

DEFENSIVE SETTLEMENTS OF THE OTOMANI-FÜZESABONY CULTURE IN THE WISŁOKA
RIVER BASIN.

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Abstrakt Wisłoka jest karpackim dopływem Wisły i wraz z Ropą i Jasiołką odwadnia północne stoki Karpat, czyli obszar Beskidu Niskiego i Pogórzy. Doliny tych rzek stanowią naturalne ciągi komunikacyjne. Przez wiele dziesięcioleci uważano, że na tym terenie w epoce brązu występowała kultura łużycka. Prawdziwy przełom nastąpił wraz z badaniami stanowiska nr 29 w Jasle i stanowiska nr 1 w Trzcinicy, gm. Jasło, gdzie odkryto pierwsze osady kultury Otomani-Füzesabony (KO-F) w Polsce. Później były to również stanowiska w Łajscach, w Potoku oraz w Brzezówce.

Grodzisko Wały Królewskie w Trzcinicy jest jednym z najważniejszych stanowisk archeologicznych na terenie Polski. Zlokalizowane jest na cyplu wyniesionym ponad 30 metrów nad płaskie dno doliny rzeki Ropy. Wzniesienie posiada z trzech stron bardzo strome stoki, co powoduje że forma ta ma wybitne walory obronne. Miejsce to zostało ufortyfikowane już na przełomie III i II tysiąclecia przed Chrystusem, przez ludność grupy pleszowskiej kultury mierzanowickiej. Osada ta zajmowała około 56 – 60 arów powierzchni. Od strony południowej oraz zachodniej była otoczona walem, którego ściany zbudowane były z belek, układanych między dwoma słupami. Wnętrze wypełniała ziemia, a w wale tkwiła palisada. Datowana jest pomiędzy 2100 a 1650/1600 BC kiedy to została przejęta przez ludność KO-F. W pierwszej fazie osadniczej ludność KO-F przebudowała wał, zmieniając jego zewnętrzną ścianę na palisadową i zbudowała bramę oraz drogę od strony S, umożliwiającą zjazd w dolinę rzeki Ropy. Od strony północnej i wschodniej zbudowano palisadę. Po krótkim czasie jej trwania doszło do pożaru walu, spłonęła też brama od strony S. Po pożarze osadę odbudowano w oparciu o wzorce z poprzedniego założenia. Wał poszerzono, zasypano bramę i drogę od strony południowej. Umocnienia z pozostałych stron zachowały swój dawny charakter. Następnie osadę powiększono do 2 ha, dobudowując od strony zachodniej podgrodzie. Od strony wysoczyzny osadę zamykała płytka fosa. Praktycznie całość materiału zabytkowego pochodzącego z obronnej osady KO-F w Trzcinicy odkryto w warstwie kulturowej. Poza nielicznymi jamami zasobowymi nie stwierdzono we wnętrzu osady żadnych obiektów słupowych. Miejsce zabudowy sugeruje znacznie większą miąższość warstwy kulturowej i duża ilość zabytków zlokalizowanych wzdłuż wałów grodu, jako strefa koncentracji ludzkiej aktywności. W trakcie badań odkryto także liczny materiał paleozoologiczny, węgle drzewne i szczątki roślin. Jedyne budynki które zdołano zlokalizować na terenie grodu znajdował się na akropolu, w jego północno-zachodniej części. Dom ten związany był najprawdopodobniej z działalnością odlewniczą i wydobyto z niego bardzo liczny materiał zabytkowy. Daty radiowęglowe oraz materiał zabytkowy umożliwiają datowanie ufortyfikowanej osady KO-F w Trzcinicy na lata zamykające się pomiędzy 1650/1600 a 1350 BC. W tym miejscu, w latach 770/780 AD został wzniesiony przez Słowian potężny gród obronny.

Osada obronna w Brzezówce znajduje się 14 km na wschód w linii prostej od grodziska w Trzcinicy. Stanowisko zajmuje końcową część cypla wysoczyzny, który od strony północnej i południowej rozcięty jest wąwozami, a od strony wschodniej podcięty doliną rzeki Jasiołki. Obecnie na powierzchni widoczne są dwa człony umocnień, a być może obszar osady jest jeszcze większy i posiadał dwa podgrodzia. Badania prowadzone w latach 2015 i 2016 wykazały, że mamy do czynienia z ufortyfikowaną osadą ludności KO-F z podziałem na człon główny (akropol) i oddzielone od niego podgrodzie. Wielofazowe wały posiadały konstrukcję drewniano-ziemną. Ściany wałów wykonane były z drewna, a wnętrze wypełnione było gliną i wzmocnione drewnianymi belkami. Szerokość obu wałów wynosiła 3,1 m. Prawdopodobnie pierwszą konstrukcją obronną na tym grodzisku była palisada, być może poprzedzona fosą. Materiał zabytkowy znajdował się w warstwach kulturowych. Odkryto dość liczne fragmenty naczyń glinianych i zabytki kamienne, które pozwalają wiązać grodzisko z KO-F. Stwierdzono także obecność

fragmentów ceramiki z młodszych faz epoki brązu i początków epoki żelaza, a także z wczesnego średniowiecza. Daty radiowęglowe uzyskane z belek wału pozwalają określić początek osady na XVIII/XVII stulecie BC.

W dorzeczu Wisłoki przebadano też trzy osady otwarte KO-F: Jasło st. 29, Potok st. 6 i Łajsce st. 15, związane z młodszymi fazami jej rozwoju i noszące wyraźne piętno oddziaływań kultury trzcinieckiej.

Słowa kluczowe kultura Otomani-Füzesabony, KO-F, kultura mierzanowicka, grupa pleszowska, kultura trzciniecka, Karpaty, epoka brązu, Wisłoka, Trzcinica, Brzezówka, grodzisko, osada obronna

Keywords Otomani-Füzesabony Culture, OFC, Mierzanowice Culture, Pleszów Group, Trzciniec Culture, Carpathian Mountains, Bronze Age, Wisłoka river, Trzcinica, Brzezówka, Hillfort, Defensive settlement

Introduction

Defensive settlements of Otomani-Füzesabony Culture (OFC) in the basin of Wisłoka river is a highly interesting cultural phenomenon. Wisłoka is the Carpathian tributary of the Vistula river and together with its tributaries: Ropa and Jasiołka, which reach Wisłoka on the territory of Jasło, it gathers the waters of the Carpathian mountainsides, located to the north of the main watershed being the border of the tributaries of the Vistula and Danube, that is to The Baltic and The Black Sea. Wisłoka and its tributaries are the natural communication routes, leading trade routes, since the Antiquity, which were connecting the Carpathian Basin to the huge Central European lowlands.

Geomorphic units are stretched in parallel, that is from the East to the West. The first unit starting from the Carpathian watershed is the mountain range of Low Beskids, creating a dip in the whole Carpathian massif. Then, to the north, there is a range of Central Beskid Foothills, which do not extend 600 m above sea level, and then the range of lowlands called the Central Carpathian Depression—Jasło-Sanok Valleys enclosed by the Carpathian Uplands, up to the foot of the Carpathians (Kondracki 2001).

To sum up, the area of the basin of Wisłoka is located on the Polish territory, in the northern foreground of the Western Carpathians, constituting the most northern area of the OFC culture.

For the first time, the OFC remains in the basin of Wisłoka were discovered by the Carpathian Archaeological Expedition (led by Andrzej Żaki), as far as in the 1950s. Through decades it was believed that the Lusatian culture prevailed in this area in the Bronze Age (Żaki 1956).

A real breakthrough however, in the research regarding OFC, not only in the basin of Wisłoka but in the whole Carpathians, occurred thanks to the work of Jan Gancarski, in the mid-1980s, together with the excavations carried out on the site no. 29 in Jasło. Jan Gancarski discovered numerous relicts on this site, with the significant OFC characteristics, and visible elements of the Trzciniec culture, during three excavations in 1985–1987 (Gancarski 1988, 1994).

Then, Gancarski identified fragments of ceramics with the OFC characteristics, among the materials from the research from 1950s and 1960s, led on the hillfort in Trzcinica (located 4 km from Jasło), which started a long-term research on the site. The research, started in 1991, is led until today, with intensification in the 1990s and between 2005–2009 (Gancarski 2011).

Gancarski broadened his interest in OFC, researching into open settlements located in the basin of Wisłoka – the site in Łajsce, south of Jasło, as well as in Potok, between Jasło and Krosno (Gancarski 2002).

In the recent years, there has been a significant progress in research methods, for example with the use of the LIDAR technology. Thanks to this method, a new archeological site located near Jasiołka river (the eastern tributary of Wisłoka), in Brzezówka, Tarnowiec district was discovered.

Gancarski led the excavations on this site in 2015 and 2016. The research showed that we are dealing with yet another OFC defensive settlement in the basin of Wisłoka, apart from Trzcinica.

Trzcinica, Jasło district

The hillfort in Trzcinica is one of the most important archaeological sites on the territory of Poland. As it was already mentioned, it is located in the area of the Jasło Basin, on a 30-metres-high

promontory, above the river Ropa, the left-bank tributary of Wisłoka (Fig. 1, 2).

The hill has three very steep sides (from the North, South and East) with a gradient of 20 to 40 percent, giving the hill its natural defensive values. Only from the western side, the promontory gently transforms into an upland (Gancarski 2011).

The place was fortified for the first time at the turn of the 21st century before Christ by the population of the Pleszów group of the Mierzanowice culture, which is a taxonomic unit described by Jan Machnik, characteristic for the western part of Polish Carpathians (Machnik 1967; Madej 1998). The settlement was taking up around 56 to 60 ares, located at the end of the promontory and from the southern side and partly from the western as well, it was surrounded by a rampart from one 1.8 to 2.5 meters wide (Fig. 3).

The walls of the embankment were made of logs, laid between poles and the construction was filled with clay.

There was a palisade stuck in the rampart and the distance between the poles amounted from 10 to 50 centimeters, while the poles were of 20 to 30 centimeters in diameter. It is probable, that initially the hillfort was protected only with a palisade. The artefacts, including very characteristic ceramics

decorated with impressed cord pattern, were only discovered in the occupation layer, located near the fortifications. The settlement dates back to 2100 to 1650/1600 before Christ, when it was taken over by the OFC population (Gancarski 1999; Calderoni et al. 1998–2000).

The character of this cultural change keeps being discussed, nevertheless, the OFC defensive settlement was undeniably functioning in the first settlement period in the spatial framework set up by the population of the Pleszów group of Mierzanowice culture. It seems that in the first period after the takeover of the settlement by the OFC population, they rebuilt fortifications, adding a palisade, or a fence from the northern and eastern sides, namely from the side of the steepest slopes, as showed by the arrangement of poles on the edge of the plateau occupied by the settlement just in front of the steep slope ending at the Ropa river (Fig. 4) (Gancarski 2011).

After a short period of the OFC first settlement's existence (100–150 years?), a fire emerged on the rampart, which is shown by the destructions identified in the rampart and at its foot. The gate from the southern side has been burnt as well (Fig. 5).

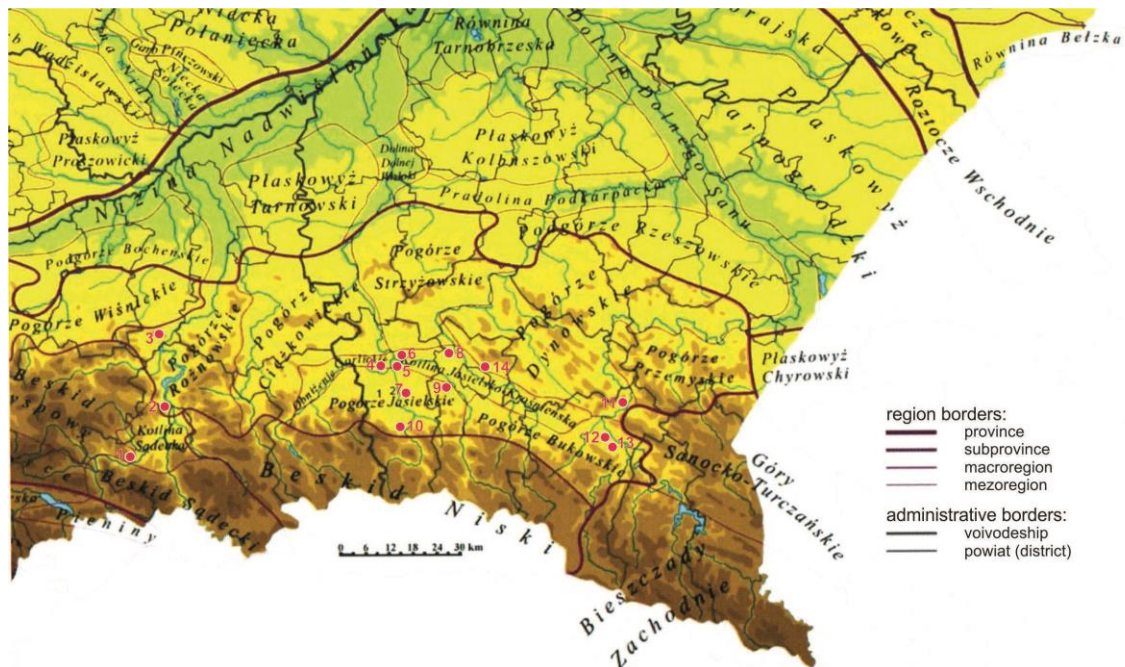


Figure 1. Map of the OFC sites in Poland. 1-Maszkowice, s.1, 2-Marcinkowice, s.1, 3-Czchów, s.10, 4-Trzcina, s.1, 5-Jasło, s.29, 6-Kowalowy, s.1, 7-Ląsce, s.9, 8-Potok, s.6, 9-Brzezówka, s. 10, 10-Wietrzn-Bóbrka, s. 1, 11-Hłomcza, s.1, 12-Trepcza, s.2, 13-Sanok, s. 56, 14-Korczyna, s.81.

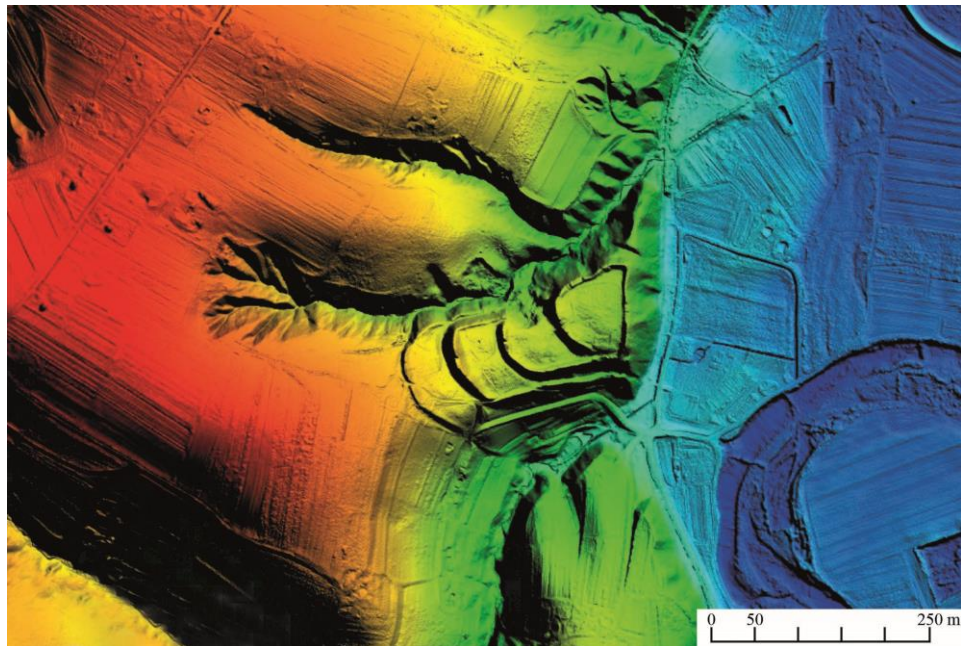


Figure 2. Trzcinica, site no. 1. LiDAR image of the hillfort

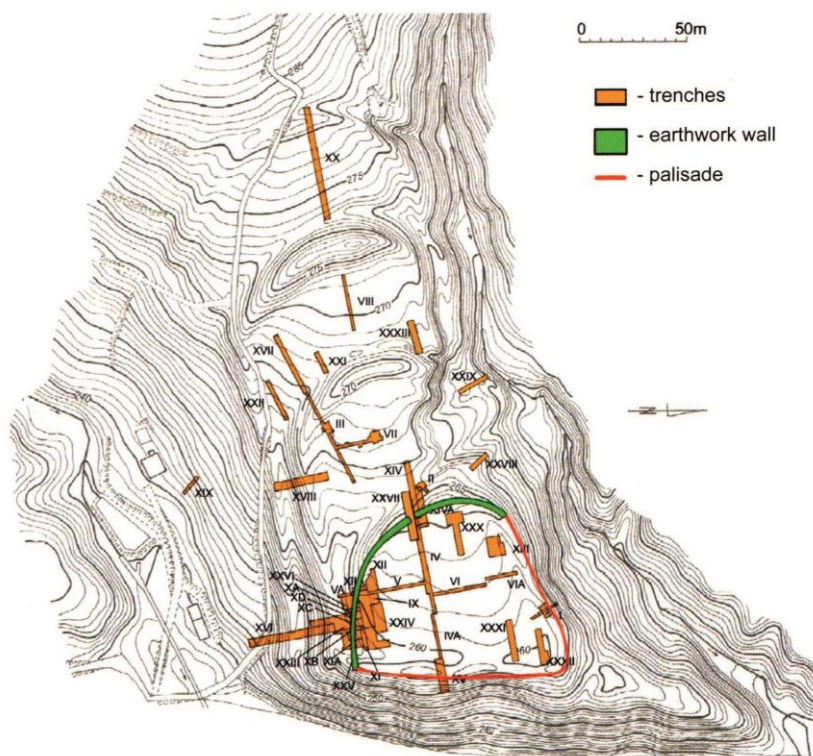


Figure 3. Trzcinica, site no. 1. Area of Pleszów group settlement

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After the fire, the settlement was rebuilt, based on the earlier layout. The space in front of the burnt rampart was made out of logs which were placed next to each other, perpendicular to the axle of the rampart, with a clay embankment reaching the older rampart. The rampart was broadened by 2.5 to 2.7 meters. The gate was dismantled along with a road from the southern side. The fortifications from the other sides have preserved their old character. Then, the settlement was extended to 2 hectares, by adding another ward from the western side, thanks to which, the

original OFC settlement occupying the end of the upland's cape, became a unique acropolis (Fig. 8). From the western side, the settlement was surrounded by a shallow ditch 1.2 meters deep and 8-9 meters wide), cutting the promontory crosswise. From the southern side, there was a slightly hollowed ledge, 3-4 meters wide, protected with a palisade or a wooden wall, like the inside rampart (Fig. 6, 7, 8) (Gancarski 2011).

Practically, all the archaeological material originating from the OFC defensive settlement in Trzcinica was discovered in the occupation layer.

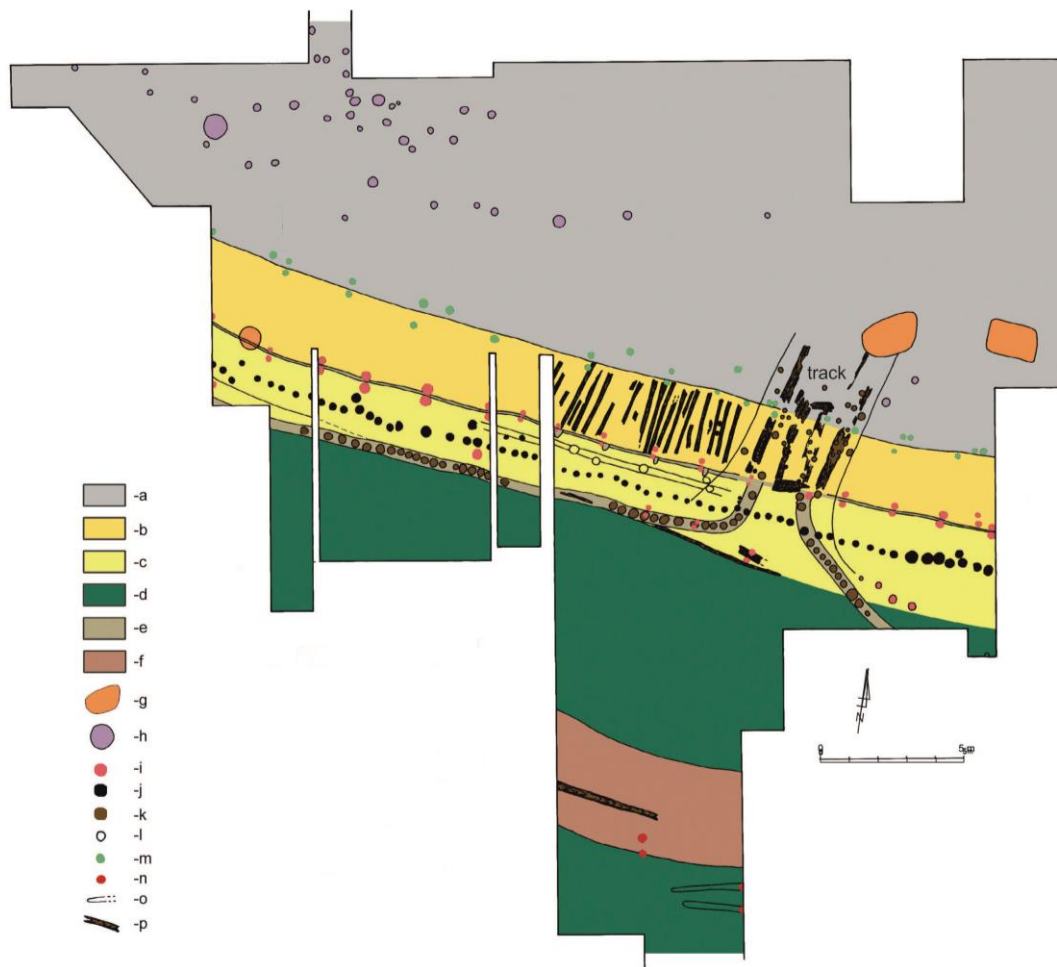


Figure 6. Trzcinica, site no. 1. Plan of the beginnings of Bronze Age fortifications. Trenches VA, XA, XC, XD, XI, XIA, XII, XXIII, XXIV, XXV, XXVI. Plan of the beginnings of Bronze Age fortifications, a - Pleszów group and OFC settlements, b- earthwork enlargement after the fire (OFC - younger phase), c - Pleszów group earthwork, d - stronghold slope, e- palisade grooves (OFC - younger phase) and earthwork face of Pleszów group, f – shelf on the slope (OFC – younger phase), g - Early Medieval objects, h - OFC objects, i - vestiges of posts of Pleszów group wall, j - vestiges of Pleszów Culture earthwork palisade, k - vestiges of posts of earthwork face palisade construction and vestige of wall reinforcing the road, l-vestiges of posts in the earthwork, m – vestiges of posts of younger earthwork face construction (OFC - younger phase), posts reinforcing shelf on the slope, o – vestiges of grooves or beams, p – vestiges of wooden beams.

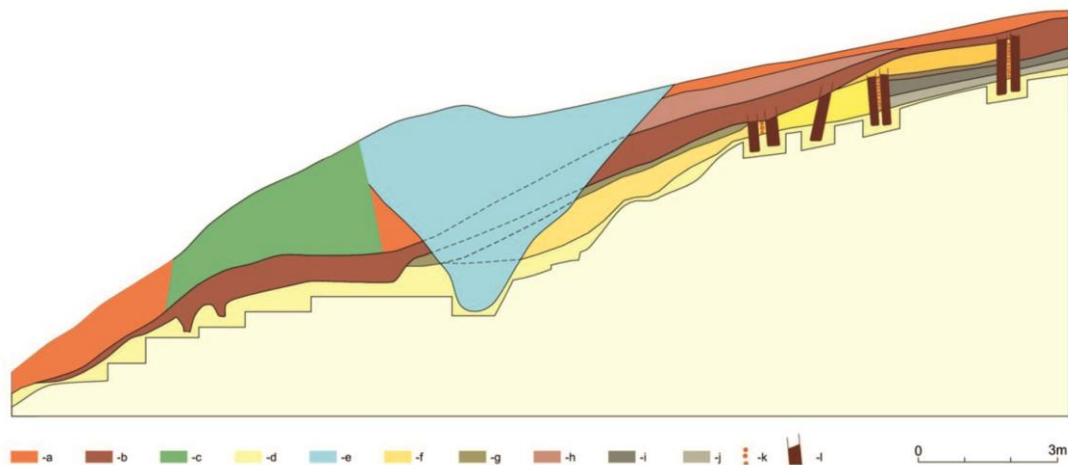


Figure 7. Trzcinica, site no. 1. Schematic cross section of the hillfort layers (south side). Schematic profile of the stronghold layers (south side), trenches XB and XVI: a – embankment of the Pleszów group earthwork; b – rain-wash from the oldest Pleszów Group earthwork; c – Pleszów group culture layer; d – culture layer of older OFC settlement; e – beams of the base of younger OFC earthwork; f – embankment of younger OFC earthwork; g – culture layer of younger OFC settlement; h – rain-wash from the Pleszów group settlement; i – culture layer of the youngest OFC settlement; j – rain-wash from the youngest OFC settlement, k – Early Mediaeval earthwork, l – Early Mediaeval ditch, m – Early Mediaeval layers, n – rock-bed, o – earthwork face beams, p – posts

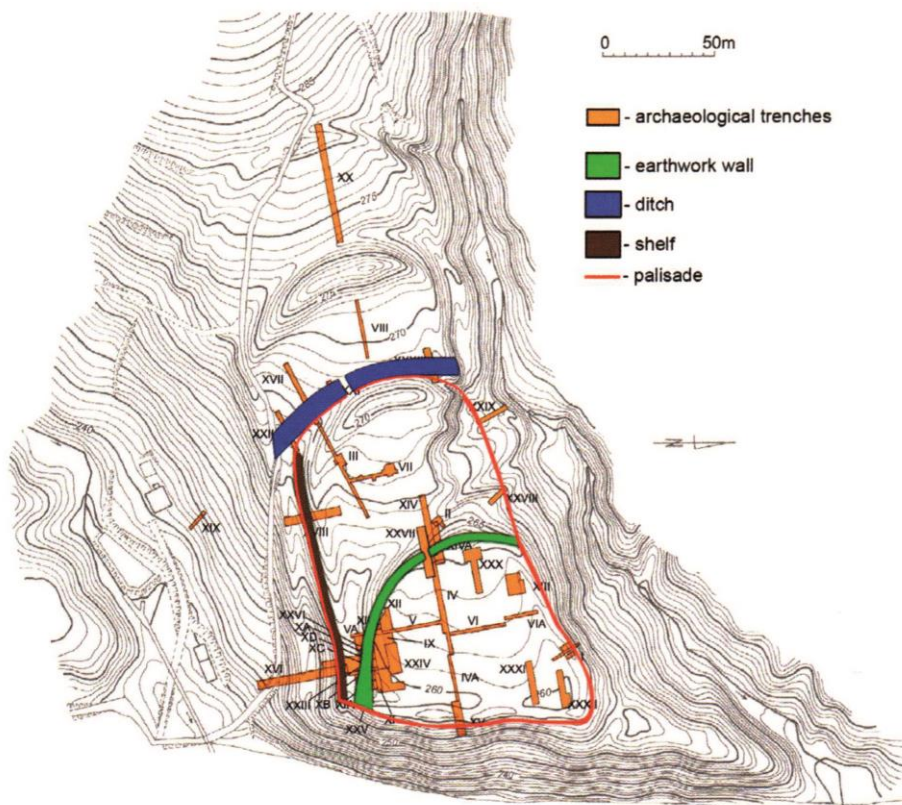


Figure 8. Trzcinica, site no. 1. Area of younger phase of the OFC settlement (OFC-II)



Figure 9. Trzcinica, site no. 1. Remains of the bronze caster's cottage

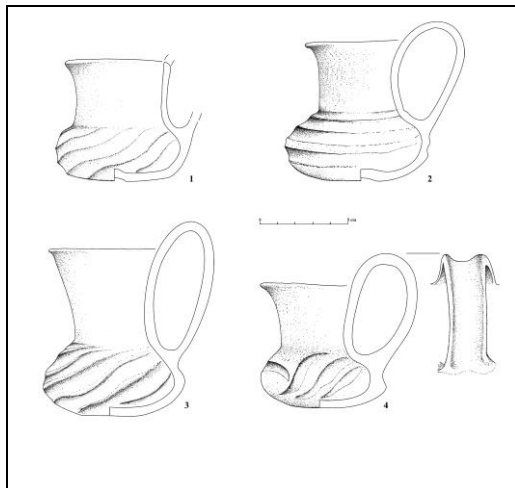


Figure 10. Trzcinica, site no. 1. The OFC pottery from bronze caster's cottage

Besides a few storage pits, there were no objects discovered in the interior of the settlement, which would indicate a construction made of logs. A larger amount of debris located along the ramparts of the stronghold suggests the location of buildings. The existence of housing near ramparts is also indicated by the concentration of stones along the southern rampart.

The only building which was placed on the ground of the hillfort in Trzcinica was located in acropolis, in its western part, near the fortifications. Its presence is showed by fragments of burnt floor and logs from the wall constructions. The object was of a quadrangular shape with an annex. The building was perhaps devoted to casting activities, as numerous artefact materials were discovered there, including a clay nozzle, pottery with knobbed decoration, miniature

pottery, fluted mugs, as well as innumerable bone tools, tools made of stone and burnt wheat seeds, millet or acorn. It is dated to the 1st settlement phase of the OFC in Trzcinica (Fig. 9–12) (Gancarski 2011).

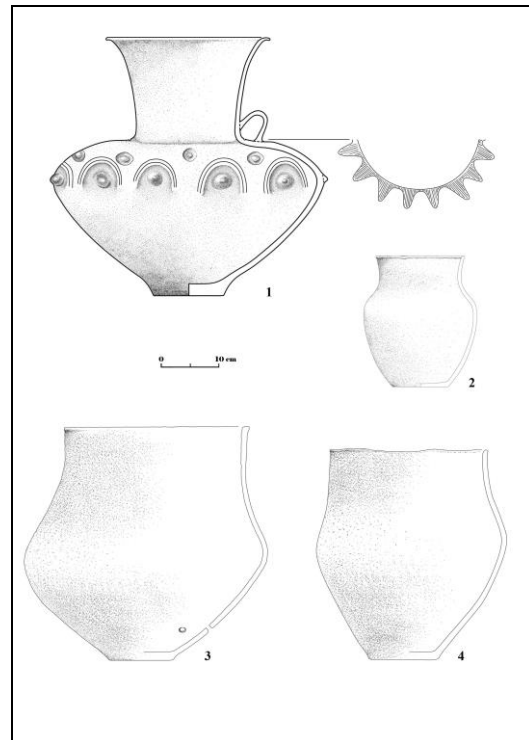


Figure 11. Trzcinica, site no. 1. The OFC pottery from bronze caster's cottage



Figure 12. Trzcinica, site no. 1. Vessel with the characteristics of the Trzciniec culture from bronze caster's cottage

Numerous radiocarbon dates and a very large amount of artefact material, including spiral-knobbed pottery, a flange axe, Hajdusámson-type battle axe, a clay idol, wheels from the clay carts, as well as animal figurines, indicate a strong connection of the local population in Trzcinica with the Carpathian Basin civilization, allowing dating of the fortified OFC settlement to the years between of 1650/1600 to 1350 before Christ (Fig. 13) (Gancarski 1999a).

Two thousand years after the end of the OFC fortified settlement in Trzcinica, on the relicts from the Bronze Age, in the years 770 to 780 after Christ, the Slavs built a huge hillfort, occupying a much bigger area than the OFC hillfort from the early Bronze Age (Gancarski and Poleski 2006).

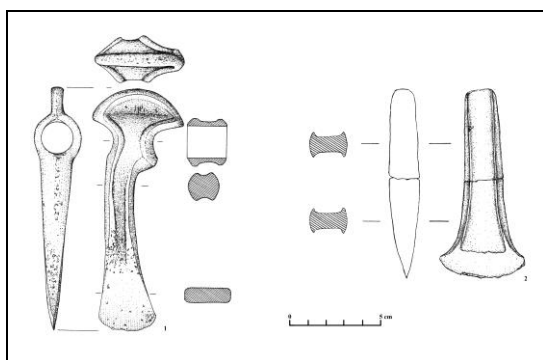


Figure 13. Trzcinica, site no. 1. Hajdusámson-type battle axe and ritually halved flange axe

Brzezówka, Tarnowiec district

Another settlement of a defensive character that can be connected with the OFC is the aforementioned settlement in Brzezówka, Tarnowiec district, located 14 kilometres from Trzcinica in a straight line, discovered thanks to the analysis of the LIDAR databases (Fig. 14) (Gancarski and Madej in print).

The site takes the end part of the upland promontory, which from the northern and southern side is cut by ravines and from the eastern side, the hill is undercut by the Jasiołka river valley. The height difference between the plateau, where the settlement was built, and the bottom of the valley is up to 30 meters. There are two ramparts (confirmed) on the surface, which may imply that the area was bigger and it had two additional wards.

The excavations in 2015 and 2016 conducted by J. Gancarski, proved that we are dealing with a

fortified settlement of the OFC population, a settlement which was divided into the main ward (acropolis) and a second ward. Probably, the first defensive construction on the hillfort was a wooden fortified palisade (Fig. 15–17).

The artefacts that were found in the occupation layers can be characterized by quite frequent spiral ornaments (Fig. 18). Radiocarbon dates acquired from logs of the bottom part of the rampart indicate, that the beginning of the settlement can possibly date back to the 18th/17th century before Christ (Fig. 19). At this moment in time we do not possess any data allowing us to date the end of this settlement.

It occurs that regarding this site, we are dealing with the early medieval phase, showed by the artifacts from the first half of the 11th century after Christ.

There was an established belief in the literature, that another defensive settlement in the Wisłoka basin was located in Wietrzno-Bóbrka on a hill above Jasiołka river. The OFC material was found on the early-medieval hillfort, during the research led by Andrzej Żaki and the Carpathian Archaeological Expedition in the 1950s. Nevertheless, verification excavations led by Jan Gancarski, both in the place where the old excavations were located, as well as in their neighborhood, did not show any signs of OFC remains in the area. The reason for that can also be the mix up of the materials.

Before we move to the conclusion, we have to mention OFC open settlements from the Wisłoka Basin, which are already known. Jan Gancarski has found and researched three sites of such kind: Jasło, site no. 29, Potok site no. 6, Łajsce site no. 9.

These sites are located more uphill, while only the site 29 in Jasło is connected with the basin of a big Carpathian river. Within each of the sites, the remains of the OFC settlements were located in the gully-shaped cavities in situ.

Occupation layer and storage pits, as well as clusters of stones were found in these places. They are most probably parts of building constructions (Gancarski 1988, 1994). These settlements are connected to the younger phase of OFC culture's development, most probably with the Bronze Age B1, and the artifacts have visible signs of influence of the Trzciniec culture from the North, most notably, the ornaments of the horizontal ribs, characteristic of the Trzciniec culture (Gancarski 1994).



Figure 14. Brzezówka, site no. 10. LiDAR image of the hillfort



Figure 15. Brzezówka, site no. 10. Trench with the traces of the fortifications and the residual fire



Figure 16. Brzezówka, site no. 10. Eastern cross section of the main ward rampart



Figure 17. Brzezówka, site no. 10. Western cross section of the main ward rampart

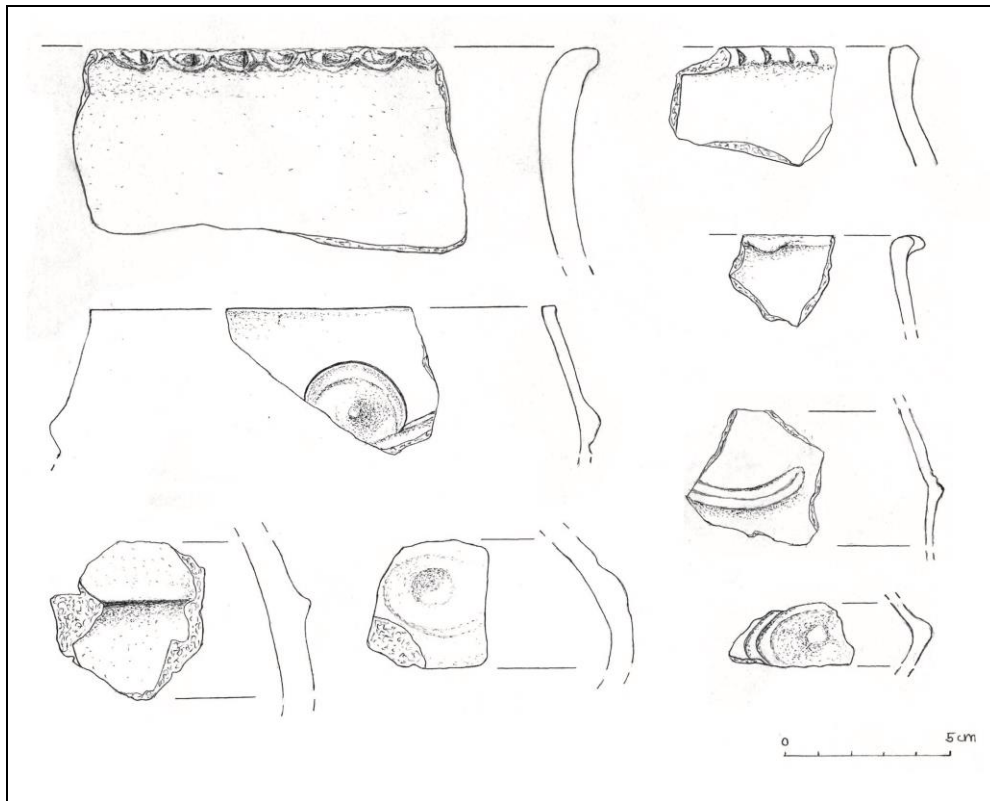


Figure 18. Brzezówka, site no. 10. OFC clay pottery fragments

Discussion

To sum up, the OFC defensive objects in the Wisłoka river basin were located on the naturally defensive promontories, near the biggest rivers of the region. The height difference in relation to the river measured up to 30 meters. The settlements were surrounded by fortifications made out of wood and soil, strengthened additionally by ditches from the side, where access to the settlement was the easiest.

Most of the materials were found in the occupation layers, what is characteristic of defensive settlements of all taxonomic units from the early Bronze Age of the Polish Carpathians (the case is similar when it comes to the Pleszów group of Mierzanowice culture).

It seems that the buildings of this kind were made of logs and located along the fortifications, indicated by the thickness of the occupation layer in these areas with the clusters of stones around and the location of the “caster’s house” in Trzcinica.

The OFC defensive settlements from Wisłoka river basin were of a multinomial structure, with an acropolis and outside wards. The outside settlement was most probably created in the younger phases of the hillfort’s existence.

It seems that there is also a chronological analogy between the hillforts in Trzcinica and Brzezówka. Most probably, the stronghold was populated by the OFC earlier than the settlement in Trzcinica, what would be shown by the presence of remains of the Pleszów group of Mierzanowice culture from the 18th and partly 17th centuries BC in the Wisłoka Basin, because in 18th century and for the most part of the 17th, the Trzcinica hillfort was inhabited by the people from the Pleszów group of Mierzanowice culture.

All of this shows that we are dealing with an extremely interesting cultural phenomenon, which has not been fully investigated. Nevertheless, the scale of the fortifications and the character of the discoveries are impressive. The Carpathian Troy Open-Air Museum was created thanks to the efforts of the director Jan Gancarski, utilizing the vast potential of the hillfort in Trzcinica.

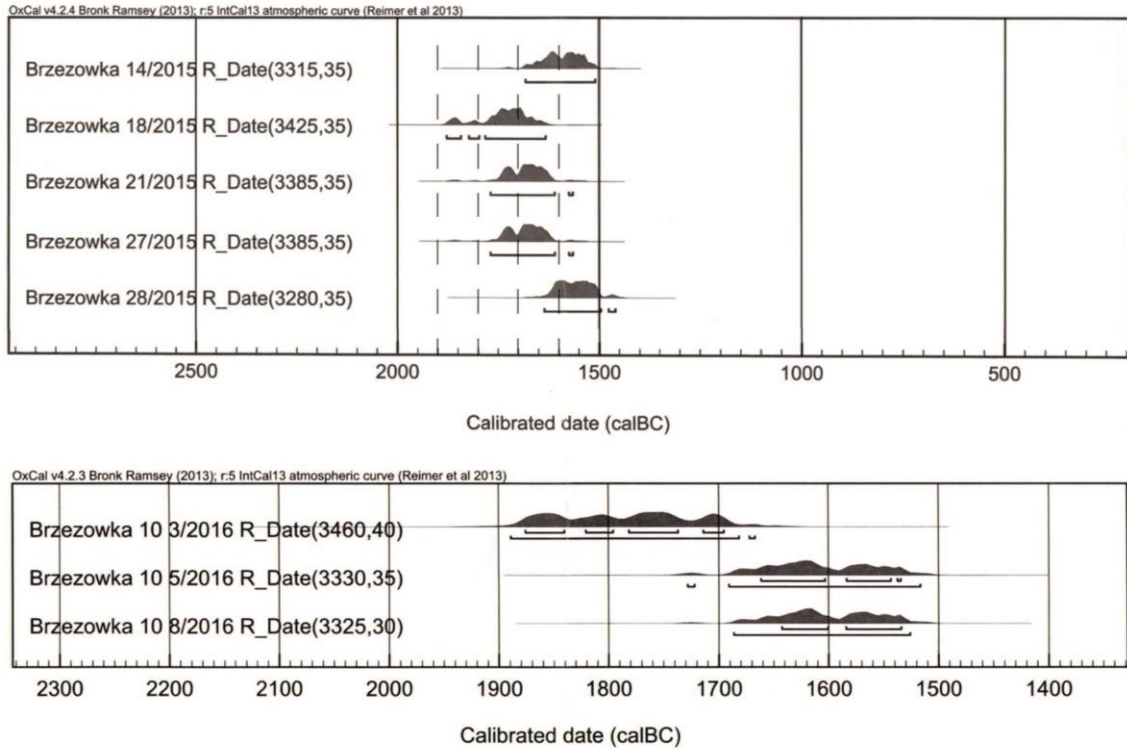


Figure 19. Brzezówka, site no. 10. Radiocarbon data

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