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ORIENTALIA ANTIQUA NOVA VIII

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# A PART OF ASSEMBLAGE OF STONE ARTIFACTS FROM TEPECİK-ÇİFTLİK SITE (CENTRAL TURKEY)

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The Tepecik-Çiftlik located in the southern part of Central Anatolian plateau, was settled during the Neolithic and the beginning of Chalcolithic periods (fig. 1). The ca 6 ha large mound is located in the Melendiz plain, which was formerly the main volcano of the Melendiz massif (fig. 2). The Melendiz and the Erciyas massifs, of which the latter lay ca 100km northeast of the first one, together located in the so called “Volcanic Cappadocian Region”. The Melendiz massif, which lay in an area of ca 200 km<sup>2</sup> and its surrounding regions are well known for their good quality obsidian sources.<sup>1</sup>

The ongoing excavations, held mainly by the members of the Prehistory Department of the University of İstanbul was started first in the year 2000 and the project was supported by the Research Fund of Istanbul University. Since then 5 levels have been determined in the upper 3.00 m of the mound-deposit: level 1: Late Roman-Byzans graves; Level 2: Middle Chalcolithic perod; Level 3: Early Chalcolithic and/or Neolithic-Early Chalcolithic transition period; Level 4 and



Fig. 1. Position of Tepecik site in Central Turkey.

<sup>1</sup> Bıçakçı 2004.

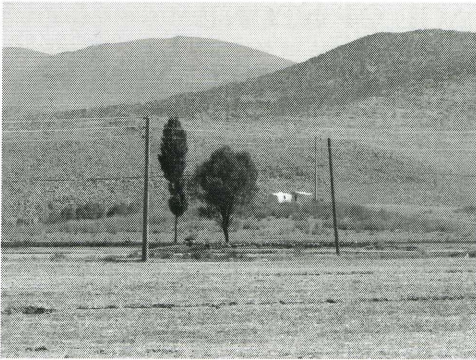


Fig. 2. Look to a mound (in the middle).

5: Late Neolithic period (fig. 3). The radiocarbon data from level 4 indicate this level dated between ca 6350–6000 cal. BC. The at least 2/3 of the deposit, which lay under the level 5 are still unexcavated. Due to the surface collections this lower deposit seems to be dated

to Early Neolithic and even to the Pre-Pottery Neolithic periods. If the case is true, then the Tepecik-Çiftlik mound should have an uninterrupted stratigraphy between ca middle/second half of 9th and the middle of 6th millenium BC.

Stone industry, found in a well preserved context (fig. 4) together with use wear analysis and results from micro-remains from working parts, can provide valuable information about the everyday life of past communities.<sup>2</sup> There is a high probability, in contrast to the middle Europeanian sites, to find such contexts in tell-like settlements in Turkey.

The investigation of ground stones<sup>3</sup> from Tepecik has been going on since 2005 and has included a huge range of morphologically different artifacts. Up to date, it has been possible to investigate about 504 pieces in the period between the first season in 2000 and year 2005, including artifacts from Neolithic and mainly Chalcolithic period. However, not all the types were already present in this part of the assemblage and we have decided to present some other types from the later seasons in this preliminary information.



Fig. 3. Building levels and types of construction in Tepecik.

<sup>2</sup> Wright 1992; Adams 2002.

<sup>3</sup> For the definition of this type of industry see Wright 1993, 93.

Fig. 4. An example of structure in situ.

Ground stones are studied in two major levels:

– The investigation of context directly in terrain (inside the room, outside the room, near the hearth or storage bin, in the wall, on working area, etc.). Micro-remains from working parts of chosen tools are also separated (if possible) immediately after having been removed from the founding context.<sup>4</sup>

– The classification of types, working parts and working traces. The classification is based on technological criteria similar to those used in works of K. Wright<sup>5</sup> and on the description of shapes.<sup>6</sup> A modified description system of I. Pavlů has been used for the grinding slabs/querns (or the millstones), mortars and other bigger tools mainly for food processing.<sup>7</sup>

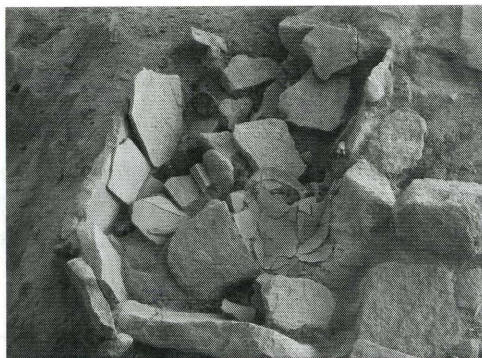
Up to date, we have been able to observe the following groups of ground stones:

### **Grinding stones (slabs/querns; millstones)**

*Lower stones* – two types of lower stones are present in our assemblage, all in fragments. Massive and irregular in shape (fig. 5: 1–3) and flat with more modified form (fig. 5: 1: 4).

*Upper stones* – an oval shape with Plano convex cross section prevails (fig. 5: 9) above oval shape with biconvex cross section (fig. 5: 11) and rounded shape with plan convex cut (fig. 5: 10).

Apart from the larger stones, smaller<sup>8</sup> ones are also represented here sized between 60 and 132 mm. This group embraces mostly flat formed forms with more used surfaces (fig. 6: 1–2), then loaf shaped forms in lateral profile (fig. 6: 3–4) and oval forms. The latter wear just polished surfaces.



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<sup>4</sup> Pavlů 2003.

<sup>5</sup> Wright 1992; 1993.

<sup>6</sup> Davis 1982.

<sup>7</sup> Pavlů 2003, 428–431; Pavlů – Řídký – Wawruschka – Gülcur 2007.

<sup>8</sup> And better preserved.

*Anvils with dish like working surfaces* – all in fragments. Sometimes multiple tools with concave working surface and dish like part in the middle (fig. 5: 5–8). *Mortars* – all of them of rounded shape (fig. 6: 5). Two of them were completely preserved, one as a fragment. Apart from bigger pieces, those of smaller sizes<sup>9</sup> were present too.

*Pestles* – three different oblong forms of oval cut are represented. They were recorded mostly in a cone form (fig. 6: 7; fig. 7: 1–2) of different sizes and convex or flat working surfaces. A straight regular oval form (fig. 6: 6) and one with curved edge (fig. 7: 3) were formed too.

### **Tools for processing other artifacts or for food processing**

*Worked pebbles and cobbles* – broader group consisting more or less of naturally formed shapes with work traces of pounding, polishing, chopping or grinding. Oval (fig. 7: 4) and round (fig. 7: 6) shapes are the most represented here, followed by irregular (fig. 7: 5) and quadratic forms (fig. 7: 7). It is the most numerous group of multifunctional tools, sometimes with several types of use wears on their surfaces.

*Saw* – one flat artifact of triangular cut and longitudinal use wears (flutes) on its working part (fig. 7: 8).

### **Other grinded artifacts**

*Flat more or less rounded form with a biconical drill* – sometimes interpreted as weights, because of their position near storage bins.<sup>10</sup> From the above mentioned site we have registered just the fragments of finer (fig. 7: 10) and rougher forms so far (fig. 7: 9, 11).

*Sphears* – not all of stone sphears found at the site were shaped deliberately. The form of some of them, mainly of larger sizes (fig. 8: 2, 3) and made of rougher material may be just results after pounding or shaping of other kinds of artifacts. Today it is difficult to find a clear explanation. It is highly probable that two finely worked and drilled pieces were formed to its shape on a specific purpose (fig. 8: 4–5). The other ones are sometimes interpreted as sling stones (fig. 8: 1).

*Other* – unfortunately nowadays, it is impossible to define the function of some artifacts. For example, this is the case of one piece of oval form with a pointed

<sup>9</sup> For holding in one hand – up to date one piece.

<sup>10</sup> Pavlů – Řídký – Wawruschka – Gülcur 2007.

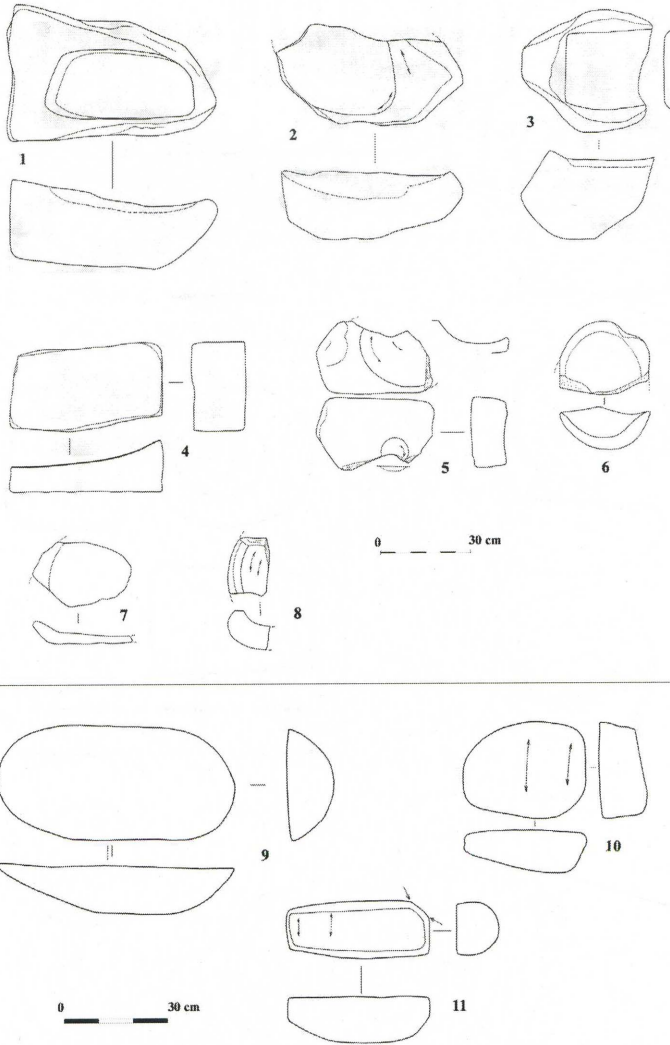


Fig. 5. Ground stone artifacts from Tepecik.

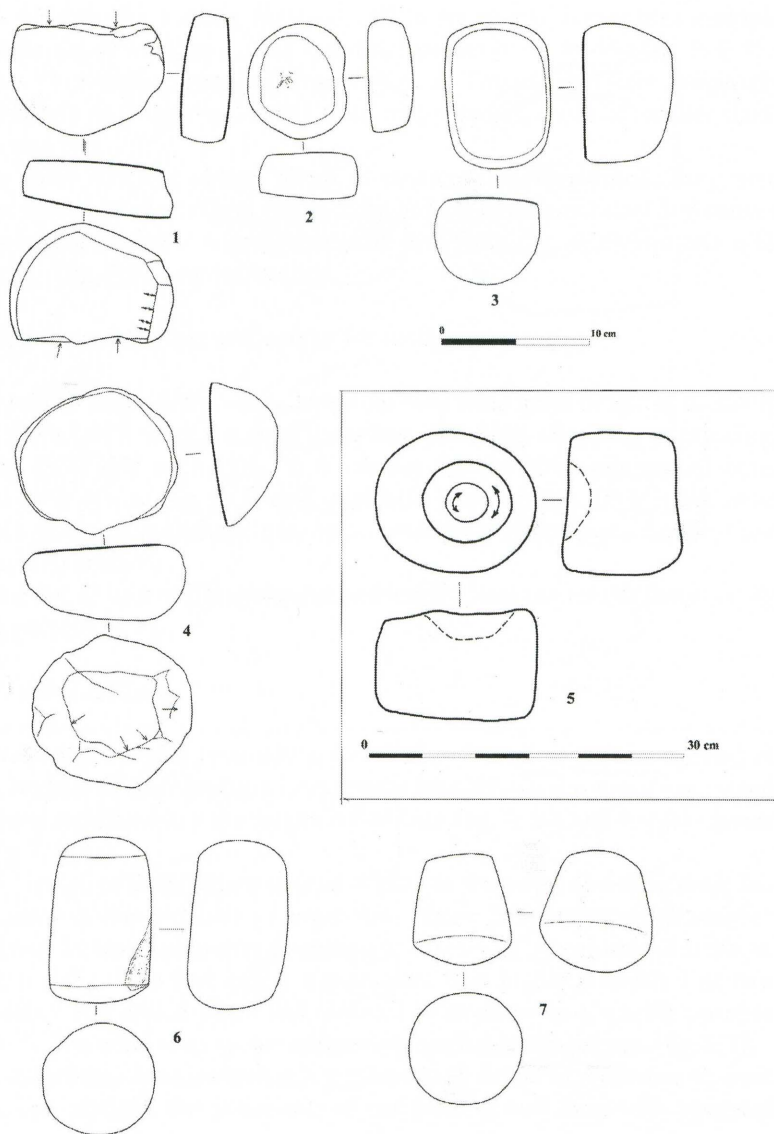


Fig. 6. Ground stone artifacts from Tepecik.



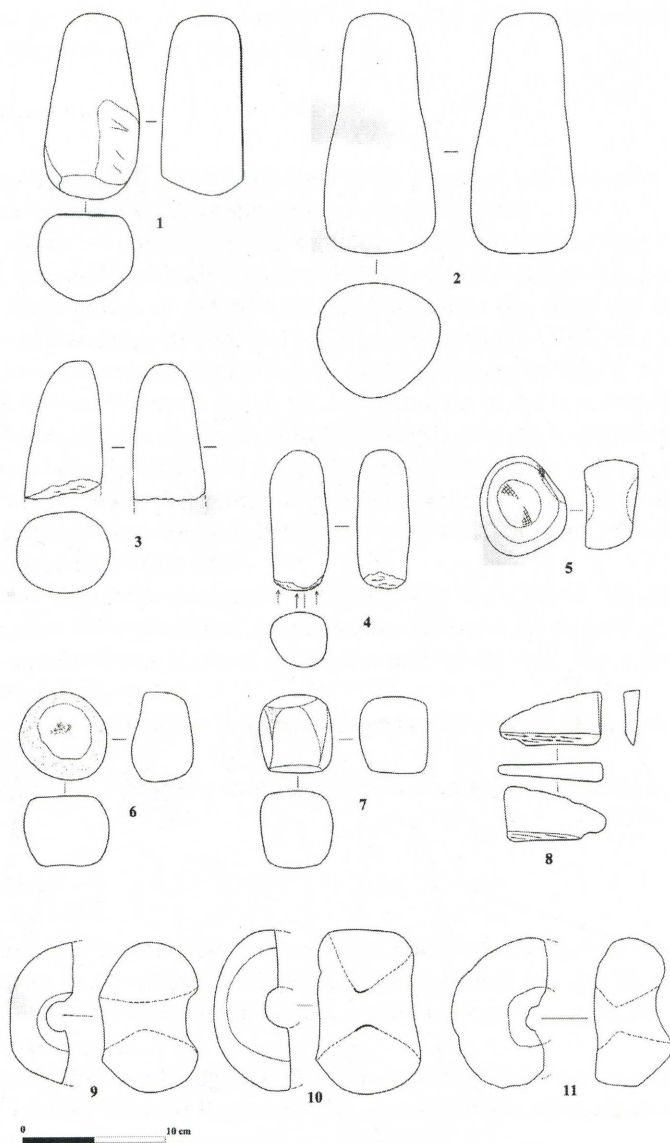


Fig. 7. Ground stone artifacts from Tepecik.



Fig. 8. Ground stone artifacts from Tepecik.

edge (penis like; fig. 8: 6) and another oval formed with a pointed rill and an elongated fragment with an oval cut (fig. 8: 7).

### **Polished stone industry**

Up to date, it has been possible to observe 22 pieces of artifacts with polished surfaces and probably made of special kind of raw material:

*Axes and chisels* – morphologically significant artifacts with cutting edge and a more or less modified body (fig. 8: 9–18). In our assemblage it is possible to observe 4 basic groups of different shapes: trapezoidal (fig. 8: 9–10), triangular (fig. 8: 13–16), rectangular (fig. 8: 11–12) and oval (fig. 8: 18). They divide in cross sections between: lenticular (fig. 8: 14, 16), rectangular (fig. 8: 10–11, 18), oval (fig. 8: 15) and biconvex (fig. 8: 9). The definition of the function of specific tools (axe, adze, chisel) depends on future analysis of wear traces. Some of the pieces have a base higher (fig. 8: 9–12) than the working part and are narrower in shape. It is supposed that morphologically these might have served as chisels. However a thicker base could fit better into an antler holder and thus this tool could have been used as an adze.

About 75 % of them wear damaged cutting edge (fig. 8: 10, 12, 13, 17) either after cutting or after their secondary use as hammer stones. As to their sizes, they prevail in smaller forms between 30–60 mm and 70–85 mm. Just one of them reached 108 mm (fig. 8: 16).

*Drilled drops* – a rectangular flat polished artifact with three biconical drills in one row (fig. 8: 19).

*Other* – artifact in a form of a truncated cone with rills in rows on its top (fig. 8: 20).

### **Raw materials**

For the future, it is necessary to carry out a field survey to find sources for stone industry in the vicinity of Tepecik. Nowadays, it is possible to define the structure or color of used raw materials, however, a more accurate petrological analysis is still needed.

Basaltic lava of different kinds prevails for the grinding slabs/querns and pestles. The same kind of material (together with quartzite) was often chosen for the worked pebbles and cobbles as well.

## Conclusion

The investigation of ground stones from Tepecik is at its beginning and an actual excavation will bring even more types of artifacts in the future. More information about daily life on Tepecik site will be uncovered by an analysis of situations “in situ” and investigations of micro-remains from working parts of tools.

For the region of Cappadocia, the assemblage of ground stones from Tepecik provides key information about ground stones but it also provides great comparable material for other sites of similar periods.

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(English by Radka Schlosserová)