5_3_1_Test_Pits

Preliminary test pit excavation of two test pits was started in the 2009 season, with a view to testing whether the precision of the geophysical investigation of apparently burnt houses. A further exploration of the test pit approach was made in 2012 with an additional four test pits. The success of the 2009 and 2012 test pit trials led to the excavation of a further 82 test pits - 41 in 2013 and 41 in 2014/15. Not only did the test pit excavations produce vital organic samples for AMS dating but they proved to be a major source of information about techniques of house construction and the taphonomy of house-burning. The excavations also contributed to a very large sample of Trypillia pottery, many animal bones and a range of special finds.

Naturally, the replacement strategy of partial excavation of houses instead of coring houses reduced the number of datable houses, rendering it vital to develop a sampling strategy for dating a range of different structures. The priorities for the 2013 test pit programme were agreed as follows:

1. Which was earlier – the outer circuit or the inner circuit or were they built at the same time? [20 DATES]
2. Were the inner radial streets earlier or later than the inner circuit or build at the same time? [15 DATES]
3. Were there variations in the dates of house groups in the inner circuit? [10 DATES]
4. Were there variations in the dates of house groups in the outer circuit? [11 DATES]

On this basis, samples were collected from the following areas:

- Outer circuit: 4 (Group 1); 1 (Group 15); 1 (Group 19); 4 (Group 23); total = 10. (and 2 dates from House A9)
- Inner circuit: 2 (Houses B17 & B18); 2 (Group 13); 1 (Group 19); 4 (Group 22). Total = 9.
- Radial streets: 1 (Group 16); 4 (Group 18); 1 (Group 20). Total = 6.

This investigation informed the 2014 sampling strategy, in which the same list of priorities was followed in a range of different burnt house locations (ADS LINK TO SECTION 4_9).

The precise location of the test-pits followed the location of the geophysical anomaly - often suggesting a structure approx. 10 - 12m in length x 5 - 7m in width. The choice of where to locate the test-pit in relation to the outline of the structure meant it was possible to compare the effects of different locations - viz., in the centre of the structure (e.g., Test-Pit 1/1), on a side wall (e.g., Test-Pit 16/2), a long wall (e.g., Test-Pit 16/4) or in a corner (e.g., Test-Pit 15/2).

The recording of the test-pit excavations followed a standard format, with pre-defined contexts for ease of comparability. Five contexts were defined according to the 'standard' stratigraphic sequence (from top to bottom):

Context 1: the ploughsoil, equivalent to the A horizon of the chernozem soil.

Context 2: the lower part of the ploughsoil, where it can be distinguished by colour and texture from Context 1. In the rare cases where no destruction daub was found, the Context 2 unit could be very deep (e.g., Test-Pit 26/7, where Context 2 is 0.25 - 0.6m in depth);

Context 3: the destruction daub which resulted from the burning of the structure. This was sometimes a single layer but there were many examples of two layers of destruction daub (3 Upper, 3 Lower) and occasional examples of three layers (3 Upper, 3 Middle, 3 Lower).

Context 4: the living surface or floor level of the structure. In an earlier excavation (2013 season), we had misinterpreted the lower layer of destruction daub as a solid baked clay floor; in fact, there were very rare examples of a solid floor level, with most structures having a stamped earth living surface. Instead of ascribing separate Context numbers to fired clay features (e.g., boxes) or dug features (e.g., pits), these were described with the site-wide Context numbering system but with descriptors such as Context 4 / Feature 1.

Context 5: the deposits which pre-dated the construction of the excavated structure. Standard practice was to excavate 30cm below the base of Context 4, although deeper finds were occasionally made. In the case of Contexts where daub and pottery was scattered, it was generally inferred that material from the living surface had been pressed down into a marginally lower level (e.g., Test-Pit 26/2). However, those rare Contexts where features were encountered or larger quantities of daub and pottery were found (e.g., Test-Pit 24/4) were taken to indicate pre-structure activity in that part of the mega-site.

Two different recording practices were used for the recording of the architectural features found in the Test-Pits. In the 2009, 2012 and 2013 seasons, drawn plans were made by the excavators; the drawings were scanned and digitised and presented by Test-Pit. In 2014, we used a photogrammetric system of recording, with digitisation of each photogram.

In 2014, soil micromorphological samples were collected from Test Pit 1/3 as an example of a section through a burnt house (ADS LINK TO TP1_3/documents/5_3_1_TP_1_3_soil_micromorphology_report & TP1-3/photos/TP_1_3_MICROMORPHOLOGICAL_SECTIONS)