

Object category	Frequency	Percent
natural	7379	49.4
edge tools	15	.1
percussive tools	11	.1
perforated tools	1	.0
grinding/abrasive tools	662	4.4
miscellaneous	188	1.3
multiple-use tools	22	.1
ornaments	1229	8.2
debitage/cores/nodules	5000	33.5
indeterminate	421	2.8
Total	14928	100.0

Table 2. Frequency of ground stone artefacts recorded during the 2017 field season

ples were unearthed in the TPC Area (see below). Similar to pestles, palettes represent another object type that occurs more frequently in later occupation levels. In 2017 a further 74 examples were recorded, 77% of which come from TPC and GDN contexts; large concentrations were found in Sp.420 (n=10) and Sp.555 (n=9) in the GDN Area, and Sp.637 (n=13) and Sp.639 (n=9) in the TPC Area. Results of the microwear analysis of palettes suggest that they were employed during the final stages of mineral processing (Tsoraki work in progress), an activity most likely associated with the creation of wall paintings. Among the questions the current project considers is whether the unequal distribution of these tools is indicative of an increased level of specialization that crystallizes during the Late and Final phases of the occupation at Neolithic Çatalhöyük.

Space	Frequency	Percent
515	74	6.6
562	120	10.7
585	46	4.1
594	320	28.6
612	23	2.1
637	156	14.0
639	379	33.9
Total	1118	100.0

Table 3. Frequency of TPC ground stone artefacts per space (based on units studied during the 2017 season).

TPC Area

During the 2017 field season deposits particularly rich in ground stone artifacts (both in terms of quantity and object variability) were unearthed in the TPC Area. As seen in Table 3, Sp.637 and Sp.639 in the south-west area of B.150 contained a large number of intentionally modified and used objects as was also the case for Sp.594. The study of the ground stone material from the TPC Area suggests many similarities in the depositional practices encountered between B.150/Trench 4 and the building sequence 65-56-44 (Levels South Q-South R-South S) and especially with B.44 (see below). Among the deposits studied the following deserve special mention:

(23765)

A large concentration of stone objects was unearthed in Sp.637 (southwest part of Trench 4) as part of (23765) (n=129). The cluster contained both complete and partially preserved objects and only three objects refit. Among the recovered objects were quern fragments none of which, however, refit suggesting that their breakage pre-dates their deposition in this pit. In terms of condition, the assemblage contains both objects that have been affected by heat and others that survive in



Figure 1. Quern (23765.x4).

good condition. Some of the heat-affected objects show rather localized burning traces suggesting exposure to heat in a controlled environment or at least in a small-scale burning event. A wide range of tools were found in this feature including grinding tools (i.e. different types of querns, quern rough-outs, grinders and quern fragments) making up 30% of this assemblage, schist palettes, abrading tools, polishing slabs, an edge tool, percussive tools, pigment nodules and angular pieces of crushed calcite. Interestingly, crushed shell was also found in this context (Veropoulidou pers. comm. 2017). Great variability is also encountered in the type of activities represented including plant processing, pigment processing, stone polishing, and possible bone working. Among the objects that stand out are a rough-out of an elaborate-type quern ((23765.x83) which refits with (23765.x63)); quern (23765.x4) (Fig. 1) found in direct association with a wooden bowl and a cluster of seeds. The tool was found broken in three pieces (that refit), with a further piece still missing; exposure to heat resulted in the breakage of the quern in the three refitting pieces. The overall condition of the tool and of the fractured edge suggests that this deposition does not represent an *in situ* grinding activity. Another interesting object is a complete andesitic quern (23765.x9) that weighs 54.6kg. The quern, one of the largest examples found

at Çatalhöyük East, was in the process of modification at the time of deposition and seems to belong to the more elaborate type of querns encountered at Çatalhöyük (Tsoraki in press).

This depositional practice is reminiscent of similar events encountered in B.44 dated to Level South S ((11648): n= 176), but also in B.49 assigned to Level North G in the North Area ((7957)/(14460)). In both occasions a large number of ground stone artifacts along with obsidian, faunal remains, bone tools, pottery sherds, stone beads, pigment, quartz crystal and figurines were deliberately placed during the construction of the southwest platforms (Regan 2014: 169; Carter *et al.* 2015; Eddisford 2014: 321-326; Nakamura and Pels 2014). While previous interpretations approached these depositions as the result of clearing/cleaning up activities of household toolkits (Regan 2014; Eddisford 2014), the re-evaluation of the material from (11648) by the current team suggests that this represents an intentionally deposition that entailed the concerted actions of multiple social groups (multiple houses/households) (Tsoraki, in prep.).

(32860)

Another important deposit from the TPC Area is a concentration of stone objects (32860) found inside a bin (F.8674) located in the southwest corner of the southwest room of B.150 (Sp.639) (Fig. 2). This concentration contained 35 objects, mostly different types of abrasive tools (c.51%) associated with a continuum of abrasive practices ranging from rough abrasion to fine smoothing/polishing,



Figure 2. Stone tools stored in bin F.8674, TPC Area.

upper and lower grinding tools, a complete ‘macehead’, three pestles and a large piece of translucent calcite. A large number of the deposited objects survive complete (c.68%) and mostly in good condition, although some objects are burnt. While the tools have been used prior to their deposition, none of them are worn out tools. Based on the variability and the condition of the material, it could be suggested that these objects were stored in the bin, a situation redolent of other tool concentrations found stored in bins (e.g. B.77) (Tsoraki in press; Wright 2013) and may represent a household toolkit. The ‘macehead’ 32860.K35 measures 52.73mm x 63.99mm x 64.22mm and weighs 306g. It replicates the pattern seen in other examples at Çatalhöyük with an interest in the visual appearance of the object. The color of the raw material, a red-colored (Munsell color 2.5YR 7/6-7/3) hard-veined limestone (with white veins) is further highlighted through polishing creating an object of a rather distinctive appearance. Although complete, the presence of fractures with rounded ridges on the body, chipping on the edges of the perforation along with a highly polished perforation suggest that the object was used as a hafted implement.

(23993) is an infill layer in the southwest room of B.150 (Sp.639, F.8672); it contained a large number of tools (with grinding/abrasive tools making up 23% of the assemblage) along with fragments of calcite. Different type of activities are represented in this sub-assemblage but mainly pounding of soft to medium hard materials and abrading activities that range from rough abrasion to very

fine abrasion/polishing. Variation is encountered in the degree of preservation (both complete and fragmentary tools are present) and in the degree of burning.

(32821) is associated with the construction of platform F.8693 in Sp.639. A discrete concentration of 259 natural waterworn pebbles (32821.x1) (Fig. 3a, b) of a similar size, shape and color (c.12mm, off white/white/light grey, ovate in plan and section) was found suggesting an intentionally placed deposit. Similar caches of natural pebbles were also encountered in B.65 where they seem to have been placed intentionally during the construction of a small bench. Other examples have been encountered in B.2, B.6 and B.23 (Regan 2014: 188).



Figure 3. Cluster of natural pebbles associated with the construction of F.8693 in Sp.639, TPC Area: (a) the pebbles in context; (b) the complete cluster.

GDN Area

(22891) (Sp.537, B.142, F.8076) was excavated as a sequence of floor make-up layers in the south-eastern corner of Sp.537. The unit was particularly rich in andesitic debitage; more than 3150 flakes and mostly angular fragments of different types of andesite were unearthed. The average size is ca. 20mm but smaller sized pieces were also present. This concentration is clearly associated with stone-working activities and more specifically with the production of grinding tools; most probably it represents the residue of high intensity *in situ* activities or of activities undertaken nearby and within this space. This finding raises questions about an increased level of specialization during the later periods of habitation at Çatalhöyük East.

North Area

(22623) burial fill, B.129, Sp.77, F. 7714, North H. This burial fill, associated with Sk (22620) and Sk (22655), was rich in finds including two bracelets and two anklets, loose beads and a copper ring (Çatalhöyük Research Project Excavation Database). The bracelets and anklets were made of a combination of different types of stone/mineral (limestone, phyllite, carnelian, fluorapatite), and clay