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FROM CAIRN TO OVEN: ON THE USE OF ETHNOLOGICAL DOCUMENTS IN INTERPRETING REMAINS OF HISTORICAL STRUCTURES

Since the summer of 1997 the Department of Archaeology at the University of Turku has investigated a complex of archaeological remains of the late 16th and early 17th centuries related to an Orthodox village at Papinniemi in Uukuniemi (500 km east of Turku). Beginning in the summer of 1998, training excavations for students have focused on the floor of a dwelling at the site. In the northeast corner of this structure was a collapsed cairn that could be identified as the remains of an oven from the initial stages of the fieldwork. With reference to morphology, materials and primary field observations of structural details and ethnological analogies, this article suggests a possible reconstruction of the feature as a Karelian oven of the so-called *leukauuni* or ledge oven type. This example is also intended to focus on the relationship between archaeology and ethnology and to review the methodological opportunities provided by this relationship.

Alates 1997. a suvest on Turu Ülikooli arheoloogia õppetool uurinud 16. sajandi lõpu ja 17. sajandi alguse arheoloogilist kompleksi, mis on seotud Papinniemi õigeuskliku külaga Uukuniemil (Turust 500 km idas). 1998. a suvest keskendusid üliõpilastele mõeldud õppekaevamised asulakohal avastatud elamupõhja uurimisele. Selle hoone kirdenurgas paiknes kivivare, mida algusest peale võis tõlgendada ahjujäänusena. Arvestades viimase kuju, ehitusmaterjali, kaevamistel tehtud tähelepanekuid ehitusdetailide kohta ning etnoloogilisi paralleele, esitatakse ahju rekonstruktsioon Karjala nn *leukauuni*'na. Ühtlasi keskendutakse arheoloogia ja etnoloogia seostele ning antakse ülevaade nende pakutavatest metodoloogilistest võimalustest.

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Fieldwork at the abandoned village of Papinniemi in Uukuniemi

In the early 1880s the schoolteacher Kustaa Killinen was the first to record information on antiquities at Papinniemi in Uukuniemi. Killinen was given a grant by the Finnish Archaeological Society (late Finnish Antiquarian Society) to carry

out fieldwork. In his survey and inventory report he mentions that there were "house foundations" and "oven locations" among other features at the site, but it was not until over a century later that the site came to be reinvestigated as a result of an official inspection carried out by Dr. Markus Hiekkanen in the service of the National Board of Antiquities. In his inspection report (1994), Hiekkanen notes that large numbers of stray finds and a strong element of local oral tradition suggest that an Orthodox church and cemetery were located at Papinniemi, as well as an Orthodox village, which he tentatively dated to the 15th–18th centuries.

Following the initiative of local history enthusiasts and Markus Hiekkanen, fieldwork was already launched at Papinniemi in the summer of 1995 with a trial excavation. The Department of Archaeology of the University of Turku has carried on this work by first conducting trial excavations and mapping under the direction of Ville Laakso MA in 1996, followed by excavations in layers since the summer of 1997. Work at the Papinniemi complex of remains has entailed the localization and investigation of a number of graves next to Kirkkokallio hill, the investigation of a field-clearing cairn and the completion of the excavation of house floor 1 in layers. The objective of archaeological research at Papinniemi has been defined as to establish the nature, structure and extent of the complex with reference to finds, historical data and oral tradition. The abandonment of the village has been attributed to the historically known mass emigration of Orthodox population from Karelia to Russia in the 17th century. The fluctuations of the intensity of settlement as indicated by historical sources appear to be best explained by political changes in the area of Ladoga Karelia (Saloheimo 1977, 17). This assumption is also supported by the Orthodox character of the objects found at the site and dendrochronological and coin-based dating (Laakso 1999a; 1999b). Up-to-date information of the background of the research project and recent results are available in Laakso (2000).

In the summer of 1997, trial excavations were begun to define the locations of buildings and structures and an excavation in layers was initiated at the site of building floor 1, discussed here. The trial excavations had already focused attention on a cairn of earth and stones with the residue of fire (Fig. 1) visible on its surface and under the turf layer. The cairn was situated approximately 150 m south of the assumed site of the village church, at the edge of a terrace-like formation only a few dozen metres from the shore of adjacent Lake Pyhäjärvi (Laakso 1998).

Cairns and structures collapsed into cairns are common remains of human activity even from historically documented times. In the Finnish context, cairns related to burn beating and field clearing and the remains of various types of ovens or stoves have been the main subject of interpretations. An unusual feature of the present cairn, however, consisted in the remains of a partly preserved, charred wooden construction. Since the main task of a field archaeologist is not only documentation but also a primary interpretation of the evidence, I discuss

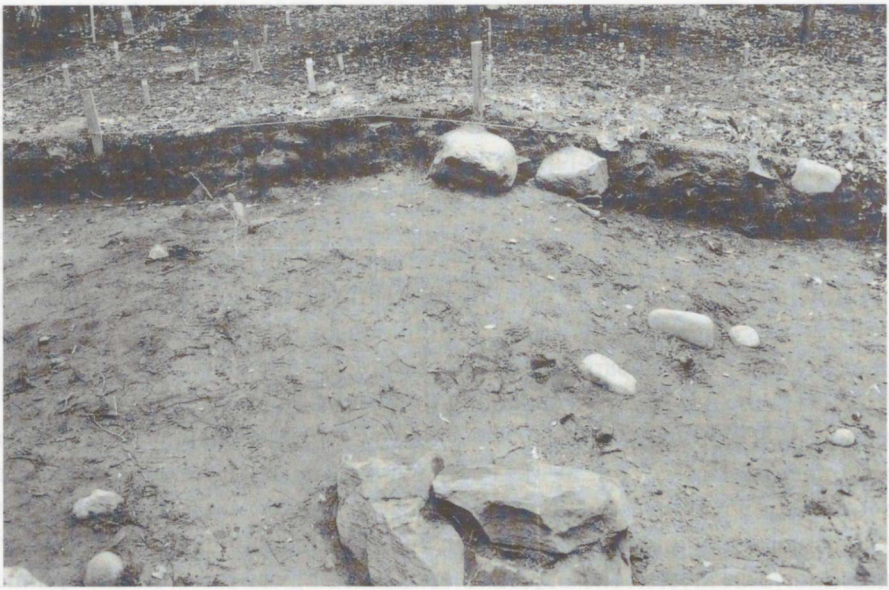

Fig. 1. The excavation area in the summer of 1998. The oven cairn is visible in section in the foreground. Photos by Kristiina Korkeakoski-Väisänen.

Joon 1. Kaevand 1998. a suvel, esiplaanil ahjuvare. Fotod Kristiina Korkeakoski-Väisänen.

the possible reconstruction of the structure presented here with reference to primary field observations. In this connection I also wish to reopen the possibilities of using ethnological comparative material in the interpretation of historical sites and antiquities.

The oven of house floor 1 as archaeological remains

Already defined as the remains of an oven, the collapsed cairn of mixed stones and sooty soil, and of indefinite form was slightly less than 5 m in diameter and roughly 50 cm high (Laakso 1998). Upon the collapse of the cairn, its largest stones had fallen mostly towards the east, the lower slope of the terrace, but smaller stones had also spread on its west side (Fig. 2). Some 30 cm beneath the surface the original structure, however, could be outlined as a rectangular shape rounded at the corners (Fig. 3) (Laakso & Korkeakoski-Väisänen 1999).

The oven was mostly made of quite angular, undressed stones but also of flat stone slabs. The mortaring and possibly the smoothing of the vault or partial plastering of the surface was done with clay mixed with sand. The mortar clay appears to have been tempered with parts of plants, whose impressions were visible on the surface of the clay pieces. This assumption, however, was based

Fig. 2. Sketch of the collapsed oven cairn in layer 3 of the excavation. The dashed line marks the north wall and the assumed side wall on the east side. The upper drawing shows part of the timber framework excavated in 1998 and remains of wood on its west side. The assumed opening of the oven is marked with an arrow.

Joon 2. Ahjuvare plaan kaevandi 3. kihis. Katkendjoon märgib hoone põhjaseina ning oletatava külgseina asukohta. Ülemine joonis esitab osa 1998. a kaevatud palkraamistikust ning puidujäänuseid selle lääneküljel. Ahjusuu arvatav koht on märgitud noolega.

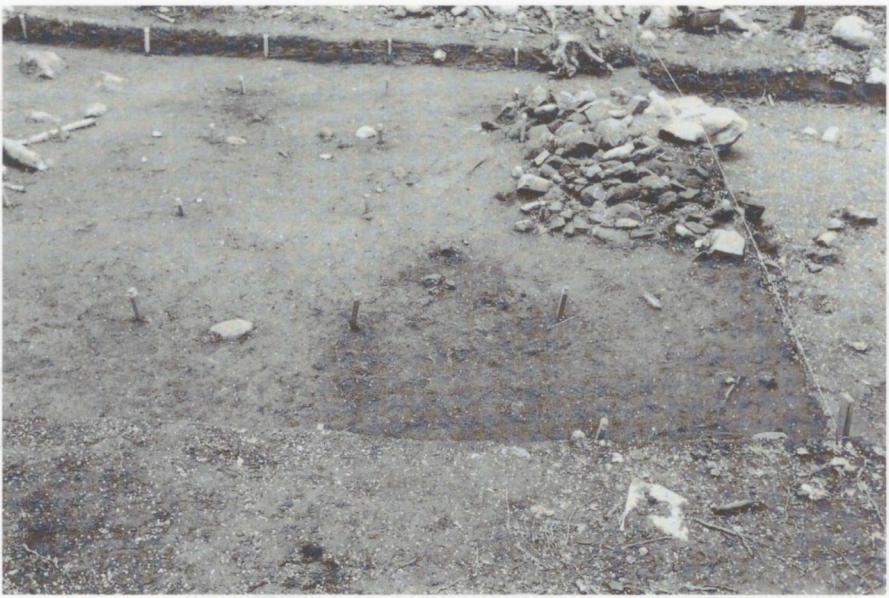

Fig. 3. The 1998 excavation area at level 3. The oven cairn is at the right edge of the picture, in the northeast corner of the building.

Joon 3. 1998. a kaevandi 3. kiht. Ahjuvare paremal, hoonepõhja kirdenurgas.

only on visual observations during the post-excavation study of the material. In vernacular masonry self-taught oven makers made the mortar by mixing clay with water and using as temper sand and horse-dung, which contained a great deal of organic matter. The outer surface of the oven would be plastered with a mixture of mortar containing cut straw, chaff, etc. (Kolehmainen 1981, 21). The pieces of clay suggesting the plastering of the surface or the smoothing of oven vault were smoothed on one surface. Some of the pieces had an impression of timber on one side, indicating that they were from a timber structure. But the material contains only a few triangular pieces typical of daub or chinking clay. Slightly less than 80 kg of burnt clay was recovered from the area of the collapsed cairn, most of it having a contextual connection with the oven. This demonstrated that the cairn is the remains of a masonry-built oven and not a piled heating stove of stones.

Although the stove had upon collapsing spread over a large area and was badly damaged in its upper parts, it was obvious that later land use did not extend down to the bottom of the structure, and the thoroughly charred base structures had been left to decompose untouched, thus remaining in their presumably original place and orientation. Laakso (1997) maintains that although slash-and-burn farming had been practised later at the site, such activities may often have bypassed and detoured the stone remains of the oven.

Charred remains of timber (Fig. 2) varying between 1 and 15 cm in thickness were found in several locations beneath the stones of the collapsed oven. At its west end, the remains of timber formed a framework, the base of the oven. The existence of a framework is also supported by the orientation of the grain in the remains of wood on the south and east sides. The presumably notched corner joints were at a distance of slightly over 2 m from each other. The timber remains were two courses high. In two places clay daub occurred between superimposed logs. The structure had disappeared almost completely at the east end, but the framework can be assumed to have been approximately 2.5 × 2.5 m (Fig. 2).

After the timber remains as a whole were removed, stones, including a few slabs, were found beneath the best-preserved part. Beneath the whole timber framework was a low mound of sand roughly 3 m in diameter. The oven was originally built on a small mound of sand and the bottom timbers of the base were laid, at least partly, on stones.

For the most part, the timbers were laid horizontally, but near the southwest corner of the structure remains of an upright wooden structure were found (Fig. 2). The latter were so close to each other that they could also be interpreted as the remains of a single upright timber. Within the former house this upright timber would have been near the outer corner of the oven opening onto the middle floor area.

In front of the west side of the best-preserved timber framework, inside the assumed main room of the house, the wooden remains continued 1–7 cm thick and over 1 m wide. The grain of the wood in these remains was parallel with the framework (Figs. 2 and 4). The outermost surfaces of the timber remains bear some traces probably caused by hewing with an axe.

The field observations permit only an indirect definition of the direction of the opening of the oven. A stone slab measuring 57 × 22 cm on the northwest side of the best-preserved part of the timber framework could be linked to the construction of the oven opening (Fig. 2). But, assuming this, the slab has the wrong orientation towards the opening of the oven; we must think that it originally belonged to the upper part of the vault over the opening from where it could have fallen and moved to such a degree from its original location when the oven collapsed.

On the presumed front side of the oven, on the west side of the timber framework and to some degree also on its south side, beneath the collapsed oven stones, was a feature of clay, unburnt and trodden to a dense consistency in patches but also burnt on the surface in place. At most the clay layer was 5 cm thick. I would interpret the patches of clay to be the remains of an uncovered clay floor. The extent of the presumed clay floor on the west side of the base structure of the oven also supports the above-mentioned assumption of the direction of the oven opening. In reconstructing the structure, it was also taken into account that trodden clay both unburnt and burnt on the surface was also found beneath

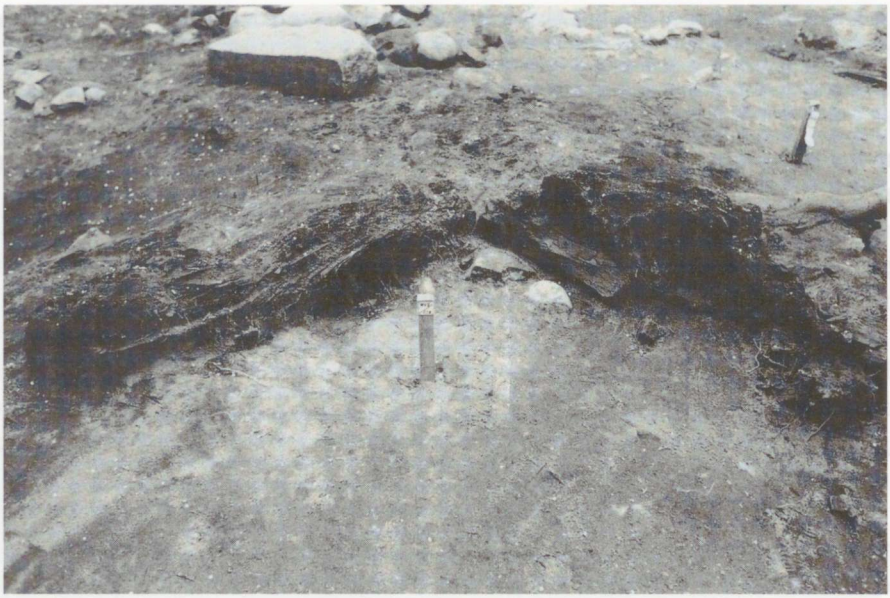

Fig. 4. The best-preserved part of the timber framework serving as the wooden foundation structure of the oven and remains of wood on its west side.

Joon 4. Ahjualuse palkraamistiku paremini säilinud osa ning puidujäänused selle lääneküljel.

the horizontal timber remains on the west side of the timber framework (Laakso 1998; Laakso & Korkeakoski-Väisänen 1999).

The oven reconstruction presented here is based on the following fieldwork observations which I associate with the construction of the oven:

1. The cairn consisted of unworked, sharp-edged stones of different size, and partly of slabs.

2. Almost 80 kg of burnt clay was found among and around the stones.

3. The vaulting of the oven opening and its orientation are indicated by a longiform stone slab near the base structure.

4. The oven had a timber framework as its base structure.

5. There were "extra" timber remains in front of the timber framework and clay beneath the remains.

6. The patches of clay by the presumed front side of the oven and its other outer side and also beneath the wood remains on the west side of timber framework have been interpreted to be the remains of an uncovered dirt floor in this area.

7. The cairn is dated dendrochronologically and by coin material to the close of the 16th and the beginning of the 17th centuries at the latest (Laakso 1999a, 59–60).

The north and east walls of the building – the location of the oven

The course of the north wall of the building can be defined in two ways. Firstly, with reference to the four remains of wood running in a straight east–west line. Also, the consistent east–west direction of the grain in the preserved wooden parts supports the assumed location of the north wall (Fig. 2). On the other hand, in almost the same line as the above remains and mostly beneath them was a stone-mixed discoloured feature 50–60 cm wide and almost 5 m long, which was interpreted as having been caused by the foundation of the wall.

However, the east wall of the house cannot be identified with equal precision. At this stage of the research we can only define the course of the wall by assuming that the house had walls at right angles to each other (Fig. 2). On the other hand, large stones and the small ones among them could indicate the line of the wall, for the house was originally built on a southerly slope. It is possible that the east wall was laid on stones, even though the house had no actual stone foundation. The west wall, which, in topographic terms, was almost 1 m higher, was laid directly on the ground. The oven was in the northeast corner of the single room, about half a metre from the north wall with the opening possibly facing the west wall (Laakso et al. 2000). With regard to the overall location of the house, I would conclude that the north wall was also a gable wall.

According to ethnographic evidence, the oven of a chimneyless house or cabin was usually on either side of the door, with the opening facing the opposite wall (Kolehmainen 1981, 23). Although the place of the cabin door could not be defined at Papinniemi through archaeological observations, I assume here that it was located on the right-hand side of the door.

In Russian folk culture dwellings are classed according to the part of the house where the oven and the opposite corner where the icon was hung were located. A different model is the West Russian type with the opening of the oven facing the side wall. This is the most archaic model and is found in the St. Petersburg region and the areas of Russian settlement in Karelia. Another configuration, found in the northern regions, is the North and Central Russian type, in which the oven was situated in the right or left corner flanking the door, with the opening facing the end wall opposite the door, which in the traditional Karelian house would have been the façade wall. In this layout, the oven was in the corner right next to the wall, or a space was left between it and the side wall. The space between the oven and the wall could be used for storage and other purposes (Čistov 1976, 135–136).

Ethnoarchaeological starting-points for interpretation

Archaeologists should interpret their source material of objects and artefacts with an open mind for different possibilities and numerous ideas. They can obtain the models that they need from historical and ethnological sources, but

also from their own experiences. The above models are only better founded and argued with regard to scientific praxis. The oldest way to interpret and understand an artefact or structure is to seek for it an ethnographic model based on morphological similarity (Meinander 1971, 156–157). An understanding of archaeological source material obtained via living communities is well founded if the specific commitments of the methods are taken into account. Without a model, the structure investigated at Papinniemi would only have been a collapsed cairn mixed with sooty soil and pieces of burnt clay with charred remains of timber beneath it. No interpretation for such a cairn can be found in the author's own experiences.

At least in the past, archaeology and studies of artefactual ethnology had many points in common. According to the well-known Swedish ethnologist N.-A. Bringéus, the early stages of artefact studies in both disciplines were dominated by a focus of interest on the morphology, structural details and material of objects. Evolutionism added to this by also opening up the prehistoric perspective for research. The comparative method was developed from an evolutionist basis and remained for long one of the cornerstones of material culture studies in both archaeology and ethnology. Also diffusionism provided a joint theory for archaeologists and ethnologists. The study and interpretation of distribution maps were among the most important methods in both disciplines. And though functionalism, as a markedly anthropological orientation of research, can be seen as a reaction against evolutionist and diffusionist cultural theory, the functional aspect became prominent in anthropology and ethnology, as well as archaeology. Ethnologists and ethnographic case studies now provided archaeologists with the opportunity to interpret the function of artefacts (Bringéus 1998, 257). Ethnology and archaeology also share the lack of chronological boundaries, and – unlike history – they study anonymous matters and cases. In Finland, this insignificant difference between perspectives of research has been noted, among others, by Janne Vilkuna, who in a brief article on the heritage disciplines of ethnology and folkloristics in relation to archaeology notes that archaeologists fluently use the results of the natural sciences to support their research while ignoring ethnology and ethnography, despite their joint research history. He also notes that the same problem applies, albeit to a lesser degree, in the relationship of archaeology and history as well (Vilkuna 1983, 126–127). Also Bringéus (1998, 263) has observed the effects, past and present, of the separation of archaeology. Archaeologists and ethnologists are simply no longer familiar with each other's research.

The term "ethnoarchaeological" was already used in 1900 by the ethnologist Jesse W. Fewkes in his presentation of his research among the Hopi of the American Southwest (Fewkes 1900). Ethnoarchaeology means the study of the material culture of living communities with focus on describing the production, distribution and use of artefacts. Via ethnology, archaeologists have also approached of lesser material orientation, such as technological or social

evolutions. Traditionally, however, ethnoarchaeology has been regarded as being limited in perspective, and particular note has been made of its lack of potential for generalization in cross-cultural studies (Orton et al. 1995, 17). It has also been strongly synchronistic in nature, but most studies have nonetheless paid little attention to the historical development of contemporaneous models. According to Hodder (1984, 55), there is a real need also to introduce the historical perspective of the subject of research into interpretation through ethnoarchaeology. This requirement may still be regarded as relevant. Ethnoarchaeology is a field of qualitative research, an approach whose objective it is to understand its subject of research, and it may, at least in part, be described as a research method rather than a research strategy. Ethnoarchaeology can be viewed as the use of a comparative method, but this comparison cannot apply only to morphological similarities as before, but to a whole network of relationships.

The analogies provided by ethnology and ethnography or observations from the researcher's own culture without doubt provide a legitimate starting-point for interpretations concerning materials and techniques of manufacture, and above all if analogies are not assumed to lead to the truth but are expected only to provide answers pointing to possibilities. This has been brought forth particularly well in experimental archaeology, where analogies are also an important basis for models. Both ethnoarchaeology and experimental archaeology have a long history in which they differ little from each other. Theoretically speaking, ethnoarchaeology can be regarded as identical with experimental archaeology (Skibo 1992, 29). Even the results of experiments do not seek to give the right answers; experiments are at their most reliable when it is possible to prove an interpretation to be impossible (Coles 1979, 46–47). The essential point is that interpretation should take place within the local and social framework to which the object of interpretation is assumed to belong. This is particularly important in situations where structures can only be identified insufficiently (Hodder 1981, 215–216). Parallels based on the morphological similarities of objects or structures can be correct, though not always, in any case, when the contextual correspondence of the structure and the parallel that is sought is not addressed. The perspective should thus also be one of cultural context. In an article from 1992 J. M. Skibo regards ethnoarchaeology as an archaeological research strategy, but he also underlines that ethnographic research has increased even after the enthusiasm aroused by L. R. Binford at the turn of the 1960s and 1970s, which calls for an ongoing refinement of the definition of ethnoarchaeology. Skibo (1992, 28–29) maintains that the defining of ethnoarchaeology involves four parts:

1. Archaeologists should conduct the collection of ethnoarchaeological material, because ethnographers or ethnologists do not necessarily focus on source material that is specifically useful to archaeologists.

2. Ethnoarchaeology should take as its sources all living communities, and not only pre-industrial ones.

3. Archaeologically motivated problems should lie at the core of ethnoarchaeological research.

4. The aim of research should be to help us understand the past.

Also archaeological and material-culture studies of the historically documented past may need the models offered by ethnography and ethnology. This need is particularly underscored in Finnish research. The transition from the period that did not produce written sources to the period of written records is long and flexibly defined in Finland (Nikander 1934, 139). Taavitsainen (1999) presents the important problem of combining artefactual and textual source materials and the justification for doing so, noting the obvious legitimization of medieval archaeology as a discipline. Citing Hiekkanen (1987), he also takes up the subject of the "grey period" falling in between prehistoric times and the beginning of Modern Times (Taavitsainen 1999, 9–10). I would claim that this period of which the sources still partly remain unfound continues much longer. It is precisely the ethnoarchaeological approach, the models provided by Finnish ethnological documents, that serve to complement studies of this "grey period" as a descriptive but also explanatory research strategy.

Heating stoves – baking ovens

The earliest stone-laid, non-mortared, heating stoves in Finland are represented by a collapsed cairn in the southwest corner of house floor 1 at the Turku (Kaarina) Ristimäki site excavated by Anna-Liisa Hirviluoto. The building is dated to 800–1000 AD, but its function remains uncertain. It may be a dwelling, i.e. a cabin with a heating stove of piled stones, but it could also be a threshing shed or sauna, or a combination of them (Hirviluoto 1962, 44–45; Valonen 1984, 153). The remains of a four-sided stove of undressed stones, with a base area of 2.4 × 2.2 m were investigated at the Vanhalinna hillfort site in Lieto. Here, the fireplace of the stove, level with ground, was 80–90 cm long, and it was surrounded by stone blocks considerably larger than the other stove stones. It is not known what structure or building this stove served, but Salo (1958) places it in the southwest corner of the original building. The stove at Vanhalinna in Lieto is dated to 1000–1200 AD (Salo 1958, 62–63).

In the early 1900s, A. M. Tallgren investigated the hearth of a clay-laid fireplace indirectly dated to the end of the Iron Age. Beneath the hearth was a layer of timber lined with clay on its upper surface and beneath this layer were burnt stone slabs (Tallgren 1931, 178). The ethnologist Kustaa Vilkuna interpreted this structure to be an oven. He argued for this interpretation with reference to the hearth mortared on a wooden foundation, and a vault of clay, which must have been located over the hearth because most of the pieces of clay were found on top of the hearth with their smooth side facing downwards (Vilkuna 1946, 267–268). This was probably an outdoor oven.

In the Finnish material, the most primitive fireplaces are the chimneyless stoves – piled stones used in chimneyless dwelling cabins, smoke saunas and threshing sheds. In these stoves, a layer of stones to retain heat was constructed over the hearth, and the smoke of the fire entered the room from between the covering stones (Talve 1960, 314). Owing to its capacity to retain heat, this stove type was an improvement in dwellings. But an even more developed source of heat was the chimneyless oven made of natural stones, in which the smoke escaped from holes or "nostrils" made in the sides of the oven or above its opening, and through the opening (Valonen 1963, 189–196). The oldest surviving ovens of this type in Finland are from the late 17th and/or early 18th centuries (Kolehmainen 1981, 14–15). If the oven was built to have a vault, the structure was known as a "vaulted stove" (Talve 1960, 314–316).

Talve (1979) has – with due cause – pointed to the imprecise ethnological use of the Finnish terms *pirtti* and *tupa* and *kiuas* and *uuni*, referring to cabins and cottages and stoves and ovens, respectively. According to him, the term *savupirtti* (i.e. smoke or chimneyless cabin) means a building with a chimneyless, unmortared stove with an open top, while the *savutupa* (smoke cottage) has a chimneyless mortared oven with a closed top part (Talve 1979, 347; see also Valonen 1963, 107–143). Building 1 at Papinniemi thus had the oven of a *savutupa* or "smoke cottage" (see also Vuorela 1976, map 34).

A closed top part or dome in an oven required some kind of vaulting structure for the hearth. Three types of structures can be distinguished among the oldest stone-laid hearth vaults surviving in Finland. In the staggered vault flat unworked stones are placed above each other in a staggered, stair-like configuration, thus giving the oven a tapering upper part (Valonen 1963, fig. 263). Flat natural stones were also used in the second type, the so-called slab vault, but the stones at the sides were laid directly on top of each other with the longer, flat vault stones resting on them. The peaked vault type, which was common in Russia, follows the same principle of piling the stones as in the slab vault, but with the stones behind the straight top stone of the oven opening laid against each other in a ridge-like configuration (Kolehmainen 1981, 16). The vault of house floor 1 at Papinniemi could naturally be any one of these alternatives, but in this interpretation I would regard the slab of special shape and size found in front of the oven as part of the hearth vault.

Since the upper stone-laid part of the Papinniemi oven had collapsed completely, the shape of the actual oven cannot be interpreted on the basis of the remains. From an ethnological perspective, however, the shape can be defined. In his monumental work "Zur Geschichte der Finnischen Wohnstuben" Niilo Valonen notes that according to ethnographic documents the upper part of the oven of a chimneyless or smoke cottage could be dome-shaped, cylindrical or flat (Valonen 1963). Of these types, the flat upper part was clearly, at the time of documentation, the most common one, extending from Southern Karelia and the Karelian Isthmus to Central Finland, and in the north to the southern parts of the

Kainuu region and from there eastward to the Ladoga Karelia (Valonen 1963, 182–184 and fig. 134). In Southern Karelia it was the sole type.

The Savo-Karelian ledge oven

The area of distribution of the flat-topped ovens coincides with that of the eastern smoke cottage ovens. A further shared feature of the eastern ovens is their high foundation or base structure. The vaulting technique is also regarded as East Finnish (Talve 1960, 319). Of these, the Savo-Karelian ledge oven with a long flat surface, or ledge, in front of the opening has the widest distribution. On the other hand, the so-called *kolpitsa* and *kosino* ovens of the Karelian heritage have a more eastern distribution, and have considerably larger wooden structures than the ledge oven. They are also younger. The *kolpitsa* oven has a folding bench (*kolpitsa*) on one side while the *kosino* oven has a cupboard. Both the oven-side bench and the cupboard have access to the cellar of the house (Vuorela 1976, 82 and map 36; Valonen 1963, 533–538; 1974, fig. 22). As structures require a high foundation and since the structure beneath the oven would have been completely destroyed upon collapsing, these oven types cannot be taken into account in any reconstructions of the Papinniemi oven.

With reference to ethnographic analogies I suggest that building 1 at Papinniemi had a ledge oven made of natural stone. The structure of this oven type includes a timber framework with protrusions and a flat surface in front of the opening of the oven. The horizontal remains of wood on the west side of the oven opening and the timber framework indicate a collapsed projection, i.e. an oven with a ledge. I also suggest that, as shown in Fig. 5, the oven rested on two root stumps. The broad ledge, however, could also have been a notched, corner-joined construction or made of round logs (Valonen 1963, 198–205; Vuorela 1964, 104–105; Talve 1979, 37). But in this case, I cannot accept the possibility of the latter structures. Although the oven-cooked dishes are important features of the Karelian heritage of cuisine, the hearth was also used for cooking. The hearth trough, resting on a root stump, was filled with stones and earth, whereby it was possible to draw coals into it from the oven for cooking food in a pot hung on a hook above it. In building 1 at Papinniemi, the largest number of small stones had accumulated next to the assumed front part of the hearth. The stones can be interpreted as originating from the hearth (Fig. 2). A hearth or fireplace in front of the oven is also one of the most characteristic features of the North Russian oven (Čistov 1976, 136), while the caisson-based oven with no projections or ledge is only known from Häme, Central Finland and Northern Savo (Valonen 1963, 226; Vuorela 1964, 66).

In the Savo-Karelian oven, the hearth was generally at high height, which indicates adaptation to dishes prepared in the oven. In the South Karelian ledge ovens of Fig. 5, illustrated by U. T. Sirelius (1908) and Toivo Salervo (1909), the log base structure is, however, quite low, only two or three courses of logs. Since

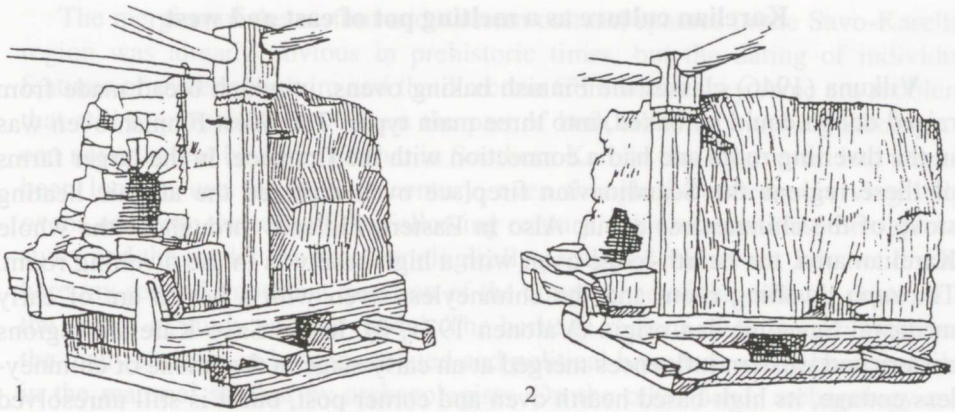

Fig. 5. Ledge ovens documented at Kirvu, South Karelia: 1 by U. T. Sirelius in 1908 and 2 by T. Salervo in 1909. (After Valonen 1963, Figs. 160 and 202.)

Joon 5. Lõuna-Karjalas Kirvul dokumenteeritud palkraamistikuga ahjud: 1 U. T. Sireliuse (1908) ja 2 T. Salervo (1909) joonis. (Valonen 1963, joon 160 ja 202 järgi.)

traces of only two courses of logs have survived in the Papinniemi oven, it could readily be assumed that the base framework was originally quite low.

A typical old construction of the East Finnish (ledge) oven is the post placed in its outer corner, which also serves as a support for horizontal beams. In Southern Karelia a so-called thin post with a thinned end was used (Fig. 5). The beams, in turn, divided the dwelling's space into the men's and women's areas, respectively (Valonen 1963, 227–233). The oven, however, could also be built without an upright post (Kolehmainen 1981, 76–77). It is possible that the ledge oven at Papinniemi also had a corner post in the outer corner towards the central floor area. This is possibly suggested by the remains of an upright timber found in two places near the corner location (Fig. 2) (Laakso 1998), which I would interpret as the remains of a vertical timber post. The Kirvu ovens of Fig. 5 show that the corner post did not extend to the ground but was attached to the framework of the oven at ledge height, which means that in the remains from Papinniemi this part of the foundation may not have necessarily survived.

With reference to fieldwork observation of the remains in building 1 at the Papinniemi site and ethnological analogies, I have arrived at the interpretation that this structure was a so-called ledge oven situated in the northeast corner of the dwelling room, possibly to the right of the door. It was made of stones of different sizes and had a flat top and a hearth ledge. The opening of the oven faced the west wall, presumably a side wall, and the vault was a so-called flat or slab vault. The base structure of the oven was a clay-lined timber framework which was quite low and the oven may have had a corner post. There was dirt floor in front of the oven and possibly also on the side facing the central floor area of the room.

Karelian culture as a melting pot of east and west

Vilkuna (1946) classes the Finnish baking ovens, in which bread made from raised dough could be baked, into three main types. The West Finnish oven was in the dwelling room and had a connection with the fireplace. In the larger farms of these regions the Scandinavian fireplace oven replaced the archaic heating stove of the chimneyless cabin. Also in Eastern Finland, throughout the whole Karelian area, the hearth-ledge oven with a high base was in the dwelling room. The *tupa* dwelling room and the chimneyless oven with a hearth are of early medieval Scandinavian origin (Valonen 1971, 8). In the Savo-Karelian regions eastern and western influences merged at an early stage in the smoke or chimneyless cottage, its high-based hearth oven and corner post, but it is still unresolved whether the merged features are of Iron Age or later medieval date (Valonen 1974, 457; Valonen 1975, 196, map 28).

The third type is an outdoor oven separate from the dwelling, known in Western Finland as *pätsi* or *mäkiuuni*. Here, the term *pätsi*, also used elsewhere, specifically refers to the outdoor oven. Vilkuna (1946, 252–260, 265) notes that previously the outdoor oven was in use over a wide area extending from Western Finland to the Caucasus, apparently surviving as a relict in its westernmost fringe area. In Western Finland, the oven in the dwelling served as a source of warmth. Bread was baked rarely but in large amounts at a time, and the outdoor oven was apparently used for reasons of fire safety (Vuoristo 1954, 5–6, map 1). The intensity of oven use particularly for baking bread and cooking other food is a difference between the East and West Finnish cultural regions.

In the Finnish language, the word *pätsi* appears thus to be the oldest term used of the oven. Accordingly, the origins of the Finnish baking oven are to be sought in the Slav regions (Vilkuna 1946, 262–264). As a construction, the oven of the East Finnish chimneyless cottage combines elements of the heating stove of the old dwelling room, the hearth of the outdoor cooking hut and the outdoor oven. According to Vilkuna (1946, 267–274), the structure contains elements of both the baking oven and the stone stove and their early merging must, in his opinion, have taken place somewhere to the south of the Gulf of Finland by the end of prehistoric times at the latest, as demonstrated by the timber-framework based oven discovered at Märttelä in Rusko. This prehistoric dating is also supported by the course of developments known from the Lake Ladoga region, where, according to excavation finds and E. N. Nosov's interpretation, a transition from dwellings with central hearths to rooms with ovens in the corner already took place in the early 8th century (Uino 1986, 191; see also Valonen 1975, figs. 4 and 6). Also Tõnisson (Тыниссон 1980, 77–78; figs. 2–5) observes that four-sided cabins were used as dwellings in Estonia at the end of prehistoric times. Here, the stove or oven was located in the corner of the room. He has also observed structural and functional features in later ethnographically documented Estonian ovens that derive from prehistoric stoves and ovens (Tõnisson 1981, 56).

The merging of the eastern and western cultural spheres in the Savo-Karelian region was already obvious in prehistoric times, but the dating of individual features of material culture and the direction from which they came are problems that still require further work on the part of both ethnology and archaeology. It can nevertheless be assumed that in Southern Karelia the ledge oven had already been long in use in the 17th century, even though the oldest surviving ledge ovens are from the turn of the following century, which means that the object of study and the model can be chronologically paralleled. However, I do not discuss here my second important question of the congruence of the cultural contexts of the object of study and the model. The heritage regions of Eastern Finland and the many changes in heritage-related and political boundaries may be discernible in the material studied by archaeologists. On the other hand, archaeology may well have a contribution to make to the revision and checking of the heritage areas and boundaries of material culture – and perhaps in redefining them – now that studies of the rural areas in historical documented times are beginning to produce results. Historical sources, however, are not enough for describing this cultural sector. It is important also to apply an ethnoarchaeological approach in the archaeological study of historically documented times. Ethnology and archaeology could approach each other anew by returning to the comparative method, familiar to both, in the purely material sectors of research to which the sources of history do not extend. This, however, can no longer imply a simplified review of formal similarities, but the source-critical use of the method and the placing of individual material features into their cultural and social context.

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KIVIVAREST AHJUNI: ETNOLOOGIA ANDMETE KASUTAMISEST AJALOOLISE AJA EHITUSJÄÄNUSTE TÕLGENDAMISEL

Alates 1997. a suvest on Turu Ülikooli arheoloogia õppetool uurinud 16. sajandi teise poolde ja 17. sajandisse kuuluvat muististe kompleksi, mis on seotud Papinniemi õigeuskliku külaga Uukuniemil (Turust 500 km ida pool). Papinniemil on lokaliseeritud ja uuritud Kirkkokallio mäe lähedal paiknevaid arvukaid kalmeid, põllukivihunnikut ning hoonepõhja nr 1. Siinse arheoloogilise uurimistöö eesmärk on leiumaterjali ning kirjalike ja suuliste allikate põhjal välja selgitada kompleksi iseloom, struktuur ja ulatus. Mainitud küla tühjenemist on seostatud õigeuskliku elanikkonna massilise väljarändega Karjalast Venemaale 17. sajandil. See sündmus on tuntud ajalooallikate kaudu.

Juba proovikaevamiste ajal äratas tähelepanu mullast ja põlemisjälgedega kividest koosnev vare, mis ilmus nähtavale kamarakihi all (joon 1). Konstruktsiooni kokkuvarisemise järel olid selle suuremad kivid vajunud peamiselt ida poole, terrássi madalamale nõlvale, kuid väiksemaid kive sattus ka vare lääneküljele (joon 2). Maapinnast u 30 cm sügavusel ilmnes, et tegu oli algselt ristkülikukujulise kumerate nurkadega konstruktsiooniga (joon 3; Laakso & Korkeakoski-Väisänen 1999).

Ahju rekonstruktsioon tugineb järgmistele kaevamiste jooksul tehtud tähelepanekutele, mis seostuvad ahju konstruktsiooniga:

1. vare koosnes töötlemata teravate kantidega erimõõdulistest kividest, osalt ka klibust;
2. kivide vahelt ja nende ümbert koguti u 80 kg põlenud savi;
3. ahjusuu võlvi asukohale ja suunale osutab piklik kiviplaat konstruktsiooni põhjal;
4. ahjualuse moodustas palkidest raamistik;
5. palgijäänuseid koos saviga oli ka raamistiku ees;
6. savilaike ahju oletatava esikülje ja teise väliskülje juures, samuti palkraamistiku läänekülje all võib tõlgendada jäänustena savipõrandast;
7. vare dateeriti dendrokronoloogia ja müntide abil hiljemalt 16. sajandi lõppu ja 17. sajandi algusse (Laakso 1999a).

Välitööde materjalile ja etnograafilistele paralleelidele tuginedes võib väita, et hoones nr 1 oli olnud looduslikest kividest tehtud Karjala tüüpi ahi, soome k

leukauuni. Seda tüüpi ahjude konstruktsiooni kuulub ahjusuu ette ulatuva pealt tasase eendiga palkraamistik. Ahjusuu läänekülje olevad horisontaalasendis palgijäänused (joon 4) ja palkraamistik osutavad kokkuvarisenud eendile, s.t lahtise leega ahjule. Ahi toetus kahele talale (joon 5). Kuigi ahjus küpsetamise nõud pole Karjalas tavalised, võib siiski märkida, et seda ahju kasutati ka toidu valmistamiseks: pott rippus siis leeaseme kohal konksu otsas. Tugipostile toetuv ahjukast oli täidetud mulla ja kividega, kusjuures ahjust oli sinna pudenenud sütt. Suurem osa väikseid kerisekive oli koondunud oletatava ahjusuu ette (joon 2).

Ahi oli paiknenud eluruumi kirdenurgas, arvatavasti sissekäigust paremal. Pealt lame ahi oli ehitatud erineva suurusega kividest ning sellel oli leease. Ahjusuu asus vastu läänepoolset küljeseina ning ahjusuu võlv oli lame, s.t koosnes kiviplaadist. Ahju aluse moodustas saviga vooderdatud palkraamistik, mis oli üsna madal, ning ahjul oli nähtavasti olnud nurgapost. Ahju ees ning ilmselt ka ruumi keskosas oli nn must põrand (savipõrand).

Soome etnoloog Kustaa Vilkuna on jaganud Soome leivaküpsetusahjud kolme peamisse tüüpi. Lääne-Soome ahi paiknes eluruumis ning oli seotud tulekoldega. Savo–Karjala piirkonnas ilmnesid ida- ja läänepoolsed jooned juba varasemate aegade suitsutares, kus oli kõrgemal alusel asetsev nurgapostiga ahi, kuid pole veel selge, kas need iseärasused pärinevad rauaajast või keskajast (Valonen 1974, 457; 1975, 196, kaart 28). Kolmandat tüüpi esindab elumajast eraldi rajatud õueahi, mida Lääne-Soomes tuntakse *pätsi* või *mäkiuunina*. Nimi *pätsi*, mida kasutati ka mujal, viitab just õues olevale ahjule. Vilkuna arvates (1946, 252–260, 265) oli õueahi varasematel aegadel laialdaselt levinud alates Lääne-Soomest kuni Kaukaasiani, säilides läänepoolsetel äärealadel reliktina. Ahju kasutamise sagedus eriti just leivaküpsetamiseks ja teistegi toitude valmistamiseks määrab ära ühe erinevuse Ida- ja Lääne-Soome kultuuripiirkondade vahel.

Soome keeles on sõna *pätsi* vanim termin ahju jaoks. Vastavalt sellele tuleb soome leivaküpsetusahju algupära otsida slaavi aladelt (Vilkuna 1946, 262–264). Oma konstruktsioonis ühendab Ida-Soome suitsutare ahi endas jooni vanemale eluruumile iseloomulikust kerisahjust, suveköögi lahtisest koldest ning õueahjust. Vilkuna järgi (1946, 267–274) sisaldab see konstruktsioon leivaküpsetusahju ja soojenduseks mõeldud kerisahju elemente ning pidi välja kujunema kusagil Soome lahest lõuna pool hiljemalt muinasaja lõpul. Dateeringut muinasaega kinnitavad andmed Laadoga järve ümbruskonnast, kus vastavalt kaevamistulemustele ja E. N. Nossovi tõlgendusele toimus areng keskse koldega eluruumilt nurgaahjuga hoonele juba 8. sajandi alguses (Uino 1986, 191; Valonen 1975, joon 4 ja 6). Ka Evald Tõnissoni järgi (Тыниссон 1980, 77–78, joon 2–5) paiknes ahi muinasaja lõpul ristkülikukujulise eluhoone nurgas. Ühtlasi on Tõnisson jälginud Eesti hilisematele etnograafilistele ahjudele iseloomulike strukturaalsete ja funktsionaalsete tunnuste põlvnemist esiaja ahjudest (Tõnisson 1981).

Idale ja läänele iseloomulike kultuurinähtuste segunemine Savos ja Karjalas algas juba esiajaloolistel aegadel, kuid materiaalse kultuuri üksikute nähtuste täpsem dateerimine ja nende levikusuuna kindlaksmääramine valmistavad endiselt raskusi nii etnoloogidele kui ka arheoloogidele. Võib siiski arvata, et Lõuna-

Karjalas oli *leukauuni* enne 17. sajandit pikalt kasutusel olnud, kuigi vanimad säilinud ahjud pärinevad alles järgmise sajandi algusest. See tähendab siiski, et siinse artikli uurimisobjekt ja vastava ahju mudel on ajaliselt võrreldavad. Ida-Soome kultuuripiirkonnad ja arvukad muutused nii kultuuri- kui ka poliitilistes piirides on ilmselt jälgitavad selles materjalis, mida uurivad arheoloogid. Samas saab arheoloogia anda oma panuse ka nende kultuuriareaalide ja -piiride kontrollimisse ning ümberhindamisse nüüd, kui ajaloolise aja maapiirkondade uurimine on jõudmas esimeste tulemusteni. Kuna kirjalikud allikad pole piisavad selle sfääri kirjeldamiseks, tuleb ajaloolise aja arheoloogiliseks uurimiseks samuti kasutada etnoarheoloogilist käsitlusviisi. Etnoloogia ja arheoloogia saaksid üksteist materjali uurimise sektoris täiendada, pöördudes tagasi mõlemale hästi tuntud võrdleva meetodi juurde; kirjalikud allikad seda ei võimalda. Selline analüüs ei saa aga enam olla lihtsustatud ülevaade formaalsetest sarnasustest, vaid meetodit tuleb kasutada allikakriitiliselt ning materjalis esinevad nähtused tuleb asetada nende kultuurilisse ja sotsiaalsesse konteksti.