

## HABITAT & SETTLEMENT

Anatolia has one of the best-defined long-term records of settlement during the Holocene and its study is central to a range of questions, from changing relationships with the environment, to the formation of large-scale settlements and the changing of urban-rural relationships. Developments in the Black Sea coastal region sometimes ran parallel to changes in Turkey, but followed a different course at other periods, creating interesting comparisons, parallels and alternatives. Of particular interest are people's attempts to live in as well as adapt to and change conditions set by the environment throughout time, and also the effect of human beings on their natural environment and landscape.

### **The Boncuklu Project: the spread of farming and the antecedents of Çatalhöyük**

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There has been much controversy about the mechanisms by which the earliest farming spread around the world. At Boncuklu in central Turkey we have previously demonstrated the adoption of farming by indigenous central Anatolian foragers, so our current project at the site gives us a chance to understand what this uptake of farming meant for such foragers – in terms of their household organisation and practices, engagements with the landscape, ritual and symbolism – as well as to understand the spread of farming to the west and ultimately into Europe. The ritual and symbolic practices at Boncuklu are especially intriguing, given that Boncuklu seems to be a direct predecessor of Çatalhöyük and is located only 9.5km to its north. In the following article we review the principal discoveries of 2014 in relation to key issues of investigation at the site.

#### *Houses*

We excavated three houses this year: two in Area P on the south side of the mound, Buildings 20 and 21, and one in Area H in the north of the site, Building 12.

In Area P, Building 21 was earlier than Building 20. It is well preserved with walls surviving 0.5m high in places. This is a sub-oval building, whose southern and western walls are relatively straight and thus may indicate a slow transition to the rectangular structures seen at Çatalhöyük and may also indicate continuing influences from areas to the south and east following the adoption of crops. As with many Boncuklu houses, a floor ridge demarcates the north-western part of the building. Set against the northwestern corner was a circular hearth with a clay rim. A setting of burnt stones formed a ring around the edge of the hearth, and it was framed by lines of stakeholes indicating a wooden structure over the hearth and closely replicating

patterns seen in other buildings, such as Building 6. The northern part of the building seems to have had complex features unusual for Boncuklu houses, including some sort of bench or bin feature set against the wall. At the end of the life of the building, an oval burial pit, Grave 44, was cut through the final floor in the eastern area of the building. Fragments of aurochs horn on the floor may have fallen from the walls of the building, suggesting the walls were decorated with at least one bucranium.

Building 20 seems to display its own variant of standard house layouts. In the western part of the building was a circular hearth with a white clay plaster rim. The division between higher, better-made floors in the eastern part of the building and grey dirty floors in the hearth area in the west was quite distinct. Cutting through the floors west of the hearth was an irregularly-shaped pit, which seems to have been used as a temporary hearth, perhaps post-dating the use of the more carefully-constructed main hearth. A deep posthole had been cut from the latest floor on the southern edge of the building. A series of stakeholes characterises the main area of floor.

Different closure processes seem to have determined the character of the fill deposits of these two buildings. Building 21 was filled with a mass of brick debris, upon which, we suspect, was constructed a later building; no



Building 21.

evidence of this later construction has survived, apart from three large postholes and two graves. However, these features seem to have respected the walls of Building 21 and suggest a putative later building was constructed on a very similar footprint. Building 20, on the other hand, was filled with an extensive area of charred remains and burnt structural material, including burnt reeds and mud plaster, lying on the final floor. This seems to be burnt roof collapse. Since the walls of the building were not burnt, it may be that only the roof was burnt in the dismantling of the structure or that the roof beams were removed and the collapsed roof was burnt *in situ*. Overlying the burnt structural material was a large deposit of animal bone which seems to have accumulated in the abandoned shell of the structure and includes the remains of a number of aurochs, equids and wild boar, equating to several thousand kilos of meat. We see this as the remains of a large-scale animal processing and consumption event which accumulated over a relatively short period of time. Whilst it might be attractive to characterise this as a large-scale feasting event, it seems likely that complex processes may be involved in this bone accumulation. For example, Louise Martin, Caroline Middleton and Elizabeth Farebrother, who are working on the fauna, indicate that the pig skulls had been chopped to remove the tusks and a number of bones had been cut so as to retrieve marrow.

In Area H we excavated earlier phases of Building 12. Like other buildings, there is a large hearth in the northwest of this building. We defined the southwestern edge of the building and excavated some of the later floors from this area southwest of the hearth. We excavated two postholes in later floors this season. Preceding these were about ten floors which overlay a series of features. These included a circular grave of a child with marine shell beads as grave goods (Grave 40). The area of floors nearby had small patches of ochre. From about the same phase of the building was an oval U-sectioned plaster-lined fire pit (F356). This had a setting of burnt stones in the plaster at the base of the pit. Belonging to the same floors as this fire pit was a plaster basin (F416). To the northeast of the main hearth (F171) were two postholes that probably cut through from the late floors of Building 12. As with other buildings, postholes shift around during the life of the structure, indicating they were not integral to standard roof-support arrangements. In addition, occasionally southeastern clean areas seem to have had special short-term fire installations built within them.

#### *Mortuary practices*

For the first time at Boncuklu, this year we documented a large number of burials in the open midden areas of the site. Including two previously located midden burials, we have now identified eight burials in Area M; these were clearly carried out during the accumulation of midden deposits

there. It is in this context we should now see the circulation and deposition of skulls in these open areas, reported on previously. Indeed one of the ‘graves’, Grave 43, excavated in 2014 was indeed a pit with an isolated skull. In the northwestern part of the area we excavated Grave 36, in which only the upper torso and head of an individual was preserved. Immediately south of 36 was Grave 39, an adult burial where the pelvis and parts of the long bones were present but the upper part of the grave was truncated by activity in the midden area. To the south of Grave 39 was Grave 41, a poorly-preserved but articulated primary adult burial. To the south of Grave 41 was Grave 42, again probably an articulated primary burial, disturbed by animal activity, with some beads associated with the skull. To the south of Grave 43 was a large oval pit (F306) which contained the disarticulated bones of at least four individuals: two adults, a juvenile and a neonate. Two adult skeletons showed evidence of significant disease-related pathology. Three skulls – two adult and a juvenile – had been piled up at one end of the cut. The long bones were lying aligned along the bottom of the pit and other bones were scattered through the fill.

The intercutting of graves, multiple disarticulated burials and skull deposition are distinctive practices associated with these burials outside houses. Thus, these individuals seem to represent distinct mortuary practices peculiar to those buried outside houses. A range of ages and both sexes seem to be represented in these open-area burials, and the frequency and types of grave goods do not seem to be different. It will be interesting to explore what factors may have led to these burials outside houses and the extent to which distinct social groups might be indicated by these particular mortuary practices.

#### *Finds*

Notable finds this season include a particularly large, ochre-covered axe (15.2cm long) and a large stone polisher, also covered with ochre; these may be associated with the phase of mortuary activity in the open area in Area M. One of the typical Boncuklu incised stone plaquettes discovered this season in Area P seems to be a second example of the ‘dancing’ motif; this echoes representations from elsewhere in the Neolithic Near East and indicates the widespread sharing of common symbolic references during this period.

The child burial we excavated in Building 12 had a necklace consisting of over 180 marine shell beads. This further underlines the acquisition of this distant resource and the large-scale circulation of these materials and objects made from them.

Lori Hager continued her examination of fingerprints on the clay objects and figurines from the site. We now have a corpus of over 40 distinct prints and some indication that both the sex and age of the makers of these objects will be identified by this method.

### *Electronic site recording*

This year saw a major methodological innovation at the site, with the use of an android-based electronic recording system to record all our on-site stratigraphic and context information. Developed by FAIMS (Federated Archaeological Information Management Systems), a project supported by the Australian Research Council, the system utilises a local wireless network and micro-pc server to allow direct electronic recording using an app version of our pre-existing record sheets. Andy Fairbairn oversaw the development and introduction of the system, which worked well, despite a few adroitly circumvented glitches. Distinctive advantages of the system, in addition to the obvious one of saving time by not having to enter the information into the site database as a separate activity, include the ability to attach quick record photos, to develop sketches using the photos and to attach audio and video records. A detailed end of season survey, combined with further post-excavation development, is preparing the second version of the Boncuklu app for deployment in 2015.

### *Public engagement*

A Visitor Centre was built and fitted out at Boncuklu in 2013. This year we continued to develop the on-site visitor facilities by constructing two replica Neolithic oval mudbrick houses with internal features, like those of the houses on the site. This project, supervised by Ofer Bar-Yosef, will allow visitors to understand better the nature of the Boncuklu Neolithic houses, in conjunction with information presented in the Visitor Centre and the archaeological remains themselves. In addition, they will allow the archaeological team to understand better the factors involved in the construction, maintenance and use of these structures through experimentation.

After experimenting with mudbrick recipes to match those found in Boncuklu's houses, we produced 1,000 handmade bricks for a house designed to replicate very closely the plan and construction of our excavated examples. For the second building, designed to last longer as part of the visitor experience, we used mould-made bricks in a technique more like that of the recent past and built walls that are slightly wider than those of the Neolithic houses. The bricks were made within a week, and the extraction of the raw materials, the clays especially, would clearly have been the most time-consuming element of this building preparation phase. Oval pits, 0.5m deep, that provided foundation footprints for the buildings, were dug out in a few hours and the walls were also erected quickly by a team of five. The roofs are the most speculative element. Burnt roof debris suggests that timbers and reeds were key elements of the Neolithic roofs, so we constructed flat roofs for these buildings, akin to those that typify mudbrick buildings in the Middle East over the past centuries. Smokeholes were set in the roofs, located over the hearths. The floors and walls were plastered with white marl, with a different mix used for the sunken northwestern dirty areas around the hearth. These floors and walls took over a



Boncuklu experimental house 1 under construction.

week to dry; perhaps this was one of the longest phases of the construction process. Although the only light ingress is through the small doorways and smokehole, the white plaster ensures the buildings are very light during the day. Experimental fires showed the smokeholes work well at funnelling the smoke out of the buildings. We will observe the effects of winter on the buildings, in particular whether rain coming through the smokeholes damages the floors in particular ways and how well the construction features cope with the heavier rain, and snow, of the autumn and spring.

In 2014 we have also produced a booklet to explain the site to children in English and Turkish, funded in part by the Wenner-Gren Foundation (visit [www.boncuklu.org/education](http://www.boncuklu.org/education) for a free pdf download). Specialists at the site are also producing free education materials for school teachers and the wider community in both English and Turkish, and developing activities and resources for community and school open days. We had an open day for the Hayıroğlu community on 8 August; this was a great success with 93 visitors. On 4 September the Karatay Belediye Başkanı launched a second open day, which attracted about 140 visitors from the wider area of Karatay. These both featured activities for children, who made bead necklaces and coloured in images related to finds from the site, provoking much discussion about our finds amongst the children and the wider community.

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