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Clay Balls and Clay Objects

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Citation

Bennison-Chapman, L. E. (2017). Clay Balls and Clay Objects. In *Çatalhöyük Archive Report 2017, by members of the Çatalhöyük Research Project teams* (pp. 251-255). Retrieved from <https://hdl.handle.net/1887/79383>

Version: Publisher's Version

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Note: To cite this publication please use the final published version (if applicable).

Çatalhöyük 2017 Archive Report

by members of the Çatalhöyük Research Project





Edited and compiled by Scott D. Haddow
Cover image: clay stamp seal from TPC Area (photo by Jason Quinlan)
(Red hand logo designed by Ian Kirkpatrick)

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Chapter 18

Clay Balls and Clay Objects

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Introduction

Season aims and overview

The 2017 season was the last opportunity for the study of artifacts, therefore, the broad aim of the Clay Object team was to record, at a basic level, all artifacts recovered in the current phase of excavation's (2009-present). In order to achieve this, the team was expanded to include Didem Turan, an Archaeology Master's student at Izmir's Ege University, Turkey. The clay object team covers two artifact classifications, both of which have been described in detail in previous publications. Firstly, small, geometric-shaped clay objects, commonly known as "tokens". This is a diverse group of multi-functional artifacts which have been under detailed research by myself since 2009 (Bennison-Chapman 2013, 2015, 2016) (Fig. 1). The second artifact group is the more homogenous, and extensively studied large clay balls (Atalay 2013, 2012, 2009, 2005, 2001, 1999, 2000; Atalay and Hastorf 2006; Bennison-Chapman 2016) (Fig. 2).



Figure 1. Selection of small geometric shaped clay objects in the form of spheres (3214.col to co4).



Figure 2. Examples of a large clay balls and fragments thereof from the 2017 season (20542.ml-ml4).

The season was extremely successful in completing the basic (level 1) study of all large clay balls recovered from 2009 onwards. In addition, the detailed, individual study (level 2) of a large proportion of the large clay balls was achieved. The recording of all small, geometric clay objects, from the start of the Hodder Project to 2017, was also accomplished (Table 1). In addition to basic recording, a further aim of the season was to investigate the potential of some of the large clay balls to have held a symbolic meaning. Previous research (undertaken by Sonya Atalay) had noted a small number of the clay balls were incised with crosses and notches (e.g. Atalay 2005:140, Fig. 6.1). A small number of incised examples of clay balls were recovered during the 2016 season. During the 2017 season, particular attention was paid to the further identification of incised and poten-

(Large) Clay ball		(Large) Clay ball		
Level 2	object count	Level 1	unit count	object count
2017 season	1,565	2017 season	1,252	8,510
Total	2,427	Total	1,383	9,012
(Small) Clay object				
Level 2	object count			
2017 season	728			
Total	2,028			

Table 1. Number of objects recorded in 2017 season by level of detail (level 1: object/fragment count and combined weight per unit, level 2: detailed individual object/fragment recording).

tially decorated clay balls, especially among the highly fragmentary examples, and full recording (descriptions, technical drawings and photography) of the decoration when identified, was undertaken.

Basic 3D shape	Count	%
Sphere	329	45.19
Flattened/semi-sphere	150	20.60
Ovoid	78	10.71
Flattened/semi-ovoid	74	10.16
Disc	46	6.32
Cone	16	2.20
Cuboid	8	1.10
Cylinder	3	0.41
Cube	1	0.14
Other	23	3.16
Total	728	100.00

Table 2. 2017 studied small geometric clay objects according to basic three dimensional shape.

Degree of object completeness	Count	%
100% complete	14	0.89
75-99% complete	16	1.02
50-74% complete	43	2.75
25-49% complete	172	10.99
<24% complete	1,320	84.35
Total	1,565	100.00

Table 3. Large clay balls as studied in 2017: object completeness by relative percentage of the original object remaining.

Season summary

Small, geometric clay objects

One hundred percent of 2017's incoming clay materials were assessed and sorted according to artifact category, with artifacts falling into the classification of small, geometric clay objects, each studied individually, in full (level 2). In total, 728 clay objects (including some from 2016) were recorded in detail, bringing the total studied count to 2,028 objects (Table 1). In 2017's clay objects average 1.6cm in length (including both fragmented and complete examples), with an average weight of 3.4g. They exhibit a range of basic three-dimensional shapes. Rounded objects comprise the overwhelming majority with 45.2% spheres (Fig. 1), a further 20.6% ovoids and flattened/semi ovoids and spheres constituting a further 20.9% of 2017 studied objects combined. Discs, cuboids and cones are also present, though in far smaller proportions (Table 2).

Clay balls

Large clay balls were a numerous find during the 2017 excavation season (Fig. 2). The long field season and increased size of the team meant that the research aim of studying at a basic, level 1 (count and total weight per unit) of all clay balls 2009-2017 season was achieved. A total of 8,510 clay balls or fragments thereof from over one thousand excavation units were logged, bringing the total count of clay balls recorded at a basic level to

9,012 (Table 1). In addition, 1,565 clay balls were studied individually, in detail (level 2). The overwhelming majority of these level 2 clay balls were fragments, with just 14 fully intact and complete examples recovered. A further 16 examples exhibiting limited damage only (recorded as 75-100% complete) were recovered from the level 2 studied count (Table 3). Of these, the 30 most complete large clay balls, the average weight was 194.0g and they averaged 20.5cm in circumference.



Figure 3. Large clay ball fragments displaying impressions of coiled basketry (left to right: 21661.m174, 21661.m176 & 21661.m176).



Figure 4. Large clay ball fragment (21103.m18) with incised decoration in the form of three lines.



Figure 5. Large clay ball fragment (19386.x1) displaying decorative markings on the surface.

Characterized by their large size, dense clay make up, and extremely smooth exterior surface, often exhibiting uneven burning, a notable proportion of the 2017 studied clay balls evidenced impressions in the form of twill plaited matting (n=34/2.2%) (Wendrich 2005: 335, Fig. 15.5), presumably having been placed on the floor before fully dry. A smaller count (n=20/1.3%) similarly displayed coiled basketry impressions on the exterior surface (Wendrich 2005:334, Fig. 15.3) (Fig. 3). Incised and decorated clay balls as identified in the 2016-2017 excavation/study seasons number 17. These highly distinctive artifacts range from small fragments comprising, 25% of the original clay ball, to complete examples. The decoration is varied, yet always utilizes a single

technique per artifact. Decoration includes deep notches, incised lines in the form of a cross or arrow ((21103.m18), Fig. 4) and the most common form, incised holes or dots. This last technique is the most common, and is used to form fairly simple shapes such as a triangle as seen on the surface of two complete examples ((31594.m103) and (21661.m171)) to highly intricate designs (e.g. (19836.x.1), see Fig. 5).

Clay balls: functional interpretations and future research

Over the next few months, analysis will be carried out on the vast amount of data collected on clay balls from the 2009-2017 excavation seasons, incorporating both contextual and morphological information. Preliminary analysis of burning, fragmentation, wear and deposition patterns suggest these objects were certainly heated and used inside buildings. They may have been used to heat or keep foodstuffs warm, yet other possibilities such as being used to heat the room, or the body in winter (held, placed under mats, underneath/inside bedding or wrapped in fabric) are equally plausible. In addition, though a common feature of buildings, new analysis suggests a significant proportion of clay balls come from middens and other external areas and once fragmented, clay balls continued to be heated and re-used (for example as building and packing material as seen in the ovens of B.17 and B.160 in the South Area). Detailed investigation into fragmentation patterning, contextual deposition, burning patterning and the presence of decoration will be undertaken in order to further investigate and reevaluate past interpretation of the use, and re-use of clay balls at Çatalhöyük.

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