

HOW CAN WE INVESTIGATE THE SOCIO-ECONOMIC STRUCTURE OF THE CUCUTENI-TRIPOLYE MEGA-SITES? HOUSES AS SNAPSHOTS AND PITS AS DURABLE NARRATIVES

SPATIAL AND SOCIAL ORGANIZATION OF EASTERN AND WESTERN CUCUTENI-TRIPOLYE MEGA-SITES

The recent years witnessed the dynamic formation of a comprehensive research design in the study of the Cucuteni-Tripolye mega-site phenomenon. Its empirical background lays mainly in the technological developments which today allow scientists to work with high-resolution magnetic plans of prehistoric settlements. Given the gigantic dimensions of the settlements, excavations were focused on dispersing targeted, small-scale investigation of certain features to obtain multivariate data samples which would be further extrapolated over the entire site.

Of course, such an approach has both its advantages and constraints, depending on the formulated research questions. On the one hand, it is the only possible way to attempt to multilaterally characterize a mega-site basing on a relatively short-term period of field investigations (several campaigns). On the other hand, detailed approaches to distinct socio-economic structural units of the mega-sites (house-groups, production facilities) require extensive excavations and can be therefore made only relying on data resulted from older large-scale investigations, which are often unpublished or have been acquired with certain methodological limitations (from the current-day perspective).

For the Ukrainian mega-site of Maidanetske (Cherkasy obl./UA), it has been postulated that the settlement was organized in the following units: a household (= dwelling with adjacent pits and immediate space around it), a neighborhood (5-10 houses within a house-row, probably including nearby houses from neighboring rows), a quarter (50-150 households associated with an integrative facility such as mega-structure, cf. Hofmann et al. 2019) and the mega-site itself with all of the 2300 households (Müller/Hofmann/Ohlrau 2016; Müller et al. 2018). Complementary, the social structure of the site would include lineage and supra-household economic units. A generally similar site organization, although interpreted differently, has been proposed for Nebelivka (Kirovohrad obl./UA; Gaydarska/Nebbia/Chapman 2019) with its several scales – household (equated with the burnt house), neighborhood (up to 27 houses; in most cases 3-7 houses) and quarter (comprising over 10 neighborhoods associated with an assembly house). At both sites, the quarters would stretch across several concentric house-rows in a kind of radial »pie-like« structure. At the same time, variations of dwelling sizes have been recorded, both among mega-structures and residential households.

Thus, the multifold classification and analysis of geophysical anomalies combined with the results of targeted excavations led to important conclusions regarding the overall social organization of the mega-sites. In principle, despite obvious structural and conceptual differences in the proposed models (for an overview, see Ohlrau 2020, 276 ff.), the Ukrainian mega-sites have been interpreted as rather egalitarian or heterarchical constructs lacking clear archaeologically detectable evidence for rigid institutionalized social stratification or hierarchy.

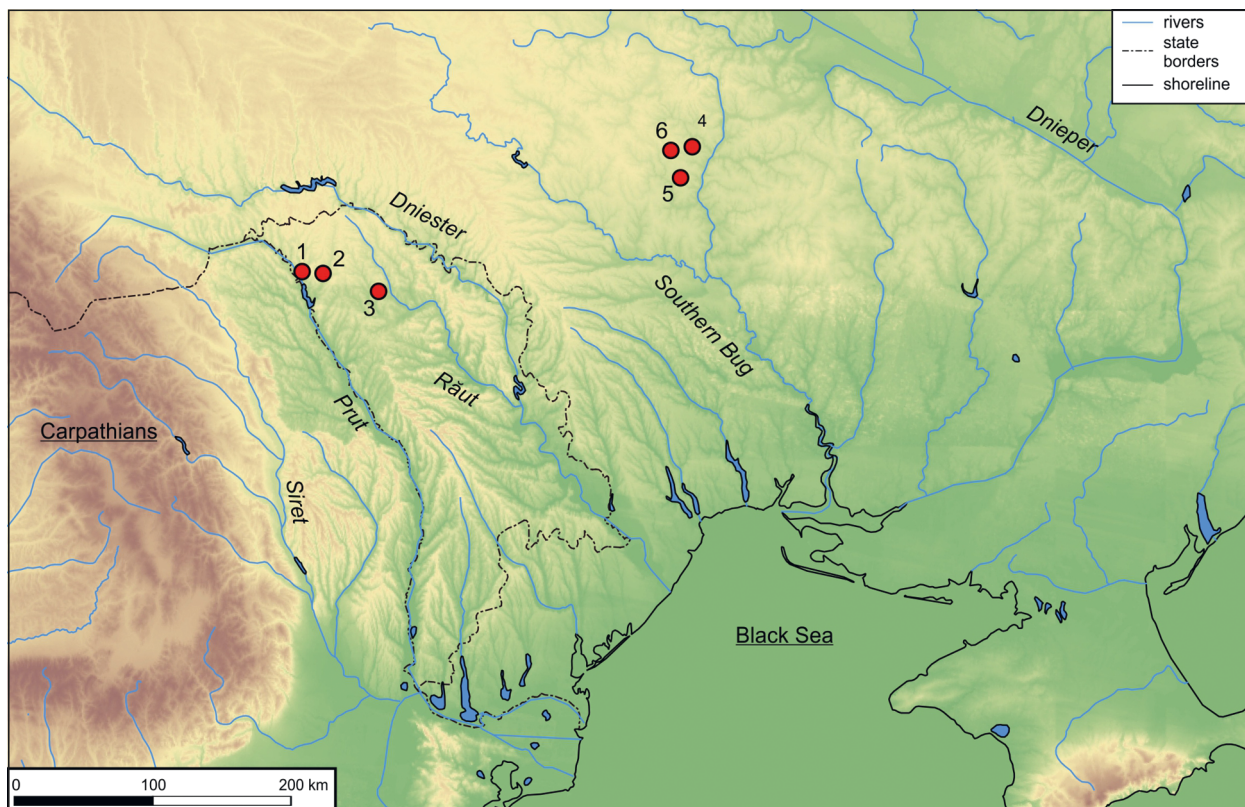


Fig. 1 Map of Cucuteni-Tripolye sites mentioned in the text: **1** Brînzeni VIII. – **2** Stolniceni. – **3** Petreni. – **4** Maidanetske. – **5** Nebelivka. – **6** Talianki. – (Map S. Țerna).

On the other hand, as stated above, the analysis of house inventories was done mainly based on the results of previous research. For the mega-site at Talianki (Cherkasy obl./UA; Müller/Hofmann/Ohlrau 2016), it has been observed that the houses with smaller floor sizes yielded the highest amount of millstones while houses with an area between 60 and 75 m², displaying a small quantity of millstones, could contain a large number of loom weights which were very rarely encountered in small dwellings.

Notable differences were recorded also for households from Maidanetske (Ohlrau 2020, 57-58): houses with »rich« inventories included – among others – hoards and tokens while pottery imports were associated with households specialized in textile production. A higher amount of items for food preparation was related to larger families with multiple living rooms. Unfortunately, both at Talianki and Maidanetske¹, a thorough analysis of household inventories has not been possible due to the limitations and incompleteness of the older data. Hence, a comprehensive comparative study of neighboring household inventories (like on certain compact Neolithic settlements from Central and South-Eastern Europe – Okolište [Zeničko-dobojski kanton/BiH]: Müller 2010; Müller et al. 2011; Arbon-Bleiche 3 [Ct. Thurgau/CH]: Leuzinger 2000; Ebersbach 2010; Röder et al. 2013, to name just a few examples) is still a task for future mega-site research.

Although in terms of size and complexity, the huge settlements like Maidanetske, Nebelivka or Talianki are seen as the »peak of Tripolye development« (Müller et al. 2018, 258), the mega-site phenomenon is by far vaster, originating in modern North-East Romania and Northern Moldova (fig. 1), or the western area of the Cucuteni-Tripolye distribution (Țerna/Vornicu-Țerna/Rassmann 2018). Here, the much smaller 30 ha large sites display both structural similarities and some remarkable differences when compared to the Ukrainian examples.

Thus, the geophysical prospection of the Petreni settlement (Drochia district/MD; Rassmann et al. 2016) allowed the identification of c. 26 radial house-groups, both inside and outside of a ring-shaped corridor.

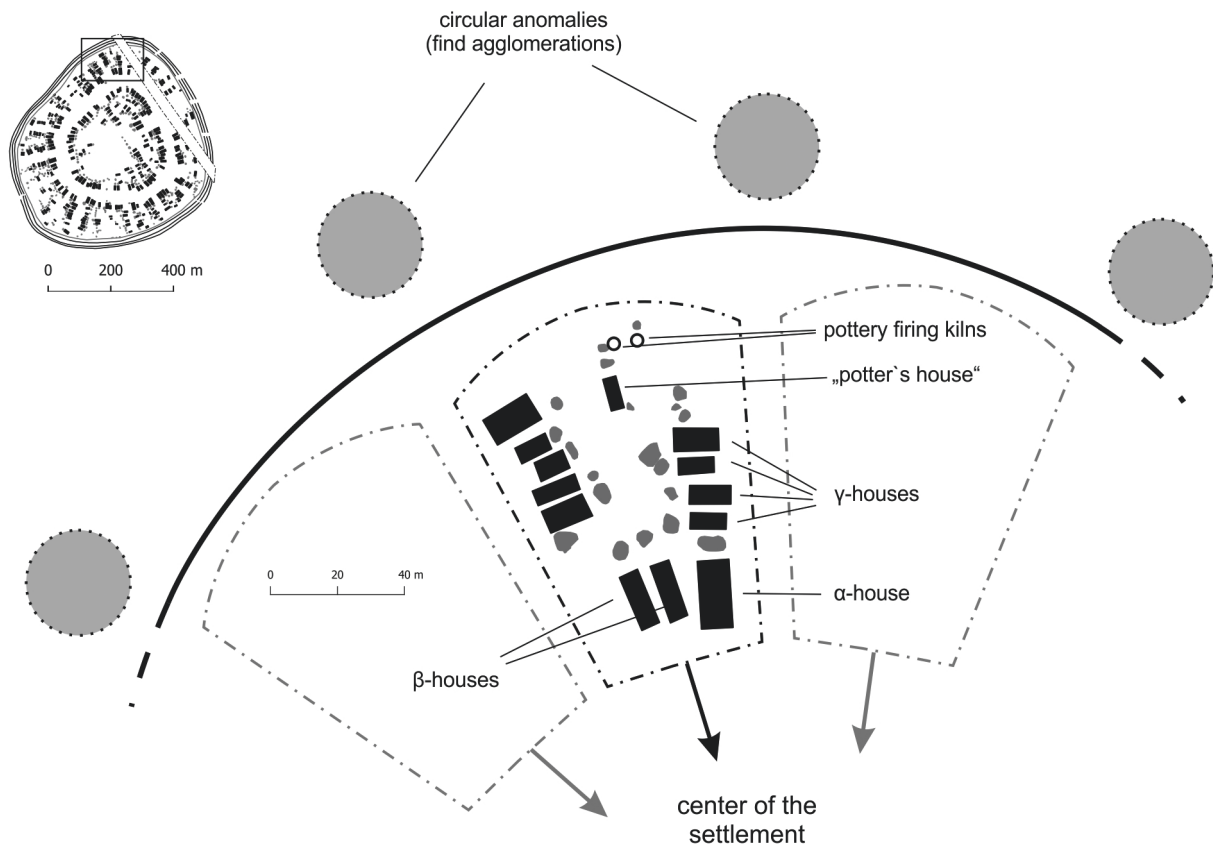


Fig. 2 Schematic layout of the outer house-groups at Stolniceni (Eдинeț district/MD). – (Illustration S. Țerna).

The main mega-structure is located at the entrance to the settlement's central plaza while several other mega-structures are situated in the circular corridor. Just like at Ukrainian mega-sites, the houses display a twofold orientational principle, with some oriented radially towards the settlement's center and others disposed tangentially.

A generally similar layout has been recorded for the settlement of Stolniceni (Eдинeț district/MD; Scholz/Rassmann/Țerna 2018; Țerna et al. 2019). Here, c. 27 house-groups were identified. As at Petreni, they are situated both inside and outside of the corridor. The ones inside of the corridor (= on the perimeter of the central space) consist mainly of radially oriented houses. The ones outside of the corridor (building the outer area of the settlement) have a more complex layout. Thus, despite certain variations in size and number of dwellings, each outer house-group displays the same structural elements, namely (fig. 2):

1. A row of radial dwellings oriented towards the central plaza and facing the circular corridor. The houses from this row are larger than the rest of the houses from the house-group. Usually, one of these houses is the largest one and may be conventionally designated as »α-house« while the rest can be termed as »β-houses«.
2. Two parallel or slightly divergent rows comprising tangentially oriented dwellings. They are located on the space between the row of radial houses and the settlement's outer limit (marked by the palisade and ditches). Generally, these houses are smaller in size² and may be designated as »γ-houses«. They are more numerous than »α« or »β-houses«.
3. A trapezoidal space (»courtyard«) delimited by the three house-rows (one radial and two tangential) and the palisade. In some of the house-groups, this space contained pottery firing kilns and further associated features.

4. Pits of different sizes, usually connected to houses. The quantity of pits in some of the house-groups outnumbers the number of dwellings.
5. Circular anomalies which are, *stricto sensu*, not located on the territory of the house-groups but are arranged peripherally around the settlement, outside its limits, in such a way, that each such anomaly corresponds to an outer house-group. Therefore, we can link them to these house-groups as a characteristic structural element. These anomalies represent roundish agglomerations of fragmentary finds (pottery, animal bones, tools and miniatures) concentrated on an area with light-greyish soil. One may presume an assembly function for these features (Țerna et al. 2019, 246-248).

It can be observed that, in contrast to the huge eastern mega-sites, the large settlements from Moldova display a much clearer structure allowing firm spatial delimitation of each radial »pie-like« house-group. Moreover, despite individual differences, each of these house-groups reveals the same pattern where larger dwellings are facing the ring-shaped corridor and are oriented towards the settlement's center.

In this context, several questions arise. What stays behind these variations of house-areas within the house-groups from western large settlements? Are there differences in household inventories? What consequences may these differences have for understanding the socio-economic structure of a mega-site?

In the following paper, I would like to address these problems using data from older and still unpublished excavations at the settlement of Brînzești VIII (Edineț district/MD) from Northern Moldova. Also, I want to argue the necessity of targeted pit investigation as a valuable research tool for future investigations of the socio-economic structure of Tripolye mega-sites.

BRÎNZEȘTI VIII: SITE LOCATION AND DESCRIPTION, HISTORY OF RESEARCH, CHRONOLOGY

The settlement lies on a high promontory built by the confluence of Racovăț and Draghiște rivers, in North-Western Moldova, in the Prut river basin (**fig. 3, A**). The promontory has a rounded shape with a rectangular brow in the south-eastern part. The absolute height of the promontory is about 110 m above sea level while the relative height above Racovăț and Draghiște rivers represents c. 10-12 m.

The area of the site is almost 30 ha. Archaeological stratigraphy includes Paleolithic finds, a consistent Copper Age site, Late Copper Age finds and a Sarmatian necropolis from the first centuries AD.

The settlement has been discovered in 1966 by N. Chetraru (Markevich 1973, 60-61). In the late 1970s, K. Shishkin made aerial photos of the site. In 1979-1980, V. Markevich opened five trenches in different parts of the settlement. Materials from these investigations remain almost unpublished, with the exception of anthropomorphic figurines (Sorochin 2001) and several finds included into various catalogues (Markevich 1985; Stratulat 2009). The features unearthed are also unpublished, except for a brief note in conference proceedings (Markevich 1990). The main information is contained in the field reports kept in the Archive of the National Museum of History of Moldova (Markevich 1980; 1981b).

At this moment, the layout of the site is not yet clear, although the aerial photos of K. Shishkin indicate that it has centripetal elements at least in its central and northern parts (**fig. 3, B**). In autumn 2017, several hectares have been prospected geophysically (Scholz/Rassmann/Țerna 2018). Although the surveyed area was very restricted, the magnetic plot shows the presence of distinct house-groups on both sides of an inner ditch. Another exterior ditch is seen from Google spatial imagery and also on Shishkin's plan (Țerna/Heghea 2017). Therefore, the settlement probably displays several occupation phases.

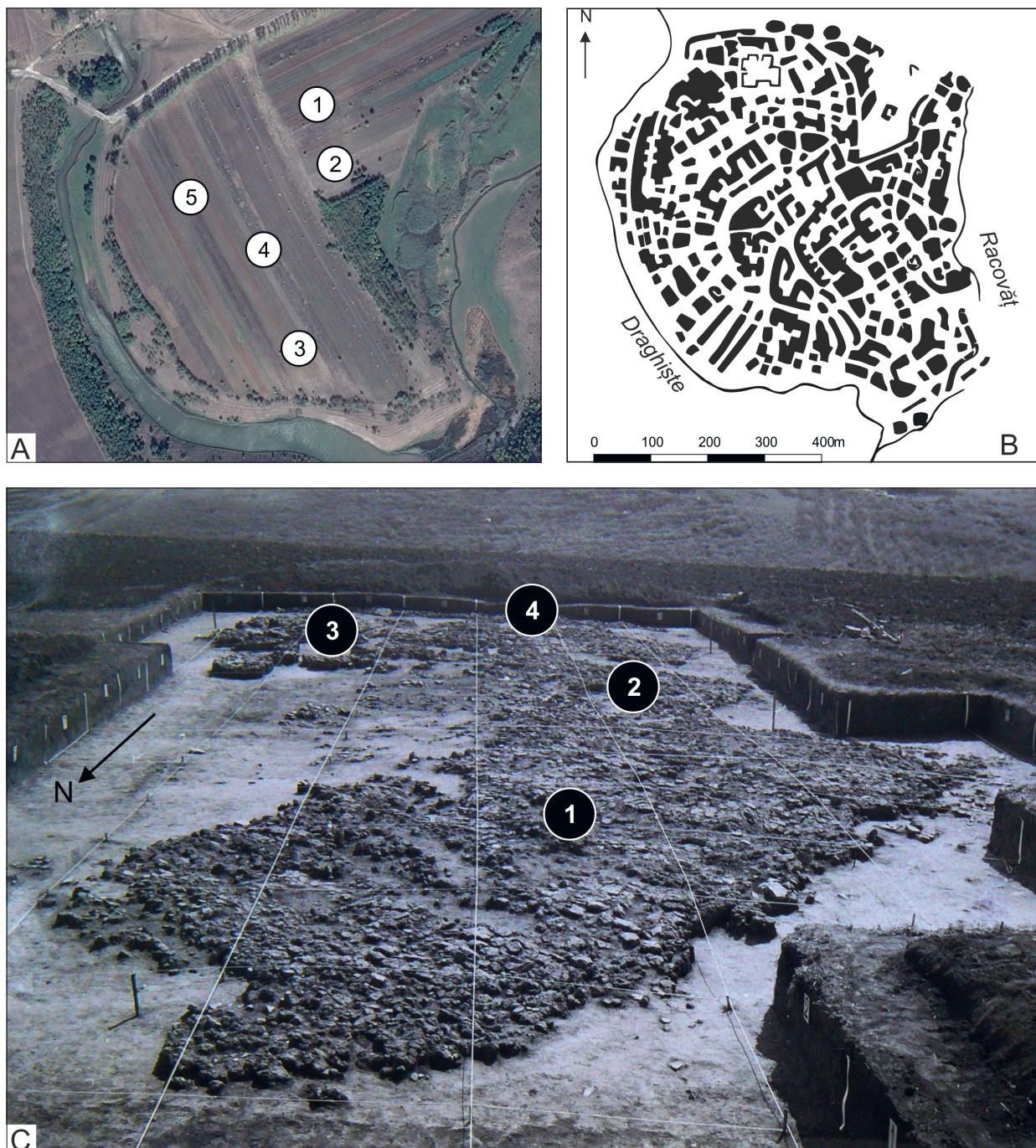


Fig. 3 Brinzeni VIII (Edineț district/MD): **A** satellite image of the promontory with the settlement (Google Earth) with numbers marking the approximate location of excavation trenches (1-4 1979 trenches; 5 1980 trench). – **B** Shishkin's interpretation of the settlement's structure as derived from aerial imagery. – **C** view from the north over the 1980 excavation trench with numbers marking each of the burnt houses (1-4). – (A Google Earth satellite image [15.9.2015]; B after Sorochin 1993, fig. 7; C after Markevich 1981b).

During the two field seasons of 1979 and 1980, V. Markevich excavated eight dwellings and several pits within five trenches. The relatively small trenches nos 1-4 were located in different parts of the settlement and have been opened in 1979 (fig. 3, A). Trench no. 5, the largest one, was opened in 1980 (fig. 3, C). It yielded four Copper Age dwellings and seven pits unearthed on an area of 836 m². Furthermore, the excavations yielded evidence for a Paleolithic occupation (a *biface* tool) and seven inhumation graves from the

first centuries AD which partly affected the Copper Age houses (fig. 4, a). The artifacts resulted from the investigations of V. Markevich are kept in the National Museum of History of Moldova (Chişinău). The pottery from the excavations allows to date the settlement to the Tripolye B2 phase, after Iabloana (Glodeni district/MD) and Racovăţ (Soroca district/MD) and before the Stolniceni and Petreni settlements. Although we still lack radiocarbon determinations for Brînzeni, recent dates obtained on a site with similar pottery in Ukraine (Rud et al. 2019) place it in the 40th century cal BC.

ANALYSIS OF HOUSES AND PITS INVENTORIES FROM BRÎNZENI VIII: STATE OF AVAILABLE DATA, MATERIALS AND METHODS

The finds and their contexts which build the core of the following analysis come from the 1980 field investigations since the trench opened in that year (no. 5) uncovered several neighboring dwellings and pits, part of the same spatial cluster (and therefore suitable for an intra-cluster comparative study). The materials from smaller trenches nos 1-4 (1979), which were located in different parts of the settlement, were not taken into consideration because of the lack of close spatial connection between the excavated contexts.

Since the materials for the current study originate from older excavations, it imposes some methodological limitations concerning their evaluation. Thus, the main source for the find quantities and feature configurations is the 1980 field report stored in the Archive of the National Museum of History of Moldova (Markevich 1981b). The bulk finds (e. g. pottery, animal bones) were processed in the past and are now not available anymore, except for the selected ceramic shards and units. Unfortunately, the weight of the finds has not been recorded; that is why it is possible to operate just with the numbers of shards. Information on some other relevant characteristics of the ceramic assemblage (like fragmentation or detailed morphological and stylistic distribution) is also missing.

The original detailed drawings of the archaeological features are missing in the report; therefore, the calculations of pit's volumes are to a certain degree approximate since they are based on the available plans and profiles, which, when compiling the report in 1981, were scaled to fit a regular A4 page.

Taking into account the limitations of available data described above, the main methodological framework of the current study implies the comparative analysis of the simple quantitative distribution of various find categories across houses and pits which build distinct households. The chronological relations of the unearthed features are deduced from the stratigraphic and spatial information contained in the report; the same principle is valid for the delimitations of households. Some of the pits which exceeded the limits of the trench have not been excavated completely; nevertheless, their inventory has been included in the analysis of find distribution as presumably referring to the respective household and reflecting activities assigned to it.

COPPER AGE FEATURES UNEARTHED IN THE 1980 TRENCH

Above-ground dwellings

Three dwellings have been investigated completely while the fourth one was just partly cleaned by the southern limit of the trench (fig. 4, b-c); that is why it will not be discussed in this article. The houses had various sizes and orientations. House no. 1/1980 was by far the largest one with its burnt daub remains

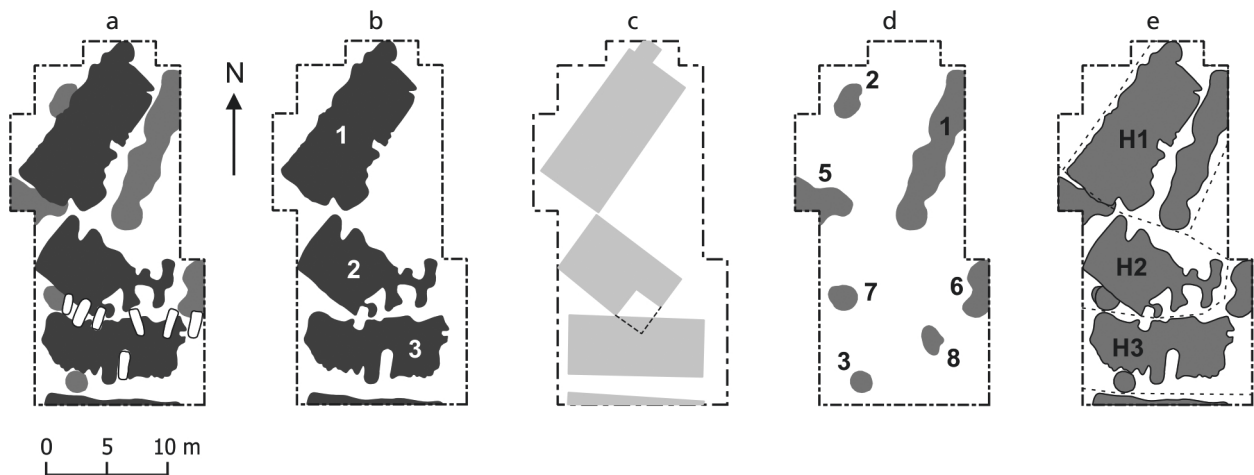


Fig. 4 Brînzeni VIII (Edineț district/MD): **a** trench plan (dark-grey: Copper Age houses; light-grey: Copper Age pits; white: graves from the first centuries AD). – **b** numbering of houses. – **c** reconstruction of the house layout. – **d** numbering of pits. – **e** outline and numbering of households. – (Redrawn from Markevich 1981b).

spread over an area of 74 m² while houses nos 2/1980 and 3/1980 had an area of, respectively, 44 and 46 m² (judging by the length of the partially investigated house no. 4/1980, it should have had an area similar to the one of houses nos 2 and 3). These measurements reflect the actual area of burnt clay distribution; a geometrical reconstruction of rectangular house outlines based on the configuration of wooden imprints on the daub provides the following values: 75 m² for house no. 1, 42 m² for house no. 2 and 53 m² for house no. 3.

Despite different preservation degrees, it has been established that all of the three excavated houses had a similar two-storey architecture. The floor of the ground storey was natural, of trampled earth, and the floor of the upper storey (= the ceiling of the ground storey) was represented by a platform made of clay applied onto massive beams, installed perpendicularly on the dwelling's long axis.

Each of the investigated dwellings had certain interior architectural elements, or »installations«, made of clay. Thus, remains of a rectangular oven were found on the ground storey of dwelling no. 1. It had the dimensions of 95 cm × 96 cm and was two times renewed through applying consecutive thin layers of plaster on the original construction. One heavily disturbed installation was investigated on the upper storey of dwelling no. 2. Its shape and dimensions are unknown; the few preserved fragments indicate that it had a height of c. 10 cm.

In contrast to the first two houses, dwelling no. 3 yielded several particularly interesting installations of various shapes. Thus, the upper storey contained the following interior elements:

- A low rounded installation with a truncated-conical profile has been erected directly on the wooden planking of the storey. It had a diameter of 110 cm (in its lower part) and 100 cm (in its upper part) with a height of c. 16 cm.
- On top of this rounded construction, a cruciform installation has been modelled. It had a size of c. 120 cm × 120 cm × 5 cm and was once renewed; the new cruciform installation was slightly displaced when compared to the previous one.
- The corner piece of a rectangular installation was found in the western part of the dwelling. The initial dimensions and shape are not known. The preserved height represented 10 cm.

The ground storey contained the remains of a circular or oval heating installation (oven or fireplace), heavily damaged, with a diameter of c. 40 cm.

Pits

Apart from the dwellings described above, seven pits have been excavated (fig. 4, d).

Thus, pit no. 1(4) had an elongated shape and was located parallel to house no. 1, along its south-eastern wall. It had a length of 13.8 m, a maximal width of 3 m and a maximal depth of 2.1 m, representing a linear array of four smaller pits. The north-eastern corner of the pit has not been investigated; the total area of the excavated part reaches 29 m². According to the plans and profiles from the report, one can estimate the pit's volume as equal to 19.67 m³. A layer of charcoal mixed with ashes and a small plastered area have been documented in several spots on the pit's bottom. To a certain extent, this feature resembles the »long pits« of the Neolithic in Central and South-East Europe.

Pit no. 2 was located near and partially under the north-western extremity of house no. 1, in its central part. It had an oval shape and an area of 4.4 m² with a maximal depth of 155 cm. A tiny ashy layer was encountered at a height of 15 cm above the pit's bottom. According to the plans and profiles from the report, one can estimate the pit's volume as equal to 1.18 m³.

Pit no. 3 was identified close to the southern wall of house no. 3. It had a rounded shape and an area of 2.4 m². According to the plans and profiles from the report, one can estimate the pit's volume as equal to 0.45 m³.

Pit no. 5 was found in the area between the south-western short wall of house no. 1 and the north-western short wall of house no. 2, slightly closer to the first dwelling. It was just partly investigated (about or less than a half of the total contour); the excavated part reached a depth of 155 cm and had an area of 10 m². The fill contained, among other material, several fragments of daub and a piece of a fireplace, obviously originating from an above-ground dismantled or renewed dwelling. According to the plans and profiles from the report, one can estimate the pit's volume as equal to 5.36 m³.

Pit no. 6 was contoured to the east from house no. 2. It went partially under the trench limit. In its investigated part (7.2 m²), the maximum depth reached 144 cm. The fill also contained dispersed fragments of daub. According to the plans and profiles from the report, one can estimate the pit's volume as equal to 2.35 m³.

Pit no. 7 was located near the south-western wall of house no. 2 and had an area of 3.3 m². Its shape was rounded with a step and vertical walls. The maximal depth reached 250 cm. According to the plans and profiles from the report, one can estimate the pit's volume as equal to 3.62 m³. The author of investigations interpreted it as a kind of dugout storage facility.

Pit no. 8 was located under house no. 3, in an area situated just under the cruciform installation from the upper storey of the dwelling. It had an area of 2.8 m², a maximal depth of 165 cm and pretty steep walls. The inventory consisted of a vessel and two finds which may be connected to ritual activities: a figurine and an *Unio* shell, both sprinkled with ochre. According to the plans and profiles from the report, one can estimate the pit's volume as equal to 1.07 m³.

CHRONOLOGICAL RELATIONS AND DELIMITATIONS OF HOUSEHOLDS

Since the fate of the archaeozoological collection is unknown, there is yet no possibility to obtain ¹⁴C dates for the houses and pits. Also, the spectrum of ceramic finds is pretty homogeneous and does not allow tracing any spatial differences. Thus, the only clues for solving intra-trench chronology rely on stratigraphic observations and the mutual arrangement of features. From this point of view, it seems that there is indeed a slight diachrony among both houses and pits.

First, the position and orientation of house no. 2 do not fit to the ones of houses nos 1, 3 and 4. Its south-eastern part is heavily disturbed, especially the southern corner. This probably happened during the construction of dwelling no. 3. Secondly, pit no. 2 is overlapped by house no. 1 and is therefore older. At the same time, pit no. 1(4) is connected to dwelling no. 1 as shown by the refitting of some of the pottery fragments from both contexts; the same observation has been made for pit no. 7 and dwelling no. 2 as well as for pits nos 3 and 6 and dwelling no. 3 (Markevich 1981b, 13-16). Pit no. 8 is also connected to the activities performed in dwelling no. 3.

The establishing of the chronological relation of pit no. 5 is not so simple. On the excavation plan presented in the report, its north-eastern edge is partly overlapped by dwelling no. 1; therefore, the pit should be earlier than the burnt construction. One may assume that this pit is connected to dwelling no. 2 which, as pointed above, seems to be slightly older than houses nos 1 and 3.

To conclude, the following relationships will be used in this article: house no. 1 is connected to pit no. 1(4); house no. 2 is connected to pits nos 5 and 7 while house no. 3 is connected to pits nos 3, 6 and 8. Thus, the find distribution shall be analyzed both according to separate features (= every house and pit) and according to their grouping in »house-pits« clusters (households) numbered from 1 to 3 (fig. 4, e). A summary of the dimensions of each cluster and its components is given in table 1.

	area (m ²)	volume (for pits, m ³)
household no. 1	103.2	19.67
house no. 1	74.2	–
pit no. 1	29	19.67
household no. 2	57.3	8.98
house no. 2	44	–
pit no. 5	10.1	5.36
pit no. 7	3.2	3.62
household no. 3	58.2	3.87
house no. 3	46	–
pit no. 3	2.3	0.45
pit no. 6	2.7	2.35
pit no. 8	7.2	1.07

Tab. 1 Brînzeni VIII (Edineț district/MD). Size of the three analyzed households and their components.

THE FIND ASSEMBLAGE AND ITS DISTRIBUTION

The 1980 excavations yielded a large number of artifacts (tabs 2-5; fig. 5). In terms of raw material and function, one could divide them into several categories, each of which displays certain distribution patterns across the three households. These are the following:

1. Pottery, including both fine and coarse ware (fig. 6, a). Associated mainly with food production, consumption and storage. Most of the pottery is contained in the above-ground houses. While the amount of pottery generally correlates with the dimensions of each household (most fragments connected to household no. 1 and least – with household no. 3), the quantity of shards per m² is almost the same for households nos 1 and 2 and smaller for the household no. 3. In contrast, when calculating the number of shards per m³ of excavated pit volume, the highest value is displayed by the pits from household no. 3; however, one should deal with these calculations cautiously because of the small dimensions of the pits from the respective household, comprising altogether just 3.87 m³. Further data on morphological and stylistic division of pottery across households are not available; it should be however mentioned that the only fragment bearing white paint (used extremely rarely at this period in the Prut and Dniester regions) is associated with household no. 3.
2. Chipped stone (fig. 6, b). Includes various find types that may be associated with flint knapping (cores, flakes and hand-hammers), hunting (arrowheads) and prestige consumption/production (a hoard of imported Volhynian blades). Further use areas of the flint assemblage may not be determined without

find type	interpretation	house no. 1	pit no. 1	total cluster 1	house no. 2	pit no. 5	pit no. 7	total cluster 2	house no. 3	pit no. 3	pit no. 6	pit no. 8	total cluster 3
cores	flint knapping	80	56	136	35	4	2	41	26	0	2	0	28
flakes	flint knapping	169	150	319	153	20	13	186	105	0	12	0	117
tools on blades	?	11	1	12	12	2	3	17	6	0	0	0	6
tools on imported blades (within a »hoard«)	prestige consumption/production	0	7										
arrowheads	hunting	1	1	2	1	0	1	2	0	0	0	0	0
tools on flakes	?	3	2	5	1	0	3	4	0	0	1	0	1
hammers	flint knapping	17	2	19	3	0	0	3	0	0	0	0	0
TOTAL FLINT		281	219	500	205	26	22	253	137	0	15	0	152
pebble hammers	flint knapping	4	6	10	3	4	5	12	3	2	3	0	8
querns (fragments)	cereal processing	9	6	15	11	4	6	21	5	1	3	0	9
grinders	?	2	3	5	3	2	5	10	2	1	2	0	5
TOTAL POLISHED STONE		15	15	30	17	10	16	43	10	4	8	0	22
antler mattocks (fragments)	hoeing	2	1	3	1	0	0	1	0	0	0	0	0
bone awls	?	3	5	8	2	1	3	6	1	0	0	0	1
tusk stamp tool	pottery production	1	0	1	0	0	0	0	0	0	0	0	0
<i>Unio</i> stamp	pottery production	0	1	1	0	0	0	0	0	0	0	0	0
bone burnisher	?	0	0	0	0	0	0	0	0	1	0	0	1
antler tool for digging (?)	?	1	0	1	0	0	0	0	1	0	0	0	1
bone adze	?	0	0	0	0	1	0	1	0	0	0	0	0
antler awl	?	0	0	0	0	0	1	1	0	0	0	0	0
worked bone	?	0	1	1	0	0	0	0	0	0	0	0	0
antler »battle hammer«	prestige	0	1	1	0	0	0	0	0	0	0	0	0
bone sheet	?	0	1	1	0	0	0	0	0	0	0	0	0
tusk sheet	?	0	0	0	0	0	1	1	0	0	0	0	0
antler hammer	?	0	1	1	0	0	0	0	0	0	0	0	0
TOTAL ANIMAL HARD TISSUES		7	11	18	3	2	5	10	2	1	0	0	3

Tab. 2 Brînzeni VIII (Edineț district/MD). Detailed distribution of find types across houses, pits and households.

find type	interpretation	house no. 1	pit no. 1	total cluster 1	house no. 2	pit no. 5	pit no. 7	total cluster 2	house no. 3	pit no. 3	pit no. 6	pit no. 8	total cluster 3
zoomorphic vessels	ritual	1	0	1	0	1	0	1	0	0	0	0	0
clay buckets	ritual	2	1	3	0	0	0	0	1	0	0	0	1
udder-like vessel	ritual	0	1	1	0	0	0	0	0	0	0	0	0
miniature vessel with ochre	ritual	0	2	2	0	0	0	0	0	0	0	0	0
TOTAL SPECIAL POTTERY		3	4	7	0	1	0	1	1	0	0	0	1
clay weight	textile production	0	1	1	0	0	0	0	0	0	0	0	0
TOTAL CLAY FINDS		0	1	1	0	0	0	0	0	0	0	0	0
anthropomorphic figurines	ritual	5	5	10	6	1	0	7	1	0	0	1	2
zoomorphic figurines	ritual	3	1	4	0	0	0	0	1	0	0	0	1
miniature chairs (?)	ritual	0	4	4	0	0	0	0	0	0	0	0	0
zoomorphic rattle	ritual	0	0	0	1	0	0	1	0	0	0	0	0
anthropomorphic rattle	ritual	0	1	1	0	0	0	0	0	0	0	0	0
TOTAL MINIATURES		8	11	19	7	1	0	8	2	0	0	1	3
conical tokens	games/accounting	1	1	2	0	0	0	0	0	0	0	0	0
clay balls	games/accounting	1	0	1	0	0	0	0	0	0	0	0	0
TOTAL TOKENS		2	1	3	0	0	0	0	0	0	0	0	0
bone spiral pendant	prestige display	0	1	1	0	0	0	0	0	0	0	0	0
catfish vertebrae pendant	prestige display	1	0	1	0	0	0	0	0	0	0	0	0
TOTAL ADORNMENTS		1	1	2	0	0	0	0	0	0	0	0	0
<i>Unio</i> with ochre	ritual	0	0	0	0	0	0	0	0	0	0	1	1
TOTAL OTHER FINDS		0	0	0	0	0	0	0	0	0	0	1	1
pottery	food storage/production/ consumption	4542	2946	7488	3775	504	237	4516	2313	118	1051	1 vessel	3483

Tab. 2 (continued)

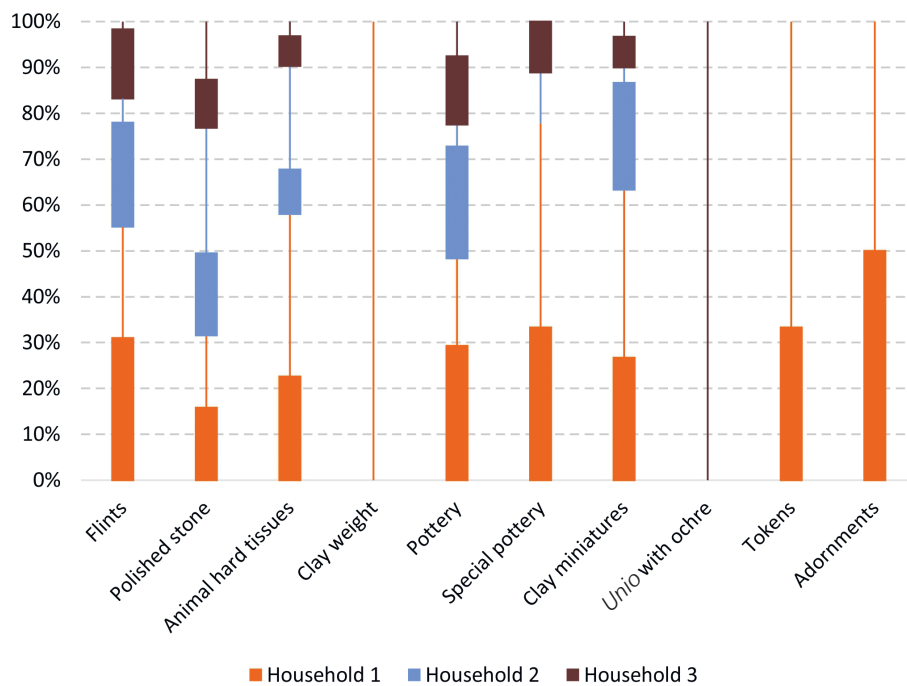


Fig. 5 Brinzeni VIII (Edineț district/MD). Stacked histogram showing the ratio of finds for each household (% of total). Lines mark finds from pits while bars mark finds from house contexts. – (Illustration S. Țerna).

use-wear analysis. Again, the amount of flint finds correlates with the dimensions of each household while the quantity per m² is similar for households nos 1 and 2 and reduced for household no. 3. When calculating the number of flints per m³ of excavated pit volume, the values from households nos 2 and 3 are closer to each other while the value for the large household no. 1 is by far higher. This is because, especially within households nos 2 and 3, most of the flint finds are connected to the above-ground houses and the prehistoric step-surface, and not to the pits (see **fig. 5**). Noticeable is the overall extremely high number of cores and flakes for each household, which is very unusual for the Tripolye large sites of the region. It may suggest either a general flint knapping specialization of the house-group partly investigated in 1980 (thus, producing flint for the entire settlement) or a massive flint production on the whole site (thus, producing flint for other settlements in the region). Also, one should mention the find in pit no. 1 of a »hoard« of high-quality flint blades imported from the Volhynian region in Western Ukraine.

- Polished stone (**fig. 6, c**). Includes pebble hammers (used at flint knapping), fragments of querns (used for processing of cereals) and grinders (exact use area not determinable without specialized studies). Most of the finds, both in terms of overall quantity and amount per m², are associated with household no. 2, followed by households nos 3 and 1. As regards the amount of polished stone finds per m³ of excavated pit volume, households nos 2 and 3 display pretty similar values, over three times higher than the one calculated for household no. 1. Noticeable is the reduced amount of querns in household no. 3 when compared to the one from households nos 1 and 2.
- Items of animal hard tissues (**fig. 6, d**). Include various products made of bone, antler, boar tusk and shell. Similarly to flint items, the exact use of most of the finds cannot be established without use-wear analysis, except for the antler mattocks which were most likely used for hoeing, the stamp tools used for pottery production and the highly elaborated fragment of an antler »hammer« which was involved in prestige display. As in the case of pottery or lithic materials, the overall quantity correlates with the dimensions of each household while the amount per m² is the same for households nos 1 and 2 and much lower for household no. 3. A generally similar picture is displayed by the calculations of find amounts per m³ of excavated pit volume. It should be emphasized that the items connected to pottery production and prestige display have been discovered only within household no. 1.

find type	house no. 1	pit no. 1	total household 1	house no. 2	pits	total household 2	house no. 3	pits	total household 3	TOTAL
flints	281	219	500	205	48	253	137	15	152	905
polished stone	15	15	30	17	26	43	10	12	22	95
animal hard tissues	7	11	18	3	7	10	2	1	3	31
clay weight	0	1	1	0	0	0	0	0	0	1
pottery	4542	2946	7488	3775	741	4516	2313	1170	3483	15487
special pottery	3	4	7	0	1	1	1	0	1	9
clay miniatures	8	11	19	7	1	8	2	1	3	30
<i>Unio</i> with ochre	0	0	0	0	0	0	0	1	1	1
tokens	1	2	3	0	0	0	0	0	0	3
adornments	1	1	2	0	0	0	0	0	0	2

Tab. 3a Brînzeni VIII (Edineț district/MD). Total amount of various finds across households and their components.

find type	house no. 1	pit	total cluster 1	house no. 2	pits	total cluster 2	house no. 3	pits	total cluster 3
flints	31.0	24.2	55.2	22.7	5.3	28.0	15.1	1.7	16.8
polished stone	15.8	15.8	31.6	17.9	27.4	45.3	10.5	12.6	23.2
animal hard tissues	22.6	35.5	58.1	9.7	22.6	32.3	6.5	3.2	9.7
clay weight	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
pottery	29.3	19.0	48.4	24.4	4.8	29.2	14.9	7.6	22.5
special pottery	33.3	44.4	77.8	0.0	11.1	11.1	11.1	0.0	11.1
clay miniatures	26.7	36.7	63.3	23.3	3.3	26.7	6.7	3.3	10.0
<i>Unio</i> with ochre	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0
tokens	33.3	66.7	100.0	0.0	0.0	0.0	0.0	0.0	0.0
adornments	50.0	50.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Tab. 3b Brînzeni VIII (Edineț district/MD). Percentage values of various finds across households and their components (% of total).

find type	household no. 1	household no. 2	household no. 3
flints	4.84	4.42	2.61
polished stone	0.29	0.75	0.38
animal hard tissues	0.17	0.17	0.05
clay weight	0.01	0.00	0.00
pottery	72.56	78.81	59.85
special pottery	0.07	0.02	0.02
clay miniatures	0.18	0.14	0.05
<i>Unio</i> with ochre	0.00	0.00	0.02
tokens	0.03	0.00	0.00
adornments	0.02	0.00	0.00

Tab. 4 Brînzeni VIII (Edineț district/MD). Quantity of various finds per m².

amount per m² is almost similar for households nos 1 and 2 and much lesser for the household no. 3. As regards the find amount per m³ of excavated pit volume, the picture is different, with the highest value recorded for household no. 1, followed by households nos 3 and 2. This is because, within households nos 2 and 3, most of the clay miniatures are connected to the above-ground houses and the prehistoric step-surface, and not to the pits. Finds of miniature »chairs« are connected only to household no. 1.

7. The only fragment of a clay weight (**fig. 7, c**), used for textile production, is associated with household no. 1.
8. Tokens (**fig. 8, b**), including two conical ones and a clay ball. Were probably used for games or counting. All of them are associated with household no. 1 (two items from the pit and one from the above-ground house).
9. Adornments (**fig. 7, d**), including a pendant made on a catfish vertebrae and a spiraled pendant made on a bone. Maybe connected to prestige display. Both are associated with household no. 1 (one item from the pit and one from the above-ground house).
10. A *Unio* shell valve with ochre traces on its surface (**fig. 8, a**). Should be probably connected to ritual activities. Has been found, together with a figurine painted with ochre after firing, in a probably ritual pit under house no. 3.

5. Special pottery« (**fig. 7, a**) which includes fragments of zoomorphic four-legged vessels, clay baskets, an udder-like vessel and a miniature vessel containing ochre. One may assume that the functionality of these objects lays in the ritual sphere. Most of the finds are connected to household no. 1.
6. Clay miniatures (**fig. 7, b**), including anthropomorphic and zoomorphic figurines, miniature furniture models such as »chairs«, one zoomorphic and one anthropomorphic rattle. As in the case of »special pottery«, these items are most likely connected to ritual activities. The overall quantity correlates with the dimensions of each household while the

find type	household no. 1 (pit no. 1/4, total volume 19.67m ³)	household no. 2 (pits nos 5 and 7, total volume 8.98m ³)	household no. 3 (pits nos 3, 6 and 8, total volume 3.87m ³)
flints	11.13	5.34	3.88
polished stone	0.76	2.89	3.09
animal hard tissues	0.56	0.78	0.26
clay weight	0.05	0	0
pottery	149.78	82.52	302.33
special pottery	0.2	0.11	0
clay miniatures	0.56	0.11	0.26
<i>Unio</i> with ochre	0	0	0.26
tokens	0.05	0	0
adornments	0.05	0	0

Tab. 5 Brînzeni VIII (Edineț district/MD). Quantity of finds from pits assigned to the three households (per m³).

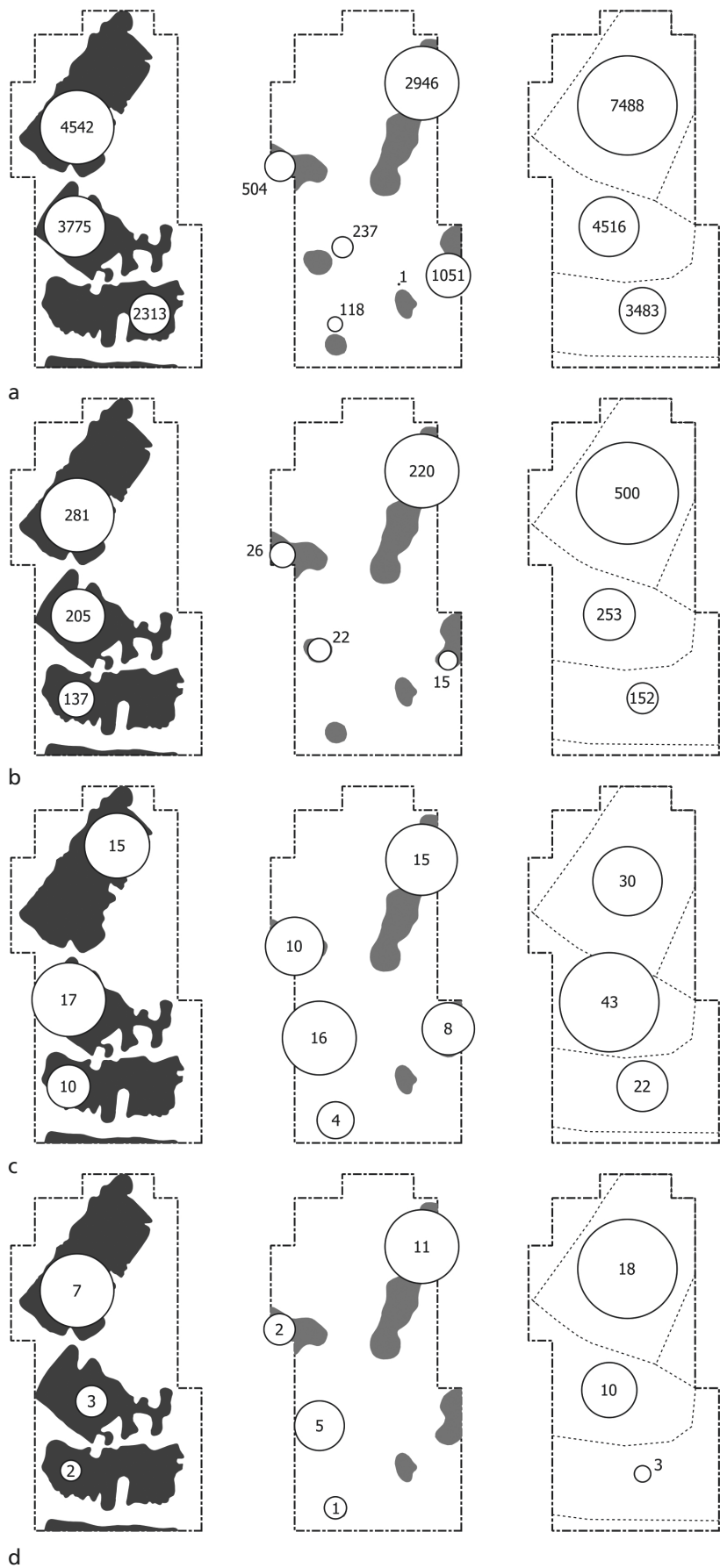


Fig. 6 Brinzeni VIII (Edineț district/MD). Distribution of finds across houses (left), pits (center) and households (right): **a** pottery. – **b** chipped stone. – **c** polished stone. – **d** animal hard tissues. – (Illustration S. Țerna).

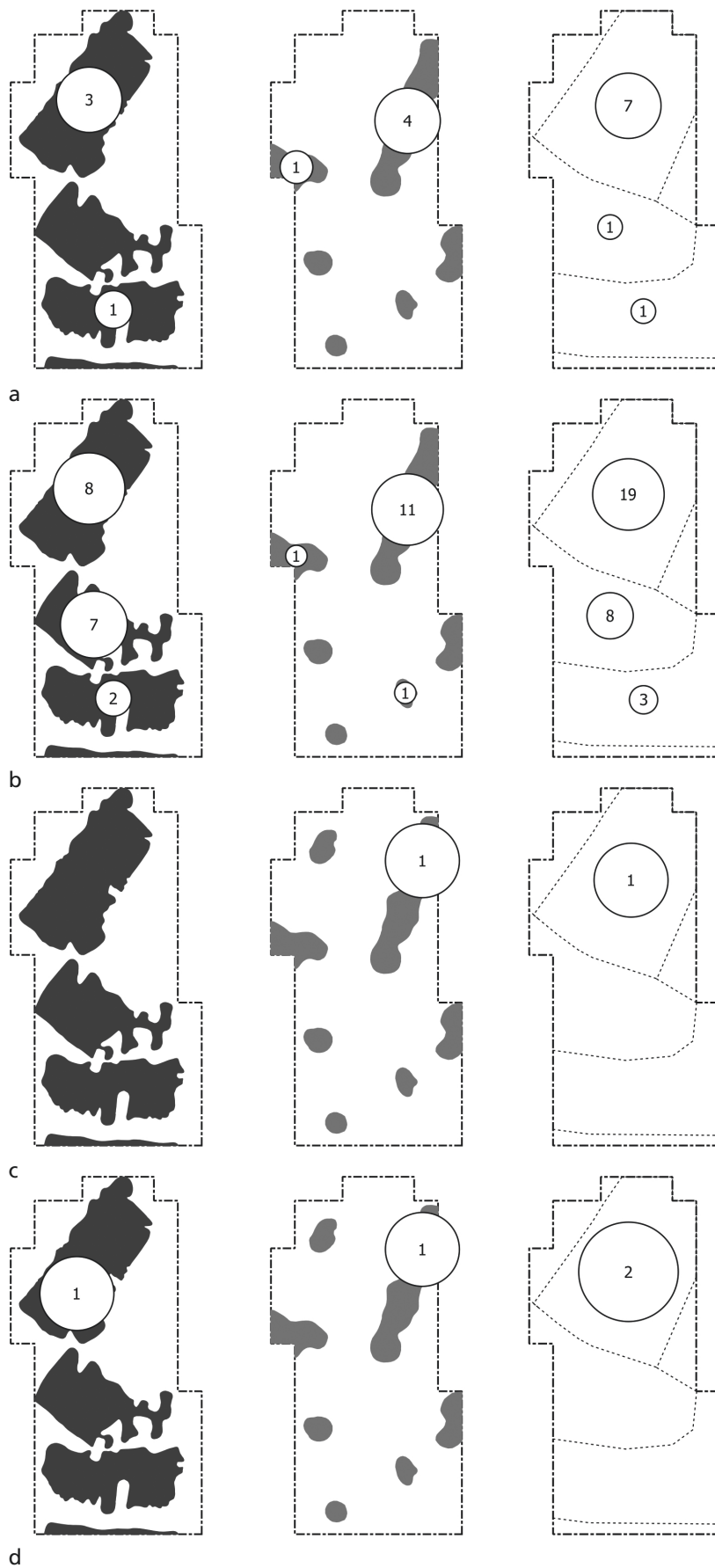


Fig. 7 Brînzești VIII (Eđineț district/MD). Distribution of finds across houses (left), pits (center) and households (right): **a** special pottery. – **b** clay miniatures. – **c** clay weight. – **d** adornments. – (Illustration S. Țerna).

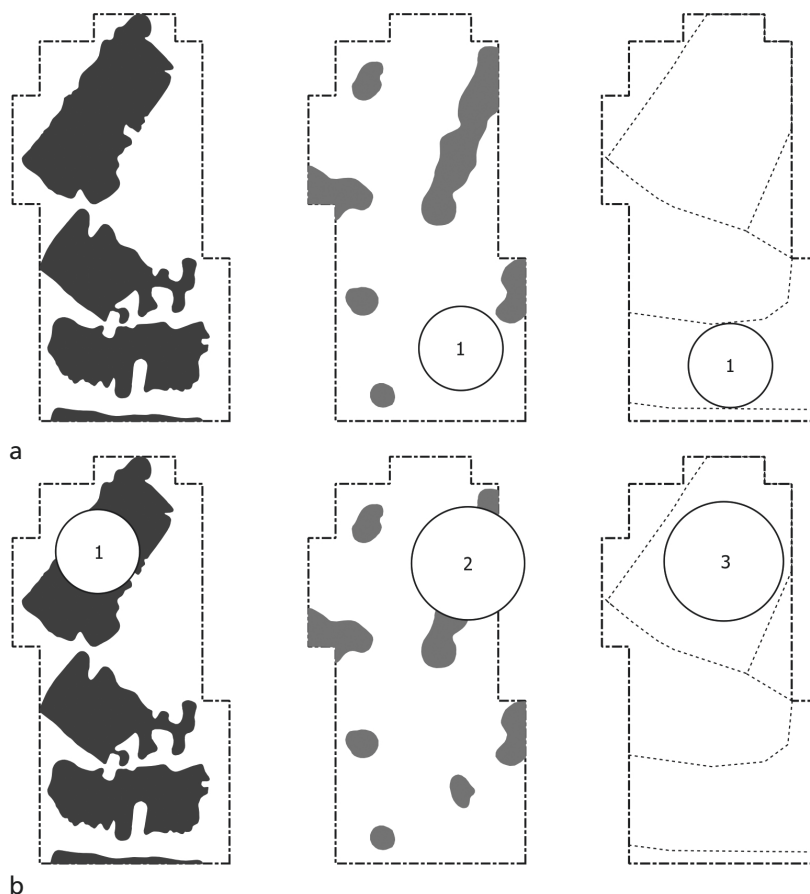


Fig. 8 Brinzeni VIII (Edineț district/MD). Distribution of finds across houses (left), pits (center) and households (right): **a** other finds (*Unio* shell with ochre). – **b** tokens. – (Illustration S. Țerna).

The data on find distribution presented above point out to two main conclusions:

First, the quantity of certain find categories per m² for households nos 1 and 2 is very similar and the differences in the total amount of these finds are only due to the differences in the size of each of the two households³. This assumption is valid for pottery, flints, items of animal hard tissues and clay miniatures. In contrast, household no. 3 displays a much lesser quantity of all the above-mentioned find categories (**fig. 5**; **tabs 3a-3b**; 4-5).

Secondly, for certain find categories, there are clear differences among the three households. Thus, the amount of polished stone per m² is much higher in household no. 2 than in households nos 1 and 3. Further, the amount of special pottery in household no. 1 considerably exceeds the one recorded for households nos 2 and 3. Finally, there are some find categories that are connected only to one certain household; these are tokens, adornments and the clay weight (found exclusively in household no. 1) and the *Unio* shell with traces of ochre found exclusively in household no. 3.

ACTIVITIES ASSIGNED TO HOUSEHOLDS

As mentioned above, certain finds within each find category may be connected to certain activities. These have a various intensities which can be conventionally designated as »high«, »medium« and »low« for each household⁴. Further, these patterns of find distribution have to be corroborated with the size and architecture of each house (as the central household element). The results can be plotted on the schematic plan of the trench (**fig. 9**).

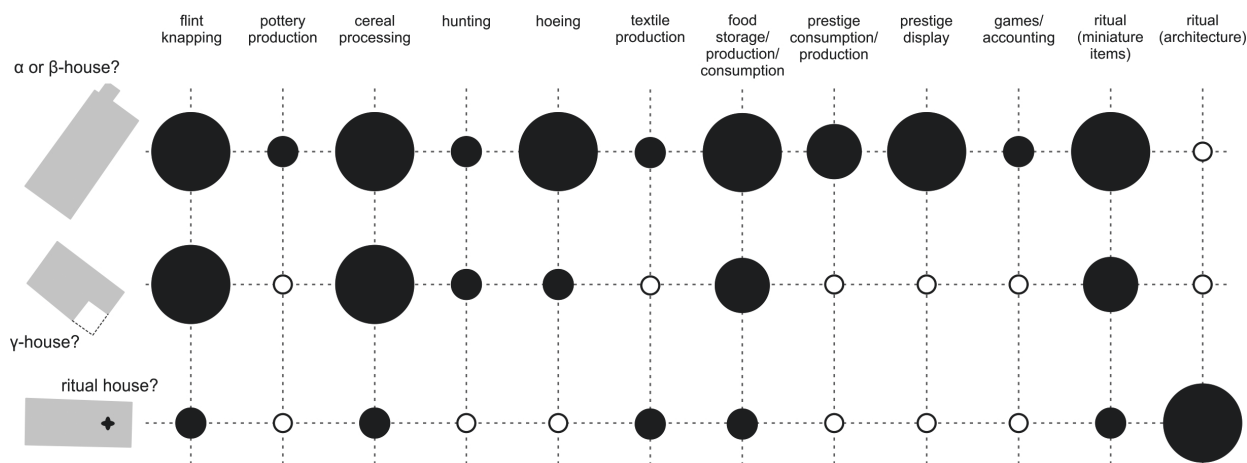


Fig. 9 The house-group from Brînzești VIII (Edineț district/MD): tentative interpretation and connected activities. Size gradation of black circles marks the intensity of each activity (low, medium or high) while white circles mark the lack of the respective activity. – (Illustration S. Țerna).

Thus, household no. 1 displays high intensities of flint knapping, cereal processing, hoeing, food storage/consumption/production, ritual activities (embodied in miniature items), games/accounting activities, prestige consumption/production and display. The dwelling is »large-sized«, exceeding the »regular« dimensions of houses nos 2-4 from the trench. From an architectural point of view, it was equipped with a heating installation.

Household no. 2 is characterized by high intensities of cereal processing and flint knapping, medium intensities of ritual activities (embodied in miniature items) and food storage/consumption/production as well as low intensities of hunting and hoeing. The dwelling is »regular-sized« and corresponds to the dimensions of dwellings nos 3 and 4. From an architectural point of view, it was equipped with an installation of unknown purpose (probably heating).

Household no. 3 is characterized by low intensities of all activities reflected in the find assemblage, such as flint knapping, textile production, cereal processing, food storage/consumption/production and ritual activities (embodied in miniature items). From an architectural point of view, apart from the usual heating installation, it is remarkable by the finds of the complex feature on the upper storey, consisting of round and cruciform clay installations. These are most likely connected to the cult⁵; therefore, for household no. 3 we may suggest a high intensity of ritual activities embodied in the dwelling's architecture. This assumption is enforced by the configuration and inventory of pit no. 8 which was located under the ground floor, exactly in the spot where, on the upper storey, the round and cruciform feature was erected. Apart from a vessel, the pit contained an almost complete anthropomorphic figurine and an *Unio* shell valve, both sprinkled with ochre (the figurine was covered in ochre after firing).

DISCUSSION

Internal differentiation in a house-group

If we compare the structural layout of an idealized Stolniceni house-group to the arrangement of dwellings from the 1980 trench at Brînzești, we can trace some similarities (figs 2. 4). Thus, as pointed above, house no. 1 from Brînzești is larger than the rest of the dwellings and has a different orientation. One can compare it to the »α« or »β-houses« from Stolniceni. If this assumption is correct, dwellings nos 2-4 (or, to

be more exact, nos 3 and 4 since house no. 2 seems to be slightly older) would correspond to the smaller » γ -houses«.

Respectively, if we follow this model, the activities reflected in the finds from Brînzei households may be extrapolated to characterize – at least partly – a socio-economic division within a house-group from settlements like Stolniceni and Petreni. This would therefore imply the following:

1. Despite general similarities in terms of the basic find spectrum, there are some differences in certain find categories which may highlight various socio-economic roles of at least some of the houses from a house-group.
2. The larger » α/β «-house from a house-group displays the higher intensity of prestige-connected activities (and finds) when compared to a smaller » γ -house«. The same observation is valid for finds involved in games/accounting activities such as tokens.
3. The functionality of » γ -houses« is diverse. In some cases, these are strongly associated with a ritual by the presence of certain special architectural elements, finds and, on the other hand, by a considerably lower amount of »profane« finds such as pottery and tools⁶.
4. The size of a »ritual house« does not differ from the size of other, regular » γ -houses«.
5. Most of the activities afferent to a house are reflected both in its inventory as well as in the inventory of the adjacent pit(s), part of the same household.
6. In contrast, certain ritual activities may be only deduced from the architecture of the house and do not necessarily reflect themselves in the inventory of the adjacent pit(s).
7. An important question for a better understanding of a house-group's structure is the function of the larger dwelling(s), termed here as » α « or » β -houses«. If they indeed display a higher degree of prestige consumption, one may be tempted to interpret them simply as the housings for a hierarchically high social unit(s) within a house-group such as richer families with an advanced role in decision-making, surplus distribution and exchange. The pendants and tokens discovered in household no. 1 from Brînzei as well as the hoard of high-quality imported flint may indicate such a scenario (cf. the role of larger houses in the settlements from Sumba in eastern Indonesia: Jeunesse 2019). At the same time, it has been recently postulated that the Tripolye mega-sites functioned without institutionalized social differences (Müller et al. 2018). Does it mean that the social structure of a house-group was rather hierarchical while the subsequent interaction of the »house-group representatives« at the scale of a settlement was rather egalitarian and »democratic«? Can we hypothesize a dynamic twofold heterarchical social structure of Cucuteni-Tripolye mega-sites which would combine hierarchy and egalitarianism to ensure social balance (cf. Crumley 1995)? Is this structure a »system of heterarchically arranged hierarchies« (cf. Bondarenko/Grinin/Korotayev 2002, 55)?

These would be some of the important questions raised by the combination of information derived from Stolniceni and Petreni geophysical plans with the analysis of the household inventory at Brînzei. To answer them, we probably need a change of focus in data acquisition. It should be shifted from houses to pits.

Potential of »pit archaeology« for the mega-site research

Traditionally, the Cucuteni-Tripolye archaeology has been focused on houses. Throughout decades of research, this approach has been driven by a combination of both subjective and objective reasons. Thus, the impressive architectural remains, as well as the remarkable centripetal geometry of the house arrangement determined researchers to prefer a house-oriented digging strategy; decades before the implementation of the geophysical non-invasive method, the first settlement plans on complex sites have been obtained

through a systematic search for burnt dwellings and their complete excavation or plotting onto a spatial plan (Passek 1940; 1949). Further, when the first geophysical prospections started to be made, the resolution of the equipment available in the 1970-1980s allowed to discern mainly the anomalies with high nT intensity, such as burnt houses (Dudkin/Videiko 2009; Țerna 2016). Respectively, the benefits of the geophysical prospections have been used solely for the investigation of dwellings. Naturally, in excavation trenches, pits would often occur, either under the burnt house or in its immediate vicinity and many of these pits have been excavated completely. Nevertheless, a pit-oriented excavation approach has not been possible until recent times, not to mention that the methodological apparatus of Cucuteni-Tripolye pit excavation and interpretation⁷ is surely less advanced than the one concerning above-ground dwellings.

One notorious peculiarity of the mega-sites from both western and eastern areas is the stable association between houses and pits. As pointed out by R. Rassmann and colleagues, the majority of pits reflect the spatial pattern of the houses; moreover, if »pits without geomagnetically visible houses appear in such concentric pit alignments, the existence of unburnt houses is probable« (Rassmann et al. 2014, 132). Respectively, a »house+pit« combination is considered to be representative for a mega-site household as a socio-economic unit (Müller/Hofmann/Ohlrau 2016); therefore, the finds from pits should reflect the activities of the respective households. The Brînzeni case demonstrates that the quantity and spectrum of finds which may be considered relevant for socio-economic comparative studies are pretty high in pits, not just in above-ground houses (**tabs 3a-3b; fig. 5**). Furthermore, certain finds which pointed out towards an association of the larger house no. 1 with prestige consumption and display activities, have been discovered exclusively in the adjacent pit.

More than that, since most of the Cucuteni-Tripolye houses are deliberately burnt, the finds located in a dwelling at the moment of its firing may not necessarily correspond to its usual inventory. One could suppose that the preparation of the »setting« or the »scene« for such a socially, ritually and visually influential event as the ignition of a dwelling, house-group or even entire settlement, would imply a selection of artifacts to be placed into houses intended to be burnt. Hence, we do not know to which extent this possible selection corresponded to the activities performed during the »life« of a household. Contrarily, the finds from the pits should most likely reflect the »normal« inventory of the respective house.

In the light of the variations in the household inventory recorded at Brînzeni and its implications for studying the socio-economic structure of the mega-sites, systematic excavation of pits associated with houses of various sizes may be crucial. Pits seem to be the correct type of archive that may potentially provide answers to very important questions regarding consumption, production, specialization and hierarchy of the households. A thorough investigation of the refill layers, including the package of ashy layers which is typical for the pits from Cucuteni-Tripolye mega-sites, can offer valuable insight into plant and animal economy as well as the permanence of occupation. Finally, stratigraphic contexts observed in pits shall built a good background for the Bayesian modelling of the ¹⁴C dates. Last but not least, the excavation of dugout features is not as time- and resources-consuming as the investigation of the burnt dwellings, therefore offering the possibility to acquire solid multivariate data about a Tripolye household within a relatively short period of fieldwork.

CONCLUSIONS

We are now witnessing what was termed as the »second phase of the Trypillia mega-site methodological revolution« (Chapman et al. 2014, 369-406) which is founded on three main empirical pillars: modern high-resolution magnetometry, targeted excavations of various classes of geophysical anomalies and com-

prehensive absolute-dating programs. Consequently, the last decade provoked a »boom« in the mega-site research resulting in several important »big pictures« about how a mega-site would be organized from social and political perspectives. At the same time, it revealed notable regional differences in the structure of the mega-sites.

However, if we zoom in on these »big pictures« to the household and house-group/neighborhood/quarter level(s), many research questions remain unsolved since providing answers to them would require the investment of considerable effort and resources into the large-scale excavation of above-ground houses. Even in this case, we cannot be sure about the veridicality of our results since a burnt dwelling is rather a quick snapshot of human activities on a Tripolye settlement, »taken« just before it was burnt down. We do not know to what extent is this snapshot relevant for the estimation of the socio-economic role and setting of a household.

In contrast, a pit is a durable narrative that can be – and should be – systematically researched. Since most of the mega-site settlement pits contain a huge amount of discarded waste, each of them can be regarded as a »chamber« full of proxies. The targeted excavation of pits from a structural unit such as a house-group can offer, within a relatively short time, comprehensive data for the presence or lack of social differentiation or economic specialization within neighbored households. Comparative and standardized analysis of pit inventories and biographies has the potential to become a valuable empirical background for understanding the complex Cucuteni-Tripolye large and mega-sites.

Of course, the Brînzeni dataset (coming from excavations carried out 40 years ago) has its limitations in terms of completeness of excavated features, primary processing of bulk finds and absolute-chronological relations of archaeological contexts. The main purpose of this article was however not a full characterization of the possible socio-economic relations within a cluster of households from a Copper Age large site. My goal was rather to reason the necessity of systematic pit excavations on Tripolye settlements and the data from Brînzeni, with all their deficiencies, are used here just as an argument for a necessary change of methodological perspective in the mega-site field research.

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Notes

- 1) It should be emphasized here that the evaluations of inter-household dissimilarities have been made mainly on data from above-ground burnt houses, which stood traditionally in the focus of the Cucuteni-Tripolye field archaeology.
- 2) At Stolniceni, the median size difference between » α « or » β -houses«, on the one side, and » γ -houses«, on the other side, reaches 40%.
- 3) From a methodological point of view, a normalization of find quantities over m^3 of excavated volume and not over m^2 of uncovered area is more adequate, given the differences in the depth of the dugout features. Nevertheless, in the Brînzeni case, with a certain incompleteness of the data from old excavations, the amounts for m^3 have been calculated just for pits. Since the volumes of the pits from the three households are uneven, the respective calculations should be treated with caution. Ideally, the comparison of find quantities per m^3 of excavated volumes should be performed on completely excavated large pits from modern investigations. For the current study, both approaches have been used; however, calculations over m^2 seem more relevant because they allow at least to take into account the above-ground houses and the interdwelling space within each household.
- 4) For each household, this formal graduation of intensity of each activity is based on the degree of presence of each find type when compared to the two other households.
- 5) As regards cruciform clay installations, termed »altars«, they occur pretty seldom in Cucuteni-Tripolye dwellings starting with the Cucuteni AB-Tripolye B1B2 phase and may be considered as part of the »ideological package« which accompanied the formation and spread of the mega-sites as a new way of socio-economic organization. In most of the cases, the cruciform installations are connected to dwellings with special position/size and/or inventory.

- 6) It should be kept in mind that, prior to the emergence of societies with institutionalized or centralized religion, a clear differentiation of the »ritual« and the »profane« is often not possible. Here, I use both terms in a rather conventional way, strictly in respect to the functionality of distinct find categories.
- 7) Compare to the modern methodological advances and discussions from the traditionally pit-focused Linear Pottery research, where the investigation of the large dugout features has pointed out complex biographies and refill events (Petrasch/Stäuble 2016).

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Zusammenfassung / Summary / Résumé

Wie können wir die sozioökonomische Struktur der Megastätten der Cucuteni-Tripolye-Kultur untersuchen? Häuser als Schnappschüsse und Gruben als dauerhafte Erzählungen

Der Artikel behandelt das Problem der Organisation von Häusergruppen in den kupferzeitlichen Megastätten im Hinblick auf den westlichen Verbreitungsraum der Cucuteni-Tripolye-Kultur. Anhand von Daten älterer Ausgrabungen in der Siedlung Brînzeni VIII in Nordmoldawien wird argumentiert, dass sich Unterschiede in den Hausflächen in den Haushaltsinventaren widerspiegeln und somit auf eine soziale Differenzierung hinweisen können. Die Notwendigkeit einer gezielten Grubenuntersuchung als wertvolles Forschungsinstrument für zukünftige Analysen der sozioökonomischen Struktur der Megastätten wird erörtert.

How can we investigate the socio-economic structure of the Cucuteni-Tripolye mega-sites?

Houses as Snapshots and Pits as Durable Narratives

The article addresses the problem of the organization of groups of houses in the Copper Age mega-sites regarding the western area of the Cucuteni-Tripolye culture distribution. Based on data from older excavations at the settlement of Brînzeni VIII in Northern Moldova, it is argued that differences in house areas may be reflected in the household inventories and, therefore, point to social differentiation. The necessity of targeted pit investigation as a valuable research tool for future investigations of the socio-economic structure of the mega-sites is argued.

Comment pouvons-nous investiguer la structure socio-économique des méga-sites Cucuteni-Tripolye?

Les maisons comme instantanés et les fosses comme témoins de longue durée

Cet article s'attaque au problème de l'organisation des groupes de maisons des méga-sites chalcolithiques vu de la zone occidentale de l'aire de distribution de la culture de Cucuteni-Tripolye. Partant de données d'anciennes fouilles de l'habitat de Brînzeni VIII en Moldavie septentrionale, on avance que les différences entre les maisons se refléteraient à travers les inventaires des foyers et indiqueraient donc une différenciation sociale. Il serait également nécessaire d'utiliser l'étude ciblée de fosses comme outil de recherche en vue d'investigations futures de la structure socio-économique des méga-sites.

Traduction: Y. Gautier

Schlüsselwörter / Keywords / Mots clés

Cucuteni-Tripolye-Kultur / Hausgruppen / räumliche Struktur / soziale Organisation / Siedlung / Gruben
Cucuteni-Tripolye culture / house-groups / spatial structure / social organization / settlement / pits
Culture de Cucuteni-Tripolye / groupes de maison / structure spatiale / organisation sociale / habitat / fosses

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Obituary

Stanislav Țerna died on 29.12.2020 because of a tragic traffic accident. He worked in the Collaborative Research Centre 1266 at the Institute for Prehistoric and Protohistoric Archaeology of the Kiel University, conducting research on aspects of the Southeastern and Eastern European Neolithic and Chalcolithic, in particular the Tripolye site of Stolniceni in Moldova. Stanislav Țerna began his academic career at the High Anthropological School University in Chișinău, where he graduated with a Bachelor's and Master's degree from the Faculty of Anthropology in 2007 and 2008 on anthropomorphic representations of the Cucuteni-Tripolye culture, supervised by Prof. Igor Manzura. As his numerous articles and several book publications show, the subject of anthropomorphic representations of the Cucuteni-Tripolye complex was one of Stanislav Țerna's main fields of research.

Stanislav Țerna was born in Moldova and carried the warmth and cheerfulness of this region. Everyone who met him was fascinated by his liveliness, energy, sociability, knowledge and enthusiasm for archaeology. His origins and his communicative and linguistic talent made him a border crosser and mediator between Eastern and Western scientific worlds. This international cross-border orientation is reflected, among other things, in internships and research fellowships at the Eurasia Department of the German Archaeological Institute in Berlin, the Brandenburg State Office for the Preservation of Monuments, the Archaeological Service of the Canton of Bern in Switzerland and the Graduate School »Human Development in Landscapes« at Kiel University. Moreover, he was also editor and co-editor of important scientific journals such as »Revista Arheologică« and »Stratum Plus«.

Stanislav Țerna has made important contributions to the study of the Neolithic and the Cucuteni-Tripolye complex of the Carpathian-Dnepr region: In cooperation with partners of the Romano-Germanic Commission of the German Archaeological Institute, the University of Regensburg and Kiel University, he organised diverse field research and thereby contributed to the clarification of Linear Pottery and Cucuteni-Tripolye settlement patterns, among other things. The focus of his research in recent years has been the large Tripolye settlement of Stolniceni in Moldova, where extensive and modern prospections and excavations have been carried out under his direction. It is decisively due to his archaeological skills and positive character that this research was not only very successful but that he was also able to win the hearts and the high regard of his colleagues and the local workers.

Unfortunately, beside his immense record Stanislav Țerna was not able to complete so many important projects he had started. We mourn his early death and would like to express our condolences to his wife Andrea, his family and his friends. We miss you, Stas!

The CRC 1266 – Team: Robert Hofmann, Wiebke Kirleis, Johannes Müller, Mila Shatilo