

THESES

**SETTLEMENTS IN NORTH-EAST HUNGARY BETWEEN
THE 10th AND 13th CENTURY AND THE CERAMICS OF
THE REGION IN THE ÁRPÁDIAN AGE**

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RÉGÉSZETI PROGRAM

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2010

SUBJECT

In this essay I present five settlements and the analysis of their ceramics from North East Hungary. These settlements have different geographical backgrounds and have been settled between the 9th and 10th centuries AD and various periods of the Árpádian Age. The ceramic objects of the settlements have been entirely examined to set the relative chronology of the archaeological phenomenon. I also aimed to set an absolute chronological order of the periods of the settlements based on the analysis of the ceramics and the comparable finds available. After examining the archaeological finds and phenomena I show a possible reconstruction of the dwelling houses and the structure of the settlements too. The archaeometric study of the objects resulted in some new conclusions regarding pottery techniques.

METHODS OF THE EXAMINATION OF THE CERAMICS

A proper database has been created by using Microsoft Excel. The examination of the huge amount of material has been started by and based upon the classification of the objects. It has been understood that certain types are related to certain time-frames. These types then have been compared to the formal and ornamental characteristics of the same time-frames. Thus the phases of the settlements has been defined.

Types of raw materials: Nine groups have been created. Each of them has its own pattern that can be found in the vessels' profiles in the table section of the study.

Group Nr.1: local raw material

Group Nr.2: fine as "brick", sandy, cleaned material.

Group Nr. 3: natural clay tempered by organic materials.

Group Nr. 4: natural clay tempered by coarse sand.

Group Nr. 5: cleaned clay tempered by grainy and.

Group Nr. 6: iron-free clay, fired to be white, tempered by gray sand.

Group Nr. 7: in between Group Nr. 1. and Nr. 5.

Group Nr. 8: in between Group Nr. 1. and Nr. 7. (plus some ceramics which were uncertain in the classification)

Group Nr. 9: natural clay with mica tempered by calcite.

THE SETTLEMENTS

1. Felsőzsolca-Várdomb

Situated North of the current city of Felsőzsolca. Between 1992 and 2001 a land of some 1500 m² has been excavated and objects have been found related to the Neolithic Age, Bronze Age (Pilinyi culture) Roman Iron Age as well as seven dwelling houses from the Árpáadian Age. A fortification that had been built onto an artificial hill and dated to the Late Árpáadian Age has also been found.

Analysis of the settlements of the Early Árpáadian Age showed that there were two phases inside this period. In the dwelling houses of the first phase (Nr.1 and Nr.6) ceramic objects of the first group (local raw material) and the fourth group (material tempered by coarse sand) are typical. The second phase (dwelling house Nr. 2, Nr. 5 and Nr. 7) has a more diverse and finer set of finds, however, as finds belong to the seventh group (finer material, incised spirals, indented rims) are also represented.

Both the ceramics and the comparable parallel finds of the period suggests that the first phase of this settlement has been directly followed by the second phase. Only one period of the settlement, which is dated from the turn of the 10th and 11th century to the 12th century, could have been separated to an early and a late phase.

In the 13th century a small fortification (motte) has been built onto the North East part (top) of the hill. This hilltop was heightened using the soil that has been got from digging the ditch around it. Thus a plateau with a width of some 20 meters has been created in order to place a dry stone foundation for a central building. The building itself could have been used for residential purposes and built using a wooden frame (or probable a wickerwork or sleeper beam wall) structure.

Wooden objects found in the pit Nr. 10 could have been remains of a bridge that could have been used as an entrance to the fortification. There were some other buildings inside the fortification on the territory that has been defenced. These were from the same period as the motte, including an outdoor oven and pits that contained finds of the Late Árpáadian Age only. Typical ceramics belong to Group Nr. 5 (cleaned material tempered by grainy sand, cordoned rims, spiral ornaments and beige colour) and Nr. 6 (white ceramics).

I believe that the finds and the parallel fortifications (Hausberg) show that the motte from Felsőzsolca could have been built in the beginning or in the middle of the 13th century. Analysis of the ceramic objects that have been found in the ditch and around the central residential building suggest that the fortification has experienced its golden age in the 13th and 14th century.

The large amount of carbonized beam, and a thick layer of ash may indicate that the destruction of the building may have caused by a big fire.

2. Hejőkürt–Cifrahát

The site located in the northwestern outskirts of Hejőkürt on the so called Cifra hill. Archaeological research, led by Tamás Pusztai, has been provided by the excavations related to the construction of the M3 motorway. Just a few objects - four Neolithic dwelling houses, a Neolithic pot, two dwelling houses and a ditch from the Árpáadian Age, and finally three holes and one ditch without any finds - has been uncovered. The two dwelling houses of the Árpáadian Age are not to be considered as two parts of the same village, those are parts of a farmhouse-like settlement of the Árpáadian Age instead.

The number of pottery fragments from the site are low and show a very uniform picture. Each ceramic fraction belongs to group Nr. 5, their substances are very pure clay, which has been tempered by larger-grained micaceous sand and formatted on hand-turned wheel with coiling technique. Decorations: wavy lines and long cuttings on the shoulders, broadly incised spirals on the bellies. Fragments of some cauldrons have been also found, of the same materials with similar decorations. Quite similar pots and cauldrons decorated with spirals also known from Sajólád-Kemej, Hácns-Béndekpuszta, and the treasure from Nyáregyháza Pusztapótharaszti that is dated by coins. Its parallels are also known from Tiszaeszlár-Bashalom, M0 motorway Gyál (site Nr. 3 and 10), and South of Vecsés (M0 motorway, site Nr. 67) that is dated by a coin of king Béla III.

The finds are dated to the 12th century, or as late as the beginning of the 13th century by the parallels.

3. Karos-Tobolyka

This settlement is the easternmost among the sites that are described in this essay. It is situated on a small hill that is surrounded by the backwater of creek Karcsa. In 1989, Mária Wolf has found eight dwelling houses, twelve free-standing ovens and some pits during a one-month-long excavation. She revealed the details in a preliminary report and dated the site to the 10th century.

The phenomenons of the settlement have been classified into four phases on the basis of the finds. The earliest buildings of the settlement (Phase I) are represented by the dwelling houses and the pits, where a decisive majority of the ceramic fragments belong to Group Nr. 1. The vessels typically have short, featureless rims, their necks are retracted slightly, their body has a sudden peak and their bottoms are narrow. Since there are no hand-formatted ceramics from Karos-Tobolyka (except for the claypan), I believe these houses and pits have been used in the 9th centuries instead, this view is supported by the parallel finds from Karos-Mókahomok and Zemplénagárd as well.

I classified Phase II. where there are objects without any fragments of claypan. Oxidized fired, finer ceramics are typical for this phase. The dishes, regardless of their material, have short, heavily everted and rounded rims. Ornaments include bundles of lines incised in stripes and bundled wavy lines. The dishes are not much different from the finds of Phase I. Thus it is likely that the two phases belonged to the same time-horizon, which is dated to the 9th century.

In Phase III. the composition of the ceramics are much different. The number of finds belong to Group Nr. 4 (tempered by coarse, granular sand) is dramatically increased. Seals on the bottom of the vessels appear, which indicates potters with better technical knowledge. The maximum width of the pots are in the middle third of their body, their bellies are rounded. Their rims are short, leaning and often fragmented. As for decoration, bundled wavy lines are still represented, but spirals and grooves (aka Saltovo type) appear in the upper two-thirds of the dishes' body.

Vessels of Phase IV almost exclusively belong to Group Nr. 7 as they have substances that are tempered, and made with higher technical standards. The pots' rims are indented with ribs, characteristic ornamentations are incised spirals, sometimes circumferential wavy lines on the shoulder, or cuttings. Geared decorations are also represented in some cases. The vessels' colours are clear brown, since they have been fired in oxidized conditions, controlling the temperature. With its ornaments (geared) ceramics and the pair of spurs found in the dwelling house Nr. 8, Phase IV is dated to the end of the 11th century or the beginning of the 12th century.

4 Mezőkeresztes-Cethalom

The site is situated South of the city of Mezőkeresztes, to the left bank of creek Lator (aka Tardi-ér) on the hill called Cethalom. Excavated in 1992 as part of the archaeological preparatory works of the construction of the M3 motorway. Five dwelling houses were found on the edge of the hill, which was settled in the Early Árpadian Age. The ceramics represent four groups. The dishes are generally made of locally mined, micaceous, volcanic, fluvial, sandy clay without any particular preparation (Group 1). Vessels made of rough clay, tempered by granulated sand (group 4) with thin engobe on the outer surface are also typical.

The use of cleaned, sandy fluvial clay (Group 2) is rare, but the washing and careful preparation can be seen. The conscious, intentional tempering, however, may be ruled out.

The earliest pieces (Group 9) are the dishes, which tempered by calcite filled material and decorated with a combination of bundles of wavy and simple lines.

The finds show that the houses have been used at the end of the 9th century and the beginning of the 10 century. The larger “log house” (Nr. 151), of which careful designed, more advanced pottery products have been discovered, is dated to the 10-11th century.

5. Mezőkeresztes-Lucernás

The site is located on the south-eastern outskirts of the village of Mezőkeresztes, to the west bank of creek Kácsi, in a borderline called Lucernás. During the preliminary archaeological excavations of the construction of the M3 motorway, altogether 26 Árpáadian age objects, houses, pits and a ditch has been founded.

The ceramics of the site has been grouped into three phases, based on their forms and decorations. Phase I includes ceramics tempered by organic materials (Group Nr. 3). These are typical for the 9th century, but their shape and decorations are known from the 10th century.

Objects in which there were no fragments tempered by organic materials are sorted into phase II. These finds are made of local raw material (Group Nr. 1. This phase is dated by a rib necked bottle of house Nr. 5 to the turn of the 10th and 11th century.

The latest finds of the site are from the dwelling houses Nr. 1-3, 8 and 6 and their pits. The fillings of these houses are dated by the ceramics tempered by purified, granular sand, and fired to have beige, or dark grey colour (Group Nr. 5).

Based on its ceramics, it seems that the hill called Lucernás has two time-horizons. In the turn of the 9-10 century some houses (Nr. 16) consisted the small settlement, which has been "renewed" in the 10-11 century. From the second half of the 11th century till the 12th century the hill could have been inhabited by one or two families.

RESULTS OF THE ARCHAEOMETRICAL TESTS

Four sites included in the sample: Felsőzsolca-Várdomb, Hejőkürt-Cifrahát, Karos-Tobolyka and Mezőkeresztes-Lucernás. The analysis of the samples has been carried out by Veronika Szilágyi at the Geochemistry Department of the Eötvös Lóránd University, thanks a lot for her great work. The selected 32 samples are considered as representatives as they are from different geographical environments, and settlements that have been inhabited by differnt periods of the Árpáadian Age.

Taking into account the archaeological aspects, the samples can be grouped into the following groups:

1st Group – Natural riverside-clay, without tempering. Most of the samples of the Early Árpáadian Age classified into this group, differences is only caused by the geography of the sites. The ceramics from Zemplén (Karos-Tobolyka) is characterized by volcanic debris (group 1/A), while in Felsőzsolca and Mezőkeresztes, located at the forefront of Mountain Bükk, a simple river clay has been used (Group 1/B)

2nd Group – Brick-like, coarse-grained natural sediment materials, where tempering could not be proven.

3rd Group – Natural riverside-clay, with organic tempering

4th Group – Natural materials, with coarse-sand granular tempering.

5th Group – clean clay, tempered by grainy sand. Fragments mostly belong to the late Árpáadian Age consist this group.

6th Group – Rather clean, iron-free clay, tempered by grainy sand, occur only in the fortification of Felsőzsolca from the Late Árpáadian Age. The Buda-type white pot, of which material have been tested, is completely different from the "local" ceramics, so it seems likely that the vessel may have got to the possession of the residents by trade links.

GENERAL FEATURES OF THE CERAMICS

Preparation

Potters of the 10-11th century mostly used local raw clay from the nearby rivers, which was rarely cleaned. They take advantages of the natural sediments in the clay and rarely tempered it intentionally. Surely the developing pottery technology is in the background of the spreading of the conscious cleaning, washing and tempering. Results of the test show, that this has become widespread in the Late Árpáadian Age instead. Both the use of the fast wheel and the ceramics tempered by granular sand, appears in larger quantity in the first half of the 12th century. Very light-coloured fired vessels (the so-called „beige-colored”, grayish or yellowish white), and white goods have appeared at the same time.

Modelling

Between the 9th and 13th century three categories can be classified from a technical point of view: 1 hand-shaped dishes, 2 hand-made dishes that shaped on a slow wheel, 3 pots made entirely in wheels. In this context, finds from Karos-Tobolyka are the earliest ones among the settlements of this essay. In Phase I, that is dated to the 9th century, hand-shaped pieces, claypan occur. Vessels from phase I and partly from phase II. are made with coiling technique and has been wheles on a very slow wheel.

At the sites that have been inhabited in the 10th and 11th centuries, there weren't any hand-shaped pieces of ceramics in Felsőzsolca-Várdomb, Mezőkeresztes-Cethalom, Mezőkeresztes-Lucernás. Each dishes made by coiling technique, then they have been shaped on a slow wheel and eventually decorated.

At the time of the appearance of the fast wheel, in the 14th and 15th century, Felsőzsolca-Várdomb has been inhabited only.

Decoration

The potter decorates the vessels by scratched simple lines, wavy lines or bundles of these using bones, special wooden tools or a comb when wheeling. The pots shaped on hand-wheels in accordance with the features of the wheel are decorated most often with incised lines, wavy lines and bundles between the 8th and the 11th century. Incised bundles of lines in bands, that is linked also to the Avarian traditions, is typical for phase I and II of Karos-Tobolyka and for phase I of Felsőzsolca-Várdomb. In the 10-11th century, the upper two-thirds of the dish is decorated, the simple incised line and carving on the shoulders of the vessels are common practice, though, stab-and-drag technique is rather rare. Starting from the shoulders, incised spiral runs down the lower third of the dish. Variants of this has been found in all of the settlements' Early Árpadian age periods discussed in this essay. The pointillé decoration is considered to be the potters tradition of the 9th and 10th century, this kind of ornaments have been found in Felsőzsolca-Várdomb, Karos and Mezőkeresztes-Lucernás as well. According to the previous researches, the so-called geared ornaments has been spread into the 11th century. In North-East Hungary these are common finds in the settlements of the 12th century too. Fragments of this kind of decoration found in Felsőzsolca-Várdomb provided new data to the latest time-horizon of the type. The geared ornamented „classical” fragments that has been found in the pit Nr. 7, belongs to the fortification, but its material is a kind of white ceramics that belong to Group 6, thus it can not be dated earlier than the 13th century. By the 12th and 13th century, the large incised spiral decoration became a general ornament, which are often extended with cuttings on the broad shoulders of the pots. The spiral ornament that goes down to the bottom of the dish appears also in the cauldrons. This is the predominant mode of decoration both in the fortification of Felsőzsolca-Várdomb and the ceramics of the Group Nr. 5 in the dwelling houses of Hejőkürt. This is to be replaced by grooving on the whole surface of the dishes due to the widespread use of more advanced pottery wheels into the 14th century. This technique is complemented in the 14-15th century with geared or sealed ornaments on white jars with red paintings that are typical for the region. Red painted white ceramics appears around Buda at the end of the 12th or in the beginning of the 13th century, but in this region it was probably spread by some decades later, in the second half of the 13th century.

Firing

Initially, the households may have been self-sufficient regarding ceramics. The dishes have been fired in pits on a low-temperature (500-600 °C). Beside the potter's wheel, higher quality has been reached by using double chambered ovens with higher temperatures (800–900 °C). According to the archaeometrical studies fragments of the investigated sites have mostly been fired on relatively low temperatures (<750°C) in ovens with changing atmosphere or in pits.

TIPOLOGY

The five sites the essay deal with have a rather poor formal diversity in the time-horizons of the 10-11th century. While other settlements of the similar age has rib necked pans, dishes, bottles, caps, these settlements have only pots, small pots and mugs with some rare exceptions. More diverse forms could be found in the 13th century layer of Felsőzsolca-Várdomb.

Despite the fact that even four of the sites has been dated to the 10-11th century, fragments of a rib necked pan has only been found in the fillings of the dwelling house Nr. 5 in Mezőkeresztes-Lucernás. It is a piece of a pan that had a mouth diameter of 14.4 cm. Since the fragment is just a small part of a rim, its typology is impossible to define.

The sites have altogether some five thousand fragments of ceramics, but only three fragments of dish have been found.

Cauldrons are rare piece of finds in North East Hungarian settlements from the 10-11th century. In our sites from the 9th century and the Early Árpadian Age neither Karos-Tobolyka nor Felsőzsolca-Várdomb contained any fragments of cauldrons. In Mezőkeresztes-Cethalom, that is dated to the 10-11th century, just a single piece was found. Besides, a rare early cauldron was found in Mezőkeresztes-Lucernás which was tempered by organic additives and was the imitation of a metal cauldron. However, it follows the traditions of the 9th century instead. However in the 12th century the number of cauldrons dramatically increasing, there are finds from Hejőkürt, Mezőkeresztes-Lucernás and Felsőzsolca-Várdomb as well.

Of the five settlements, bottles have been only found in Felsőzsolca from the fortification of the 13th century. Its material and polished surface makes it a unique piece. Miklós Takács presented similar polished pieces from Lébény-Billedomb and Markotabödöge from the Late Árpadian Age. The other bottles of Felsőzsolca-Várdomb mostly belong to Group Nr. 5 as they are made of beige, iron-free clay and they are very similar in form. The striped red paint appears first in the 13th century on the site's bottles, that are beige-typed, engobe coated, yellowish-pink coloured, and are very similar to the white bottles of Buda.

In the 14th century, big changes occur in the pottery, new forms appear, including gothic-mug. Some fragments of these have also been found in Felsőzsolca-Várdomb.

Three fragments of caps have been found in Felsőzsolca-Várdomb, but two of them is so small that it is even uncertain that these were parts of cups or bowls.

WHITE CERAMICS

Generally speaking, we know, that the white ceramics and red painted white ceramics appeared in the 12th century around Buda (Buda, Budaújlak, Kána) and within a short time in the 13th century, became a very popular pottery product. In the 13-14th century their rate of appearance reaches even 40-50%, sometimes even more. From the 15-16th century, their ratio is decreasing and by the end of the Middle Age it is around 10%. Behind the changing popularity is perhaps the fact that the use of the hand-wheel can be detected in white ceramics as the latest among ceramics, they are even found in the 15th century. Their distribution covers mainly the North, North-Eastern part of the country. In Transdanubia, their appearance is sporadic, and these are considered as personal or traded objects. By the 13th century the spiral ornament that goes down the vessel's body becomes a general feature. Vessels of the 14th century are made on heavier, faster wheels and are often grooved. Red painting appears in the 12th century, and during the 12-14th century, only bottles, jugs and cups have it. The earliest type of this is the sample from Budaújlak with its "splashed" pattern. From the first half of the 13th century, bottles with striped and mesh-paints are also known. In the 13-14th century, the red-painted patterns became more complicated: double circles and half circles appears between two bands, and that leads to the jagged pattern of the 15th century.

SUMMARY

The interval indicated in the title of the essay (10-13th century) has been extended by plus or minus a hundred year based on the finds. The ceramics of the settlements are from the 9-14th century, but due to the finds of the fortification in Felsőzsolca and the white material it was possible to show the pottery of North-East Hungary in the 15-16th century too.

The relative and absolute chronology of the five settlements were compared on the following table.

F- Várdomb	H-Cifrahát	K- Tobolyka	M- Cethalom	M- Lucernás		
		Phase I.			9th cent.	
		Phase II.		Phase I.	10th cent.	
Phase I.		Phase III.	Phase I.	Phase II.	11th cent.	
Phase II.		Phase IV	Phase II.		12th cent.	
		Phase I.			Phase III.	H2 of 12th cent. – H1 of 13th cent.
Phase III.						
Phase IV.					From the 13th cent.	

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