

12. East Mound Ground Stone, 2013.

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During the 2013 field season a team of six people worked on the Çatalhöyük ground stone material. Work was divided between assessing newly excavated material from the South, North and TPC areas and recording material from previous excavation seasons. As most of the team members were joining the team for the first time and had no prior experience with the recording of ground stone assemblages, time was devoted in the training of the students in the identification, the initial processing and Level 1 recording of ground stone objects.

The main aims of the 2013 season was

- a) To update the ground stone crate register on the finds database system (see Ground Stone Archive report 2012).
- b) To provide feedback on material derived from excavation units designated as priority during the 2013 excavation season and initiate the recording of newly excavated material from the East Mound.
- c) To continue the detailed recording of backlog material from the South Area excavated during the 2009-2012 field seasons.
- d) To initiate a research project focusing on the study of ground stone material found in clusters in order to address questions about the intentional deposition and destruction of objects.
- e) To initiate a detailed technological and contextual study of all stone axes from both Mellaart's and Hodder's excavations.

Priority Units

The ground stone team took part at the tri weekly priority tours and assessed material from 46 priority units excavated during the 2013 excavation season (six from the North area, 22 from the South Area and 18 from the TPC area). In addition, material from 15 priority units from the 2012 field season not assessed in the previous year was studied. All comments from the assessment of the material were entered in the Priority Feedback Quick Entry forms. Below is a preliminary assessment of units of particular interest:

2012

TPC Area (20255), Sp. 494, F.3978 cluster

In Sp. 494 an infill deposit and a mixed cluster of artefacts and ecofacts [(20255), (20276), (20277), (20278), (20279), (20280), (20281)] was found between the walls of Buildings 110 and 111 and oven (F.3924). It contained a large amount of bone, pottery sherds, ground stone, shells, and phytoliths. Notable among this cluster was a collection of 199 caprine astragali, 30% of which have been flattened on one or both sides (Best et al. 2012, Archive report 2012). Overall, the quantity of the

material deposited here and the characteristics of the material suggest an act of deliberate deposition as a special/foundation deposit.

The ground stone assemblage from (20255) stands out not only in terms of number of artefacts deposited, but also in terms of object types and raw materials represented. This concentration contains a large number of both worked and natural stones. There is variation in the raw materials represented, mainly at least two different types of andesite, schist, greenstone (possible diabase), limestone, metamorphosed limestone/marble, quartz, crystal, chert, and sedimentary quartzite. Upper and lower grinding tools (i.e. querns and grinders) are the main tool types occurring within this deposit, while there are also two possible examples of grinding tool rough outs, debitage from the production or modification of grinding tools (angular waste by products, flake and micro debitage), polishers, an abrader, a possible palette, small sized stone balls, seven unmodified pieces of crystal, natural limestone pebbles of various sizes and eight chert objects (20255.x1, 20255.x2, 20255.x7, 20255.x14, 20255.x22, see below). The lack of refits between fragments and the variation in raw material types suggests that the deposited fragments come from different grinding tools. In terms of use patterns, no tools had reached a worn out state (perhaps with the exception of 20255.x23) before they were discarded, and therefore they could have been modified and continued to be used, if needed. This in fact is evident only in one case (20255.x51). There is variation in the surface condition of the stone objects in the cluster: most of the objects show no evidence for burning and only some of the grinding tools are burnt. In some cases the burning is also visible on broken surfaces; this suggests that the tools were burnt after they had been broken, but the fragmentation patterns do not suggest that breakage had resulted from contact with fire. This in tandem with variations in the fracture condition of the broken margins (i.e. both tools with fresh and still sharp edges and tools with heavily worn and rounded broken margins occur together in the cluster), and the lack of refits between grinding tools suggest that the objects come from different primary contexts.

A close look at the objects deposited in this cluster suggests that their deposition is not accidental and this concentration of material has some 'internal logic' to it. The character of the stone objects deposited make clear references to the stages in the life cycle of a grinding tool: raw material in the form of naturally weathered large size cobble (20255.x20) (raw material procurement stage); rough outs for grinding tools that still retain part of the natural weathered surface, (20255.x24, 20255.x29) (initial production stage); debitage that relates to the production of grinding tools (both initial shaping and modification stages are represented, e.g., 20255.x8, 20255.x16); tools with use faces that were pecked prior to use, e.g., 20255.x32, and a complete tool (spherical grinder) that shows all over pecking (20255.x25) (production stage); numerous examples of tools with one or two opposed use faces (e.g., 20255.x4 & 20255.x30) exhibiting different degrees of wear (from light use to heavily used surfaces); these make a clear reference to the grinding activities the tools were used for (consumption stage). References to the maintenance stage in the lifecycle of grinding tools are made by tools with re-pecked use faces e.g., 20255.x33, while grinder 20255.x51 shows evidence for the use of the tool in another grinding activity once the tool broke and before it was deposited; a fragment from a grinding tool with no use faces surviving (20255.x8) clearly indicates a tool that has reached the end of its use life as grinding tool and has now entered a state of discard. References to different types of grinding activities are also made by the inclusion of schist palettes and polishers within this cluster of objects. With this in mind, it is interesting to explore further the relationships

between the stone objects and other elements of this cluster, especially see the grinding/abrasive tools in relation to the caprine astragali which exhibit flattened sides. Furthermore, the cluster does not only incorporate different types of objects but raw materials as well. These diverse raw materials were procured from different local and non local geological sources, and thus carry with them specific associations to particular places in the landscape.

The deliberate character of this deposition is further reinforced by the presence of eight chert objects (20255.x1; 20255.x2; 20255.x7; 20255.x14; 20255.x22) that are interesting in morphological terms; although these are not heavily modified objects (i.e. a few pieces have very coarsely shaped margins by flaking or abrasion, while the rest seem natural), there is a consistency in their shape, all being ovate/triangular in shape, and they look very uniform in character.

North Area, (20965), Sp.511, midden layer in abandoned building

This unit was particularly rich in quantity and type of artefacts. This midden layer contained mainly fragments of grinding (23 in total) and abrasive tools (10 in total) among which two complete and two fragments of small sized palettes (20965.x13 and 20965.x17) and one further possible palette fragment. The unit also yielded a fragment of a marble bracelet, a complete disc stone bead (found within flotation sample 10558), a stone ball (20965.x12), several fire cracked rocks with no wear on their surfaces (ca. 20 in total), and numerous small sized natural pebbles and cobbles. The unit also contained debitage (secondary and tertiary flakes) from the production of andesitic tools. The majority of the flakes come from the Heavy Residue flotation sample 10558. Interestingly 12 flakes come from the same reduction episode and some refit. More refits were found between quern fragments, and between fire cracked cobbles. The presence of flakes from the working of the same nodule suggest possible in situ production of andesitic tools; this together with other ground stone refits and in tandem with the character of other materials found within this unit indicates quick accumulation of material and little post depositional movement. The material from (20965) highlights the fact that middens need not necessarily have been strictly perceived as dumping places, but instead external areas might have been actively used as places where daily activities were conducted.

The character of this midden in Sp.511 differs greatly with the midden excavated in the TPC Area. (30773) and (30774), flagged as priority units during the 2013 season, were very poor in ground stone material, when compared to other midden fills. This picture, which requires further investigation in the coming years, suggests variations in the formation of middens that might relate to temporal patterns of use and/or the nature of activities that led to the accumulation of the midden material in the first place. The study of ground stone material from middens/external areas will be a priority for the 2014 field season.

South Area, (30615), dirty floor of Sp.510, B.118, Hodder Level: South.H

Although poor in artefact quantities, this unit is interesting as it offers an insight into indoor stone working activities. The unit yielded a fragment of a pink andesite grinder and debitage found within the flotation sample 10664 from the working of pink andesite (one primary flake, tertiary flakes and debris, 6 pieces in total). All flakes come from the same nodule/tool suggesting that the different stages of the working of pink andesite took place within the interior of the building.