

THE CERNAVODĂ I CULTURE ENVIRONMENT, SETTLEMENTS AND DWELLINGS

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Excepting some studies on topic¹ or monographs², the investigation of habitation structures in prehistory was a peripheral issue in the Romanian archaeology³, so that general typologies have not been conceived.

The range of the Cernavodă I Culture covers Dobroudja, Eastern Muntenia and North-Eastern Bulgaria (fig.1). Usually, those communities have settled on heights, near water courses (the Danube and its tributaries).

1.Environment The knowledge concerning the environment is essential in reconstructing the habitation structures. Radu R. Patrulius sees the relation between the man and nature as a system of equations in which the man is a constant and the environment a variable⁴. To these, we have to add the technological and spiritual level, through which diverse behaviours in similar environmental conditions can be identified. Starting from the premise that the majority of anthropic changes have been amplified beginning with the second half of the 19th century, we can obtain valuable information out of papers and stories about that time and its preceding period. To all these, the paleoclimatic and geological studies can be added.

Four of the settlements belonging to the Cernavoda I Culture are located in Dobroudja (Cernavodă, Hârșova and Ghindărești, the latter with two spots: «La Far» and «La Tunel»). In order to reconstruct the topography of Dobroudja, especially of its littoral, it is important to determine the variation of the Black Sea levels. According to the traces of human habitation identified in the Danube meadows and on the Black Sea littoral, three phases have been established: the Neolithic transgression, the Dacian regression and the Wallachian transgression⁵. The Neolithic and the Bronze Age are situated in the phase of maximal transgression, the level of the sea being 5 m higher than the actual one⁶. As to the climatic variations, we mention the anthracological analyses at Hârșova, made upon wooden charcoals, out of three cultural complexes: Boian, Gumelnița and Cernavodă⁷. Thus, if during the Boian Culture the poplar tree forests have co-existed with the oak ones, in the Gumelnița Culture the limetree disappears and the oak declines, as a consequence of temperature and humidity decrease. During the Cernavoda I Culture the climate gets warmer, yet insufficiently for turning back the limetree⁸.

The area of the Cernavoda village has undergone substantial changes beginning with the second half of the 19th century: the railway Cernavoda-Constanța, the bridge across the Danube, the Danube-Black Sea channel. These changes can be traced by confronting the plans in fig. 2 and 3⁹. A description of the Cernavoda region, as existed at the end of

the 19th century has been offered by Gr. Dănescu: «...very uneven, especially...on the Danube's bank and west of the Carasu pool. In this part...the stony and rocky elevations and deepenings...are piling with one another, in some places raising mazes that give you no possibility to follow a certain direction...just the railway and the national highway that are heading towards Cernavoda and Constanța could somewhat defeat them...The banks are high and rocky...their height reaches over 70 m; they are of granite nature...Its width [of the Danube] reaches about 900 m...its depth...is generally between 12-30 m...¹⁰». The settlement was located on the right bank of the Danube, at the junction point between the river and the Carasu Valley, considered by some historians¹¹ to have been the river bed of a former branch of the Danube. The hypothesis relied upon the references of Ovidius, according to which the Tomis town was placed at the mouths of the Istros river. The theory has been turned down by Constantin C. Giurescu¹², who argued that the Carasu Valley was sloped from east to west. Presently, the hypothesis regarding the existence of a branch of the Danube on the Carasu Valley in the old times has been abandoned¹³. Still, a certain fact is that the Carasu Valley was navigable in 1862, allowing the traffic of small ships between Cernavodă and Medgidia¹⁴.

According to the up mentioned data, we could state that the banks of the Danube were higher in the past¹⁵. Because of the erosion, they would decrease from 70 m in 1897 (cf. G. Gr. Dănescu), at 60 m in 1910 (fig.2), getting below this value in 1954 (fig.3). In the area of the Sofia Hill (Dealul Sofia) the terrain configuration can be traced by using the topographic profiles made on north-south (fig.4) and est-vest (fig.5) direction. The Carasu Valley, situated south of the settlement, was covered with water and, together with the Danube, ensured one of the main food sources, attested by the large quantity of ichtyological remains.

Also important for the site at Hârșova is the information conveyed at the end of the 19th century by G. Gr. Dănescu: «...hill peak in the Hârșova region...1 km north-west from the town, on the steep slope of the Danube; has a height of 70 m...Its relief is a little bit uneven in the central and and south-eastern part, while in the western and north-eastern one is more uneven...the greatest width is reached [by the Danube] somewhere downstream from Hârșova (2200 m); its depth varies between 12-33 m...creates several islands...most of them covered with willow forests; its bank is high and rocky ...¹⁶». The *tell* at Hârșova has appeared on a rock formation of the Danube bank (fig.6¹⁷). The erosion and the anthropic interventions have probably destroyed more than half of the settlement¹⁸. The configuration of the terrain can be traced by the three topographic profiles conceived there (fig.7).

Until now, the two spots located south of the Ghindărești village (com. Horia, jud. Constanța), “La Far” and “La Tunel”, were not subject of systematic excavations. The soundings made in 1969¹⁹ and 1999²⁰ (at the spot “La Far”) have attested the existence of some large settlements, located on high positions.

By analysing together the settlements at Hârșova and Ghindărești (fig.8²¹), we could note that they were situated on the right bank of the Danube, on a 10 km long strip (8.5 km Hârșova-“La Far” and 1.5 km “La Far”-“La Tunel”). Their connection could be made both on the land and on the river, among the Danube's islands.

Other four settlements of the Cernavoda I Culture: Râmnicelu (fig. 9a, b)²², Chirnogi, Renie and Ulmeni are to be found in the Romanian Plain. The one at Râmnicelu is placed upon an erosion witness in the Buzăului meadow. At the time of the Cernavodă I habitation, the western extremity was connected to the terrace. The osteological remains of wild animals (raindeer, bear, wolf) point to the existence of the forests. At present, some of them are still existing like, for instance, the Camnița forest, near the Râmnicelu commune, in the Buzăului meadow²³. The settlement at Chirnogi was placed on a height that advanced towards the Danube, but, the erosion of the river has led to the formation of a steep bank. The *tell* is delimited to the west, north and east by a slightly visible deepening, shaped as a ditch. The extend of the settlement on east-west direction along the terrace reaches about 100 m, while on north-south direction has about 60 m at present²⁴. The settlement at Renie extended on 200 m on east-west direction and between 100-150 m on north-south direction. Its destroyed part appears as a deepening of the terrace²⁵. The settlement at Ulmeni was located on a hillfoot, west of a pond²⁶.

2. The settlements. During the Neolithic, the settlements and dwellings have undergone significant changes. In the Early Neolithic the dwellings were scattered, located on low meadows, without any natural protection²⁷ and seldom surrounded with a ditch. Towards the end of the Middle Neolithic appeared the settlements situated on margins of high terraces or in places bordered by steep slopes. The defending ditches became generalized. The habitation on the same spot increases in duration and the successive re-makings have resulted in the formation of the *tells*.²⁸ In the Late Neolithic, due to the penetration of some populations from the north-pontic steppe in south-eastern Romania, the settlements have been fortified with defending ditches.. Simultaneously, a partial retreat of the local communities towards safer places could be registered. In the phase B of the Cucuteni Culture some changes occur, being characterized by thinner habitation layers, scanty dwellings, without beam floor, the fortification lacking or being disaffected²⁹. A similar and contemporary phenomenon can be also found in the range of the Gumelnița Culture, when the bearers of the Cernavodă I Culture appeared³⁰. As a consequence the existence of i Boian-Gumelnița was interrupted and the Gumelnița communities have been pushed towards the peri-Carpathian zones of Muntenia and Oltenia³¹. Regarding the causes that generated this general retreat there are no unanimously accepted: population infiltrations or internal restructurings due to climatic changes. Still, at least as concern the changes appeared in the range of the Gumelnița Culture, even the most sceptical scientists³² accept the hypothesis of population infiltrations.

The settlement at Râmnicelu is the only Cernavodă I settlement that is entirely preserved. The height on which was located has a surface of 5000 m², out of which just its north-eastern half was inhabited. The slopes are steep, excepting the western side, that runs down to the meadow. By reconstructiong the situation at the moment of habitation (fig. 10), we put forward the following description. In the western extremity, which is the lowest one, the connection with the terrace was made³³, ensuring the access to the settlement. Even if fortifications were not detected³⁴, there is a possibility that a system comprising a wall and

a ditch on this connecting strip could have existed. Then, it followed an empty space, which was probably destined for cattle breeding. In the highest, north-eastern side, the settlement was located. Typologically, this can be considered as a variant of the type a in the classification made by S. Morintz³⁵.

South of Cernavodă the settlement at Hârșova was located. Situated on the right bank of the Danube, it was destroyed in time both by the erosion of the river and by the anthropic activities. The recovered area has an oval shape, a height of about 12 m, its east-west diameter has 170 m and its north-south one 100 m. The poor preservation hampers us in estimating its initial shape and dimensions, as well as its possible fortifications.

Also, the destruction of the settlements at Ghindărești (on the spots “La Far” and “La Tunel”) allows us just forwarding some hypotheses. The only certain fact is that, at least on the spot “LaTunel” a large settlement has existed³⁶.

South of the mentioned spots, also on the Danube’s bank, is the settlement at Cernavodă (fig. 3, 11³⁷). Situated on the western edge of the Sofia Hill (Dealul Sofia) as seen from the Danube, the settlement is completely destroyed at present. The evolution in time of the terrain can be traced by comparing the situations in 1910 (fig.2), 1917 and 1954 (fig.3). The area crossed by the curve of 40 m and the greatest part of the 45 m one have disappeared. Large portions of the land crossed by the curve of 50 m have been also excavated. The investigations carried out in the sector *a* have detected a fortified Cernavodă I settlement. This was located in the western half of the investigated sector and was bordered east-north-east by a natural precipice. The latter was placed on the curve of 45 m and possibly, this might be a southern derivation of the one mentioned on the plan of Carl Schuchhardt³⁸. The terrain has a sloping from east to west (towards the Danube) and from north-west to south-west. By the direction followed by the defending ditches, it can be presumed that the precipice existed also in the past and could represent, with minimal fittings out, a natural defending mean.

The surface preserved out of the settlement at the moment of the investigations did not get over 500 m². Comparing the recent situation with the possibilities provided by the fortified area, it can be presumed that the preserved remains are representing the 12th or even the 15th part of the initial surface³⁹. The fortification⁴⁰ has been successively reconstructed (fig. 12⁴¹). Initially, the slope of the precipice towards the settlement has been cut (in the area S I/1957) in order to become more steep. The exterior (eastern) side of the precipice has undergone any changes. In the zone of the ditches S II/1957 and S I/1960, where the end of the precipice is situated, its deepening had to be done, besides the almost vertical cut of the wall towards the settlement. In the south-eastern zone, the defending ditches have been entirely dug into the clay.

Gradually, the so arranged precipice has started to fill. The filling contains a small quantity of archaeological material, suggesting that the dwellings were located somewhere farther from the ditch. This fact is consistent with the situation at Râmnicelu where, between the place of dwellings location and the acces zone to the height a non-inhabited space has existed. The filling has imposed the rehabilitation works, meant to put the ditch into use again. The initial inclination has been given again to the slope towards the settlement. The

bottom of the precipice has been deepened into the filling of the first fitting with approximately 0.70 m. It followed a long period without any changes, that was characterized by Petre I. Roman as being a «peaceful» period.

The second defending ditch of the settlement would cease its existence due to a fire. The third ditch has been arranged west from the first two, in parallel with them. The eastern wall, towards the settlement, is steep, while the western one has a less inclined slope. This one will also cease its existence by being set to fire. In the last habitation stage of the settlement, the fortifications would be disaffected, the habitation extending east of them too.

For the three Cernavodă I settlements in the region of Oltenița we don't have too much information. Thus, for the one at Chirnogi we know just that it had large dimensions (6000 m² at the moment of its discovery) and probably had fortifications⁴². The settlement at Renie had a surface that reached over 2 ha⁴³.

A hallmark of the Cernavodă I settlements is their location on heights, with good visibility. This fact justifies why the bearers of this culture has occupied just the high locations previously inhabited by the Gumelnița communities, avoiding the lower ones, in the meadow. Thus, the Gumelnița settlement at Medgidia, located east of Cernavodă, has no traces of habitation belonging to the Cernavodă I Culture⁴⁴.

3.The dwellings. The term of dwelling covers a diversity of types and shapes, that have given the numerous classification types⁴⁵. There must be taken into account the climate, the raw materials for construction, the technological level and not at the least the fashion, a combination of imitation, whim and fantasy⁴⁶.

The first criterion upon which we will analyse the dwellings of the Cernavodă I Culture is represented by the level of the floor compared with the level of the settlement. At Râmnicelu have been uncovered just dug out dwellings or with deepened floor. They had a rectangular shape, with slightly rounded corners, the surface varying between 9.00 and 14.00 m².

The dwellings at Cernavodă have some special features. They were located on the western slope of the Sofia Hill (Dealul Sofia), that had an east-west inclination, towards the Danube. Fourteen overlapped dwellings have been detected⁴⁷ (fig. 13⁴⁸). Those in the first habitation layer were dug outs. Subsequently, they would be replaced with a type of dwelling that combined the dug out and the surface dwelling. The place of the location to be was horizontalized. The raising of the construction continued by a diagonal completing of the lateral walls, as well as with the making of the front and roof. Thus, the dwelling had the front at the level of the ground, while the back side was completely situated under the level of the ground (fig. 14). The dwellings had a rectangular shape, with rounded small sides. Their length varied between 4-5 m and their width between 2-4 m⁴⁹.

At Hârșova, the investigated dwellings are exclusively surface ones. Seven dwellings have been studied: 3 of them belong to the Cernavodă Ib level and 4 to the Cernavodă Ia level⁵⁰. In all cases, several habitation phases are distinguishable, usually three, that are marked by the floor reconstruction.. Their dimensions vary between 2.25 m² (1.5 x 1.50 m) and 22 m² (5.50 x 4.00 m).

Surface dwellings have been unearthed also at Ulmeni and Renie. At Ulmeni a rectangular dwelling has been identified, having a surface of 30 m² (7.50 x 4.00 m)⁵¹, while at Renie a dwelling complex was spreading on a surface of 57 m² (9,50 x 6,00 m)⁵².

A second classification criterion for the dwellings is represented by the raw materials employed for construction. The wood, clay or stone prevalence varied according with the natural resources existing in the region. The using of the wood resulted from the great extension and variability of the woods in the past, that almost completely covered the space delimited by the Oriental Carpathians, the Danube and the Black Sea⁵³. The restraining of the forests in the field and meadow regions has required new constructive solutions. Thus, the beams are replaced with wattle, stuck with clay. In the area where the wood essences were totally missing, the walls were made just out of clay⁵⁴. For the roof that generally had two slopes, the wood, straw, reed and cane have been employed.

At Râmnicelu, wood was the main raw material in constructions. Just at two dug outs the floor was covered with a thin layer of smoothening⁵⁵. Dwellings made of wood, reed and cane have been uncovered in the settlement at Cernavodă. The wood was employed for the structure, while the reed for the walls. In order to cover the crackings smoothenings with clay have been done. In the middle of a dwelling, a line of pole pits with a diameter of 19-24 cm has been unearthed, supporting a roof with two slopes⁵⁶.

The dwellings investigated in the settlement at Hârșova had their walls made of clay mixed with sand and chaff. The floors bore traces of succesive re-makings. It is possible that the dwelling no.2 could have played an important role in the settlement at Hârșova⁵⁷. The hypothesis is backed up by the quality of the dwelling: well smoothened floors, thicker and more carefully worked walls in comparison with the other dwellings and also its central position detained in the settlement.

At Renie, a surface dwelling has been uncovered. Inside the complex there were fragments of plaques, reddened by fire and pieces of adobe with traces of poles⁵⁸.

In the following lines, we will study the fire installations (hearths) and appended constructions (storage pits). At Râmnicelu the hearths are rare, the pits with charcoal remains and ash being predominant⁵⁹. These are oval-shaped, with a surface of 1.20 m² (0.40 x 0.30 m)⁶⁰ and are placed outside the dug out dwellings. At Hârșova, out of the investigated hearths, we should mention the one in dwelling no.2, of a special quality, having a border and traces of re-making. A hearth with the diameter of 0.60-0.70 m has been also unearthed in the dwelling studied at Ulmeni. At Renie some pits have been discovered, having a diameter of about 1.50 m and were used for domestic use.

The raising of a dwelling presumed also a ritual sacrifice. Unlike in the preceding time sequence (Cucuteni, Gumelnița), for the Cernavodă I Culture we have no sign regarding the existence of a foundation ritual, by now.

Finally, some conclusions are to be drawn. As we could see in fig.1, out of 26 spots with Cernavodă I finds, in just 8 spots (30%) determinations concerning the habitation have been done. The settlements were placed on heights and were fortified. Their surface has varied from 5000 m² (Râmnicelu) up to several hectars (Renie). As regards the dwellings,

we have an abundant information. A diversity of types has been identified. Considering the available data, we have also proposed few reconstructions.

Yet, a question should be posed: why all the dwellings at Râmnicelu are exclusively dug outs, while those at Hârșova and other settlements were just surface dwelling? This fact is due to the fact that the newcomers have taken over the constructive solutions previously applied. Thus, at Râmnicelu, before the Cernavodă I habitance is was a slight occupation, represented by two dug outs. In turn, at Hârșova, the prior Gumelnița habitance was exclusively represented by surface dwellings.

By bringing exclusively accounts from the field of habitation structure, we consider we have managed to emphasize the gap between the Gumelnița and Cernavodă I cultures. Also by taking into account the habitation, we have tried to point out the gradual penetration of this culture bearers westwards, along the Danube Valley.

NOTE

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