

The persistent presence of the dead: recent excavations at the hunter-gatherer cemetery at Zvejnieki (Latvia)

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The well-known Mesolithic cemeteries of Northern Europe have long been viewed as evidence of developing social complexity in those regions in the centuries immediately before the Neolithic transition. These sites also had important symbolic connotations. This study uses new and more detailed analysis of the burial practices in one of these cemeteries to argue that much more is involved than social differentiation. Repeated burial in the densely packed site of Zvejnieki entailed large-scale disturbance of earlier graves, and would have involved recurrent encounters with the remains of the ancestral dead. The intentional use of older settlement material in the grave

fills may also have signified a symbolic link with the past. The specific identity of the dead is highlighted by the evidence for clay face masks and tight body wrappings in some cases.

Keywords: Latvia, Zvejnieki, Mesolithic, burial practices, archaeoethnatology, cemetery, hunter-gatherers

Archaeological background

Since the 1970s the cemeteries of Baltic Mesolithic hunters and gatherers have had a tremendous impact on the understanding of this period. Sites such as Olenii Ostrov Mogolnic in Karelia with 177 individuals (Gurina 1956), Zvejnieki in northern Latvia with 330 individuals (Zagorskis 2004), Vedbæk-Bøgebakken in Denmark with 22 individuals (Albrethsen & Brinch Petersen 1977) and Skateholm in Sweden with a total of 85 individuals (Larsson 1988) emerge in an affluent but gradually changing landscape toward the end of the Mesolithic. Initially these large accumulations of burials were the focus for questions about social organisation. The study of grave goods allowed archaeologists to propose

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different models of horizontal differentiation along the lines of age and gender (Price 1985; Kannegaard Nielsen & Brinch Petersen 1993: 79; Tilley 1996: 40; for a critique see also Meiklejohn *et al.* 2000; Schmidt 2001; Nilsson Stutz 2003: 177–80). Some saw evidence for ranked societies (O’Shea & Zvelebil 1984; Newell & Constandse-Westermann 1988); others, conversely, egalitarian societies (Knutsson 1995). The cemeteries were viewed as ancestral claims to territory indicating some form of pre-agricultural sedentism and were connected to demographic and economic conditions (Chapman 1981; Price 1985: 355; Clark & Neeley 1987; Zvelebil & Dolukhanov 1991: 263), often within a paradigm that viewed Late Mesolithic societies as increasingly complex.

It was only later that the symbolic and ritual dimensions of the sites began to be systematically explored (Larsson 1990). This interest has grown as Mesolithic archaeology has expanded more generally into questions about cosmology (Zvelebil 1993), identity (Fowler 2004), landscape (Thorpe 1996: 82; see also Pollard 2000), ritual practice (Nilsson Stutz 2003), animal symbolism (Mannermaa 2008; Larsson 2009) and shamanism (O’Shea & Zvelebil 1984; Meiklejohn *et al.* 2000; Schmidt 2000; Strassburg 2000; Zagorska & Lougas 2000; Zagorska 2001; Porr & Alt 2006; Zvelebil 2008).

The use of the term ‘cemetery’ has come under increasing scrutiny in recent years. It has been pointed out that many of these sites are associated with extensive settlement remains and should therefore be viewed as occupation sites with burials (Kannegaard Nielsen & Brinch Petersen 1993). Instead of being specialised funerary locations, they were places where people lived and buried their dead in a way that erased the distinction between the world of the living and the world of the dead. In this article we take a close look at Zvejnieki and what the recent excavations there tell us about the process of burial and what that may reveal about the significance of the site, its history and how it was perceived during the time it was actively used for burial.

The burials at Zvejnieki are part of an extensive complex of Mesolithic and Neolithic deposits along a drumlin close to the outlet of a small river on the shores of Lake Burtnieks in northern Latvia (Figure 1). The Mesolithic/Neolithic transition in Latvia is defined by the appearance of pottery at 5400 cal BC and not by the introduction of domesticates. Here we use the local nomenclature but it should be noted that the Neolithic in this case denotes a period of pottery-using hunters and gatherers rather than the customary mixed farming economy. Geological studies have established that during the Stone Age the drumlin was an island and the lake was about three times its current size (Eberhards 2006). In the early 1960s, more than half of the top of the drumlin at Zvejnieki was quarried away for gravel for road building until 1964 when human bones, including a skull, were noticed among the gravel on the road leading to the site (Zagorska 2006: 11). Archaeologists visited the site and immediately noticed graves exposed in the walls of the quarry, including several with red ochre. This led to the excavation of what remained of this large site (390m²) under the leadership of Dr Francis Zagorskis. His careful analysis of the typology and spatial distribution of over three hundred graves excavated from 1964 to 1971 allowed him to establish chronological categories (Figure 2). The graves considered to belong to the Mesolithic phase, characterised in part by the presence of ochre, were found in the highest areas of the site (‘the first group of burials’). This means that a considerable number of Mesolithic graves were likely destroyed before the gravel extraction was halted. Most of the

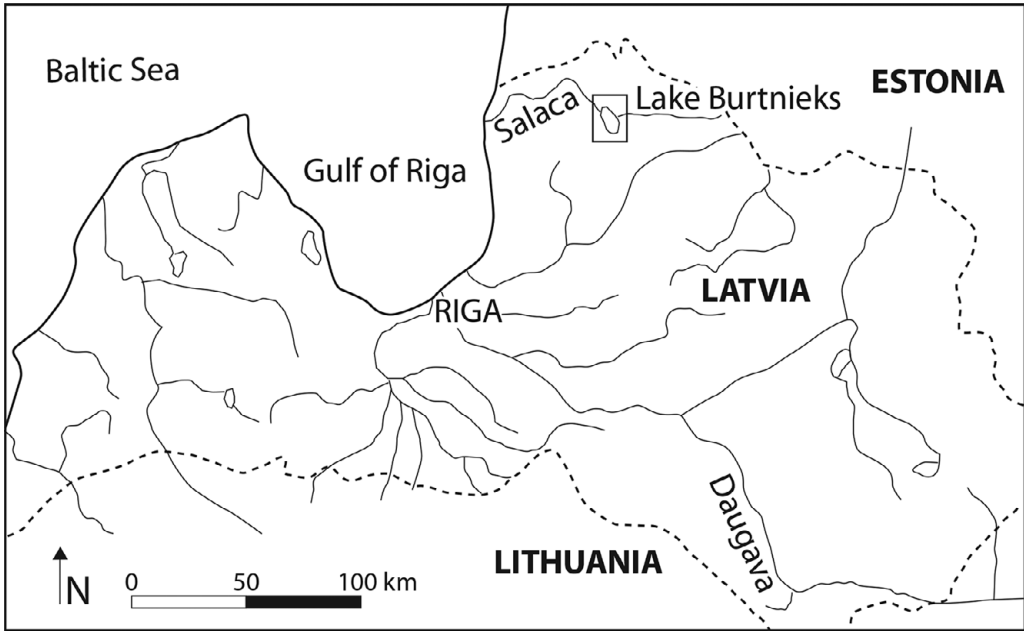


Figure 1. The location of Lake Burtnieks in north-central Latvia.

Neolithic graves were found around the farmstead about 100m to the east ('second group of burials'), and a small number of graves were found in the zone between.

In the early 1990s, the first radiocarbon dates for graves from Zvejnieki confirmed the chronological divisions established by Zagorskis (Zagorska & Larsson 1996). We now know that the first burials took place at Zvejnieki *c.* 7500 cal BC, and that the practice continued until about 2600 cal BC. The destruction within the western and eastern parts of the cemetery led to the assumption that the cemetery originally held *at least* 400 graves. Zvejnieki also contained extensive settlement remains. The major part of the Mesolithic and minor parts of the Neolithic settlement were excavated between 1971 and 1977. A small number of further graves were found within the Mesolithic settlement.

Zagorskis' detailed description and interpretation of the graves was published posthumously in Latvian in 1987 (Zagorskis 1987). In the late 1990s, further research on the graves, the palaeoenvironment and the palaeoecology was initiated by an international cross-disciplinary project (Larsson & Zagorska 2006). This was followed by new survey and excavations, with burials excavated according to the methods provided by archaeoanthatology (Duday 2009; see also Nilsson Stutz 2003). Archaeoanthatology is a taphonomically based approach that combines biological knowledge about the way the human body decomposes after death with detailed observations of the spatial distribution of human remains and artefacts in the field. The aim is to reconstruct mortuary practices and, especially, the handling of the body before, during and (when applicable) after burial. In addition, special attention was directed toward the composition of the grave fills in order to understand the process of burial. These methodological approaches allowed us to reconstruct in detail the preparation of the body before burial and to address more systematically the

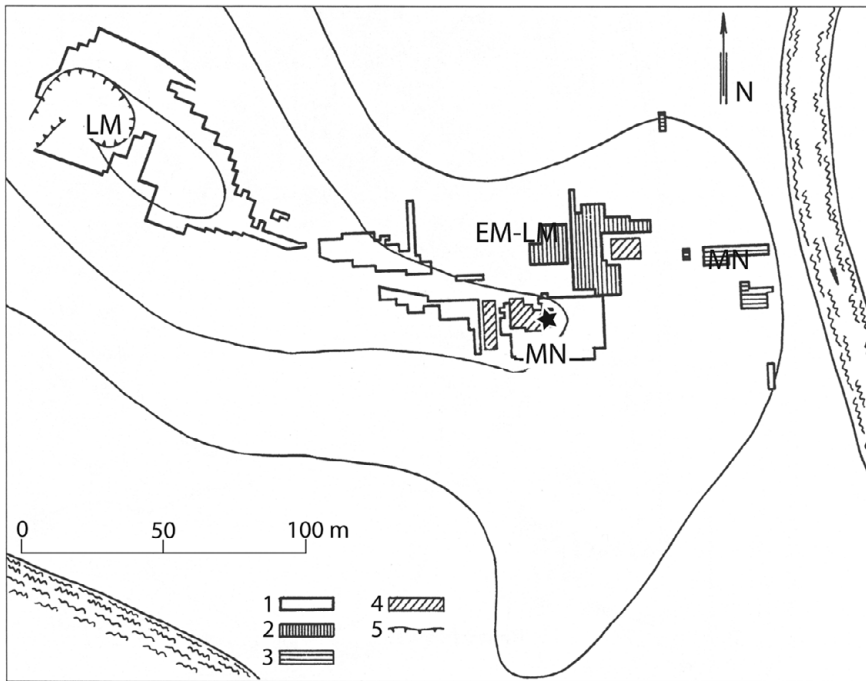


Figure 2. Plan of the excavations by Zagorskis on the higher level of the drumlin on the northern shores of Lake Burtnieks. 1) First group of burials; 2) transitional group of burials; 3) second group of burials; 4) Zvejnieki II settlement site; 5) Zvejnieki I settlement site. A star marks the area of the new excavations. After Zagorska 2006.

nature and level of destruction of older graves that resulted from continuous burial in the densely used site. The detailed study of the grave fill further allowed us to reconstruct a complex use of soil from different parts of the site in the burial ritual.

The new burials at Zvejnieki

The area selected for excavation was located in the centre of what previously had been identified as the Middle Neolithic part of the cemetery, in the immediate vicinity of the farmstead (Figure 2). This particular area had been left unexcavated during the Zagorskis excavations due to the presence of the house that now was uninhabited and in a dilapidated state. In this limited area 20 new burials (containing a total of 24 individuals) were identified, and 19 of these burials were excavated. As will become evident in the discussion, it is very likely that the MNI exceeded the 24 identified individuals, since isolated human remains were abundant throughout the excavated area, and only a few of these could be attributed to specific individuals. One grave (312) contained at least four individuals (three adults and one child) but the number should be considered with caution since this poorly preserved burial was destroyed by looters before it could be fully excavated. Three graves contain double burials (319/320, 323/325 (see Figure 3) and 316/317 (see Figure 6)) and the remaining graves all contained a

single individual. Archaeoethanotological analysis confirmed that burial would have taken place relatively soon after death. Most commonly the body was buried in a pit dug into

the gravel substrate and immediately infilled with sediment, from the immediate surroundings and potentially from other graves, or, as became increasingly clear, from the neighbouring settlement areas.

At first glance these mortuary practices appear to be similar to those known from hunter-gatherer grave concentrations in southern Scandinavia like Skateholm (Larsson 1988) and Vedbæk/Bøgebakken (Albrethsen & Brinch Petersen 1977). The dead are buried intact shortly after death, accompanied by grave goods and red ochre, and covered with sediment that sometimes contrasts with the surrounding substrate. As the work progressed, however, we made several observations that led us to conclude that there are also significant differences. While it is not possible to discuss each individual burial here, a few examples will be described in more detail both to illustrate the patterns that we could observe at the site, and to provide a basis for our discussion of mortuary practices.

Grave 323/325 is in many ways typical of the burials excavated at Zvejnieki. After cleaning off the surface, which was rich in disarticulated bones, the oval shape of the burial pit stood out as the grey fill contrasted against the yellow gravel substrate of the surrounding soil. The feature contained the remains of two individuals, an adult male (dated to 5230 ± 50 BP, 4230–3961 cal BC [LuS 8833]), and a child of four (± 1) years of age (Figure 4). The feature was partially

covered by the house walls in the east, and it was unclear whether the cranium of the adult was still present and covered by the wall, or if it had been removed from its original position at the time of the construction of the house. The grave was relatively shallow and the remains of the child were encountered approximately 0.4m below datum, and the remains of the adult were encountered approximately 100mm further down. The adult male was placed on its back with extended lower limbs in the middle of the feature with approximately 100mm

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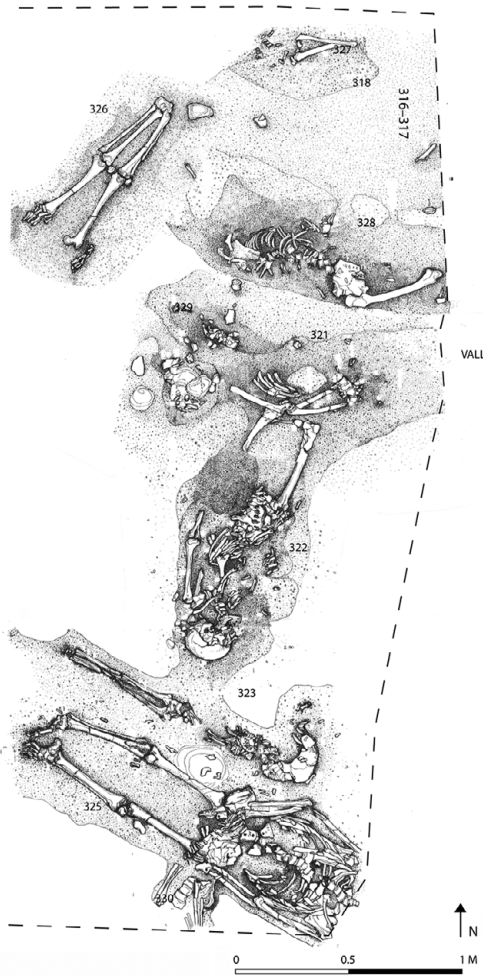


Figure 3. Burials excavated in the 2009 season inside the perimeter of the farmstead. The burials are clustered close together and often cut into each other resulting in significant disturbance during the period of use of the cemetery. The location of grave 316/317 is indicated; for details, see Figure 6. Image by Loïc Lecareux and Lars Larsson.



Figure 4. Graves 323/325 with the child (323) lying extended and rotated to the left and tucked up against the pit wall, and the adult (325) extended on the back. The burial has cut across an older burial (330) and the remains of this individual can be seen in the vicinity of the pelvis of individual 325. Photo: Liv Nilsson Stutz and Lars Larsson.

to spare on each side. The analysis confirmed that the burial was a primary deposit and that the body had decomposed in a filled space. While there were no artefacts in the fill of this burial (which is typical for this more shallow type of burial at the site), several artefacts were immediately associated with the adult, including four ceramic fragments and four flint arrowheads manufactured by pressure flaking.

The body of the child was in a more fragmented state at the time of excavation, and while this to some extent affected the resolution of the observations made, it is clear that this was a primary burial where the body was placed extended on the left side tucked up against the north-east edge of the feature. While there is no actual intermingling of the anatomical elements of the two individuals which would allow us to identify a double burial beyond doubt, simultaneous deposition seems like the most likely scenario from the spatial relationship between the two and the lack of secondary disturbance. The precarious position of the child's remains on the edge of the feature with no movement of anatomical elements downward during the process of decomposition could indicate that the body was in fact physically contained at the time of disposal. It could have been wrapped or tied up with some kind of organic material that later decomposed. Another interesting observation regarding this burial is that during excavation it became clear that it had disturbed and

partially destroyed an older grave (grave 330; see Figure 4). Where grave 323/325 cuts into grave 330 (approximately at the level of the pelvis of 325) no human remains from the older grave were present, which indicates that these bones most likely were removed during the establishment of the new grave. The fills of the two features were also different, although the limits of the older burial were difficult to establish with precision.



Figure 5. Burial 315 (lower limbs visible to the left of the image) can be seen to have cut across the earlier burial 314.

The phenomenon of graves cutting into and destroying older graves actually appeared to be more a rule than an exception in this part of the cemetery. Graves 314 and 315 provide another example (Figure 5). Despite the extensive destruction that can be linked to the construction of the overlying house, archaeothanatological analysis confirmed that these are two separate primary deposits, where the younger grave (315) cut through and destroyed the older (314) at the time of burial (Nilsson Stutz *et al.* 2008). The disturbance pattern (which is both extensive yet limited to specific areas of the body) indicates that burial 315 took place when 314 was already in an advanced stage of decomposition or even completely skeletonised. Given the abundance of disarticulated human bones across the excavated area, and in particular in the grave fills, disturbance of older burials seems to have been very common. This

pattern is confirmed by the double grave 316/317 (Figure 6), which was not just the most spectacular of the burials excavated, but also very informative about the phenomenon of disturbance and the precautions that may have been taken to avoid it. It thus revealed an internal tension in the mortuary programme.

Grave 316/317 is unusual in many ways and distinctive both in terms of depth (between *c.* 0.9 and 1.15m below datum, with the body on a slope with the upper part at the lower level) and in the quantity of grave goods associated with the dead (see also Larsson 2010). The fill of the feature was very dark, standing out starkly against the yellow gravel substrate, and rich in isolated artefacts of flint and bone, animal bone and isolated human bones (some of considerable size, including an intact sacrum). A large stone (160mm wide and 300mm long) was encountered in the upper level of the fill. Its stratigraphic position and the fact that such large stones do not occur naturally in the drumlin gravel led us to interpret this as a possible grave marker.

Two individuals were deposited in the grave, lying extended on their back with the head to the east. Individual 316 was identified as an adult female estimated at 35–40 years old, and individual 317 was an adult male estimated at 25–30 years old (for dates see Table 1).

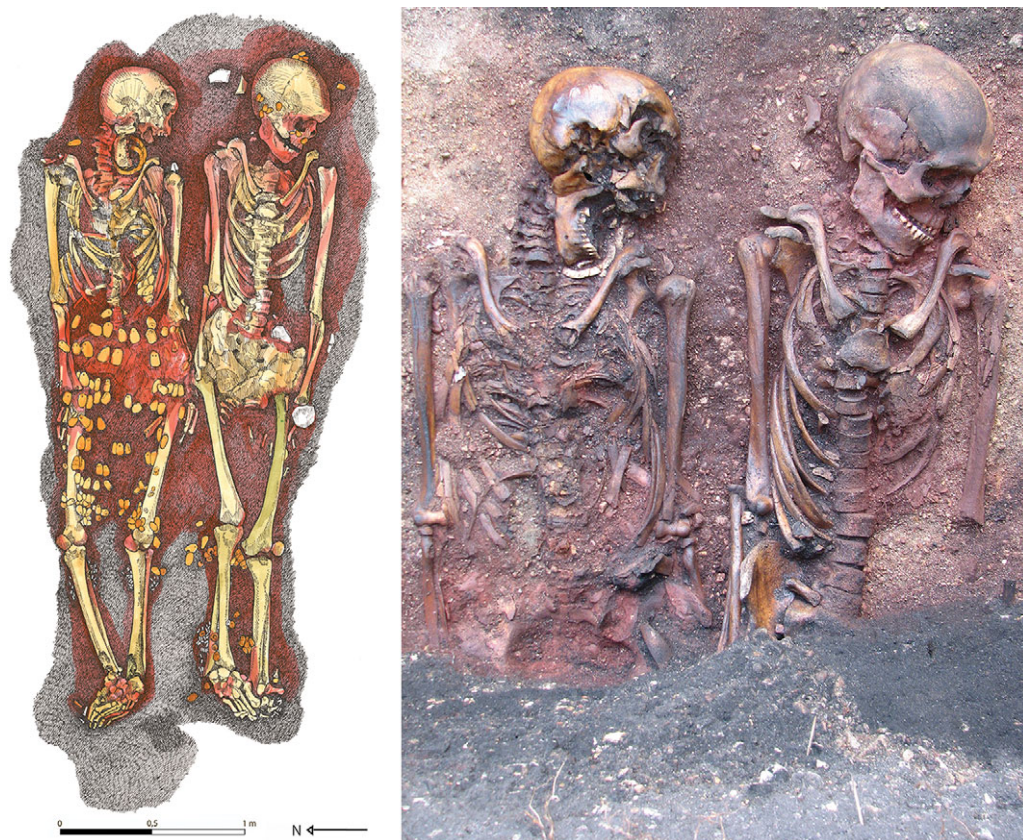


Figure 6. Grave 316/317. Drawing by Loïc Lecareux.

A striking aspect of the grave is the quantity and diversity of artefacts found with the dead, particularly amber. Individual 316 was accompanied by two large amber rings (Larsson 2010) placed close to the cranium, and had a belt consisting of 113 perforated amber beads (from 20 to 55mm in size) across the pelvic area and down between the legs. Smaller amber beads were also found around the cranium of the man. The final count of amber beads reached 135, making this grave one of the richest in amber that is known for this period. In addition there are some 40 bone beads of the same shape as the amber ones, as well as almost 200 beads fashioned from bird bone that were found with both individuals. A bone dagger made from a red deer ulna was found close to the right arm of individual 317, and a flint knife to the right of the cranium.

Archaeoanthatological analysis reveals that the burial was a primary simultaneous deposit of the two individuals. They were placed side by side with the heads turned slightly to the left. Their positions are very similar, but the archaeoanthatological analysis revealed interesting information about the treatment at the time of burial, especially of individual 317. Evidence of systematic bilateral pressure could be detected throughout different parts of the body. The upper part of the body appears to have been compressed with the anterior parts of the ribs placed in front of the vertebral column, the verticalised clavícula indicating

Table 1. ¹⁴C dates from elements in the fill of grave 316/317.

	¹⁴ C dates	Calibrated dates	Lab number
At the bottom of the feature:			
Individual 316	5285±55 BP	4256–3979 cal BC	LuS 8217
Individual 317	5105±50 BP	3991–3781 cal BC	LuS 8216
Bone dagger found with 317	4865±60 BP	3786–3521 cal BC	LuS 7852
In the fill:			
Human bone in fill	6050±55 BP	5206–4794 cal BC	LuS 8218
Human bone in fill	5830±60 BP	4835–4541 cal BC	LuS 8219
Kunda leister	8275±55 BP	7486–7090 cal BC	LuS 8738
Beaver vertebra	6320±60 BP	5472–5081 cal BC	LuS 8222
Fish vertebra (wels)	6630±55 BP	5636–5482 cal BC	LuS 8223
Wild boar incisor	5455±50 BP	4447–4174 cal BC	LuS 8835

that the shoulders initially were projected up and forward, and the position of the right humerus, rotated inward and dislocated from the radius and ulna, a result of it having been pushed in behind portions of the thoracic cage. The right radius and ulna were articulated with each other and lying so that the proximal part of the ulna was behind the right iliac blade. The left humerus was also rotated inward. The right hand was placed in front of the right groin and the left hand was positioned behind the upper part of the left thigh. Bilateral pressure could be detected also for the lower part of the body. The hip was rotated upward on the right side, causing the right lower limb to move slightly upward. The knees and the feet were placed very close together. The right foot was hyperextended, slightly rotated outward, and wrapped around the left foot, which was rotated outward and strongly flexed. The position of the feet clearly indicates a supporting element that likely can be linked to the bilateral pressure on the upper part of the body, probably a tight wrapping of the body at the time of disposal.

In addition to the wrapping of the body of 317, the burial also contained stones in unexpected places. In particular, a burned stone *c.* 100mm in diameter and partially stained with ochre was encountered behind the sacrum. The position affected the movement of the bones during the process of decomposition since it supported the sacrum while the iliac blades fell backward on both sides. It is likely that this stone was placed here intentionally and was probably included in the wrapping of the body. Not only was the body wrapped, but it also seems that the face of the dead was covered with a clay mask at the time of burial. The cranium was partially covered by an intensely red, fine and clayey sediment that clung to the bones and was especially abundant in the area of the face (less so on the calvarium). This sediment could also be found adhering to the cervical vertebrae.

Important observations were made with regard to the digging of the grave and its fill. The digging may have disturbed several older burials in the immediate vicinity (326 and 328). Many of the burials appear to have disturbed older burials, causing the redeposition of loose human bones from several different individuals across this area. The fill of grave 316/317 was rich in human remains, animal bones and artefacts, several of which have been dated (see Table 1). Many of the isolated bones in the fill could have come from any of the

disturbed burials in the vicinity, or from other burials that may have been destroyed over the years of intense use of the cemetery. One of the bones in the fill, a third metacarpal, could actually be matched by symmetry (Villena Mota *et al.* 1996) to the destroyed grave 318, which at the time of excavation consisted of a partially articulated forearm and several loosely articulated hand elements. Clearly this burial had been disturbed at a moment when the soft tissues were not completely decomposed.

The dates indicate that the isolated human bones in the fill originate from at least two different individuals, and that these are several hundred years older than the two individuals buried at the bottom of the feature. The animal bones, with and without traces of alteration, were also all older, some considerably more so, than the buried individuals (see Table 1). The considerable consumption of freshwater fish that could be assumed at Zvejnieki may have altered the apparent age of the humans through the freshwater reservoir effect (Stuiver & Braziunas 1993; Eriksson 2003). In order to test this, a sample for radiocarbon dating was obtained from the dagger made from a red deer ulna (mentioned above). However, the difference between the dagger and the interment is relatively small, and it seems that the reservoir effect was of no major importance. This is an important indication that the grave fill was not simply taken from a contemporaneous occupation layer. According to the dates, which differ by as much as 3000 years, the soil must have been taken from different parts of the settlement area or from a location that had been occupied for a considerable time. The position of the settlement area leads us to estimate that the soil had to be carried for a distance of between 20 and 100 metres (Figure 2).

In summarising the observations regarding this remarkable burial, three things in particular stand out that seem to have relevance for the site as a whole. The body of the dead was transformed at the time of burial (with a wrapping and a mask covering at least one of the bodies (316) at the time of disposal); the burial pit was dug into a concentration of older burials that were partially disturbed in the process; and finally, fill from older habitation layers was used to backfill the pit. These observations reveal practices that, to some extent, contrast with what we have come to expect from contemporary burials in southern Scandinavia, and it seems that a different set of concerns may be expressed here.

Decoding the importance of time and place at Zvejnieki

Despite interesting exceptions (including cremation, see Brinch Petersen & Micklejohn 2003), single primary inhumation is the dominant practice at the southern Scandinavian burial grounds that have played such a key role in the debate about the Mesolithic mortuary practices in Northern Europe. One of us (LNS) has argued elsewhere that this practice of burying the body intact in a life-like state may express a preoccupation with the preservation of the unaltered integrity of the body, and possibly personhood, after death (Nilsson Stutz 2003). A similar preoccupation could easily be assumed at Zvejnieki with its striking record of well-preserved and undisturbed burials. But the recent excavations suggest another interpretation.

First, it is interesting to note that in some cases the appearance of the human body was significantly altered before disposal (especially individual 317). This body was tightly wrapped in a way that appears to have enclosed the entire corpse. Archaeothanatological

studies of the documentation from previous excavations at Zvejnieki have confirmed that this practice occurred frequently at the site (Nilsson Stutz 2006). As mentioned above, it may also have been the case for the child in burial 323. In addition to wrapping the body, there are also indications that the face of 317 was covered with a clay mask. While there is no other case at Zvejnieki where a clay mask is combined with body wrapping, the use of clay masks is documented in several other instances (graves 206, 263 and 275; see Zagorskis 2004: 36, 44–45). The amber rings in the eye sockets of the dead may also be viewed as parts of masks or another dramatic way of altering the face of the dead (graves 206, 225 and 275, and perhaps 263; see Zagorskis 2004: 65). These practices indicate the transformation of the face of the dead before burial. While wrappings have been detected in a few southern Scandinavian cases (Nilsson Stutz 2003: 298–300), the evidence is sparse.

The second set of observations concern the depth of the burial, the possibility of grave markers and the disturbance of older burials. Disturbance of older graves was a systematic feature of the mortuary practices in this part of the cemetery. The exceptional preservation of what remains of these burials, and the condition of the human remains even today, allows us to assume that it was clear at the time that older graves were being destroyed. The disturbance of older burials was so common in this area of the site that it must be included in our understanding of the mortuary programme. We propose that rather than viewing the disturbance of older burials as exceptional and accidental, or as ‘mistakes’, we should explore them as recurrent and meaningful parts of the experience.

Finally, the use of soil from an abandoned settlement in the grave fills raises interesting questions about how the past was used within the mortuary ritual. The practice may also be related to the disturbance of the older burials. In a society without solid monuments, earth is one of the most permanent of materials (Helms 2005). Through recurrent activity, the everyday remains of the living society are mixed in with soil and buried, not unlike the dead members of society in their graves. The memory of the ancestors will be maintained through a close relationship to their refuse. Whenever a pit is dug, the remains of those long deceased will be unearthed, just as when digging a new grave an older one is exposed. The settlement in itself becomes a monument to the past. Whether a given area is used as a settlement or a cemetery, a confrontation with the vestiges of past generations cannot be avoided. Physical encounters with the remains of the dead will become a frequent issue.

A society can try to avoid this confrontation by moving away (Knutsson 1995) but the connection to the ancestors can become an important and desirable part of life—and death. Thus the soil itself may be regarded as an important link between the living and the dead—a link that is directed towards the past and oriented towards the future (Gosden 1994: 15).

By removing soil from an earlier settlement and using it in the fill of graves, a connection between the present and past is established during burial of the dead. This practice is already represented in the earliest burials in the cemetery where it seems to have been reserved for a small number of individuals. It becomes more common during the sixth and seventh millennia, when the central concern was no longer the integrity of the dead body, but rather the incorporation of the dead into this particular place. Graves were dug into the ancestral ground, through older burials, and the dead became absorbed into a ridge already saturated with the presence of the ancestors. The skeletons encountered in the process were not necessarily viewed as disturbed burials but associated with a cosmological sense of history

(Helms 2005). Soil from places nearby, where people had lived previously, was then used to backfill the pit and surround the bodies of the dead as they left the world of the living. But there may still have been a certain uneasiness. Grave 316/317, for example, destroyed many older burials as it was being prepared, but its greater depth may have been a precautionary strategy to avoid future disturbance. The use of a grave marker could be part of the same strategy. This burial, exceptionally rich in grave goods, may have received some kind of preferential treatment. It is also possible, however, that other grave markers were removed when the area was ploughed in recent times.

Conclusion

The recent excavations at Zvejnieki have shown the potential of new detailed field methods to generate new information and new perspectives on the past. The attention paid both to the content of the grave fills and the treatment of the body have significantly deepened our understanding of the site, and of the mortuary practices of Holocene hunter-gatherers around the Baltic Sea. The archaeothanatological analysis highlights the destruction of older burials and confirms that the interaction with skeletal remains occurred frequently during burial. The use of occupation deposits in the grave fill may have created a cosmological link with the past. Recent work on Mesolithic burials has drawn attention to alternative practices such as burning, defleshing and cutting (Gray-Jones 2010) or the active use and deposition of human skulls (e.g. at Kanaljorden in Motala, Sweden; Hallgren 2011). We hope our work at Zvejnieki will inspire reassessment of the more standard Mesolithic inhumations to elucidate further the complex ways in which the hunter-gatherers of the Northern European Mesolithic buried their dead.

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