

There is very little research that has been done on the house construction methods of the people of early Copper Age sites on the Great Hungarian Plain. As a result very little is known about the buildings of this time period and the excavation at the site of Veszto 20 in Eastern Hungary is a first glimpse into how the people of this region constructed their houses approximately six to six and a half thousand years ago.

Veszto 20 has a plowzone that is approximately thirty centimeters deep. Underneath this plowzone, where the structures stood there is a daub layer. Beneath the daub layer is cultural fill and then the floor and sub floor layers. In the summer of 2001, two trenches, blocks 2 and 3, were opened up to uncover two separate structures and the areas surrounding them. This paper will focus on the structure in block 2.

In the 2000 field season four test trenches measuring 2m by 2m were opened up. Test block 2 came down directly on the northeast corner of a structure. In 2001 the trench was expanded into a 10m by 10m block. The block stretched 2 meters north of the original test block, 2 meters east, 6 meters south, and 6 meters west.

Most of the plowzone was taken off very quickly using a Bobcat. We went through the back piles picking out the relevant artifacts including ceramics, bone, and daub. The soil from this layer was not screened and only samples of daub were collected and weighed.

Once the Bobcat's work was done we began opening up 2m by 2m units directly to the south and southwest of the original test block. Both units contained heavy concentrations of daub and more units were opened to the west, southeast, and northeast. Five 2m by 2m units at the very south end of block 2 were also opened exposing a daub

layer and cultural fill. During the fourth week of excavation a complete horse skull was discovered under the southeast corner wall of the house. Later a human skeleton was also found and it turned out that this was a two thousand year old burial and an intrusion into the site.

Veszto 20 was a difficult site to excavate because the soil was a silty clay that hardened and cracked quickly under the sun. Numerous times it was necessary to chink at the soil first and then scrape off the layers to expose the artifacts. Changes in soil color were very subtle. The daub layer showed us the general shape of the structure but to get a more definite shape of the house we needed to be able to recognize the floor. Often times the changes between the floor and the outside of the house were very subtle and could only be recognized through small variations in soil texture or color. Profiles were also useful in identifying the inside and outside of the house. Again the changes were subtle but showed a recognizable pattern.

The house excavated in block 2 was rectangular in shape and measured approximately 3.5m east west and approximately 3m north south. The daub layer which represents the house is irregular in shape which probably occurs because of the way that the house burned and fell. Several pieces of corner daub were found during the excavation of the house. From these pieces we can tell that the structure had right angle corners that were slightly rounded.

We can also see the rectangular shape of the house once we excavate to the floor level of the house. In the southwest corner there was a soil change between the inside and the outside of the house once we reached the floor level. Once there we could see the soil difference between the inside of the house and the outside. On the Munsell chart the

inside of the house was black while the outside was very dark gray. As stated before, the changes were very subtle, and often could only be seen in certain lights. Once we excavated down to the subfloor level in that unit the change between the inside and outside of the house could also be seen in the east profile of the unit. In this profile the daub flecks went down a few centimeters deeper on the inside of the house than on the outside.

The section of the corner of the house excavated measured 70cm by 61cm. A trash pile that we had originally thought was a pit was found in this corner. The soil was very loose and full of pig bones and ceramics. It was not a pit because the loose soil only continued for a couple of centimeters before regaining a compact texture and uniform color to the rest of the unit. It may have been caused by decomposing organic material. Another interesting find in this corner was that while we were still in the daub layer there seemed to be a column of orange daub and a column of black daub running side by side north south across the 1m by 1m unit. One interpretation is that the black daub was the daub immediately surrounding a burning post that fell in that direction.

In the southeast corner of the house there were also subtle changes in soil texture that indicated the area inside of the house. More obvious in this unit however were the north and west profiles which showed a daub wall running through the unit. The floor here could not be seen as easily as in the southwest corner, probably due to the fact that the burial was dug in this corner of the structure and the soil and daub were disturbed.

The corners of the northeast and northwest units were well defined with slightly more compact soil on the floor than on the outside of the house and also a heavy daub smear on the inside of the house and no daub smear on the outside. The corner in the

northwest section stuck out slightly further west, about a quarter of a meter, than expected.

Just outside of the south wall of the structure, a concentration of five large pieces of charcoal was discovered at the floor level. It is possible that it came from burning timber. A concentration like this was not found anywhere else in block 2 or block 3. Another interesting feature is a streak of daub that begins just outside of the southern half of the east wall and continues east for about one meter until it turns north and continues for approximately three meters. This streak is immediately adjacent to our structure. It is unclear whether this daub comes from our structure or another one right next to it or both. In the five southern units of block 2, five large clusters of daub measuring approximately one meter in diameter were discovered. These clusters were located at the bottom of the plowzone and I have no interpretation of them yet. One of the daub clusters was excavated (it is labelled on my map) but there were no artifacts to be found.

The structure can be easily seen on a map made of the daub layer, the floor layer, and some of the cultural fill. I made a map of these layers, mainly the daub layer, to see the house more clearly. The house is more clearly defined by daub in the northeast section. In the other areas of the house the daub is more prevalent inside the house than outside but it does not define the house as clearly as in the northeast section. In these areas the floor gives a better understanding of where the house walls stood.

The structures at Veszto 20 were constructed using the wattle and daub technique. Impressions of small sticks measuring a couple of centimeters in diameter are numerous. Some pieces of daub can also be found where more than one stick impression can be seen running parallel to one another. Impressions of larger posts measuring several centimeters

in diameter can also be found though less frequently. A problem that we have faced in trying to reconstruct building techniques at Veszto 20 is that we have found no post holes or trenches of any kind that may have been used in the construction of the building. The difficulty of trying to find soil differences can be realized when you consider the fact that we did not even see a two thousand year old burial in the south east corner of the house until we were in it. Again we have to go back to the fact that soil changes at Veszto 20 are very difficult to pick up. This means that if post holes or trenches were used they are very hard to identify and we have missed them. A concentration of charcoal was discovered a few centimeters south of the house that may have been timber. The concentration was made up of about five chunks or slices of the charcoal laying in a pile on the floor level. It was thought that this concentration might indicate a post hole but turned out not to. There is also the possibility that post holes were not used. Posts could have been stuck into clay that was built up on the surface of the ground.

To attempt to understand how much daub was used for a single structure, we took daub weights from the daub layer down to the subfloor layer. Only samples of daub were taken and weighed from the plow zone so I did very little analysis on plowzone daub. I made a map of the daub weights to understand the distribution of daub in and around the structure. The highest concentrations of daub were located in the north and central sections of the house. There were also some fairly high concentrations outside of the structure to the south. This may be due to how the house fell. It seems as if the southwest corner may have fallen outwards while the north section caved in straight down. Because of the plowzone however, it is difficult to tell. Normally, not very much daub was found outside of the house to the north.

There is also the question of how the houses were destroyed. Since the vast majority of the daub is fired it is obvious that the structures at Veszto 20 all burned down. But why they were burned is more difficult to understand. The fires could have been intentional or unintentional. The house in block 2 contained several nearly complete vessels and close to forty bone points which suggests that the fire was unintentional. If it had been intentional one would expect the people of the settlement to clear out the important possessions and burn the house down. On the other hand, the artifacts found in the structure could have been a part of a ritual house burning. There is also the possibility that the settlement was invaded by another group of people and that the house was intentionally burned with its contents by outsiders.

The houses of the early Copper Age in the Carpathian Basin differ greatly from those of the late Neolithic in size and internal structure. The houses of the late Neolithic on the Great Hungarian Plain are much larger, the mean being 74 m squared (Parkinson 1999). In the Final Neolithic the mean of the area has dropped to 36 m squared and in the early Copper Age it is down to 26.2 m squared (Parkinson 1999). Late Neolithic houses also have subdivisions within houses whereas Copper Age houses do not (Parkinson). This change suggests a significant change in the family unit. Emphasis seems to be put on the nuclear family in the Copper Age rather than on the extended family as in the Neolithic. The change in house size could also suggest a change in the amount of time needed to spend indoors and a change in activity areas. In the Neolithic activity areas may have been located indoors and involved everyone living in the house. In the Copper Age activity areas may have been less community involved and more specialized. This is suggested at Veszto 20 because the vast majority of bone points were found in the

structure in block 2 while a spindle whorl and all of the loom weights were found in block 3.

A lot of future work can be done in the study of the house construction techniques of early Copper Age settlements of the Great Hungarian Plain. Analysis of charcoal could reveal what type of wood was used for the walls and roofs of the houses. Further analysis of the daub and post impressions could reveal how tall the structures were. Looking at the distribution of daub fired at different temperatures could reveal whether the fires that consumed them were intentional or not and excavation of other sites can help us to better understand the social changes occurring in the late Neolithic and early Copper Age.

Bibliography

Parkinson, William A. 1999 *The Social Organization of Early Copper Age Tribes on the Great Hungarian Plain* . Ph.D. Dissertation, University of Michigan.