

Excavation also continued in the southern part of the trench. In 2009 an oval oven and a deposit containing lots of burnt construction materials with EC II pottery as well as objects such a stone vessel with a carved crayfish figure, a spondylus bracelet and two vessels with painted human figures were found in this part of the trench.

Several phases of ashy midden deposition have been identified in this season, and we decided to excavate this area fully next season.

Results of the 2010 excavation season indicate the existence of possible special buildings in Chalcolithic West Mound as in Neolithic East Mound. When we compare Building 78 and Building 94, B.78 is larger than B.94, and it has red painted regularly plastered walls and floors. B.78 has also larger buttress. Results of this excavation season also show that there are areas for rubbish discard. Work for the next season will continue in the same parts of Trench 8 and will mainly aim to the completion excavating B.94 and the midden area.



Figure 46. A sherd with a human face in relief was found in the fill of the Building 94. Photo Team Thrace

## CULTURAL AND ENVIRONMENTAL MATERIALS REPORTS

### Çatalhöyük Animal Bones 2010

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#### Introduction - Nerissa Russell

For the core team, the 2010 season at Çatalhöyük was a study season devoted to drafting, presenting, and discussing forthcoming monograph reports on our work. Thus for the South and 4040 Areas, lab work was limited to a small amount of tidying up, the recording of special finds, and assistance in specialized studies (stable isotopes, radiocarbon dating). With the exception of a few delicate special finds needing immediate attention, the animal bones from the South and 4040 Areas excavated in 2010 are to be recorded in future years for the final set of publications.

However, two members of the Çatalhöyük faunal team continued work on material from the TP Area and Trench 5 on the West Mound, recording 31,844 additional bones, bringing the total specimens recorded to 1,031,886.

#### TP Area - Kamilla Pawłowska

In total, 47 units and 22,940 animal bones were recorded from the TP Area in 2010. The vast majority of bones analysed from TP Area originated from floor deposits of Buildings 72, 62A, 62B, 61A, 61B, and Space 320 (Levels TP.O, TP.Q, TP.R). However, the research also focused on midden (Levels TP.P, TP.Q) and infill deposits (from different levels), as well as on the concentration of animal bones (Level TP.N). In addition, we selected samples from the studied bones from this part of the tell for isotopic studies, C14 dating, and geological analysis.

## **Level TP.O**

### **Space 320**

Floor deposits from the eastern (15268) and southern (15817) parts of Space 320 are similar. The material contains unidentified bone fragments, highly fragmented, 1 cm long, with no gnawing marks, with two weathering stages, some burnt and some calcined. The scrap includes sheep-size pieces of long bone. In the eastern part, the floor was located against the west edge of the wall (12274), while in the southern part it was situated between two parallel walls (13524) and (12274), and demarcated by a small perpendicular wall (15227) from the south. Bone material from the floor (15268), which marks the earliest phase of occupation of the space, does not stand out.

## **Building 72**

### **Space 323**

The very thin floor layer in Space 323—probably associated with the youngest phase of occupation of Building 72—was arbitrarily divided into two similar parts (13583) and (15204). Material from (13583) gives the impression of being a floor or infill deposit, due to its characteristics (Ovis/Capra fragments predominate: scapula, humerus, tarsal, phalanx, teeth; human bone and microfauna are also present; pieces burnt in various temperatures (low and high); very slight and slight weathering stages of bone fragments; trampled pieces, some digestion, fragments of 1–4 cm length). Floor (15204) was more solid and better preserved than floor (13583), but the bones have similar taphonomic characteristics. One difference is in the degree of fragmentation of the material, which is much greater in (15204). The bones are 1–3 cm long. Single fragments of long bone shaft splinters display filleting marks in both deposits. Directly underneath these floor parts are some make-up layers—(15206) and (15207) respectively—which contain animal bones (yet unstudied), pebbles of different size, fragments of plaster, bricks, and destroyed floor.

### **Space 324**

A small floor fragment (15296) located in a doorway between two truncated walls, (13059) and (13088), contained very slightly and slightly weathered bones, largely trampled, very fragmented, and thus unidentified: pieces of long bone, ribs, fragments of vertebrae, maxilla, teeth (one fox deciduous tooth was however identified).

A floor fragment (15202) in the NE part of the space contained several diagnostics: a human rib; a cattle upper tooth, extremely worn, and thus partially lacking the crown; a digested carpal bone of sheep or goat. This floor is associated with the youngest phase of occupation of Building 72. The rest of the bone fragments were sheep-size and cow-size, with some burnt at low temperature (burnt and carbonized), some trampled, some digested. The degree of fragmentation of the material is significant (mostly fragments of 1–2 cm in length, or 4 cm among the diagnostics). Bones were very slightly weathered, with some pieces slightly weathered.

## **Level TP.Q**

### **Building 62A**

Building 62A was divided into two rooms by a centrally placed wall (13026) and (13025) with NE alignment. From the main part of the floor (13040) in the eastern room comes material that gives the impression of being mixed deposits from the floor (1 cm long pieces, trampled), along with other material such as infill and construction material (fragments of 2–3 cm with calcium concretions, at a very slight stage of weathering with some pieces slightly and moderately weathered, all rather worn). Carnivore activity is moderate; there are a few burnt pieces—with some of them, a roasting pattern was observed (sheep-size long bone). Diagnostic bones derived from sheep/goat and a small-medium equid (metapodial parts, phalanges, carpal bones, teeth). Due to the considerable size and heterogeneous nature of the layer in different parts of unit (13040), four flotation samples were taken by the excavators (Sample 7 from the northwestern corner of the unit, S. 4 from the northeast, S. 10 from the central area, and S. 2 from the southern area). The samples are more or less identical: S. 2 is similar to S. 5, both being largish samples. S. 10 is somewhat smaller, with on average somewhat fresher surface condition, and is intermediate in level of burning. S. 7 is similar to S. 5, but with considerably more burning. Generally all the samples look like the material from the dry sieve, and resemble dirty construction or infill material mixed with floor deposits. Their

use is related to building and backfilling. Their features may be a result of the total collection of deposits.

A fragment of the floor layer (13045) in the central part of the eastern room of Building 62A was better preserved. It was recorded as a separate unit due to traces of trampling. This fragment of floor was surrounded by the floor layer (13040) described above. Bone material from this unit looks like floor deposits combined with construction material, and is similar to (13040).

Animal bones from floor layers (13043) and (13050) in the western part of Building 62A are clean infill deposits (the vast majority of specimens are sheep-size, with a substantial number of 3–4 cm fragments alongside the smaller pieces, but some larger pieces are also present, as well as trampled pieces, digested fragments, with fairly homogeneous colouration) of relatively rapid accumulation (very slightly and slightly weathered, articulated complete caprine carpals, no worn surfaces, and with just one piece having gnawing marks). Floor layer (13050) was distinguished by its considerable amount of organic material (charcoal), but the material from floor deposit (13043) does not differ in this part of the building.

Animal bones from the floor of the southern part of the building in (13052) and (13048) are associated with a phase of use of the building. The bones from the floor deposit are very slightly and slightly weathered, mainly 1–2 cm long, burned at high temperatures, digested, two pieces slightly gnawed, including fragments of teeth. Well-represented trampled fragments include sheep-size shaft splinters and sheep-size ribs, particularly in (13048). Sheep/goat, bird, and fox bones are present. Material from the two units does not differ substantially. Material from floor fragment (13052)—which to the excavators appeared to belong to some kind of storage space—has a smaller number of diagnostic fragments, which may be related to sample size and greater fragmentation of the material. Compared to the rest of the floor, the material in this part of the building is much more fragmented.

The infill material (13047) is related to the building's stage of filling up. The diagnostic fragments here were derived from sheep/goat and cattle bones: they are 1–11 cm long, though mostly 2–4 cm, very slightly and slightly weathered, not gnawed, some reworked, trampled, 2% burnt, some digested, none with diagnostic zones.

### **Building 62B**

During the analysis of animal bones from the floor of the Building 62B, two types of assemblage were distinguished. The first type was associated with the occupation phase of the building: (13001), (13015), (12299), (13013), and (12283). These are fragments of the floors in the southern part of the building. Among them, (13001) and (13015) are similar: they contain mostly sheep-size pieces, several diagnostic sheep/goat pieces, 1–2 cm long, pieces burnt at low and high temperatures, digested pieces, and trampled pieces. (12299) and (13013) differ from these due to their lack of trampled fragments and a lesser quantity of material. These floors look very clean, in particular (13013). According to excavators, (13013) is a floor fragment of a small space or room that was separated from the main part of the building by a small wall (13005). The southern section of the floor was plastered (plaster 13012). This part of the building could have been unused, which explains the lack of trampled fragments and the small amount of material (1 cm long sheep-size pieces), or perhaps it was regularly cleaned. Surprisingly, a small fragment of the room's floor is also represented by (13015). A small fragment of floor (12283) from the highest sequence in phase II of the building contained two unidentified sheep-size pieces with slightly weathered surfaces, 1 cm long.

The second type of bone material found in Building 62B is related to the abandonment of the building and its filling (11582). The bone deposit is fill from multiple sources; little, if any, has anything to do with activities during the occupation of the house. The floor was of a considerable size, and lacked internal divisions, but analysis of flotation samples indicates differentiation of the floor space. Material from (11582) in different parts of the space vary in degree of fragmentation (the central part of the floor has the most fragmented pieces, 1–3 cm long—S. 9 and 12) and in the proportion of burnt bones (the western part, S. 5 and 7, has more than elsewhere).

Infill layer (13019) was located on floor (13040) in Building 62, and is an effect of the process of accumulation connected with the abandonment of the building. The material looks like fill coming from multiple sources, and is mainly sheep-size, but there is also a certain amount of large mammal material. Body part distribution is fairly even for the sheep-size pieces. The bone is highly fragmented, with most pieces being less than 3 cm in length, though a fair number of pieces in the 4–6 cm range are present. Surface condition is variable, but mostly quite worn. The small fragment of deposit (13039), which also looks like fill, was very similar to the described infill layer.

#### **Level TP.R**

##### **Building 61A**

Bone material was analyzed from the floors of the building in the northwestern (11745), western (11724, 11731, 11743), central (11793, 11782, 11781), and southern (13004, 12289) parts. Material from the floor was similar from all units (1–2 cm long fragments, trampled, digested pieces, very slight weathered, calcined, burnt and carbonized fragments, and with a few sheep/goat bones).

Animal bones from layer (12238) in the eastern part of the building, found at the same level as a cluster of human and animal bones (12240), looks like infill or a small midden. Sheep/goat, cattle, dog, and human bones are present. Surface condition is variable: very slight, and moderate weathering stage; some pieces reworked; a few with gnawing marks, and one heavily gnawed. Fragment sizes are in the range of 1–5 cm. Animal bones from a make-up layer (12234) in the eastern part of the building look like infill from multiple sources. Diagnostics include bird, human, sheep/goat, and microfauna. The bones have very slight, slight and moderate weathering; trampled pieces, digested pieces, and pieces burnt in low and high temperatures are all present; some fragments are reworked; 1–7 cm long). Material from (12254) and (12257)—found below (12234) and material from floor (12262)—looks similar.

##### **Building 61B**

##### **Space 248**

A small fragment of floor (11770), situated in the southeast corner of Space 248, contained floor deposits with a sheep/goat tooth fragment, while the rest is sheep-size pieces of vertebrae and trampled long bones. All fragments are 1 cm long, with very slight weathering. Quantities are considerably smaller than we have usually observed in the buildings.

From the same part of Space 248, unit (11752) contains a single diagnostic fragment each of sheep, sheep/goat, cattle and microfauna, but mostly consists of sheep-size scrap. Bone fragments have been burnt at low and high temperatures (calcined, carbonized), digested, trampled, and have two weathering stages. Fragment sizes are mostly 1–2cm, with several of 1–3 cm length.

Units (11784) and (11785) lie on floor (11752) in Space 248, underneath the infill layers and containing fragments of human skeletons (11740) and (10986)— mostly skulls. Bones are in weathering stages 2, 3, and 4; they have been burnt at low and high temperatures; they are 1–7 cm long; are digested; they come from sheep/goat, cattle, bird, human, and microfauna; several bones are reworked; there is some calcium concretion. There is a notable lack of sheep-size shaft splinters in (11785).

##### **Other Units Recorded**

In addition, analysis was performed on animal bones from the infill of a Hellenistic pit located in the northeast corner of the extension (11544); from the lower part of a kind of platform— probably an element of the floor of B. 81 (17656), Level TP.M; from midden deposits in Space 421 (12277), Level TP.Q, and in Space 405 (17804), Level TP.P; as well as from the hearth found in infill from B. 81 (15829), Level TP.M. The ashy layers of this last hearth contained a rich paleobotanical deposit (burnt seeds of wheat and barley), along with clusters of phytoliths and bone ornament (15829.X4 is the base of something resembling a large bone spoon).

Moreover, the study of material from the large concentration of animal bones (17809)—located in the southeast corner of Space 346, Level TP.N—began in 2009, was continued in 2010.

From all the units of Space 327 (15237, 15821, 15839, 17622, 17639, 17808), Level TP.N, (15821) stands out, due to its larger amount of cow-size bones. The layer, which was described by excavators as a small midden, looks rather like an infill deposit with a cluster of cow-size bones. It was situated to the south of a truncated platform (13533) in Building 73, and underneath a rubble layer (15822). This deposit may have accumulated in the foundation trench for the walls of Space 327.

#### **Other Activities**

In addition, a total of 234 samples were taken for stable isotope (N, C, Sr) studies, C14 dating, and geological analysis. They come from different levels and contexts: Level N (Space 420), Level P (Building 73), and Level Q (Space 412). The bones belong to cattle, sheep, goat, small-medium equid, large equid, boar, ox, medium canid, and dog, from various body parts.

### **Animal Bones Report Trench 5 - David Orton**

#### **Introduction**

Faunal research on secure Early Chalcolithic contexts within Trench 5 continued in 2010, having begun in earnest in 2009. Four units were fully recorded this season, and an additional eight assessed. Research concentrated on the rich fill deposits within spaces Sp.310 and Sp.342, although material from spaces Sp.343, Sp.447 and Sp.449 was also assessed. The emphasis at this stage is on conducting detailed assessments of as much undisturbed material as possible, in order (a) to provide rapid feedback to the excavators, (b) to avoid a backlog of entirely unstudied material, (c) to develop a frame of reference for West Mound faunal deposit classes, and (d) to provide immediate - preliminary - quantitative data through recording of measurements and diagnostic zones (DZ).

#### **Units studied in 2010**

A sequence of fills from Space 342 (16896, 18309, 18311, 18328) were assessed in 2009 and the lowest, (18328), was subject to full recording in 2010. The overall impression of this sequence is of extremely rapid deposition and minimal subsequent disturbance, as attested by excellent preservation, very limited carnivore damage, and an abundance of refits and articulations. Processing by humans prior to deposition also seems to have been limited, with a low degree of fragmentation, and body part representation is generally very even. The underlying fill unit (18341) - assessed this season - broadly continues this pattern but with rather less extreme preservation and slightly lower coherence.

Space 310 was the main focus of faunal study in 2010. As with Space 342, this space contained a sequence of extremely rich but poorly differentiated fills (18303, 18318, 18326, 18343) that can certainly be considered primary deposits and appear to have formed very rapidly. Of these, (18318) and some associated clusters (18316, 18321) have now been fully recorded, and the remainder assessed. The lowest fill yet studied, (18343), has particularly dramatic preservation and coherence, with some quite extensive articulated groups.

The fill sequences so far excavated in spaces Sp.342 and Sp.310 seem to represent successions of dumps of lightly processed post-consumption waste, differing both from typical room fills and from middens as defined on the East Mound. On the basis of fauna alone, the closest analogue might be the East Mound 'feasting deposit', but with caprines dominating rather than cattle and with multiple events represented in a continuous sequence. However, the fills of both spaces also contained large quantities of other materials, including unfired pottery and un-worked antler as well as finished artefacts. Understanding the nature and purpose of deposition in these spaces will require integrative analysis of the bone and ceramic materials.

Excavation in spaces Sp.447 and Sp.449 only began this season, with the uppermost fills from each - (15163) and (15160) respectively - processed in time to be assessed. These are similar to the fills described above from spaces Sp.310 and Sp.342 in terms of composition,