The Crkvine site is situated around 40 km southwest of Belgrade (Serbia) in the vicinity of the village of Stubline, in the borough of Obrenovac. Extensive geophysical investigations were carried out during the 2010 campaign and, based on the results, we started investigations of the Late Vinča house 01/2010. The following comprehensive report details the method of construction and organisation of life in that house, which dates from the Vinča culture phase D. The house was very well preserved and we paid special attention to two large ovens inside the house as well as to some interesting portable finds (a clay table, a clay millstone structure and three large clay heads).

**Key words.** – Neolithic, Vinča culture, house, geophysical investigations, bucranium, millstone, Stubline, Obrenovac.

**Abstract.** – The Crkvine site is situated around 40 km southwest of Belgrade (Serbia) in the vicinity of the village of Stubline, in the borough of Obrenovac. Extensive geophysical investigations were carried out during the 2010 campaign and, based on the results, we started investigations of the Late Vinča house 01/2010. The following comprehensive report details the method of construction and organisation of life in that house, which dates from the Vinča culture phase D. The house was very well preserved and we paid special attention to two large ovens inside the house as well as to some interesting portable finds (a clay table, a clay millstone structure and three large clay heads).

Geophysical investigations provided exceptional results and the opportunity to conduct further, well-planned investigations. Geomagnetic mapping carried out between 2007 and 2011 covered an area of 83,000 square meters in total. As a result of this, the northern and southern borders of the settlement were established. On the northern side, where the terrain slopes more gently, the border of the settlement is identified by an anomaly, which indicates a double ditch, while on the steeper southern side a registered anomaly suggests just one ditch. In the central settlement area is an anomaly indicating a ditch from some earlier settlement phase overlaid by rows of houses from the last habitation period. It could be assumed, by comparing the intensity of geomagnetic anomalies (whose implications were also checked by excavations in four instances) and their dimensions, that there are the remains of over 200 houses within the investigated area (Fig. 2). The results obtained by geomagnetic mapping made it possible to perceive, for the first time, an almost complete matrix of one large open Late Vinča settlement, which was surrounded by ditches and densely packed houses.

1 For results of previous investigations see Todorović 1967; Simić, Čirobruća 2008; Čirobruća 2009, Crnobrnja, Simić, Janković 2010; Crnobrnja 2011; Antićović, Шарич 2011.
2 Geomagnetic mapping was carried out by Vladimir and Jelena Miletic from the Center for New Technologies Viminacium. Magnetometer-gradiometer GSM 19 gw of Canadian manufacture has been used.

3 Crnobrnja, in press.
in a well planned, almost proto-urban arrangement. In the period from 2009 to 2011, geoelectric scanning of the profiles was also conducted. So far a total of 1125 m of profiles have been scanned and they have provided information about the vertical preservation of structures previously identified by geomagnetic mapping, as well as basic data about the thickness of cultural layers in different sections of the settlement.

Systematic archaeological investigations in 2010 were carried out between the 1st of September and the 7th of November. One of main objectives of these investigations was the testing of results of the geophysical measurements of the 2010 campaign. The location of the dig was determined by previous geophysical investigations (geomagnetic mapping and geoelectric scanning).

We decided on the chosen location for several reasons. As we investigated the house on the settlement periphery in 2008, this year we decided to investigate one of the structures located in the marginal zone of the central sections of the settlement. The anomaly zone identified at that location by geomagnetic mapping indicated a well-preserved structure. However, within that anomaly, two zones of diverse intensity were recognised, so this also offered the possibility of obtaining a reliable “key” for the reading and interpretation of similar situations in other sections of the settlement. The location profile obtained by geoelectric scanning suggested that the structural remains were at a depth of around 0.50 to 1.0 meter and appeared to be just one structure without more complex vertical stratigraphy.

We calculated, on the basis of the above mentioned data, that taking into consideration time and financial resources, we would be able to completely investigate this structure in one campaign.

The geomagnetic anomaly in that location indicated that it was a structure preserved to a different degree to that of the northern and southern sections. The geoelectric scan profile along the longitudinal axis of the previously mentioned geomagnetic anomaly revealed that the depth of the lower structure level is uniform.

---

4 Geoelectric scanning of profiles was carried out by Momir Vukadinovic. Geophysical resistivity & self potential meter RPM–12 IP has been used.

5 Director of investigations on behalf of Belgrade City Museum was Adam Crnobrnja and members of professional team were archaeologists Milos Spsac, Marko Jankovic and Velimir Pilipovic, and students of archaeology Marko Marjanovic, Jovana Tripkovic, Marko Andric, Boris Pavlovic, Dorde Lazic, Vuk Koldzic and Marija Cerovic.
and reaches a depth of 1–1.1 m. On the basis of this data we determined the position and dimensions of the trench (18 x 8 m) and estimated that the amount of excavation needed was within our financial resources.

The trench was excavated within a square grid (2 x 2 m square) but, when more complex structures were encountered, we identified and investigated some distinct archaeological entities (hereafter referred to as AE).

While the first arbitrary layer (of 0.20 m relative depth) contained only around fifty pottery fragments, in the second arbitrary layer we encountered small scattered lumps of daub and more fragments of pottery of Late Neolithic and Eneolithic provenance. In the northern section of the trench, at a relative depth of 0.25–0.30 m, we encountered a rather large area of loose daub and the first groups of pottery on top of the remains of house 1/2010, which obviously dated from the time after the house was destroyed. Under that layer was 0.20–0.30 m of soil with rare lenses of small daub lumps up to 3 cm in size and after that we encountered the first remains of the collapsed house 1/2010.

The house’s ground plan is almost completely preserved and its assumed dimensions are 13.10 x 5.10 m so the floor area inside the house was around 67 square meters. The house is oriented in a northeast-southwest direction with a deviation of 23° from the north (Fig. 3). The northern section of the house is exceptionally well preserved with a completely preserved thick floor and a large number of portable finds as well as some permanent structures (Fig. 4). The floor level is at a relative depth of 0.70 to 0.80 m, i.e. at 109.90–109.76 m above sea level in the northern section and 109.71–109.54 m in the southern section of the house.

An approximately 1 meter wide ditch, which seems to have been dug in more recent times, is at a distance of 5.20 m from the northern edge of the house. In this ditch, which not only completely destroyed the floor in this section but also greatly damaged oven 2, the portable finds were rare.

The southern section of house 1/2010 was damaged to a great extent, particularly its western half. In the eastern half of the southern section of the house, the floor was preserved to a considerable extent, particularly along the recently dug ditch. By following traces of ash extending along the eastern house edge in the northern and southern sections, it could clearly be seen that it was one structure. The assumed direction of the eastern wall in the southern section of the house is negated by Pit 1, indicating that it dates from a time after the destruction of house 1/2010.

The floor in the western half of the southern section of the house was preserved only in a few places, resembling small islands in certain places. In that zone were also a few shallow dug holes filled with pieces of daub. The southernmost part of house 1/2010, i.e. the assumed position of its southern wall, has been determined according to the group of pottery (PG) 22, which was discovered on an isolated, preserved section of the floor, while no traces of the floor in situ have been recorded to the south to date.

For greater accuracy we will present categorised descriptions of the structure and the method of construction of house 1/2010, as well as the finds discovered inside.

ARCHITECTURE OF THE HOUSE 1/2010

Walls of the house 1/2010 (Fig. 3/1)

Despite the generally well-preserved interior of the house, the walls that remain are very poorly preserved, quite the opposite of the situation recorded in house 1/2008. It has been noticed that in a few places on the

---

6 Crnobrnja, Simić, Janković 2010, 14.
eastern and western edges of the floor, its ends are slightly turned upwards thus indicating that the floor coating was executed in such a way as to curve gently toward the walls. Despite meticulous exploration of the surface next to the preserved outlines of house 1/2010, it was possible to distinguish traces of only two postholes along the assumed line of the walls. These postholes, 0.30 and 0.40 m in diameter, were recorded next to the western edge of the house. Therefore, we could only imagine the structure of the walls, mainly on the basis of their segments, which collapsed on the floor and over the finds.

We could claim, with a degree of certainty, that only a few wall fragments sealing off the house contents in its northern section were discovered in situ. It is interesting that all these wall fragments had impressions of
large planks and not of wattle. The thickness of these daub fragments is 0.10–0.15 m and they were all facing upward while the plank impressions were facing the floor. The plank impressions are around 0.03 m deep and this is their smallest assumed thickness as daub covering one side of the plank timber did not reach the complete thickness of the timber within the wall structure. The greatest recorded thickness of one of the planks was 0.43 m (Fig. 5).

In just one place on the western side of the house there was a recorded internal wall coating of around 30 cm long, still standing upright, so this means it was in situ. On the outside there were horizontal impressions identical to the plank impressions on the collapsed daub pieces.

Although we recorded a small quantity of daub from the walls and, taking into account the above mentioned wall segment with identical plank impressions preserved in situ and the absence of daub fragments with wattle impressions, it could be concluded with considerable reliability that the walls had been built of massive planks covered with daub and that it is not a standard method of construction of the Vinča houses.7 The stated dimensions of the planks used for the wall construction indicate that it was a very massive and heavy structure not previously recorded in Vinča culture settlements.

**Roof and roof structure**

Bearing in mind the above mentioned massive structure of the walls of house 1/2010, it could also be assumed that their load bearing capacity was much bigger than the load bearing capacity of houses with walls built from the wattle technique.

This is also confirmed by traces of a few massive supporting posts inside the house (Fig. 3/2), whose postholes were recorded in the floor along the central longitudinal axis of the house. We recorded three such postholes in the floor, two of them around 0.25 m in diameter and one of a triangular shape next to the southwestern corner of oven 1 with 0.40 m long sides (Fig. 6/1).8 We should not rule out the possibility that there might have been a few more such supports for the roof structure as, along the line of their discovery, the southern section of the house was destroyed to a large extent.

The substantial load bearing capacity of the entire structure, which made possible the construction of a massive roof structure, is also indirectly confirmed by distinct traces of crumbling in the northern section of the house. As such, a considerable area in this part of the house was covered with a layer which burnt at a high temperature and completely covered the floor and all items on it. It was a 0.10–0.15 m thick layer of yellow colour with a granular structure (AE–17) and was so white and smooth that it could be mistaken for a plastering layer.

---

7 I must mention that such plank impressions in the daub discovered at Parţa (Lazarovici 2006, 5 fig. 24) have been explained as the floor of a storey structure. However, considering the small preserved segment of wall of our house in situ with identical plank impressions I am more inclined towards the already stated conclusion that, in our case, these were segments of the wall.

8 See more about that under Oven 2 and “Heads” i.e. “west head”.

---

Fig. 4. House 1/2020 from the north
Sl. 4. Поглед на кућу 1/2010 са севера

Fig. 5. Plank impression in wall daub
Sl. 5. Отисак талпе у зидном лепу
compact that it had to be carefully excavated with chisels. This layer was completely adhered to the contents of the house and to the floor underneath. Of particular interest are the remains of small, carbonised posts within that layer, spreading horizontally through it. The remains of these small posts were recognisable on the basis of elongated ellipsoid or rectangular traces in the profiles of the aforementioned yellow layer. They were clearly discernible above PG–13 in square 14 and above the storage receptacle (AE–28) in square 6 and extended in a north-south direction (fig. 7). We tried to follow their traces during excavations but with little success as they were hardly discernible when we tried to leave them untouched in the highly burnt yellow layer. Instead, we followed them by digging the layer, containing them, to the floor level. Here, traces of posts were recorded in the profile and their positions were successively recorded by total station. This procedure made possible the reconstruction of their direction. At one spot, 0.10 m in length, we discovered an impression of one of the posts in the burned soil that had covered them. When the positions of the previously mentioned posts are combined with information about the exact positions of some vessels in PG–17 and above AE–28, it indicates that the posts fell onto the items on the house floor. We, therefore, came to the conclusion that a storey or attic structure might have been built above the northern section of the house. It is also worth mentioning that there were small holes, 0.07–0.08 m in diameter, in the floor, spaced at a distance of 0.35 m (Fig. 3/2 and Fig. 6/2). The implication of these holes is not clear, but it is interesting that identical holes in the floor of “The House of the Deer” in Parţa (Romania) were explained by researchers as holes for the sides of

---

Fig. 6. Central zone of north section of house 1/2010:
1) triangular posthole; 2) small postholes; 3) house floor; 4) southwestern corner of oven 1; 5) post impressions on SW corner of oven 1; 6) clay millstone structure; 7) stone working surfaces (palettes-millstones)
a ladder leading to the upper floor.\textsuperscript{9} The existence of an attic or storey structure should not be surprising as similar structures have been assumed in the Vinča houses at Uivar,\textsuperscript{10} Parta\textsuperscript{11} and Opovo,\textsuperscript{12} as well as at Crkvine in Stubline.\textsuperscript{13}

**House floor (Fig. 3/3)**

The floor is preserved in many fragments over almost half of the area of house 1/2010. It is preserved almost completely in the northern section of the house (Fig. 6/3) while it is destroyed for the most part in the southern section. The floor surface is a brown to orange colour and is very compact as a consequence of exposure to high temperatures. A recent ditch, which split house 1/2010 into two sections, gave us the opportunity to examine the floor structure without further damage. The floor thickness varies between 0.20 and 0.30 m and it is evenly burned throughout. Investigations carried out in the profile of the recently dug ditch provided interesting data about the method of floor construction used in house 1/2010 (Fig. 8):

At the lowest level is a lense of black soot as a result of scorching the surface where the house was to be built. This was done, most probably, in such a way that flammable material was piled over the entire area intended for house construction. This conclusion was reached based on the fact that under the black lense of densely packed soot was reddish soil as a consequence of high temperatures resulting from a fire burning on top of it.

After scorching, a layer of 0.04–0.05 m thick yellow clay was laid over the area and stamped down.

Laid on the yellow clay were fragments of daub of various sizes, 0.20 to 0.30 m thick, reclaimed from a previously burnt house. The faces of the old walls were turned upward and the back sides were inlaid into the yellow clay base. On the back sides of some of the reclaimed wall fragments were impressions of wattle, boards and planks. The fact that these impressions are different on adjacent daub pieces and that their orientations do not correspond,\textsuperscript{14} also supports the assumption regarding the use of wall fragments reclaimed from some previously burned structures.

---

\textsuperscript{9} Lazarovici and Lazarovici 2006, 7, fig. 39a, 43c.
\textsuperscript{10} Schier 2006, 326, 333, fig. 2.
\textsuperscript{11} Lazarovici on line
\textsuperscript{12} Tringham 1992, 361.
\textsuperscript{13} Crnobrnja, Šimić, Janković 2010, 20.
\textsuperscript{14} Impressions of branches, sticks and planks have been recorded on the underside of the secondary used daub pieces for the construction of the floor of house 1/2010 where the daub pieces were laid next to each other. The thickness of these daub pieces was not uniform.
Finally, the top surface of the daub was covered with a 0.02–0.03 m thick clay coating and, in certain places, two layers of coating have been preserved.

This method of house floor construction provides evidence about the rational and economical attitude of the inhabitants of the settlement at Crkvine. By avoiding the use of wood as the floor substructure, which was a common building technique recorded at many Vinča culture sites, a considerable saving of resources and time was achieved. The preparation of the ground by scorching and using already well thermally treated wall fragments from an earlier demolished house, resulted, in the long run, to a considerable saving of the energy necessary for heating. It is already known that great attention was paid, in the Vinča communities, to the thermal efficiency of construction.15

It is necessary to mention that at three locations within the preserved house sections, there was no floor built in the above mentioned way:

1) Oven 2 was built directly onto stamped soil
2) Storage container (AE–28) in the north-western corner of the house has foundations made, partially, of broken pottery covered by thin clay coatings;
3) Bases of large pithoi next to the western wall of the house (PG–17) were dug into the ground below the floor level.

Oven 1 (Fig. 3/4)

A large domed oven, oval in shape (maximum length 2.38 m and maximum width 1.80 m) covering an area of 3.60 square meters was found in the north-eastern corner of house 1/2010. Its northern end was leaning on the northern wall of the house, while the eastern wall of oven 1 was 0.65 m from the eastern wall of the house. The oven is preserved up to its last floor coating, so traces of the calotte base can be seen on the surface of the preserved remains of oven 1 (Fig. 9). The ends of the calotte, which are slightly arched, terminate at around 0.55 m from the southern end of the complete oven layout which means that it did not cover the entire surface of the last floor coating. Therefore, the size of the firebox was around 2 square meters. In front of the firebox opening was a semicircular section of floor corresponding to the floor inside the oven, i.e. both surfaces were covered with the same coatings and were at an identical height. The method of oven construction could be seen in its rear, northern section, which was considerably damaged.16 The base on which the oven was built was made of well fired and smoothed clay, which resembles, in its quality, the floor. This oven base is, at least in the northern (only visible) section, also of an oval shape and 0.05–0.07 m thick. Its edge is slightly turned upward so it resembles a shallow clay

Fig. 9. Oven 1, orthogonal projection, from the south
Fig. 10. Layers of construction of oven 1, from the north

Сл. 9. Пећ 1, снимак из ортогоналне пројекције, снимак са југа
Сл. 10. Нивоиз израђене пете 1, снимак са севера
trough (or pan) on top of which the entire oven was then built. Three composite insulation layers, made in an identical manner and consisting of three layers each, were successively laid over that base (Fig. 10):

1) a layer of stamped earth, 0.03–0.04 m thick
2) the previous layer was coated with clay (0.015 to 0.02 m thick) and then burned;
3) on top of the burnt clay surface were laid pottery fragments.17

On top of the third, and final, insulation layer was another layer of stamped earth covered with a clay coating. This was the first functional oven floor and was renovated twice, but only by adding a 0.012 – 0.02 m thick layer of clay. The wall of this oven is massive, built in one piece and rising 0.35–0.50 m above the house floor level. At the top of the oven wall, i.e. along its middle, there is a continuous black lense representing the burned remains of densely packed branches/sticks, which formed the calotte structure. On the western, best preserved, section of the oven wall there are many traces of finger impressions over almost the entire surface, while the eastern section of the oven collapsed and underneath was found a group of eight loom weights (more details further in this paper). Next to the southwestern end of the oven was a triangular opening for the post/plank in the floor18 leaning against the oven wall (Figs. 6/1 and 6/4). Impressions of the posts on the wall of oven 1 seem to indicate that the area between the posts and the oven was subsequently filled with clay after the oven had been built (Fig. 6/5). The frontal section of the oven is particularly massive due to renovation or enlargement. It is clearly visible on the southwestern corner of the oven that an approximately 0.15 m thick covering layer was subsequently added over the mass of the original wall. A difference in the final execution of the surfaces is also evident.

Oven 1 is, according to its size, the largest oven recorded at any Late Vinča site in Serbia.19 Its similarity with the largest oven discovered in house 13 at Divo-stin is very apparent. It is 1.95 x 1.70 m in size and had seven layers of construction/renovation. Pottery fragments and other secondary materials were used in its construction.20 An oven of a slightly smaller size, with good foundations (functioning as insulation) and three subsequent renovations, has also been found in house 12 at Grivac.21

---

16 The oven has not been explored in detail. The quality of its discovered remains was due to its good state of preservation, conserved, as it was, together with the whole house and then covered with earth in order that, in the future, the entire structure could be presented in situ.
17 Zones with burnt clay look like the oven floor, so it could also look like layers of many floor renovations. It could be concluded that these are basic structural elements, i.e. insulation layers on the basis of the position and appearance of the final coatings of the oven floor. They were at the same level as the top edge of the monolithic oven wall from which its calotte started.
18 There were probably split timbers inserted; see also the section of this paper regarding the roof and roof structure.
19 Cf., Piščoka 2009, 29;
20 Bogdanović 1988, 55, fig. 5.12, Plan VIa/I.
**Oven 2 (Fig. 3/5)**

The remains of yet another oven, which was mostly destroyed by later digs, have been found in the central area of house 1/2010 and next to its western wall. The preserved elements of this oven included only its western wall, a narrow strip of oven floor on the inside and another narrow strip of floor in the central oven section (Fig. 11). The preserved back wall of oven 2 is arched in shape, it is 1.70 m wide and the thickness varies from 0.32 m at the base of the back to 0.17 m near the top. The preserved height is 0.36 m above the house floor. On the outside were the bloated remains of the last coating on the lower half of the rear section of the wall. On the inside were the preserved remains of the last coating on the lower half of the rear section of the wall. The floor here was made much more simply than in oven 1: it consists of three coatings, the lowest was laid directly over the stamped earth without any foundations, while the other two coatings were successively laid, one on top of the other. The total thickness of all three coatings is 0.07 m and it was the result of a standard renovation of the oven floor. It is interesting that there is disproportion in the construction of the oven wall, which is very massive, and its floor, which is exceptionally thin and at the same level as the house floor.

The impression is, considering the situation in which it was discovered, that the construction of this oven preceded the building of the house by a very short period of time. Supporting this assumption is the fact that the oven floor was laid directly on the ground at the level of the surrounding house floor and that traces of ground preparations, like those observed under the house floor, were not encountered under the oven. On the other hand, it is evident that oven 2 was inside house 1/2010 during its use as the eastern section of the oven wall was in contact with a segment of the preserved house floor and the height of the preserved oven wall suggests that the oven was certainly visible at the time of the use of the house. The possible purpose of oven 2 inside house 1/2010 is questionable. It could have been used for its original purpose (as a thermal structure) or it could also have had a secondary use as a storage space, as has been recorded at some other Late Vinča sites. We also have similar situation in the north-western corner of our house (storage container AE–28).

**Storage container (Fig. 3/6)**

In the north-western corner of the house was a square feature made of daub – a storage container with a maximum size of 1.40 x 1.20 m (1.2 square meters). The floor of this container resembles the floors of thermal structures and it was bordered by a small, low wall preserved up to a height of 0.12 m. The floor had a partial substructure of broken pottery and three layers (each around 0.02 m thick) of coating consisting of packed and smoothed clay, so we could conclude, on the basis of their construction, that these were floor renovations. An oval recess/depression, which was most probably the result of some heavy object/vessel falling from a considerable height, was encountered in the north-eastern section of the “container”. The features similar to our “container” have also been encountered in Vinča houses at other sites (house 2/79 at Banjica, house 01/06 at Vinča, and in many houses at Divostin) and are usually explained as storage places for food, vessels and other objects. In the “container” were found fragments of a few rather large vessels (PG–16 and 16a) and also one complete figurine (Fig. 14) standing in situ on the floor, facing east. The question remains whether the assumed storage purpose of this space was also its original purpose or if it was originally used as a thermal structure as has been mentioned in literature regarding similar features.

**PORTABLE INVENTORY ON THE HOUSE FLOOR**

Many archaeological objects have been found in addition to the permanent features discovered inside house 1/2010. Besides pottery and sporadic finds of stone working surfaces and tools, some larger objects were also found inside the house including a clay millstone structure, a small clay table and three large clay heads. The clay heads (two of which could have been bucrania) could only conditionally be identified as finds from the house floor as their original position was on the pillars or the walls.

**Small clay table (Fig. 3/7)**

A square-shaped, small clay table has been discovered on the inside of the assumed line of the eastern wall of the house (not preserved in that section) and posi-

---

24 Tačić и др. 2007, 212–213, Т. I.
26 Bogdanović 1988, 67.
tioned at a right angle to the wall. The table was found at the spot where it had obviously been used immediately before the destruction of the house, based on the position of its five feet relative to the remains of the table top (fig. 12) and considering the fragmented biconical bowl found on the table top. The table top is only partially preserved but, as the fragments were found in situ, and, according to their position and the position of the feet, it could be concluded that it was of a rectangular shape, 0.80 x 0.62 m in size. All five feet (one at each corner and one in the centre) are of a triangular shape with a rounded base. The dimensions of the table feet are as follows: the width 0.15–0.20 m, the thickness 0.05–0.07 m and the height 0.23 m. Small clay tables have been found in many houses at Divostin but they differ conspicuously from our specimen. Generally, these objects at Divostin have had an oval table top, they have been of a smaller size and their height has not exceed 0.12 m. It could be assumed, but with great reservations, that the “damaged surface of the decorated house daub” found at Kormadin near Jakovo might also have been the top of some table.

**Clay millstone structure (Fig. 3/8)**

A clay millstone structure has been found in the northern half of the house in the area between oven 1 and PG–17 (Fig. 6/6). The structure was lying upside down so its opening was facing the floor (Fig. 13). After conservation in the field, consolidation, lifting and removal for further conservation, we came to the following conclusions:

- a shell-shaped receptacle was executed using a coil-building technique (dimensions 0.58 x 0.58 x 0.22 m, wall thickness 0.05–0.06 m) and was flat on the underside, so it could be concluded that this structure was mobile;
- an oval-shaped bedding for a stone working surface was made of clay (0.20 x 0.14 m) and rises 0.10 m above the receptacle interior;
- the stone working surface (palette) fell out of its bedding, due to the collapse of the entire structure, and was found around 0.80 m to the west, inside the house;
- at the moment of the collapse of the millstone structure, the house and its interior were burning so intensely that one of the floor coatings completely “stuck” to the opening of the stone bedding.

---

27 After conservation treatment in the field carried out by archaeologists-conservators Branišlava Lazarević (Central Institute for Conservation) and Stevan Đurić (Archaeological Collection of the Faculty of Philosophy, University in Belgrade), the remains of the small table were taken to the Belgrade City Museum for further conservation and restoration treatment.


29 Јовановић, Гледиш 1961, 132, сл. 33, 38, 39, 40.
In recent years a few clay millstone structures have been discovered in Serbia. Three mobile structures\(^{30}\) were discovered at Vinča\(^{31}\) while identical fixed structures were discovered in house 1/2008 at Crkvine in Stubline,\(^{32}\) in house 2/79 at Banjica\(^{33}\) and in many houses at Divostin.\(^{34}\) Taking into account previous incorrect interpretations of such a structure at Banjica\(^{35}\) and the poor state of preservation of the specimens from Divostin, the question could be asked, in how many instances similar structures have not been recognised as beddings for millstones? The fact is that most Late Vinča houses, at all sites, have stone working surfaces for grinding and chopping, so the appearance of more complex clay structures, as beddings for working surfaces, could prompt the question of why they appear in certain houses. Do they indicate a distinct specialisation of the inhabitants of some structures, their social status or some special use for the millstones? If grinding took place in all houses (judging by the discovery of stone working surfaces) and there were beddings for stones with receptacles, which reduce the spillage of ground substances, in only some of the houses, what would be the reasons for such technological advances not having been used in all, or at least most, of the Late Vinča houses?

**Millstones/palettes (Fig. 3/9)**

In addition to the clay millstone structure and the associated stone working surfaces, five more stone working surfaces – palettes usually identified as millstones – have been found in house 1/2010. They were all found in the immediate vicinity of the previously mentioned clay structure, i.e. near large pithoi used for storage. Four palettes were grouped in one location (Fig. 6/7), while fragments of two pithoi were found

---

\(^{30}\) Their mobility should be understood conditionally because, despite the possibility of moving these structures within the house that they were found, it most probably had not been done often considering their weight, dimensions and fragility.

\(^{31}\) Tasić et al. 2007

\(^{32}\) Crnobrnja, Simić, Janković 2010, 17, fig. 14.

\(^{33}\) Todorović 1981, 14/H, 15.

\(^{34}\) Bogdanović 1988.

\(^{35}\) The structure from house 2/79 at Banjica has so far been explained as a structure for milk processing. After consulting documentation from the excavations, I came to the conclusion that it is an exceptionally well-preserved clay millstone structure. It has been incorrectly interpreted for decades because of the lack of analogies and because the results of the excavations have not been completely published.
on and around them. All this material was sealed off with a yellow layer of highly burnt soil (AE–17). The dimensions of the palettes discovered in the house vary between 0.25 x 0.13 m and 0.50 x 0.26 m.

**Pottery vessels (Fig. 3/10)**

Eleven groups of pottery (PG) of different size and contents have been found on the house floor. As detailed analysis of pottery from the house is still not completed, I will, in this work, give just a short summary of these types of finds to the extent necessary to comprehend the activities taking place inside house 1/2010.

It is important to emphasise that at least six large pithoi were found in the northern section of the house. Two pithoi, with bases inserted in the floor (PG–17), one of which was made of unfired clay; two pithoi next to four millstones on one side and a clay millstone structure on the other side (PG–13); one in front of oven 1 (PG–14) and one next to the western side of oven 1. A few fragmented, rather large, amphorae (two in the storage container) have also been found. Generally speaking, the large capacity vessels, which could be identified as storage vessels, prevail among the objects found on the house floor. In addition, a smaller number of vessels for cooking and consuming food were found.

**Objects of cult**

A few of the finds could, generally, be identified as objects for “cult purpose” (Fig. 14). Only one complete figurine has been found in house 1/2010. It was discovered in the storage container (AE–28), standing upright on the floor and facing east.

Within PG–17, two interesting, complete vessels have been found among the fragments of the two largest pithoi in the house. One of them is a small conical bowl with eight protomes and a hollow base. The protomes were facing towards the inside of the vessel and were arranged in four pairs, separated by engravings on the vessel rim. A small bowl, iconographically almost identical to our specimen, was found in house 1/06 at the site Belo Brdo in Vinča. A bowl of almost identical shape, but with four protomes on the rim, was found in the Late Vinča burial site 12 at Gomolava. This could also be interpreted as a repeat of an identical iconographic pattern to the one found on our specimen and on the specimen from Vinča, where there are four pairs of protomes on the bowl rim. Fragments of similar, small conical bowls, with one preserved protome facing towards the inside of the vessel, have also been found at Vinča at depths from 8 m to 4.1 m. These were identified as altar fragments, probably on the basis of one such bowl with three legs.

Another complete vessel within PG–17 is a vessel of a spherical shape with three short, but thick, legs bent at an angle of approximately 90°. Its purpose is not quite clear and the shape of its legs has direct analogies with the legs of some altars. Our three-legged vessel was found among the fragments of a large pithos made of unfired clay. One of these fragments completely covered the mouth of the vessel, so we recovered the bowl with its contents, which should soon be submitted for further analysis.

**Loom weights (Fig. 3/11)**

A group of eight ceramic loom weights (Fig. 15) was discovered between the eastern wall of oven 1 and the eastern wall of house 1/2010. On top of them was

---

36 Miloš Spasić, the curator of the Belgrade City Museum, is in charge of a study of the pottery. These results will be the subject of separate texts.
37 Tasić 2007.
38 Boric 2009, fig. 36.
39 Stanković 1986, T. X, 6, 7, 8.
40 Stanković 1986, T. IX, 12.
41 Stanković 1986.
the collapsed wall of oven 1. The weights are of an elongated discoid shape with a hole at approximately a quarter of its length from the top edge. A narrow, tongue-shaped groove runs from the holes in the weights at their top side, indicating where the rope/warp of the weaving ran. The weights are carefully made, well fired and relatively heavy with highly polished surfaces, so, when holding them, they give the impression of a stone, rather than a ceramic, weight. The place in which they were found, next to the oven, has also been recorded many times at other sites\textsuperscript{42}, as well as in house 1/2008 at Crkvine\textsuperscript{43} and the convenience of that spot for locating the loom, because of technical advances (proximity of heat and light), is also confirmed by ethnological parallels.\textsuperscript{44}

Clay heads (bucrania?) (Fig. 3/12)

Three very interesting, large stylised heads have been found in house 1/2010. Two of them were discovered next to the front side of oven 1, and could be vaguely recognised as bucrania.\textsuperscript{45}

The first one, so-called “east head”, was found immediately in front of the eastern corner of oven 1 (Fig. 3/12a) and was lying on the house floor, facing downward. This head/bucranium was executed in a highly stylised manner (Fig. 16). The forehead section is triangular, tapers into the nose line, and expands near the base. The eyes are also of a stylised, triangular shape and on the cheeks there are horizontal parallel lines executed with fingers. On the reverse side, this head has an oval impression of a post or plank on which it was mounted, as well as a horizontal impression of a branch or rope which attached it to the support.

Another, so-called “west head”, was around 0.40 m from the south-western corner of oven 1 (Fig. 3/12b). It is more substantial than the first one and of a similar, but much more summary and stylised, execution (Fig. 17). It could be assumed, with a degree of certainty, that the “west head” was on the post or group of posts placed in a triangular hole in the floor that was found immediately next to the south-western corner of oven 1 (Fig. 6/1). The summary appearance of this “head” resembles a bovine head so it is possible to assume that it was a bucranium. However, it must be mentioned that there are no traces of horns, either genuine or made of clay.

The third, so-called “south head”, was discovered in the destroyed southern section of the house (Fig. 3/12). In contrast to the above two specimens, the context of its find remains unclear to a great extent. Its oval face was modelled with a minimum of plasticity and it only has a long, straight and narrow nose, with
two eyes executed as two elongated spirals (Fig. 18). The reverse of this head is flat and the shape and position of its edges suggest that it had possibly been applied directly to the wall like some kind of architectural decoration. The way in which the eyes (spirals) are depicted resembles the bucrania from Gomolava, but their faces are more pronounced, protruding and with horns. For our “south head”, however, it is certain that it had no horns, so it is doubtful whether this “head” could be identified at all as bucranium, even in the widest sense of the word. On this basis, should we then assume that it represents a stylised image of some other animal, perhaps even human?

Other portable finds

Besides the above described objects, 14 stone blades, one hammer stone, two ceramic balls and a fragment of one copper bead were also discovered inside the house. In addition to the two previously mentioned ceramic balls, a group of 8 ceramic balls was also found next to western edge of the rear wall of oven 2, but as it is not certain that they were inside the house, we do not include them in the house inventory.

LOCATION USE AFTER HOUSE DESTRUCTION

Pits with daub (Fig. 3/13 and 14)

Four waste pits filled with daub, i.e. the remains of the walls of burnt houses, have been recorded in the southern section of the trench. Pit 1 is of particular importance for studies at this micro location after the destruction of house 1/2010 in a conflagration, so, for now, we will pay special attention to this pit.

Pit 1 had a rectangular ground plan (Fig. 19), 2.20 x 1.30 m in size and 0.70 m deep (with a capacity of around 2 cubic meters). It was filled with densely packed fragments of wall daub with impressions of branches, sticks and planks. A large number of daub fragments were placed on the edge. In the pit was also found a small quantity of pottery fragments, a few animal bones, six blades of flint and light white stone, one adze of light white stone and two cores, one made of flint and the other made of light white stone, both with flaking scars. There were also many pieces of vitrified daub and in the very centre of the pit (measured from the vertical as well as horizontal axes) one large lump of exceptionally highly vitrified daub was found, which had been burning at such a high temperature that a few pieces of daub fused into this one lump. The position of pit 1 clearly indicates that it originates from the time after the destruction of house 1/2010, as it partially overlaps the assumed line of the eastern wall of the house that most probably did not exist at the time the pit was dug. We could even question how visible the remains of house 1/2010 were at that moment, as the remains of a small clay table on the preserved house floor are only 1.80 m north of pit 1, while the eastern wall of house 1/2010, which was in the immediate vicinity of the table, is not preserved. Special attention was paid to the investigation of pits filled with daub discovered at the nearby Late Vinča settlement of Crkvine in Mali Borak. A few possible interpretations were suggested, ranging from waste containers to ritual structures originating from complex ritual practices. A. Tripković warned about the necessity to comprehend the rational character of prehistoric man, as a very important but, very frequently, neglected question. If we keep in mind the numerous examples of the secondary use of various materials within Neolithic households, we should wonder where that material was stored from the moment when it was reclaimed from its original use to the moment when it was reused. If the substructure

---

47 Пити 2–4 were very shallow (up to 0.25 m) and they will not be particularly discussed in this work.
48 Tripković 2011, 85.
49 Tripković и др. 2011, 257.
50 Tripković 2011, 85.
of the entire floor of house 1/2010 consisted of secondary used daub pieces, they would occupy around 12 cubic meters, which must have been deposited somewhere in the area. This raises the question of the necessity of their storage until they were reused. Could the pits filled with daub have been containers for raw materials for future building and not merely waste pits or elements with some symbolic context?

CONCLUDING REMARKS

The selection of the trench location on the basis of previous geophysical investigations offered us the possibility to investigate the very well preserved house 1/2010 at Crkvine in Stubline. The date when life ended in this house could be generally dated, on the basis of pottery finds inside the house, to phase D of the Vinča culture. A more precise chronological relationship between house 1/2010, the layer on top of it, pit 1, which negates the former house area, and house 1/2008, will be clearer after dating using the AMS method, and once samples for dating have been sent to the laboratory of the Rudjer Boskovic Institute in Zagreb.

The campaign of 2010, as well as the investigation of house 1/2010, yielded much new information and important data both for the study of life in the Late Neolithic households and the methods of field investigations.

Geophysical Investigations

Systematic archaeological investigations provided exceptionally important data for the precise interpretation of the results of geophysical investigations at this site and some of our preliminary findings are presented here:

1) Sections of the houses that burned with the highest intensity – the zone with a yellow, highly burnt layer (AE–17) and oven 2, with the dimensions of these anomalies corresponding to the dimensions of the aforementioned structures, were encountered in the zone with the highest geomagnetic values.

2) The exceptionally strong emissions of the aforementioned structures hindered the “visibility” of the immediate surroundings (floor), so the geomagnetic anomaly is actually smaller than the house outline.

3) The area in the southern section of the trench, where rather large amounts of dislocated daub fragments were deposited, did not have substantially more geomagnetic values in contrast to the floor area preserved in situ in the same section of the house.

4) Pit 1, which contained around 2 cubic meters of densely packed burnt daub, was not “visible” to geomagnetic recording because dislocated daub fragments have different magnetic directions resulting in lower values of geomagnetic spectra that are additionally masked by the close proximity of anomalies of medium to high values.

5) The geoelectric scanning of profiles proved to be very reliable in the detection of the length and depth of previously identified anomalies.

6) The combination of geomagnetic and geoelectric investigations made possible the precise planning of the location of investigations, as well as the relatively precise planning of time and financial resources.

Rationality in construction

Where our knowledge about building techniques is concerned, house 1/2010 yielded few new details. Maybe the greatest surprise was the method of floor construction, i.e. the use of the walls of some previously burnt houses as foundations and at the same time as a good insulation layer. The use of daub fragments from earlier phases in the building process has been recorded in house 12 at Divostin where it had been mixed with stone, but only as a base, on top of which was laid earth and boards as subflooring51 and as the floor substructure under sections of house 4 at Gomolava.52 The secondary use of daub for the construction of house 1/2010 suggests an economical and rational approach to construction. In such a way, a direct saving of building time and resources, i.e. lumber, was achieved. The indirect profitability of such a building process is evident in the fact that a well insulated floor was obtained with a reduction in heat loss whilst heating the house.

We could also notice in house 1/2010 the confirmation of earlier assumptions regarding the knowledge that inhabitants of the Vinča settlements had about the necessity of thermal efficiency in the construction process of the house.53 Besides the method of floor construction, two more examples also confirm this:

– by constructing the attic/storey structure above the north-western section of the house, the volume of space which had to be heated in winter was reduced and the insulation of the structure was improved;

51 Bogdanović 1988, 48–49.
– substantial insulation layers in the construction of oven 1 and, in contrast, the thin floor in oven 2, indicate that technical knowledge was applied rationally. Greater effort was invested in the construction of oven 1, for which it was essential that heat was not dispersed in any unwanted way (the loss of heat through the floor is reduced and most of it remains in the firebox and is dispersed through the calotte) than in the construction of oven 2.

This situation suggests the possibility that these two ovens had different purposes. Special attention should be paid to this fact as there are also other examples of Vinča houses where oven foundations were constructed in a different way, as in house 8 at Banjica.\textsuperscript{54} I emphasise this because explorers often have a tendency to explain all levels in oven construction as floor renovations and try to determine the period of usage of the house according to that, disregarding the characteristics of oven building technology, as well as the possibility that variously built ovens could have had at least, to some extent, an additional, different purpose.

**Organisation of life in house 1/2010**

We did not discover any traces of internal walls in this house, so we could only speculate about the possible existence of more than one room. Nevertheless, it could be concluded, with a degree of certainty, that in the first 9 meters of house interior, looking from the north, there was no partition wall spanning its entire width. A trace of soot on the floor next to the eastern wall of the house, which extends from oven 1 to the small clay table, has been interrupted by recent digging but its continuity is certain. The position of oven 2, i.e. the assumed position of its opening, indicates that, despite the poor preservation of the oven, it was in the same room as oven 1. A possible partition wall, which could have divided the house lengthwise into two rooms, could be expected only in the section beyond the clay table (i.e. south of it). On the other hand, it should not be ruled out that the area was partially partitioned in the south-western quarter of the house (beyond oven 2). However, this could not be confirmed because of the poor state of preservation of that section of the house. Also, possible traces of post-holes for a partition wall were impossible to record because of the previously mentioned soil characteristics.

Despite the fact that the southern section of house 1/2010 was considerably damaged and we, therefore, do not have sufficient evidence for discussing the activities carried out in that section, it is conspicuous, on the basis of the house inventory, that many everyday activities were taking place in the northern section of the house.

Two large ovens, and activities associated with them, dominated not only the northern half, but the entire house interior. In fact, the entire northern half of the house could be considered as an area intended for activities related, primarily, to food processing. Already, after preliminary analysis, we can recognise functional sub-zones related to three stages of food processing:\textsuperscript{55}

1) storing: containers and large vessels (AE–28); four groups of pithoi (PG–13, PG–14, PG–17, PG–20

\textsuperscript{54} Tripković 2007, 74–75.

\textsuperscript{55} In the house was found a small number of vessels for food consumption.
along with PG–22 next to the assumed southern wall) and the assumed possibility of using the attic/storey structure as a storage space.\textsuperscript{56}

2) mechanical processing of food (the clay structure of the millstone and five stone working surfaces)

3) thermal processing of food (two ovens)

In addition, there was also a small loom in the northern section of the house, confirmed by a group of eight loom weights discovered next to the eastern wall of oven 1.

Despite the distinctively utilitarian character of the northern section of the house, this was not its only purpose. Many artefacts, which could be identified as cult associated objects, have also been found in the same area. Besides smaller finds with cult characteristics (a figurine, a small bowl with eight protomes, and a vessel with three legs), two clay heads (bucrania?) are particularly indicative.

The location of the east and west heads, in front of and next to oven 1, allow the assumption, with a great degree of certainty, that while house 1/2010 was inhabited, these heads were mounted on the posts to the left and right of the oven, thus creating one complex composition (Fig. 20). In such a way the importance of the large oven, which already dominated the house interior and around which was concentrated most of the household activities, is additionally emphasised by uniting profane and sacred functions in one place. Much has been written, on many occasions, about the possible cult aspects associated with ovens in Neolithic houses, so I will just draw attention to some of these works,\textsuperscript{57} and to some situations when objects of assumed cult usage were encountered next to an oven.\textsuperscript{58} This includes a find consisting of 43 figurines discovered in house 1/2008 at Crkvine in Stubline.\textsuperscript{59} The context, which most directly resembles the situation in house 1/2010, is, without doubt, a well-known altar from Parţa. It seems that in both cases there is a repetition of an almost canonical form in which two heads flank the cult space, the oven in house 1/2010, and the altar at Parţa. However, it should be emphasised that the situation recorded at Parţa is the result of some substantial reconstruction.

The discovery of many objects of assumed cult purpose within Neolithic houses often prompted investigators to identify such structures as either sanctuaries or cult structures,\textsuperscript{60} particularly when bucraania were also present. Nevertheless, I am more inclined to agree with the already proposed opinion that it was in fact an overlap of everyday and religious activities which was characteristic of phases C and D of the Vinča culture.\textsuperscript{61} I am even more inclined towards this opinion as we have the most direct physical interconnection of sacred and profane elements in house 1/2010.

Taking into account the situation in house 1/2010, which is generally exceptionally well preserved and the fact that the depth of its deepest remains (the preparation of the ground for the floor construction) corresponds with the depth determined by geoelectric scanning (1–1.10 m), it has been decided not to remove its entire floor nor to excavate the oven. Instead, the remains of house 1/2010 with the fixed elements of the interior (except the small table, the heads and the millstone) will be preserved and covered with earth. After consultation with associates of the Central Institute for Conservation in Belgrade, the house was, before being covered with earth, protected with a cover of geotextile fabric and all elements above the floor level (both ovens, some stone working surfaces and the like) were additionally protected by placing sacks of sand around them. After that, the entire house area was covered with a 10 cm thick layer of sand and on top of it was placed a protective plastic net. In such a way, the remains of house 1/2010 were “packed” and protected and left as an undertaking for the future until such time as conditions are favourable for its presentation at the site.

Translated by Mirjana Vukmanović

\textsuperscript{56} For more about storage methods in the Late Vinča houses, see Tripković 2011.

\textsuperscript{57} Petrović 2000/2001; Naumov 2010, 230, 232.

\textsuperscript{58} Petrović 1992, 21; Stjivar, Jacanović 2005.

\textsuperscript{59} Crnobrnja 2011.

\textsuperscript{60} Јовановић, Глупић 1961; Petrović 1992.

BIBLIOGRAPHY:


Črnobrnja, in press – A. N. Črnobrnja, Group Identities in the Central Balkan Late Neolithic, Documenta Praehistorica XXXVIII, Ljubljana.


Spasić, in press – M. Spasić, Cattle to settle – Bull to rule: On Bovine iconography among Late Neolithic Vinča Culture communities, Documenta Praehistorica XXXIX, Ljubljana.


Резиме:

АДАМ Н. ЦРНОБРЊА, Музеј града Београда, Београд

**ИСТРАЖИВАЊЕ ПОЗНОВИНЧАНСКЕ КУЊЕ 1/2010 НА ЦРКВИНАМА У СТУБЛИНАМА**

Кључне речи. – неолит, винчанска култура, кућа, геофизичка истраживања, букраноиди, жртва, Стублина, Обреновац.

Позновинчанското населе на локалитетот Црквине налази се на око 40 км југоzapадно од Београда (Србија), у близини села Стублина, општина Обреновац. Ситуирано је на блатном узвишу, са севера и југа омењеном поточима који се спајају испод његовог јужноисточног краја, и заузима површину од око 16 ха (сл. 1). Геомагнетским мапирањем, у периоду од 2007. до 2011. године истражена је, за сада, површина од укупно 83.000 м², док је геоелектричним скенирањем досад снимљено укупно 1250 м профила, који су донели информације о вертикалној очуваности објеката претходно локираних геомагнетским мапирањем, као и основне податке о дебелим культурног слоја на различитим деловима насела. Поређењем интензитета геомагнетских аномалија (чије су импликације у четири случаја проверене и истраживањима) и њихових димензија, на истраженом простору је могуће претпоставити постојање остатака од преко 200 кућа (сл. 2).

У јесен 2010. године Музеј града Београда предузело је археолошка истраживања на основу претходних геофизичких испитивања отварањем сонде димензија 18 м х 8 м, у оквиру које је истражена кућа 1/2010, која се оквирно може опредељити у фазу Д винчанске културе. У раду се даје исцрпно извештај о начину градње ове куће, као и разматрање о организацији живота у њој. Зидови куће су, по свој прилици, грађени од талпи облаганих блатом помешаним са органским примесама. Поднica куће била је веома добро очувана у северном и знатно оштећена у јужном делу куће, а установљено је да су као супстрати постали искоришћени комади лепа који се потписују ка неке раније изгорели куће. На основу специфичних трагова георадија и обуравања Joeyвих предмета истражена су основне податке о детаљима налаза у сукупности као садржај за складиштење на поду куће, више пита, вена и великих посуда за складиштање, глине, облици и кућа која доминира ово простор, а налази се постојање две сфере куће која се могу проширити као сједалишта за разне активности – жртва, конзулација, и споредне активности. Геофизичка прегледна функција световна (хиљада кућа) и скраћена намена (гилине куће) изузетно важна за истраживање куће која се могу проширити као сједалишта за разне активности – жртва, конзулација, и споредне активности. Геофизичка прегледна функција световна (хиљада кућа) и скраћена намена (гилине куће) изузетно важна за истраживање куће која се могу проширити као сједалишта за разне активности – жртва, конзулација, и споредне активности. Геофизичка прегледна функција световна (хиљада кућа) и скраћена намена (гилине куће) изузетно важна за истраживање куће која се могу проширити као сједалишта за разне активности – жртва, конзулација, и споредне активности. Геофизичка прегледна функција световна (хиљада кућа) и скраћена намена (гилине куће) изузетно важна за истраживање куће која се могу проширити као сједалишта за разне активности – жртва, конзулација, и споредне активности. Геофизичка прегледна функција световна (хиљада кућа) и скраћена намена (гилине куће) изузетно важна за истраживање куће која се могу проширити као сједалишта за разне активности – жртва, конзулација, и споредне активности. Геофизичка прегледна функција световна (хиљада кућа) и скраћена намена (гилине куће) изузетно важна за истраживање куће која се могу проширити као сједалишта за разне активности – жртва, конзулација, и споредне активности. Геофизичка прегледна функција световна (хиљада кућа) и скраћена намена (гилине куће) изузетно важна за истраживање куће која се могу проширити као сједалишта за разне активности – жртва, конзулација, и споредне активности. Геофизичка прегледна функција световна (хиљада кућа) и скраћена намена (гилине куће) изузетно важна за истраживање куће која се могу проширити као сједалишта за разне активности – жртва, конзулација, и споредне активности. Геофизичка прегледна функција световна (хиљада кућа) и скраћена намена (гилине куће) изузетно важна за истраживање куће која се могу проширити као сједалишта за разне активности – жртва, конзулација, и споредне активности.

Поред наведеног, истраживања обављених 2010. године добили су и изузетно важни посебности за претходно истраживане локалитете.