited knowledge of animal exploitation in the later Neolithic. We are increasingly confident that the animal economy of Çatalhöyük changed pronouncedly as the Neolithic progressed.

Özet

Zoarkoloji ekibi, 2005 sezonunda TP, 4040, IST ve Güney Alanları'ndan çıkarılan zooarkeolojik malzemenin kaydı üzerinde yoğunlaşmıştır. Zengin bir çöplük (midden), bir sığır kafatası ve kullanım dışı bir ocağın içine tıkmış şekilde bulunan bir köpek dikkate değer malzemeler arasındadır. Ayrıca 4040 alanındaki, Bina 52'de bulunan tüm haldeki bucranium ve hemen yanındaki sekinin içine yerleştirilmiş olan boynuzlar, kemik yapımında kullanılan ham malzeme deposu ile değişik kalıntılar içeren bir ambar, sezonun önemli buluntuları arasındadır. TP alanında ortaya çıkarılan ve Doğu Höyük'ün en geç tabakalarına tarihlenen kalıntılar, geç Neolitik dönemdeki hayvan yetiştiriciliğiyle ilgili kısıtlı olan bilgimizi çoğaltmıştır. Çatalhöyük'de hayvan yetiştiriciliğine bağlı ekonominin, Neolitik dönem sürecinde önemli bir gelişim gösterdiğine daha güçlü inanmaktayız.

Introduction

The 2005 excavations at CH produced a wealth of faunal discoveries, including midden deposits, bone clusters, raw material stores, and special installations. Zooarchaeological research therefore proceeded along multiple lines this season. 58,269 specimens were recorded this year, from the TP, 4040, South, IST, and BACH Areas. This brought the total number of analyzed specimens from the current excavations to 708,448. We completed recording of the Bach Area material for its upcoming publication, and will not discuss it further here. We also spent considerable time on site, collaborating with excavators to assess and handle noteworthy faunal specimens. Finally, we hosted a pair of studies examining our analytic methodology. Issues that particularly intrigued us this year included diachronic variation in the site's faunal remains and the strong but polymorphous cultural emphasis on cattle skulls and horns.

TP Area

During the 2005 season, 2102 remains from Levels I and 0 in the TP Area were analysed. Out of them, only 7% were determinate. On the one hand, the available material was scarce, however if a preliminary reference were to be made, the proportion is smaller than that in earlier levels. The excavated bones were mostly those of mammals, although human (9.3%) and bird (2%) bones were also identified. Among the mammals, most of the bones belonged to small ruminants - 78.2%. There were also some cattle bones - 20.3%. In the group of indeterminate remains, fragments of sheep/goat-size prevailed.

Taxon	NISP	NISP %	DZ	DZ %
Sheep/goat	102	76.7	10	62.5
Sheep	2	1.5	1	6.2
Cattle	27	20.3	4	25.0
Mustelid	1	0.7	0	0
Canid	1	0.7	1	6.2
Total	133		16	

A very interesting discovery made in the current season in the TP zone was a cattle bucranium (11562) found with a human skull placed in the centre, below the cut-off frontal. The postcranial skeleton was damaged by a Hellenistic pit with the exception of selected elements (backbone, foot bones) placed around the contour of the pit. It was near the surface and under a plastered layer, but no cuts were found. The relation of the human skull and the bucranium is likely to be intentional, but there are no signs of plaster on either skull. It is not clear whether the bucranium was in the burial, the burial cut through a pre-existing deposit with the bucranium, or both were placed in during the filling process. If it was deliberately placed with the skull, it is a quite different use of bucrania from earlier levels. It seems hard to imagine that such a precise placement with respect to the bucranium was accidental. The cattle skull is on the small side for Çatalhöyük, but within female aurochs range. Comparing the dimensions of the horn core (total length = 280 mm, length of the outer curvature = 399 mm, length of the interior curvature = 324 mm, greatest diameter = 68.5 mm) with others from Çatalhöyük bucrania, they are the most similar to 1347.X1 (respectively: 275 mm, 343 mm, 263 mm, 58 mm), which was considered to be a small wild female. However, this particular bucranium is actually somewhat larger. The intercornual breadth was roughly 166.0 mm.

Under the layer surrounding the bucranium there were several human burials and floor deposits (11740) in space 248, stratigraphically belonging to Level 0. This was a rather low-density unit (269 pieces of bone from 101 liters of soil). The bone deposit contained remains of small ruminants and human bones. Ten pieces of human bone (fragments of ribs, cervical vertebrae, first and second phalanx of the hand), fairly complete and relatively unweathered, are dissimilar from the remaining part of the unit. Perhaps they are from Byzantine burials. Among the animal bones, small (mostly about 3 cm, but up to about 5-6 cm) pieces of mostly sheep-size bone were predominant. There were also several diagnostic elements of sheep/goat bones, including teeth, a mandible fragment, an intermediate carpal, ulna and femur. There was only one cattle-sized long bone (shaft fragment). The age of the animals to which the bones belonged varied: infantile and mature. Fragments of ribs and vertebrae were digested. A small part of the bones (a few long bone shaft splinters, mostly sheep-size) were burnt at low temperatures. Generally speaking, the bone deposit in space 248 discussed here looks heavily processed and redeposited.

In the western section of the excavation area, Level I, 434 bones were recovered from (11725), described as a layer directly on top of the Neolithic floor. The bone sample contained very few diagnostic pieces, including fragments of teeth and bones: tibia, radius, calcaneum, belonging exclusively to sheep/goat. Remarkably, there was a complete sheep sacrum, which is probably associated with sheep lumbar vertebra. In the group of non-diagnostic remains, there were mostly sheep-sized fragments with some cattle-sized pieces (long bone, rib and skull fragments). The bone is quite fragmented, with most pieces in the 2-3 cm range, but with some much larger (7 and 9 cm). Surfaces of bones are in relatively good condition. They are slightly weathered, but much of the bone is covered with manganese staining, obscuring real surfaces. About a quarter of the fragments are burnt at low temperature. There are no gnawing marks in the analysed material, however a very little is digested.

As for material stratigraphically younger than Level 0, a total of 49 fragments (11721 and 11727) were obtained in the current excavation season, coming exclusively from a flotation sample. This is a small amount of bones. The deposit consists solely of sheep-sized material, predominantly indeterminate, but also had a few long bone shaft fragments. Diagnostic elements included only the upper and lower deciduous teeth of sheep/goat. The bones, 1-2 cm long, showed slight to moderate weathering. Ca. 8% of the material was burnt, which is evidenced by the grey colour of the bones. This resembles reworked material found in construction or fill deposits.

In the centre of this year's excavation area, 1349 bone fragments were described from (12205), a layer in a sequence of infills. They are worn and for the most part are slightly weathered, but they were not highly reworked/redeposited since there are some relatively delicate pieces present (e.g., a large cattle sacrum fragment). The bone deposit included mostly sheep/goat bones, with some cattle and a little bit of dog and mustelid. Among the caprines, a range of body parts is present. There were also remains of birds (long bones, including a tarsometatarsus) and, in addition, human bones (hyoid, humerus and the first phalanx of the hand). The sizes of the taxa subjectively appear similar to those of earlier levels. There was a moderate amount of burnt bone and a fair amount of digestion and gnawing.

Thus, apart from the bucranium found with a human skull, the animal bone recorded from the TP Area this year appears to derive from earlier deposits incorporated into fills and construction material. It is uncertain what relation this material has to the levels in which it was found.

4040 Area

While eventually we plan to record the animal bone recovered from the rich midden deposits excavated in the 4040 Area in 2005, so far our effort has been chiefly expended on some of the special deposits and recording previously excavated midden from the area. In particular, we analyzed several distinctive animal bone concentrations from Building 52, which should aid in the interpretation of the building's history.

Middens

Middens are an important and interesting type of bone deposit at Catalhöyük, differing in character among the various excavation areas of the tell. A detailed analysis of these will be a topic of a separate study, however attention should be paid to the midden 8864 from the 4040 Area, containing 24,396 animal bones. This was a large midden with much diagnostic material, including mostly mammal remains, but also those of reptiles and birds (represented by bone and eggshell). In the mammal group, sheep/goat bones were predominant, but some cattle, equid (teeth and one metapodial), pig (teeth and calcaneum), and carnivore (mustelid and canid) bone remnants were also present. In addition, microfauna remains recovered from the dry sieve and human bone and also a coprolite were identified. Ca. 86% of the material was indeterminate. The scrap is largely sheep/goat size, but small to cattle-size animals are also represented.

There were remains of animals representing age classes ranging from perinatal to adult in all size categories. A conspicuous feature is a generally even distribution of body parts for sheep-goat and cattle but low on vertebrae and rib heads. Gnawing marks are present on both determinate and indeterminate bones. Some of the bones (vertebrae, metapodia, astragali, phalanges) were digested. It is interesting that several pieces of sheep/goat mandible have polish on the coronoid process and some rounded edges, possibly from trampling or water wear. Only a few of the bones are burnt. Moderate weathering (3-4 degree in the classification) appears most consistently, but this varies.

(8864), which generally appears to be the typical large midden of mostly sheep/goat derived from multiple activities, but not a street, has little coherence. While much of the assemblage appears heavily processed big pieces of fragile elements have survived. This unit was located below (8859). In reference to it, it is similar in the density of the bone material but less fragmented, with more digested pieces of bone but not much burning or cut marks.

Space 227

(11980) is a kind of deposit not previously seen at Çatalhöyük. Although both cattle and dog remains have been found in special deposits, particularly the former, unit (11980) shows some form of association between the two, in and around an oven of an abandoned building.

The oven, built into the south wall of a room in Space 227, had a roughly square base and ledge protruding into the room. After it fell into disuse, it seems to have been backfilled rather than truncated. As part of this backfilling, or maybe later, a cattle skull was crammed into the oven mouth, although because it was so large, it was partially lying