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A remodeling of the Neolithic site from Turdaș Luncă

PhD Thesis Summary

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Key words: Vršač-At, Turdaș, Vinča, fortification, palisade, sistematic, preventive, stratigraphic relations, magnetometry.

CHAPTER I. INTRODUCTION

Each fortified prehistoric settlement is unique in its own way. For settlements with several ditches, moats and palisades, one of the challenges is to determine if the defense system is built all at the same time or each element has been finalized at a certain moment, certain interval, in a certain way. Regarding the defense systems from ditches, palisades, ground waves, passageways, entrances or gates, these can sometimes be regarded as a complex, well-thought out architectural form. Thus, ditches, moats and palisades can be combined in different ways to create a very difficult access to the interior. In the same way, the areas delimited between the fortification elements and even between the defense system and housing areas are very variable from one settlement to another. Corroborating the archaeological data (both old and new), stratigraphic, materials from complexes, intersections between complexes or those that overlap the fortification elements, the distance between them, we can establish a succession of elements. At this point we are discussing only the relative chronology based on the study of stratigraphic relations. An impetus for the accomplishment of this work came from the work in two volumes: *"The Neolithic and the copper era architecture in Romania"*. This is a large and quite sophisticated analysis, with a huge volume of information, with references and analogies throughout the whole Balkanic area.

Fortified dwellings such as Iclod, Țaga, Turdaș, Uivar, Parța, even Pianul de Jos or Șoimuș, and others, are a big gain in terms of reference points in the area of Transylvania and Banat.

The specialty literature used in this work regarding the fortifications, it targeted contemporary prehistoric settlements, partly contemporary but at times, we went up to the Middle Neolithic period and no further. In this paper we want to show, as in a puzzle game, the combination of constructions in a fortification system, the value of the discoveries, sometimes critical analysis with a few hypothesis, that we consider plausible, or comments on opinions, all in a logical framework.

We are aware that future archaeological research can modify conclusions or essential aspects in this paper, but we are confident that they will come with new constructive additions that would serve for a better understanding of Turdaş broader picture.

HISTORY OF ARCHAEOLOGICAL RESEARCH

Small researches was carried out¹ on the plateau at Luncă point by Zsófia von Torma, in 1875, southwest of Turdaş, the work being interrupted a short while after.

In 1910, under the leadership of Márton Roska, new research is being carried out on the Turdaş plateau. He conducts surveys at four different points and gives a detailed description of the sections investigated², of stratigraphy as well as of stratigraphic relations between the four points³.

Research is also carried out⁴ by prof. Vl. Dumitrescu in 1937, in the western part of the plateau, being of the opinion that the old settlement no longer exists⁵, or by Professor Iuliu Paul in the '60s with research not completed through publication⁶.

Surface researches with analyzes in general on the colapsed bank of the Mures river were carried out⁷ by Fl. Draşovean together with T. Mariş in 1982. In 1986, John Nandriş, Gh. Lazarovici and Z. Kalmar, continue to conduct surveys⁸ on the destroyed bank of the river Mures, these being the subject of several studies.

Starting with 1992, under the aegis of Lucian Blaga University in Sibiu, the excavations from Turdaş-Luncă are resumed in the form of systematic research, carried out over several years⁹. The sections and casetes made at different points, between 1992 and 1998 highlighted the real stratigraphy of the section on the banks of the Mureş river.

In 2011, together with the investment project "Bypass route Deva-Orăştie at highway standard", the preventive archaeological research works for this site are also started, to the south of the old systematic excavations. Here we must not omit the magnetometric

¹ Luca 2005, p. 156; 2005a, p. 237.

² Roska 1941, pp. 7-14.

³ Roska 1928a, pp. 14, 15.

⁴ RAR, p. 239.

⁵ Luca, 2012, p. 16.

⁶ Luca, 1993, nota 1.

⁷ Draşovean, Mariş, 1982-1983, pp. 89-94.

⁸ Kalmar, Maxim 1999, pp. 81-87.

⁹ Luca, 1993, pp. 21-24; 1995, pp. 33-36; 1996a, pp. 27-30 ; 1996b, pp. 1-6; 1996c, pp. 219-222; 1998, pp. 165-180; Luca et alli, pp. 1994, pp. 68-69; 1995, p. 96; 1997, p. 71.

surveys made in 2011 by a team from the Western University of Timisoara led by Conf. Univ. Dr. Dorel Micle, strictly on the section of the highway.

The year 2015 begins with the archaeological diagnostic works to the south of DN 7, in the “Pășune” point. In April, research begins on the surface of Turdaș I for the work "Rehabilitation of the railway line Brașov-Simeria ... Section 3. Coșlariu-Simeria, section Vințu de Jos-Simeria, km. 457 + 000- 457 + 400 ”.

In May, the archaeological diagnostic works continue for these works, at this point, however, on the surface of Turdaș II, in the immediate vicinity of DN 7, at km 457+200- 457+900, along the road.

In August, preventive archaeological research begins in the area conventionally called Turdaș I, research that revealed four levels of living.

In September, the works with the area conventional called Turdaș II, positioned along the DN 7 road, Orăștie-Simeria, are continuing. Here, following the preventive archaeological researches on the vertical and horizontal stratigraphy, four levels have also been established.

In the summer of 2016 the archaeological diagnostic works for the work "Turdaș-area for relocation of gas lines km.CF.457+272-457+600” begin, so that in autumn of the same year, the work on preventive archaeological research would be carried out.

In the fall of 2018, work is underway on the same construction project, this time “DJ 709 G, crossway with DN 7, Km. CF. 457+753”. They are basically the relocation works of the county road that makes the connection between the town of Turdaș and DN 7. The location was conventionally named, in the order of the open areas in previous years, respectively Turdaș IV.

The surface opened to the west of the CFR (RR – Romanian Railroad) canton, begins from DN 7, cross the railway line to the north, makes a loop to the east where it joins DJ 709 G, just before the freeway crossing. For the same project, in the spring of 2019 it opens to the north of the tunnel C.F., in its immediate vicinity and along the future railway line, Turdaș V surface, within the works for the maintenance platform and the access road to it.

At the same time, the surface of Turdaș VI is opened on the duct of the future railway line, which exits to the west under the passage from DN 7 and joins the railway near the canton. In these two areas, preventive archaeological research has revealed five levels of housing. These last works under the passage continued throughout 2019, mostly reuniting the fortification stages of the Neo-Eneolithic dwelling in Turdaș and beyond.

Preventive archaeological research carried out in the southern area during the years 2015-2019 also showed the maximum extent of the Neo-Eneolithic dwelling to the forest, with the different stages and sub-stages.

CHAPTER II. THE FORTIFICATION SYSTEM FROM TURDAŞ.

II.1 The stages of building the fortification system

Relying as a starting point on the stratigraphic succession established following systematic research over the years 1992-1995, in the west of sector B and sector C, area between km 11 + 860 – 12 + 100, it was investigated, over a distance of about 240 m, a succession of fortification elements.

These complexes were caught on the surface in the form of a semicircle, being made up of ditches, palisades and possibly an entrance, the area also showing the oldest complexes rounded to the fortification system throughout the plateau.

II.1.1. Level I-II-lower. Stage I

In this area the trenches C 1255-C 994 and C 1256-C 997 form a line of quasi-parallel ditches followed by two palisades numbered with C 2178- 2230 si 1245-1257. All this forms a semi-circular fortification that is lost in the surface profile to the north.

II.1.2. Level II-lower. Stage I

This level is represented from the point of view of the architecture through dugout, deep houses of slightly oval shape with one or two rooms that have access steps, ovens, all carved in clay. The demographic explosion, which belongs to an evolved Turdaş phase, extends to most of the plateau, except in the western area where the complexes belonging to this level are rare.

In this area a ditch was identified following magnetometric surveys. The ditch does not have the specificity of a defensive construction, but of one intended for collecting rainwater to prevent flooding the area with old complexes.

Turdaş.II.1.3. Level II-lower. Stage II

In sector B we find the existence of another ditch noted with C 181A. Caught on the surface from west to east on a length of 127 m, it follows the line of the first ditch, all the more so, for the most part C 181A it overlaps large portions and even intersperses it at one point with C 181. The ditch marked with C 181A approximately follows the path of the first ditch C 181, but it is wider and deeper taking at one point the destination of the first one. I believe that the C 181A ditch is a restoration of the previous one, C 181.

Also in sector B in the eastern area where at km 11+400-11+450 there is the complex named C 338. The complex, built with a “V” shaped section, with the lower area slightly rounded, is large. It is located on the north-south direction, very close to the road that connects the town of Turdaş with DN 7.

In the next moment we think we can also include the C 10 complex, investigated during the preventive excavations of 2018.

II.1.4. Level II-lower. Stage III

Out of necessity, probably borned out of the desire to delimit and defend the dwelling of possible invasions, to counteract the danger of frequent floods, the construction of a belt of ditches around the dwellings begins.

On the northern strip, the ditch noted with C 1034 was caught, which we suppose is a continuation of the ditch C 003, both according to the construction method and the archaeological material collected. It crosses almost half of the area surveyed in this sector before disappearing in the western profile towards the river Mureş.

C 001 and C 003 continue the route to the south with the ditches numbered C 1133-C 1132. In this area, two cross sections with a width of 2 m were excavated, to capture the path followed by these ditches. On the southern strip, the C 001-C 003 ditches almost unite in a W shape, but at the top they have a fairly consistent layer of gravel mixed with sand, possible from one or more severe floods.

The C 001 continues on the southern Breteaua with, the C 1133 complex, then to the west where it was caught after the dependencies of the CFR canton, in the immediate vicinity, south of DN 7 in the Turdaş IV surface (2018). Here, in the lower area of the C 07 complex, a few poles holes have been outlined. Suppose the ditch continues to the west,

where it makes a loop and descends to the northwest, in the area of the highway. In this area complex C 2066 was investigated.

In sector A (2011), on the proposed route, C 003 continues on the southbound lane with C 1132 then west to the canton of CFR and its dependencies. On the surface opened in 2018 preventive archaeological research has shown the path of the ditch mentioned above.

In the C 46B complex, caught in the investigated surface, the prints of several poles in the lower area of the ditch in the eastern extremity are observed superimposed on the entire northern side of the C 46A complex and partially on the southern side of the C 46C complex.

It continues to the west where it is likely to make a curve to the northwest in front of complex C 001-C 1133-C 007-C 2066, it descends to the same area where we have the complex C 2212A, in the area of the highway, where it closes to the river Mureș. This alignment did not prevent the inhabitants of the settlement from going beyond the ditches and palisades to build new houses or annexes, being located mainly in the southern area but also in the east of the settlement.

II.1.5. Level II-upper. Stage I

In this stage we find in Turdaș, the appearance of surface dwellings, structures that will gradually occupy the entire extent of the plateau. These constructions, which are based on elongated pillar pits made in steps, find their analogies within the late Vinča architecture in the settlements of Gomolava¹⁰, Uivar-Gomilă¹¹, Foeni-Cimitirul Ortodox¹², Parța-Tell 2¹³, Hunedoara-Judecătorie¹⁴, with extension at Pianul de Jos-Podei¹⁵, Zau-La Grădiniță¹⁶ and others.

These are the communities that will build the first surface dwellings with large platforms. The diversity of dwellings with wooden and clay platforms will change over time the configuration of the dwelling from Turdaș and later in the whole Transylvanian area. Catastrophic flooding for settlement, caused by massive landslides, forces the population of the area to erect real walls along the line of fortifications C 001 (sector A; 2011)– C 1133

¹⁰ Brukner, 1980, p. 6; 1988, pp. 19-38; Lazarovici, Lazarovici 2003, fig. 46.

¹¹ Schier 2014, Fig. 15; Schier, Drașovean, 2004, Fig. 7, 9; Drașovean, Schier, 2010, pp. 165-188.

¹² Lazarovici, Lazarovici 2007, Fig. Va.16a; Drașovean, Popovici, 2008, p. 23

¹³ Lazarovici, Lazarovici 2006, pp. 488-499.

¹⁴ Tincu 2015, pp. 63-87; pl. 4.2, 5.1, 5.2.

¹⁵ Bem 2015, Fig. 12, 17, 18, 20-21, 23, 26.

¹⁶ Lazarovici, Lazarovici 2006, pp. 433-438.

(southern strip - sector D; 2011)– C 07 (Turdaş IV; 2018)– C 2066 (sector C; 2011) și C 1034 (sector D–northern strip; 2011)– C003 (sector A; 2011)–C 46B (Turdaş IV; 2018)–C 2212A (sector C–2011).

II.1.6. Level II-upper. Stage II

Possibly, towards the end of the previous stage we found that instead of having an extension of ditches, palisades that confirm a settlement limit, the fortification alignment is reorganized in successive stages starting with the eastern area of sector C and all the zone B (B-est ; B-vest). For various reasons that we miss, at this stage we witnessed a gradual reorganization of the settlement. Simply, throughout the area of sector B and C, most of the surface housing specific to level II – upper, ceases to exist.

Starting with the C 255 palisade, located on the north side of the motorway axis in the central area then the C 988 complex. At about 20 m to the south, there is another palisade, marked with C 908. To the south of the C 908 palisade ditch, the complex named C 860 was investigated.

Caught in the surface in the B-west sector, all the contexts encountered on the way are then lost in the south profile of the B-west sector (2011), only to be found on the Turdaş IV surface, south of the motorway. Here, the C 70 complex (Turdaş IV, 2018) was caught on the surface from east to west, in a semicircular form. Therefore, the path of the palisade ditch continues northeast to the surface of the B-East sector (2011) with, complex C 339.

II.1.7. Level II-upper. Stage III

In this stage as well as in the next one, the fences and ditches that appear at the eastern border of the settlement, Sector A (2011) and Turdaş I (2016), Turdaş II are raised successively.

II.1.8. Level II-upper. Stage IV

In this stage as well as in the following, we believe that most if not all the elements of construction, called fences, can easily fit. Probably following the increase of the demographics, the appearance of these elements in sector A, on the southern strip as well as

on the surface of Turdaş I or Turdaş II, denotes an efficient organization that came with the extension.

II.1.9. Level III. Stage I/II

At this stage there is a demographic increase in the area, this phenomenon being observed very well at the periphery of the nucleus delimited in this stage. In the area of the southern sector of D-strip but especially throughout the southern part of the plateau, we can see in the surfaces Turdaş I and Turdaş II, the appearance of surface structures that we have encountered in previous researches.

The surface structures are diversified, but the planimetry is smaller than the previous ones, most of them have support pillars, of circular shape or with a foundation on the back and middle side. The clade of ditches on the southern outskirts of the settlement, barred by palisades, are nothing more than a rainwater catchment network.

II.1.10. Level III. Stage II

This level is marked by the gradual withdrawal of the houses from the previous level to the west and southwest. The cause of this withdrawal is due to catastrophic flooding and landslides throughout the eastern and southeastern areas. Now a massive palisade is being built, on three rows to stop the landslides to the settlement. The complex noted C 13 was caught crossing from south to north all the researched sector. On the marked route, the palisade overlaps all the contexts from the south, continuing its route to the north where, it is lost in the north profile, only to find it in the Turdaş II surface noted C 206.

In the preventive archaeological investigations carried out in the summer of 2019, the palisade was caught in the area of the railway crossing where it received the number C 237.

CHAPTER III. THE ARCHITECTURE

III.1.Ditches

In sector C the complexes C 1255-C 994 si C 1256-C 997 are nothing more than water-drainage ditches. the oscillation of the community on the extent of the plateau we think

ceases with the construction of the C 181 ditch. Another is the situation of the C 181A ditch, which has much larger dimensions, the maximum depth being 1.70 m. To the east¹⁷, C 181A gets joined with the path of the ditch C 338. It is interesting that in the eastern area on the same route, the maximum depth is 2.90 m. The only explanation for the depth given in this area is the positioning in a sector where flooding is a frequent problem. The increase of the demographic and implicitly the need to protect the settlement from floods and landslides results out of the construction of a new fortification belt.

We do not think the first line formed out of complexes C 001 (sector A, 2011) – C 1133 (southern strip, 2011) – C 07 (Turdaş IV, 2018) – C 2066 (sector C, 2011), which is inscribed in a semicircular shape from east to west on the extent of the plateau, has the size of a trench to defend a settlement.

The second line consists of the complexes C 1034 (northern strip) – C 003 – (sector A, 2011) – C 1132 (southern strip, 2011) – C 46B (Turdaş IV) – C 2212A (sector C, 2011). We believe that at this point the last ditch constructions of the true Turdaş communities are completed. Newcomers, faced with the danger, caused by landslides and floods, transform both fortification belts and build out of the previous alignments a series of new ditches. The complexes belonging to the last stage of level III, show a combination of fortification elements with palisades that successively bar the ditches. The latter also have the role of capturing the water coming from the southern area and directing it from ditch to ditch towards the extremities.

According to the number of ditches and palisades we believe that the eastern and south-eastern areas suffer the most from natural calamities. At this time the floods are supplemented by landslides which are catastrophic for the settlement, the housing moving to the west.

III.2. The Palisade

In sector C it is found from onsite research that the line of palisades 2178-2230 and 1245-1257 are built in a hurry, other lines probably are following a north direction. Here, in sector B, in the central area placed at level II – lower, there was a palisade that most likely was destroyed by the floods.

¹⁷ Luca 2012, p. 34; Luca, Suciuc 2014, p. 8.

In the second level, in the second stage, the palisades are erected along the whole line of old ditches. If the eastern area is provided by two rows of palisades, then, starting with the south-eastern area, at least the first palisade is built on three rows.

For the moment we have reservations in considering that the population that currently stands on the plateau will cross the line of fortifications C 001 (sector A; 2011)– C 1133 (south strip - sector D; 2011)– C 07 (Turdaş IV; 2018)– C 2066 (sector C; 2011) și C 1034 (sector D–north strip; 2011)– C003 (sector A; 2011)–C 46B (Turdaş IV; 2018)–C 2212A (sector C–2011) to build new dwellings.

We believe that during this period or shortly thereafter, the settlement will be reorganized by the construction of fences / palisades, maintaining the previous fortification line. Digging a trench with straight walls, arranging the pits for the implementation of the pillars on segment ends and then placing the intermediate pillars are all new inovations for the Turdaş area.

Complex C 225, which is located on the north side of the motorway axis, is the first palisade investigated at this stage, a component of a successively constructed fortification belts, which we will see just south of DN 7.

Palisade C 988 crosses all the area B, in the semicircle, it has a gate marked with C 191 in the southern part of the highway axis where, it makes a loop over the C 181A ditch, it overlaps all the complexes in the B-east area and then it is lost in the area destroyed by torrents.

Palisade noted C 908, destroyed by the valley of sector C, crosses the B-west sector, to the east, it overlaps all the contexts that it meets in the southern profile and we assume that it follows the same route through the B-east sector.

The next palisade that crosses this part is C 860, an alignment built in the same manner as the previous ones, continues to the southeast where we find it on the Turdaş IV surface with the C 70 complex then descends to the northeast and joins the motorway axis with the foundation trench of the palisade C 339. In the settlement from Iclod, the researchers have found, in general, the same way of construction ¹⁸ of palisades, as the one described during the research conducted at Turdaş. During the excavation it was observed that the pits for the implementation of the pillars are wider and deeper than the foundation trench, these

¹⁸ Lazarovici, Lazarovici 2006, p. 639; fig.IVh.8.

being placed at about 1-1,5 m from each other. The maximum depth of the pit is 0, 60 m, the construction being realized in the first two phases of Iclod living¹⁹.

At Țaga, 2006 research revealed the route of a palisade²⁰ built in the same manner as in Turdaș. At the second fortification, caught on the S 25 and S 24 surfaces, two palisade trenches were investigated²¹.

In the settlement of Parța, according to the authors, the palisades are made up of a system of "fences". In the space between the pillars, after those who researched the system, there may have been rows of side beams that fixed the alignment. In the southern area, only the interior palisade was investigated, which had a different construction system than the others, being much more massive.²²

If the first palisade was built in a foundation trench in which the holes were dug for the implementation of the pillars, the second palisade had yellow clay filling that continued to the surface. Regarding the 3rd palisade, the authors most likely opt for an intermediate fence, roundabout or guard system²³.

The palisade noted C 209 (Turdaș II) that is inscribed on the surface in the form of a semicircle is the complex that we have researched pit by pit and point by point. Also the following palisades from the Turdaș III surface, noted: C 10, C 9, C 12, have the same manner of construction.

The second stage of level III, is marked by the construction of a palisade mostly with a line of double pits, sometimes even triple. The palisade crosses all the surfaces surveyed in previous years, from south to north, it overlaps all contexts to be lost in the county road area.

III.3. The access system

III.3.1. Entrances through the trenches

In the specialized literature, the typology of the access systems within the prehistoric fortification structures has created some chaos. For the logical understanding of constructions of this kind, Prof. Lazarovici has made a classification of the subcomponents of the access

¹⁹ Lazarovici, Kalmar, 1987, p. 11; Lazarovici, Kalmar 1990, p. 60; fig. 2.

²⁰ Lazarovici, Lazarovici 2006, p. 662.

²¹ Maxim et alii 2012, pp. 133-134.

²² Lazarovici et alii 2001, p. 198; Rus, Lazarovici 1991, p. 111.

²³ Lazarovici 2014, p. 25.

systems for a series of settlements. The classification created by our teacher on the components of an access system is a beginning, it is an open system with terms logical manner to which, of course, new ones can be added further, depending on the construction. In this typology created, we are convinced that the entrance has an the typology of the gates of the palisade or fence, another distinct ordering.

In the settlement of Turdaş, in the order of stratigraphic relations, the first entry among the trenches, although not the most spectacular one, we find it on site, in the C sector. A simple entrance formed by two rows of quasi-parallel ditches, with a deep drop to the extremities for the directioning of pluvial water.

One of the most spectacular entrances from Turdaş is in the eastern area, in sector A. Therefore, in this area, in front of the palisade is the C 009 trench which bars the entrance to the settlement. In front of the latter to the east, the C 010 trench seems to make an entrance in combination with the C 014a trench, the distance between these two, in a straight line being about 10 m. This entrance, in turn, is reduced by the hole C 014 which makes a shorter entrance with the trench C 014a, the distance between them being 6.07 m. In front of this entrance, to the south-east is the C 842 trench, which seems to narrow the entrance to the settlement, the distance between it and C 014 being 3.20 m. Trench C 842 also has the role of protecting the entrance to the settlement from possible floods coming from the southern area. In the Iclod resort, the magnetometric researches from 2007 showed the real size of the dwelling, the measurements stretching in most of the fortifications and beyond. Built successively, in several stages, it seems that the first enclosure has two access areas inside²⁴. The second fortification belt has no less than four entrances²⁵, while the third and fourth fortification belts, which consist of a double trench and probably a few passes, have four entrances.

In the settlement of Ţaga, on the second line of fortification, as seen in magnetometric prospecting²⁶ on the east side, which consists of a double wall and a ditch, an entrance was noted²⁷. From the magnetometric plane of the area it can be seen that the gate has a small ditch that intersects the defensive trench at an angle, probably being a chicanery.

At Hajdúnánás-Eszlári út during the archaeological rescue work on the M3 highway from 2004-2005, excavations were made in a fortified dwelling dating from the Middle

²⁴ Lazarovici 2013, p. 76.

²⁵ Lazarovici 2014, p. 29-30.

²⁶ Mischka 2008, pp. 107-108, Abb. 10; 2010, p. 77, Abb. 6.

²⁷ Lazarovici 2014, fig. 45; fig. 46a; 46b; fig. 71; fig. 72b.; Miskha 2008, p. 107; abb. 10; 2010, p. 77, abb. 6.

Neolithic²⁸. The highway route crosses the eastern part of the dwelling where a segmented system of fortification, concentricly arranged on the surface, with an entrance between the ditches was investigated. The C14 samples taken from the trenches indicate a date between 5230-5040 cal.B.C.

For the settlement at Polgár Ferenci-hát, dwelling dating after the Hungarian framing and based on archaeological materials Szákalhát type, at the end of the Middle Neolithic²⁹, the trench system that forms on the eastern part of the surveyed surface an entrance that closely resembles the trench area in sector A (2011) from Turdaş, resercher P. Raczky is of the opinion that this system observed here, with ditches about 2 m wide and 1 m deep, has extended from the Mureş river to the Hungarian Körös river line and its appearance in the north of the Hungarian Great Plain will reach that greater distribution in Europe.

III. 3. 2. Passageways

In this regard, we refer to the defense trenches and / or collection and discharge of rainwater ditches, ditches where these passages could hardly be seened.

For the C 181 ditch in the area of the maintenance platform (2019), located north of the exit of the CFR tunnel, in the immediate vicinity, we came to the conclusion that its passage was made on a bridge in full compliance with modern understanding of the term.

In the excavations of 2009 from the resort of Parţa³⁰, at the excavation of the oldest ditch in the central area, pined by authors at level 7b, on both slopes of the complex were dug pits for the implementation of the pillars. Those who investigated closely concluded that in this area there was a kind of bridge that made the passage over the trench into the central precinct, with this occasion also bringing a pertinent reconstruction³¹.

III. 3. 3. The palisade gate

I showed what a classification means, an ordering of the access roads to the interior of a dwelling, especially in the fortified ones. By separating the access roads in a settlement, the "entrance" from "crossing", we consider logically and normally, the access through the palisade to call it, "gate" of the palisade. In Turdaş, except for zone C where, there may have

²⁸ Rázcky, Anders, 2012, p. 280.

²⁹ Rázcky, Anders, 2012, p. 76.

³⁰ Lazarovici 2013, p. 65, fig. 18.

³¹ Lazarovici 2014, pp. 20, 56, fig. 74.

been a palisade gate in the entrance area, during the investigations on the section of the highway in 2011, the first elements appeared in sector B.

The palisade marked with C 255, inscribed on the surface in a semicircle, is positioned in the north part of the motorway axis. The complex was investigated on a small portion because both ends of the palisade route were lost in the northern profile of the surface.

At about 40-45 m to the south, on the duct of complex C 988, a new palisade gate was investigated, with the opening to the south. In the southern profile area, the palisade gate, located on the C 988 ditch route, received the code, C 191.

In the Turdaş II sector, on the duct of the palisade C 209, in the immediate vicinity of the gas station, a palisade gate was investigated. Behind the two main pillars were the other two, in a perpendicular position that make the groundprint an inward angle.

The reconstruction³² of the gate behind the trenches that encompasses the first enclosure of the Uivar dwelling, it is suggestive, and the animal craniums found under archaeological research have analogies to the settlement of Gosek³³.

In the Krepice dwelling³⁴ all the gates on the southwest side have a width of 1 m. We observe on this side, two styles of construction in the area of the palisade gates.

At Bucany, in the gates area³⁵ on the access passage on both ends of the palisade, another two branches start outwards, ending with pillars located in the front area.

In the dwelling of Těšetice-Kyjovice-“Stuny” okr. Znojmo, two inner palisades and an outer palisade ring, complete the defense system³⁶. Only the outer palisade has, through its shape, a corridor system, like arms bent inwards.

III.3.4. The round road

During the preventive archaeological investigations on the duct of the founding trench of the C 209 palisade, no less than 17 pillar pits were outlined on the inner side. If initially during the excavations, these complexes were noted as pits for buttresses, during the research we realized that here were pillars that are part of the round road system.

³² Draşovean 2007, fig. 11.

³³ Bertemes, Northe 2007, fig. 3; 2010, fig. 3,5.

³⁴ Podborsky 1999, p. 55, fig. 1, Tab. 1.

³⁵ Petrasch 1990, p. 478.

³⁶ Podborsky 1999, p. 131.

For the settlement from Zau where systematic excavations have been carried out quite a few and on restricted areas, the authors confirm a palisade that has a double structure, also presenting the hypothesis of a roundabout road.³⁷

III.3.5. Observation outposts

I showed the route of the palisade from level III, a complex that crosses some surfaces from north to south. During the rescue excavations in 2015 on the Turdaş II surface, when researching the palisade trench as well as the pillar holes on the eastern edge, near the northern profile, the C 201 complex had taken shape. We believe that according to the shape and arrangement of the holes on the blueprint, this complex is related to the alignment of the palisade, in ancient times usually was some kind of tower or at least one observation point on the eastern side.

In Ţaga, following magnetometric prospecting³⁸ in the eastern area, near the access area, possibly linked to the palisade, it is suspected that a bastion existed in ancient times. Its base consists of very large sandstone structures³⁹.

III.3.6. The access ways orientation

Starting from the premise that people had a rudimentary knowledge of astronomy, in a series of settlements experiments were made to try to demonstrate the connections between the positioning of the entrances, from the ditches to the gates of the palisade, with the cardinal points and more, in a series of locations of the Lengyel culture were made a series of analyzes to demonstrate the arrangement of the fortifications on astral orientations. If it is admitted that the orientation of the entrances to a settlement is related to the four seasons, this may also involve determining an important period such as sowing, harvesting⁴⁰, probably pastoralism, we say.

Recently, following the analyzes but also because of the information, one of the researchers who were interested in these objectives, wonders if this knowledge was transmitted in a

³⁷ Lazarovici 2013, p. 85, fig. 49; 2014, p. 41, fig. 49.

³⁸ Mischka 2008, pp. 107-108, Abb. 10; 2010, p. 77, Abb. 6.

³⁹ Lazarovici 2014, pp. 83-84; 2014, p. 36, fig. 46a, 46b;

⁴⁰ Zotti, Gröller 2005, p. 9.

public ritualistic framework to future initiates or simply, only the inhabitants around the circular dwellings knew these matters⁴¹.

In the settlement of Turdaş we can not yet demonstrate the arrangement of the entrances or the gates of the palisade in the direction of interference of the solstices or equinoxes. However, we can specify the direction of the entrances between the ditches or the gates that fall with deviations of a few degrees on the cardinal points.

III.4. The processing facility

During the preventive archeological campaign of 2011 on the highway route, a special element had accoured, although it did not frequently attract our attention. These "ovens" with a long structure, we are convinced that they were not built for household purposes and more importantly we do not think they are ceramic furnaces. We can put forward the hypothesis that these elongated ovens can be log-cutting facilitys used for large logs that could not be processed with rudimentary stone axes.

III.5. Conflicts or rituals

During the excavation of trenches C 05 and C 07, human osteological remains were located in the filling of the complexes, located at different depths, for which, the positions of the discoveries were noted with the M logo, and the GIS coordinates for each point were taken. We are yet to conclude on the position of the human remains that appear on the trench route from the surface of Turdaş III, the causes can be multiple, from rituals of defleshing to acts of violence. Studies of such practices may be useful to us and may provide us with valuable information regarding these findings.

In the settlement of Pianul de Jos, during the preventive archaeological investigations of 2011, human osteological fragments generally positioned in the lower area of the complexes have been recovered from the foundations of the palisades.⁴²

In the dwelling from Ruzindol-Borova, location researched⁴³ by Němejcova-Pavúková, in seven cross sections executed on the defense ditch, he had the opportunity to discover the remains of no less than 18 individuals in anatomical positions.

⁴¹ Schier, 2011, p. 26.

⁴² Bem, 2005, p. 41.

⁴³ Němejcova-Pavúková 1997, p. 16 .

Locations in Europe such as the one in the dwelling of Talheim where the remains of several individuals that showed traces of violence were analysed, They were intentionally killed with different weapons that ranged from arrows to stone axes.⁴⁴ A similar case is at Alba Iulia-New World where, after the latest laboratory data, a series of human osteological fragments show signs of cutting or traces of burning, they are special cases. The violence is the same but the context of the deposition is different. It remains to be seen whether the traces of the cuts are ante or a post-mortem ritual⁴⁵.

The settlement of Herxheim, an LBK tradition dwelling, was placed ⁴⁶ after the C14 samples at 5300-4950 BC. Following the preventive archaeological researches, an impressive number of osteological fragments were discovered in the alleged fortification trenches.

Conclusions

With the major warming of the weather, migrations from the southern Balkans take place. In this context, a number of settlements appear in Banat and Transylvania, settlements that will soon be fortified. It is the moment when a small population emerges from the Vrsac-At dwelling, which, on the road to the valley of Transylvania, will mark some locations.

The route made on the Mureş valley will have a rather strong impact and the settlement of the Turdaş area will change the configuration of the area shortly. The largest dwelling of these populations but also the most researched is today more than half destroyed, I mean the old dwelling.

The settlement on the ground, the housing construction, the erection of the fortification system, the material and spiritual culture but also many other aspects, create from it a zonal center for adjacent dwellings and not only.

⁴⁴ Wahl, König, 1987, pp. 66-71, Abb. 24-41

⁴⁵ Gligor, McLeod 2015, p. 32.

⁴⁶ Zeeb-Lanz 2018, p. 83, note.2.

Abbreviations

AnB	- <i>Analele Banatului Timișoara</i>
ANGVSTIA	- <i>Muzeul Carpaților Răsăriteni. Sfântu Gheorghe.</i>
AICSU	- <i>Anuarul Institutului de Cercetări Socio-Umane Sibiu.</i>
Apulum	- <i>Acta Musei Apulensis, Alba Iulia.</i>
Archaeopress	- <i>Periodic arheologie, Oxford.</i>
Banatica	- <i>Muzeul de istorie a județului Caraș- Severin, Reșița,</i>
BS	- <i>Bibliotheca Septemcastrensis Sibiu</i>
BB	- <i>Biblioteca Muzeului National Brukenthal.</i>
CCA	- <i>Cronica Cercetărilor Arheologice.</i>
Eurasia Antiqua	- <i>Eurasien Abteilung des Deutschen Archäologischen Instituts, Berlin.</i>
PMJH	- <i>Publicația muzeului județean Hunedoara, Deva.</i>
RMV	- <i>Rad Vojvodanskih Muzeia, Novi Sad.</i>
Sargeția	- <i>Acta Musei Devensis, Deva.</i>
StCom.	- <i>Muzeul județean Satu Mare.</i>

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