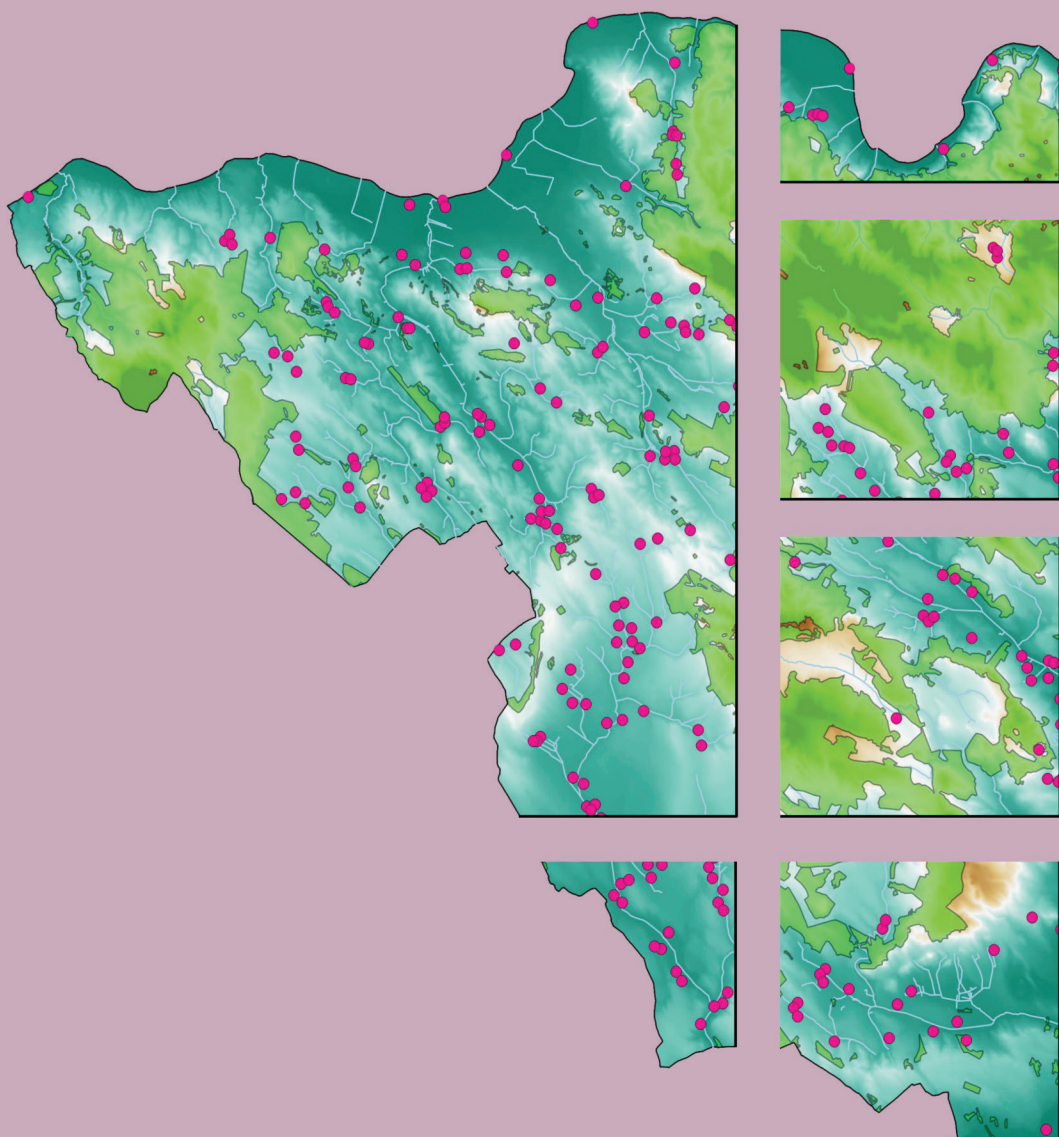


# DISSERTATIONES ARCHAEOLOGICAE

ex Instituto Archaeologico Universitatis de Rolando Eötvös nominatae



Ser. 3. No. 5. | 2017

# DISSERTATIONES ARCHAEOLOGICAE

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# Changes in Copper Age Networks of Connections in Light of the Material Excavated in the Danube-Tisza Interfluve

Problematic issues of the transitional period at the end of the Middle Copper Age and the Baden Complex, examined in a “transitional” landscape

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## **Abstract**

*Abstract of PhD thesis submitted in 2017 to the Archaeology Doctoral Programme, Doctoral School of History, Eötvös Loránd University, Budapest, under the supervision of Pál Raczkó*

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## **Dissertation topic and aims**

In my dissertation, I examine archaeological material classified as “Protoboleráz” according to present research;<sup>1</sup> I also look at related, but up to this day elusive, factors such as provenance, lifestyle, structure of relationships, and the issue of further development. I believe that through these, groups producing “Protoboleráz” pottery can be placed in the appropriate context within the Copper Age period. The main question posed by this work is whether the existence of the “Protoboleráz” phenomenon is justified in its own right, or if it is merely an element of the end of the Middle Copper Age or perhaps the Late Copper Age (as we may surmise from the name itself).

First of all, we shall start with the name. Should the “Protoboleráz” indeed be the precedent of the Boleráz, we can immediately ask the question: what role did the “Protoboleráz” play in the formation of the Baden, and can we regard the archaeological sites containing pottery material of this type as part of the Baden Complex?

Attempts were made before the millennium to prove, or indeed discredit, this relationship through examining the results of fieldwork and small-scale excavations.<sup>2</sup> In the 2000s, the surge in new constructions over the Carpathian Basin multiplied both the excavations and the amount of archaeological finds. Thus, many settlements with “Protoboleráz” pottery came to light. At the same time, due to a boost in technological advancement, the number of research methods and opportunities increased suddenly. <sup>14</sup>C examinations made establishing chronology more precise, and with the advent of large comparative databases the analogies between periods became clear. Due to all this, definitive new results were produced in European research workshops. As a result, the Baden culture, previously considered to be uniform, came to be regarded differently.<sup>3</sup> Regional-microregional examinations came necessarily to the fore. These were now conducted within interdisciplinary frameworks, so that the lives of

1 KALICZ 1988.

2 KALICZ 2001.

3 FURHOLT 2008.

particular regional units should be known as profoundly as possible. As a result of these local, microregional researches and their summary, we got closer to knowing and understanding the networks of connections in this period.

In my dissertation, I focused on a zone – the northern part of the Danube-Tisza interfluvium – so far completely unknown to research on the period. From the area, I present a settlement with “Protoboleráz” pottery at site Abony 49, its archaeological material and objects. Then, for the sake of comparison, I discuss site Pécel 2 which bears evident markers of the Baden Complex both in its pottery material and its settlement features. At the time this dissertation is written, the settlement at Abony 49, together with the material of the nearby settlement Abony 36,<sup>4</sup> researched simultaneously, represent the two largest settlement materials of this period.<sup>5</sup> This fact, compounded by the opportunities provided by modern processing, underscore their significance, and their evaluation can provide research with new aspects.

Surveying the “Protoboleráz” pottery style, less known from excavations, I often referred to the material of similar age from the site Törökbálint–Égett-völgy.<sup>6</sup> Data from examinations on finds from this site served as control groups for evaluating data from the Danube-Tisza interfluvium, and could shed light on possible connections between the two areas.

## The central question and methods of examination

Within the framework of this dissertation, I approached questions connected to the “Protoboleráz” problems with the methods of archaeology, typology, statistics, and natural science. In light of the material excavated in the Danube-Tisza interfluvium, I tried to find out how the network of cultural connections changed during the Copper Age period in question, what restructurings happened. My goal at the beginning of my research was to collect information about the society and lifestyle of the settlements from this period and to open the field for new conclusions. To this end, and to provide basis for my project, first I set out to survey and compare the settlements, settlement features, and material cultures of groups with different pottery styles, dominant during the Middle and Late Copper Age. Using data from my survey and comparison, I reconstructed household units.

The main research question in this context was whether having surveyed the “Protoboleráz” and the Baden pottery material, other finds and settlement features, we can establish how prevalent the well-classified, widely researched and known, “bona fide” Late Copper Age elements in the material of Abony the classification of which was “undecided.” My purpose with comparing the sites of Abony and Pécel was to decide, within one micro-region, whether the “Protoboleráz” material is indeed an element of the Baden Complex, and whether the former had any role in creating the latter, and if so, what that role was exactly.

Although today’s directions of research focus on other methods, and the typological examination of pottery is not considered as significant as it was in the analyses of previous decades, in my opinion typological analysis and typo-chronological comparison are both inevitable, and in the current circumstances, indispensable. Without these, we cannot move forward and

4 FÁBIÁN – SERLEGI 2007; 2009.

5 FÁBIÁN et al 2015.

6 RAJNA 2008.

receive an answer to questions asked. A significant part of the material found at settlements is pottery. The basic condition for the comparability of materials from different sites is that their parameters be examined in a shared system, in a database built along uniform aspect. Therefore, besides main metric data, I also examined technological features, typology and morphology, and the characteristics of ornamentation. Also, I used a uniform, code-based structure of description, in order to collect all the material in one database.

Researching the settlements in their entirety is based on single settlements objects as primary sources of information. After describing the objects of both sites, I put them into different groups and typological categories, based on their size and shape. As I was collecting data, I observed that the prevalence of large pit complexes is greater among the objects from Abony (with “Protoboleráz pottery”) than among the ones at Pécel of “Baden culture”. Also, these complexes are organized in groups at the Abony settlement. Conversely, storage pits were more typical at Pécel, appearing in clearly discernible groups. At the same time, the low number of pit complexes at the excavated part of the Pécel site indicates a significant difference in comparison to sites with similar, classic Baden pottery. Excavation provides no explanation for this phenomenon. Based on the partial excavation, we cannot state that this type of object did not serve the same function at Pécel as it did at other sites of a similar age, or that this is why it does not occur in greater numbers here. However, we can consider that pit complexes might be concentrated in greater numbers at the unexcavated, unknown part of the site.

When analysing the settlement structure, we have to bear in mind that what we know is only part of the one-time settlements, and we cannot establish how fragmented these are. Therefore, we can only draw conclusions and observe tendencies based on the excavated parts of the settlement. I used the methods of basic comparative statistics to examine the objects excavated at the settlements and the connections between archaeological finds unearthed there. Information gained this way is important for identifying household units, localizing activities, giving a picture of the life and operation of the settlements.<sup>7</sup> At the same time, houses at the examined settlements cannot be identified using current excavation methods; their places can be surmised on vacant spots and reconstructable based on the material in the surrounding pits. I considered it important to identify and separate ritual spaces. According to observations, spaces maintained for this purpose may have been shared by households.

The obvious difference between the two sites lies in the disparities of settlement structures. The pit complexes at the southern part of the Abony excavation site and the material found there are obviously different from the objects found in the northern part of the settlement. Most of the pottery material came to light in the southern pit complexes, especially prevalent are fine pottery objects and open vessels. This imbalance in proportions is particularly noticeable in the animal bone material, given that this part of the settlement yielded over 90% of it. Compared to the material of other Copper Age settlements, this is an outstanding amount of hunted animal remains. From this aspect, we can consider this part of the settlement to be special. We did not experience similar division in the settlement at Pécel. An extensive vacant space appeared between the largest and richest pit complexes of the settlement. On examination, it is logical to assume this space to have been a community ground and ritual space. The scene of ritual processes was of paramount importance as the scene of shared feasts and

7 BONDÁR 2010; FÁBIÁN 2014.



offerings; the high number of fine pottery bowls would also indicate this. After the ritual, the scene was probably covered over. The number of objects of this type points at the significant role and frequency of such occasions. Comparing the two sites of different ages, we could not identify a similar communal-ritual scene at the Pécel site.

The cup with Furchenstich ornamentation is an evident “Protoboleráz” marker among the object groups. This type of vessel occurs at all sites, usually with unique ornamentations, which indicates that potters strove to express the identity of their own groups in pattern combinations and new, unique patterns, besides variations of the basic motifs (stripes, incised decoration consisting of meandering bands filled with zig-zag motifs) (Fig. 1).

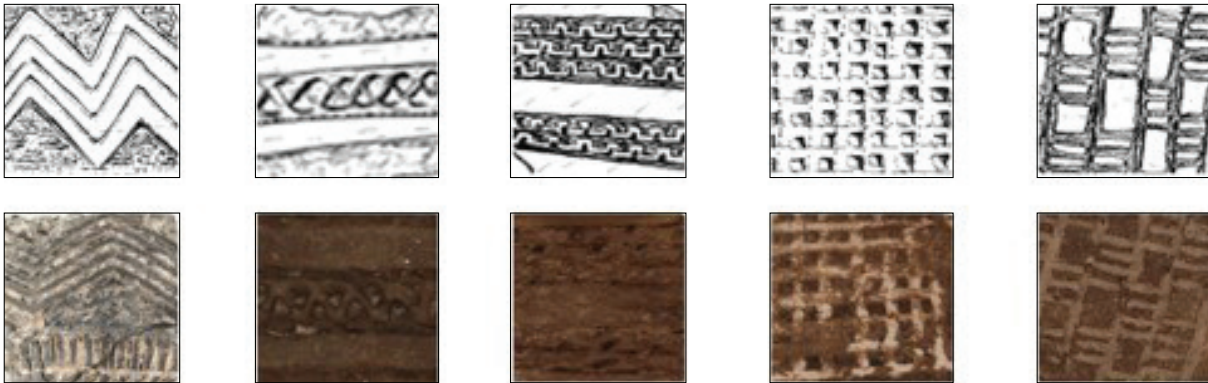


Fig. 1. Furchenstich ornamentations from cups in Abony.

Research has long considered vessels with Furchenstisch ornamentation to be imports for a long time, but pieces of weaker quality and crude execution, together with the diversity in ornamentation indicated previously that the vessels were made locally. This has been verified by petrographic tests,<sup>8</sup> so we can only consider the ornamentative motifs to be imports. Among the “Protoboleráz” form types, I wanted to draw particular attention to ones with corresponding variations in the Baden Complex. During excavations at the Abony site, the high proportion of open vessels and bowls was conspicuous. Here, and at other sites with “Protoboleráz” pottery, bowls with marked carination occur in great numbers. Of these two characteristic types, the cup turns up in a very similar shape in the Boleráz as well, decorated with fluted (channelled) panels on the belly without incrustation. The other characteristic type is the conical bowl with everted rim and marked carination, occurring in the Boleráz and the Baden also, although not in such great numbers as in the “Protoboleráz” pottery material.

After the typological analysis of the material of the two sites (with respect to vessel types, their morphology and ornamentation), we can say that good quality, finer pottery – especially open vessels and bowls – are more prevalent in the material from Abony. Storage vessels, especially pots, of cruder execution, are more prevalent in the assemblage from Pécel. At the same time, there are few decorated pieces apart from the fine vessels with Furchenstich ornamentation at Abony. There are far more ornamented pieces at Pécel, with regard to the entire assemblage; this involves mostly grooves and bosses, and etched decoration generally appearing on bowls only. Petrographic tests have verified that all examined finds from both sites and of both pottery types were locally made. There was, however, greater variety in the work of

8 Analyzed by Attila Kreiter.

the Abony potters. It is logical to conclude that there were fewer, but more experienced potters manufacturing greater series of products at Pécel, and there were more potters – in proportion to the settlement's population – at Abony, manufacturing "Protoboleráz" pottery and leaving the marks of their own identity or that of their immediate community on the vessels.

Examining the stamp seals can also be important to understand the network of connections during this period. According to research, stamp seals appeared together with the "Protoboleráz" pottery style, have also occurred on Boleráz pottery sites, and can be found diffusely in connection with classic Baden pottery.<sup>9</sup> It is quite telling that stamp seals excavated so far are equally from "Protoboleráz" and Boleráz pottery assemblages.

Examining the animal bones immediately pointed to an important difference: although the abundance of Copper Age cattle bones, considered evident by research, is also typical of the "Protoboleráz" site, there is a divergence in the proportions of hunted vs. domesticated animals. At Abony, the number of bones of hunted animals is far greater than at Pécel, taking the entire bone assembly into account. Such high proportion of hunted animal bones is to date unparalleled by research.<sup>10</sup> From this, we can conclude that hunting was only occasional at Pécel, while at Abony game was a dietary staple. We cannot ignore the fact that the number of auroch bones at the Abony site is unusually high. In addition, auroch bones occur predominantly in the pit complexes which also yielded a great amount of fine pottery (and, in one case, human bone). Thus it becomes clear that the auroch must have had a special role in the life of the settlement's population: hunting for it, eating its meat, placing its remains must have been a frequent event. Such feasts probably had an important role in holding the community together.

Having analysed the assembly according to type of material, I also presented the results of complex statistical analyses based on databases comprising the finds of both sites. From the analysis of multiple correspondences, one difference is plain to see: the more finely tempered, serving types with thinner walls, such as bowls, mugs, cups, and jugs are more typical of Abony. In contrast, at the Pécel site with classic Baden pottery we can mostly find more crudely tempered storage vessels with thicker walls, especially pithoi and kitchen vessels. Pots occur at both sites. Examining the tempering agents, the glittery tempering in some fragments at Abony was particularly striking. The glitter was traceable in soil samples taken from the reconstructed ancient environment, discernible with a naked eye in the potters, and petrographic tests also verified its presence. The existence of this tempering agent also proves that the pottery was manufactured at that location, using local materials. Complex statistical analysis underpinned earlier observations according to which serving vessels were more prevalent at the Abony settlement, while fine pottery vessels occurred in greater numbers at Pécel.

Surveying the assemblages and their distribution among the settlement features provided the basis for my attempt at reconstructing the household units at both sites. While identifying the households, at first I thought these to be of bigger layout, and more closely connected with each other, given their physical proximity to each other. On examining the assemblage's concentration I found that more household units may have shared one feature. In contrast, households at Pécel appeared to be distinctly isolated from each other. An important factor

9 HORVÁTH – KALICZ 2010, 421; HORVÁTH 2014, 261.

10 CSIPPÁN 2012, 157.

for examining the households was that, if possible, specialized activities connected to particular households should be identified based on features and finds making up the households. The Abony site shows greater diversity in this respect, as the trench running through the settlement draws a marked dividing line between the southern and the northern parts of the settlement. Examining the amount of pottery in the assemblage, we can see that pottery is concentrated in the middle part of the settlement, marked by pit complexes. The settlement's territorial division is also discernible in the vessel types and pottery shapes. North of the settlement's middle, pots and large storage vessels are dominant, with bowls being more typical elsewhere. The trench represents an actual boundary line in the settlement's life. The area north of this line is sparser, albeit a number of unique finds (stamp seals, copper awls) come from here, and many special activities can be connected to this area. The southern part of the settlement with the pit complexes was probably the scene of meat processing and "ritual" events, while the northern part, in light of the assemblage and the settlement features, was probably the scene of processing grain and other, secondary products. At Pécel, households appeared in a smaller area and in a more compact form, without any trace of a territorial division of specialized activities such as at Abony.

Examining the households and the settlement structure at site 49 at Abony, a large, vacant area between the households in the southern part, next to the two large features, was situated. The assemblage from the pit complexes, and the filling up of these complexes indicates frequently repeated feasts in the settlement's life. Open vessel shapes, suited for serving food, and the large amount of bones, almost all of them bearing the mark of teeth, indicate this. This vacant area between the household units of the settlement was clearly the scene of community bonding events. No such area was identified during the excavations at Pécel. Comparing the animal finds, probably deposited as offerings, we could discern a number of sharp contrasts. At Abony, the animals had all been cut into pieces before they got into the features. In these features, bones of small ruminants and pigs often occur besides those of cattle, formerly considered to be of outstanding importance. At Pécel, we can observe that cattle offerings buried whole are exclusive. This way, the ritual gains a new form of expression: the people performing the ritual offer up the whole animal, without cutting it up or consuming it together.

## Results

A number of changes and restructurings can be seen in the Late Copper Age, compared to previous periods. Explosive changes can be observed both in settlement structures and assemblages. Numerous theories have been forged to explain these changes: a change in climate, changes in food production, restructuring of previous networks of connections, and necessary technological advancement. All minor elements should be regarded as catalysts of change. Surplus and secondary products, the results of increased efficiency in agriculture and animal husbandry, may have given a boost to trade. The connective link between areas of the Baden Complex, through the help of which uniform main features in pottery style were formed and transmitted besides regional differences, was obviously due to trade. Commercial channels served as transmitters of the products and knowledge base of the "Innovation complex".<sup>11</sup> At the sites of extensive excavations, during the analysis of reconstructable household units, the

11 SCHLICHTERLE 2012.

specialization of particular settlement features (households) was discernible. These units may have produced the basic necessities of a household. It seems logical to assume that any surplus was utilised through the trade network. Acknowledging this fact, we can acknowledge trade as a formative factor and catalyst in the Baden Complex.

Examining issues relating to the name, I came to the conclusion that acknowledging and differentiating the “Protoboleráz” was based on pottery typology. Therefore, it is my opinion that the name can only be applied appropriately and unambiguously to pottery. Thus, the labels of pottery style, pottery material, or sites with pottery/hallmarked by pottery are the least misleading. Whether the “Protoboleráz” name itself is appropriate or not is not so easy to decide. Shapes previously typical of the region can undoubtedly be found among the “Protoboleráz” pottery in the Danube-Tisza interfluve. At the same time, new elements appearing besides these, such as the one-handled cup or the bowl with marked carination, are proportionately more represented in the assemblage. Therefore, in my opinion the idea that the “Protoboleráz” adds new elements to Middle Copper Age shapes is incorrect.<sup>12</sup> Based on this, the name “post-Bodrogkeresztúr” (post-Ludanice, post-Lasinja) would not be correct either. According to identity research, a new direction of research, potters express a connection of identity between themselves and their predecessors through their pottery. Therefore, surviving forms in the “Protoboleráz” assemblage represent the continuity of networks. The statistical analysis of bowls and domestic pottery occurring in great numbers among vessel types and pottery shapes indicates connections with classic Baden, too. Thus, we can detect the connective role of “Protoboleráz” pottery in the area through pottery manufacture. Petrographic tests on the pottery assemblage also indicate the survival of earlier connections: the variegated nature of tempering agents in the area is a peculiarity of the Bodrogkeresztúr region, while the use of sand is ubiquitous during the whole Copper Age. Examinations of the stone assemblage also indicate the earlier network of connections in Bodrogkeresztúr and its partial survival. However, the changes in proportion of species in the animal bone assemblage point towards the new direction (of Baden).

“Protoboleráz” sites excavated in the Danube-Tisza interfluve connect the groups dominating the area with the material representing the pottery style of the Baden Complex from the end of the Copper Age. Certain markers of style survive in the pottery assemblage, and a number of new, particular markers are connected with these indicating impacts from east and west; at the same time, this “mix” shows similarities with the Baden (Boleráz) style, too. The cessation of the abundance in metals during the Middle Copper Age, the lack of metals or the conscious setting aside of metals, the new rites and means (stamp seals) in ritual events indicate an obvious change of direction in the network of connections which is now directed towards the Baden culture.

All considered, the “Protoboleráz” label does not seem appropriate based on research conducted in the Danube-Tisza interfluve. The territorial connections of the “Protoboleráz” assemblage with the Bodrogkeresztúr style are undoubtable, but Ludanice- and Furchenstich-elements are also present in them which, mixed with novelties and markers of more distant styles become transformed into a new, particular unit. Elements of this new unit and individual style are partly transmitted in the Baden assemblage, but referring to them as “proto”

12 HORVÁTH 2009, 19.

precedent does not seem appropriate. The name Boleráz in this area is not logical, as there is no Boleráz material to follow.<sup>13</sup> Detailed analysis of more sites and the comparison of these with the results of researches in other regions are necessary for an appropriate name for the pottery style.

At the beginning of the Late Copper Age, the earlier network of connections in the Danube-Tisza interfluvium undergoes a significant change. The area is dominated by the group producing the “Protoboleráz” pottery style, with a lifestyle significantly different from that of the Middle Copper Age, a shift detectable in both settlement structure and assemblage. New habits emerging with this lifestyle change, detectable in everyday life and ritualistic events through the complex examination of sites, show a connection with the local settlements of Late Copper Age Baden Complex.

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13 BONDÁR 2010, 337.

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