

MULTIPLE BURIALS IN SIKSÄLÄ CEMETERY (12TH–15TH CC): BIOARCHAEOLOGICAL ASPECT

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ABSTRACT

The aim of this paper is to give a bioarchaeological overview of the graves with multiple simultaneous burials in the South-East Estonian Siksälä cemetery (12th–15th cc). Six inhumation graves with a total of 16 individuals were analysed. The studied multiple burials represent various age and gender combinations. Any relations between skeletal pathologies and grave goods could not be observed.

In three multiple burials from the studied six, the wounds of the male skeleton indicate violence and these individuals could have died as a result of a violent assault. In two cases, the burials do not display pathological bone changes. The earlier burial dating from the 14th century, contained females aged 17–18 and 12–14 years. Probably an infectious disease of short duration was the reason for the death of both young individuals at approximately the same time in the case of that burial, as well as in the case of the triple children's burial from the 15th century.

In the 15th century, the number of finds in graves decreases. Burial costume becomes simpler and the occurrence of finds pointing to status and ethnocultural identity decreases greatly. All these circumstances are also reflected, in one way or the other, in the studied multiple burials.

Keywords: *multiple burials, biological status, stature, grave goods, Late Iron Age, Middle Ages, South-East Estonia*

INTRODUCTION

The Siksälä cemetery, located in the southeastern corner of Estonia, has yielded unusually rich archaeological material. A total of 268 graves have been

archaeologically studied. Most of the graves in the Siksälä cemetery contained single inhumation burials, but in some graves, there were more individuals [11].

Grave goods indicate the continuous use of the cemetery from the 11th century to the second half of the 15th century. Inhumations that appear beside the cremations in the 12th century become predominant in the first half of the 13th century. Although the conquest wars of 1208–1224 caused great population losses for southern Estonia as a whole, no decrease in the population of Siksälä community can be observed [11:81]. The burial customs in Siksälä have a homogenous character after the conquest, and the graves of the 13th and 14th centuries are furnished in a similar manner.

Grave goods, the items deposited with the body, may express social and age-determined status. Some artifact may be loaded with several meanings: serving as status symbols, possessing a functional purpose in the afterlife and performing a certain role in burial rituals. [11:45]. The most characteristic finds at Siksälä cemetery were weapons, in the graves of both adults and children; there were various ornaments, remains of textile (as the remains of bronze-ornamented shawls), headbands, bracelets, rings, brooches etc.

The long period the cemetery was in use included changes in natural conditions, several military and political events, including the conquest and Christianization of the area. All that is also reflected in one or another way in the osteological remains of the population. Temporal differences in palaeodemographic indices, changes in morphological indices and in stature can be observed [4, 5]. The anthropological and demographical data of the cemetery give evidence of the deteriorating and harsh living conditions of the population since the middle of the 14th century, e.g. increasing child mortality, which may be caused by poor nutrition and other stress factors of everyday life. The causes of malnutrition, diet or infectious diseases are usually connected with the environment where individuals come from [3]. However, high male mortality in younger age groups can only be explained by external factors, i.e. frequent military conflicts and wars [5:234].

The aim of this paper is to give a bioarchaeological overview of the graves with multiple simultaneous burials, and to observe, if there were any possible associations between the health and biological status and social status of the buried individuals, especially concerning pathological changes and severe bone injuries, and, if possible, to surmise the reason for the simultaneous multiple burials.

MATERIAL AND METHODS

The osteological material from multiple burials of the Siksälä (12th–15th cc) cemetery was analysed. The cemetery of Siksälä is one of the remotest places in South-East Estonia, situated on a natural hillock near the village Misso; it was excavated in 1980–1988, 1990–1991 and 1993 by Silvia Laul and Jüri Peets. A total of 268 graves (279 burials) have been found in Siksälä cemetery [11]. Most of the graves contained one burial, but in some graves there were two, in one case three (grave 93; 3 children) and in one case even four individuals (grave 245; 2 adults and 2 children).

In this paper six inhumation graves with simultaneous multiple burials, with a total of 16 individuals, were analysed. The degree of preservation of the skeletal material varied.

The age and sex of the studied individuals have been published earlier [5]. Stature was estimated from measured long bone length, using the method of Gerhards [2]. Some features of stress markers, pathological and activity-related traits (cribra orbitalia, enamel hypoplasia, dental pathology, degenerative changes on bones, traumas) were examined according to the descriptions presented in literature [1, 12, 13].

RESULTS AND DISCUSSION

The data on the age and sex (where known) in the studied simultaneous multiple burials are given in the table.

Table 1. Age and sex combinations in multiple simultaneous burials

Grave no. and skeleton no.	Individual 1	Individual 2	Individual 3	Individual 4	Dating
1) 45, 2) 46	F – 12–14	F – 17–18			14 I
1) 92a, 2) 92b, 3) 92c	M – “senilis”	F – 20...x	M – “senilis”		14–15
1) 93a, 2) 93b, 3) 93c	F – 12–14	3–4	1–2		15
1) 133a, 2) 133b	M – 55–60	M – 30–35			14–15 I
1) 245a, 2) 245b, 3) 245c, 4) 245d	F – 9–10	M – 25–30	F – “senilis”	F – 4–5	12–13 I
1) 247a, 2) 247b	M – 45–50	F – 30–35			12

Burials of the 12th century – 1st half of the 13th century

The pre-conquest inhumation graves are situated on the top of the hill. The earliest of them (247a and b) dates from the second half of the 12th century. This double grave contained the remains of a man in his forties and of a woman in her thirties. The bones of the man (247a) were poorly preserved, especially those of the upper body. The cranium of the man was only partly preserved. On the left parietal bone, there was a penetrating wound, inflicted by a sharp item. Only some fragments of the right parietal bone were preserved; there were also sharp cuts on their surface. Probably the mortal blow had come from the right. The man's stature was 174.8 cm.

The burial was quite richly furnished; the grave goods included a spearhead, a penannular brooch, a bronze buckle, bronze spirals at both legs, a spur [10].

The right side of the skeleton of the woman in the double grave (247b) was decayed. From the cranium of the female skeleton, only the brain case and part of the lower jaw had preserved. The upper surface of the right side of the skull in the region of the ear was crumbled and the *processus zygomaticus* was missing, but this circumstance might also be caused by soil conditions and partly by digging. The reconstructed stature of the woman was 159 cm.

The burial was richly furnished: a spur, headband, necklace with cowrie shells and beads, ornaments of bronze spirals from the coat sleeves, a bracelet on the right arm, two narrower bracelets on the left arm, two spiral rings (on the fingers of each hand); some pieces of preserved textiles – fragments of a tablet-woven band (from a shawl or shirt?) – were also found. By the left foot, a hen's bones were found.

The remains of the male skeleton allow to suggest that the couple died a violent death.

Close to this double grave, some new graves were added in the late 12th or early 13th century. A multiple burial was found in grave 245. This grave contained the remains of four individuals (245a–d): two children (aged ca 9–10 and 4–5 years), a young man (25–30) and an old woman (*senilis*). The dead were buried in two coffins, each containing the remains of an adult person and a child with their heads in opposite directions. In both cases the child was buried between the legs of the adult and the child's direction was probably determined by practical reasons [10].

The cranium of the young man (245b) was only partly preserved and the upper body was also poorly preserved. On the existing right part of the occipital

bone at the level of *linea nuchae inferior* there was a trace of a healed wound. On the same bone, lower than the wound, at the level of *crista occipitalis externa*, there was a later damage caused evidently by a strong blow from behind. That blow, which had also caused a rupture on the internal surface of the cranial bone, might have been either the direct or the indirect reason of death. The stature of the man was 175 cm.

The grave goods of the male burial included an axe, an (iron?) spur, a brooch, a ring, two decorative plaques.

245c. The cranium of the old-age female skeleton was partly preserved. On the skeletal bones, degenerative changes, (as joint deceases, osteoarthritis, porosity of bones, etc.) were observed. The reconstructed stature of the old woman was 156.4 cm.

On the bones of children and the elderly woman, osteoporosis in form of *cribra orbitalia* could be observed. The older child also had it on the frontal bone and on the *fovea articulares* of the first cervical bone (atlas). Osteoporosis refers to bad nutritional conditions and anaemia, also to the weakness of the organism and higher susceptibility to diseases. The reasons of the death of the older woman – either violence or infectious diseases – could not be determined on the basis of bone fragments. We can only presume that the grave belonged to a family – a mother, son (or son-in-law) and his (?) children – who died as a result of a violent assault.

The female burial was very richly furnished, containing a headband, a necklace with cowrie shells and beads, a brooch, beads of a shawl, two rings (on fingers of each hand). The grave goods of the older child were a necklace with three rows of cowrie shells and beads and a tinkler, while the younger child had beads and a bracelet [10].

It should be noted that the earliest, pre-conquest inhumations include two graves with multiple burials, with a total of six individuals. In both cases, the wounds on the male skeleton indicate violence. Consequently, the period of the first inhumations cannot be regarded as a peaceful time.

Multiple burials of the first half of the 14th century

The contemporaneous double burials (no. 45 and 46) contained the skeletons of two young individuals: a teenage girl (12–14 years old) and an older one (17–18 years old). These burials do not display pathological bone changes; possibly an infectious disease of short duration was the reason for the death of

both young individuals at approximately the same time. Both burials were richly furnished. In burial 45, there were eight items: a bracelet, two rings, a knife, a necklace with cowrie shells and beads and tinklers, two round sheet pendants, a headband; in burial 46, there were seven items: a necklace with cowrie shells and beads and tinklers, a lead ring, a bronze ring, bronze clasps and a pendant, a headband, a piece of flint [7].

Multiple burials of the 14th–15th centuries

Two graves with multiple burials (nr 92 a, b, c and nr 133 a, b) are dated to the 14th–15th centuries.

The osteological material of grave 92 was very poorly preserved. Only the remains of three skulls and one mandibular were found.

No. 92 a belonged to a *senilis*-aged man. The grave goods consisted of a penannular brooch.

92 b belonged to a grown-up woman buried by the side of the previous man. From the skeleton, only small fragments were found; furnished with beads.

92c belonged to a 60–65-year-old man. The skull of that male was situated at the southwestern end of the grave. Between the skulls of no. 92a and no. 92b a bundle of long bones was found. It is not quite sure if the skull 92c and the long bones belong to the same individual [8]. No closer analysis of the burials could be done.

Between burials 92a and 92b, a fragment of a shawl with bronze clasps, a ring and a fragment of a knife were found.

Grave 133 contained the skeletons of two men. Skeleton 133a belonged to a man aged 55–60 years, 133b – to a younger one, aged 33–35 years. The older man was taller (171 cm) and with a pentagonal skull, the other man was shorter – 167.4 cm tall and with oval-shaped skull. Degenerative changes of the bones of the older man could be observed, as porosity around the *porus acusticus externus*, of alveolar arch, also porosity of femoral neck and around the humeral head. Dental pathologies of caries and hypoplasia were observed, too. The grave goods included an axe, a brooch, a knife and a belt [9].

On the right temporal bone of the cranium of the younger man (133 b) there was a wound continuing with a fissure on the parietal bone of the same side. A part of the parietal bone was missing. Evidently the wound was caused by a strong blow which might have been the cause of the death. The grave goods were an axe, a knife and buckles.

Thus, grave 133 contained the skeletons of two men, but the bones of one man revealed no traces of the cause of death. The bones of the other man had a severe injury on the skull indicating a violent death. However, their simultaneous burials may refer to the violent death of this man as well.

Multiple burials of the 15th century

The grave dating from the 15th century is a children's grave (no. 93). The multiple burial contained the skeletons of three children aged 12–14 (a), 3–4 (b) and 1–2 years (c).

On the bones of the two older children, porosity in orbital roofs *cribra orbitalia*, and on the teeth of younger children *linear enamel hypoplasia* could be observed. These skeletons did not reveal any pathological bone changes. Possibly an infectious disease caused the death of these children.

From the grave goods of the children's grave, a penannular brooch and a round brooch, and a bead (the latter supposedly belonged to the infant) should be mentioned [8].

The stature of the studied population

The Late Iron Age males (12th–13th cc) were characterised by a tall stature (approximately 175 cm). That was similar to South-Eastern males of Lindora (11th–12th cc), to eastern Setumaa males of Verepkovo (11th–12th cc) and Viski (14th–15th cc). Similar body height also characterized the Late Iron Age male population of western Estonia. The females of Siksälä (12th–13th cc) were also characterized by tall stature (159 and 156.4 cm), which is similar to females' average stature in South-Estonian Makita (13th–15th cc) and in Eastern Setumaa, as in Verepkovo, Lavry (11th–12th cc) [6].

The male stature of the later period (14th–15th) was a few centimetres shorter than before (171 and 167 cm). In comparison to the Late Iron Age, it was somewhat smaller in the Middle Ages throughout Estonia [6].

The current study revealed that the studied multiple burials represented various age and gender combinations are (Table 1). Any relations between skeletal pathologies and grave goods could not be observed.

In three multiple burials out of the studied six, the wounds of the male skeletons indicate violence, and these individuals could have died as a result of violent assault. The earliest of these (247a, b and 245a-d) belonged to the 12th–13th centuries; the men's burials (133a, b) – to a later period, the 14th–15th

centuries. As burial no. 92 contained too little material, no closer analysis could be done. In two cases (nos. 45, 46 and no. 93), the burials did not display pathological bone changes. The earlier burial (nos. 45 and 46), dating from the 14th century, contained females aged 17–18 and 12–14 years. Probably an infectious disease of short duration was the reason for the death of both young individuals at approximately the same time in the case of that burial, as well as in the case of the triple children's burial (no. 93) from the 15th century.

Although the studied sample of multiple inhumation burials is small (16 individuals), temporal changes, e.g. in stature can be observed. Changes in demographic indices occurred especially from the beginning of the 14th century [5]. In the 14th–15th centuries, the mortality of men in the younger age group of 20–39 considerably increased; it became even higher than among women in fertile age [5: 218–219]. This can only be explained by external factors, i.e. frequent military conflicts and wars. The high mortality index of young men enables to suggest that frequent conflicts happened on the local level, which find only indirect reflection in the written data [14]. The increasing child mortality in the 14th and 15th centuries also gives evidence of deteriorating living conditions.

In the 15th century, the number of finds in graves also decreases. Burial costume becomes simpler and the occurrence of finds pointing to status and ethnocultural identity decreases greatly [11: 142]. All these circumstances are also reflected, in one way or the other, in the studied multiple burials.

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