

## HABITAT & SETTLEMENT IN PREHISTORIC, HISTORIC & CONTEMPORARY PERSPECTIVES

This strategic research initiative supports research focused on assessing long-term change from prehistory to the present day. Anatolia has one of the best-defined long-term records of settlement during the Holocene period and its study is central to a range of questions in prehistory, including the changing relationships of humans with the environment, the formation of large-scale settlements and shifts in 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 mankind's attempts to live in, as well as adapt to and change, conditions set by the environment through time as well as the effect of human beings on their natural environment and landscape.

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### Boncuklu: the spread of farming and the antecedents of Çatalhöyük

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The Boncuklu project offers the opportunity to understand what the uptake of farming meant for early Holocene foragers, in terms of their household organisation and social practices, landscape engagements, ritual and symbolism, as well the spread of farming from the Fertile Crescent, to points 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 2018 excavation took place in three trenches: Area P, Area M and the relatively new Area R. We are investigating the structures of Area P with the intention of learning more about the domestic activities that took place in the houses here and the deployment of ritual and symbolism within them. In Area M we are investigating open areas between buildings as well as one building that does not appear to be a standard domestic house. In Area M we aim to dig a sounding to natural through what is likely the full sequence of the site. In Area R we are investigating a distinctive anomaly noted during geophysical survey in 2015, which suggested there may be a larger than normal building.

#### *Household archaeology*

We continued to excavate one building that seems to be a variant of the typical Boncuklu residential structures: Building 21 in Area P. Here we are able to investigate the use of the kitchens of the Boncuklu buildings, which we refer to

as 'dirty' areas. Unlike the main, 'clean' floor areas, the kitchen spaces saw repeated patching of floors with much greater frequency; for example, this year we excavated many patches in sequence in the areas south and north of the main hearth of Building 21. One long-term feature in the life of the structure had puzzled us for some time: a construction built north of the hearth against the inside face of the wall. It was outlined by a series of sloping mudbricks and its interior was packed with bricks. We have long speculated about the function of this feature and this year were able to investigate it in some detail. It appears to have had a complex life and a series of uses over the latter years of the use of the building. Late in its life it had small posts inserted into its outer edge. Its upper edge had several plaster faces and it seems likely it was used both as a bin and a bench feature.

#### *Non-standard structures*

This year we found a further example of one of our non-standard, 'light' structures – possibly kitchen or work buildings – that predate those we have excavated previously in Area M. This building had no surviving walls, and was characterised, like its successors, by a series of trampled-silt floors, multiple stakeholes and some pits. For the first time we found evidence of human remains associated with one of these structures; in a pit early in the life of this sequence of floors, we found fragments of the skull of a young child. It is notable that this was not a conventional articulated inhumation, but rather just a few skull elements. This is more

akin to the mortuary practices we find in the open spaces, and is an interesting further distinction in the use of these structures, but one that suggests that they too, on occasions, witnessed ritual practice.

#### *Later middens – a very public convenience*

We excavated a series of features and deposits in the latter phases of the midden deposit in Area M. These included large multiple-phase hearths with reed linings, preserved as phytoliths (silicified plant cells). These open spaces also housed evidence of the presence of large posts and basket installations.

We continued to excavate a toilet area in the southern part of this open space. Our more extensive excavations this year allowed us to appreciate that this was created within a large shallow hollow that was lined with plant materials, probably reeds or sedges. Periodically, after episodes of deposition of human faeces, the deposits were covered with similar plant materials, presumably for purposes of hygiene. The hollow was not very deep and in quite small sections of this toilet area we have excavated hundreds of coprolites. So it seems likely that this is some of the earliest evidence of a ‘public convenience’. In addition, the slight hollow would have left the users fairly ‘exposed’; so the inhabitants clearly had different views from us today about certain basic human functions and what may well have been a refreshing lack of embarrassment about such activities. Intriguingly, we have now also found public toilet areas in Areas P and R, so such zones may not have been uncommon in the central areas of the site.

Of course, the human coprolites from these areas will be a rich source of information about past diets. Luke Cartwright from the University of Queensland has started research on possible starch content to help indicate plant consumption. A study by Michelle Feider (University of Bournemouth) already indicates that a number of coprolites have fish and amphibian remains within them.



Neolithic coprolites.

#### *Earlier middens*

On the western side of Area M we excavated a series of midden lenses, representing a general dump of organic material in this open space. In the northeastern part of the area, we removed a series of very fine laminations of alternating clay, dark-grey ashy silt and thin white ash lenses, all representative of very repetitive activity. So far we estimate many hundreds of laminations.

We have now reached some of the earliest deposits on the site and they indicate that the early phase activity in this part of the settlement is represented by an open space with a densely distributed patchwork of small features, including small phytolith-lined pits with stakeholes around their edges, small hearths with clay-lined bases and a series of neat plaster-lined oval pits. These suggest a series of distinctive open-area activities requiring lined features and the use of fire.

#### *Burials*

We have also continued to find burials in the open spaces at Boncuklu. In Area P we found the burial of a small child, whose head and body were covered with ochre and who was accompanied by obsidian tools as grave goods.

#### *Area R*

In Area R we continued to investigate the possible presence of a large building. We removed a number of layers of interleaving midden and structural debris, and located a large external hearth in one of the midden layers. We have detected unusually thick plaster floors under the earliest structural debris we excavated, so there does appear to be a distinctive type of structure in this area, which we will investigate in 2019 in order to explore its extent and function.

#### *Experimental archaeology*

Gökhan Mustafaoğlu oversaw experimental activities.

*A Neolithic construction programme.* A Neolithic village is emerging again at Boncuklu. We undertook a major programme of ‘Neolithic’ building activity in 2018. This involved the construction of two more Neolithic houses (sponsored by BIAA fundraising activity; sponsors listed below) to join our two original constructions, thus creating a veritable Neolithic village. These reconstructions develop our knowledge through experimentation and simultaneously enhance the visitor experience at the site. The two buildings we chose to reconstruct this year will allow us to understand better how the largest houses excavated to date were constructed and experienced, and also how the lighter, non-standard structures might have worked.

One of the key challenges was to understand the method of roofing of the largest houses, given that we have no evidence, even within these larger structures, for the use of regular and permanent post arrangements. Thus we



The reconstructed Neolithic light structure.

constructed a building 6m long by 5m wide. Gökhan Mustafaoğlu, following discussions with our local craftsman, who had trained in mudbrick building in his youth, wanted to test what seemed a plausible solution: to use the thickest, longest beams that would have been available to span the central area of the building (i.e. ca 5m), and then use thinner beams at the narrower ends of the structure in order to keep the beam weight lower on the relatively thin walls. This system worked well (the building hasn't fallen down so far!) and illustrates neatly the advantage of oval structures in terms of lower thickness and length requirements for beams.

The light structure is small and constructed of wattle around a basic frame of upright posts, to which was added mud, in a classic wattle-and-daub construction. A gap was left between the walls and roof, which was constructed of reeds on very light branches covered by mud. A kerb of plaster-covered mudbricks protects the base of this light wall. Altogether, this created a waterproof shelter with good ventilation properties. In particular, smoke from the experimental fires lit in this structure cleared quickly, confirming our view that the Neolithic light structures might have worked well as kitchen or work structures employing regular fires.

*Putting in a post.* We know that posts were inserted and removed at regular intervals throughout the lives of the Neolithic houses. How easy or difficult that might have been remained an interesting question. We therefore experimented with inserting a post in our experimental Building 1. By digging the posthole to the requisite depth and slightly wider than the post, we could slip the post in at an angle and then hammer it under the relevant roof beam. This system worked well; it planted the post firmly and did not damage the roof. This now seems an easier process than we had originally envisaged and the experiment allows us to understand better the frequency with which posts could be inserted and replaced in the structures.

*Neolithic garden.* As part of our experimental endeavours, and in order to communicate some of our results relating to analyses of the less tangible archaeobotanical and environmental evidence, we aim to reconstruct some of the Neolithic settings – agricultural and natural – for the benefit of our visitors. Given the importance of farming to our local communities, we thought an effective way to bring home the results of our research on the development of the Neolithic to these local communities, and particularly the children of the area, would be to display more directly the nature of Neolithic landscapes and farming. We have, therefore, started to develop a Neolithic garden. This includes a small garden-field of the types of cereals cultivated in the Neolithic. It also includes a raised area containing some of the trees that yielded the nuts and fruits collected from the surrounding hills in the Neolithic – wild almond, terebinth and hackberry. In addition, we have started to create a pond to house some of the wetland plants we have evidence for in the surrounding Neolithic environment, including some probably exploited by the Neolithic inhabitants, whether for fuel, food, building material or matting and basketry. Adjacent to the pond we have created a reed bed and planted willows, reflecting other aspects of the Neolithic wetlands.

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Wild almond, terebinth and hackberry freshly planted in the Neolithic garden.