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Bear Skins and Human Death – Tracing Soft Organic Materials in Iron Age and Medieval Burials in Fennoscandia

ABSTRACT

The paper takes a look on the role of bear skins in human death and burial for Iron Age and medieval Fennoscandia, by bringing together recent research. All in all, 24 »bear skin burials«, some abundantly rich in furnishings, can be identified in the research area. They belong to three different types. However, substantial skin is known from only one half of the burials in Sweden and Norway. As regards Finland, microscopic analysis has identified not only fur remains but also hairs. In many cases, the lack of fur finds can be explained not only by the poor preservation conditions but also by the lack of systematic research. It would be worthwhile to use present-day standards in microscopic fur and hair analysis to re-analyse archaeological finds from earlier days still existing in museum archives.

KEYWORDS

Fennoscandia / Iron Age / medieval times/ bear / bear fur / bear hair / microscopic analysis

Introduction

Bear skins or bear hairs in burials have been long known and were noted, for example, by the archaeologist H. Shetelig (1912) in his classic study of western Norwegian Iron Age burials. This book even included a photo of the skin (hair) that had been preserved in the Migration period burial in Døsen, Os, Hordaland, in western Norway (**fig. 1**). In former Finland, Th. Schwindt (1893) detected bear hairs together with several other remains of furred animals in the Kekomäki cemetery on the Karelian Isthmus in the 1890s. In this case, Schwindt interpreted bear hairs to indicate the placing of the corpse on a bear skin.

The cases presented in this article from Norway, Sweden and Finland are particularly interesting, as bear skins in burial contexts are extremely rare on the European mainland. Brown bear skin remains have only been reported in Iron Age contexts in

Fig. 1 Bear skin (hair) found in the Migration period male grave (mound IV) in Døsen, Os, Hordaland in western Norway. – (After Shetelig 1912, fig. 346).

a Hallstatt period tumulus in Altheim (Augstein 2023). Such skin remains have also been detected besides burial contexts, e. g. in Neolithic »Ötzi's« cap and shoes, and perhaps also made into a bag in the salt-mines of Dürrnberg (Hollemeyer et al. 2012; Rast-Eicher 2016, 172).

Most recently, for Fennoscandia, this topic has attracted interest in two different respects: firstly, in connection with a Ph.D. thesis which included a microscopic analysis of fur and hair remains in Finnish burials (Kirkinen 2015; 2019), and, secondly, by the gathering and critical analysis of all the available archaeological information on Iron Age burials with assumed or actual skin (hair) remains in Scandinavia (Grimm 2013; 2023). The latter studies, in fact, only relate to parts of Norway and Sweden, in which Migration period inhumation graves with skin remains dominate. These finds have also played a role in a scholarly discussion of whether burials, mostly cremations, with bear claws should be taken as evidence for the existence of skins on funeral pyres (among others: Beermann 2016). In addition, for some of the graves – men lavishly furnished with weapons and real skin (hair) remains – a connection was made with the so-called berserks, i. e. members of warrior-clans clad in bear skins, as known from Old Norse literature (e. g. Bender Jørgensen 2001; 2003).

In the present paper, the most recent research will be sketched for Finland and Scandinavia, which are understood as one research area here, and, on this basis, the potential for future research will be pinpointed when addressing remarkable discoveries that have been made over the past years in northern Norway.

The Key Find from the Högom Chamber Grave in Northern Sweden

In Högom, Medelpad, northern Sweden, excavations (1949 and onwards) of a large burial mound (no. 2) with a diameter of 40 m led to the discovery of a wooden grave chamber of 5 m × 2 m, whose roof had collapsed in antiquity (Nockert 1991; Ramqvist 1992; 2000). In 1951, the decision was taken to encase the entire chamber (weighing nine tons!) and bring it to The Central Board of Antiquities in Stockholm for indoor investigation. Here, in the same year, x-ray photographs were taken before the actual excavation was carried out by Dagmar Selling under laboratory conditions.

As it turned out, the burial was, amongst other things, outstanding in its textile and animal skin (hair) preservation, which is unique in northern European respects (Nockert 1991, 1. 31. 36. 106–107). As to the animal remains, very little skin but much hair is preserved, mostly from the area on, around and underneath the buried person. Early on, it was believed that the entire grave chamber was once covered by bear skins. The textile conservator Eva Lundwall, a member of the Board, carried out an investigation of fur (hair) samples from different parts of the chamber, and, according to her results, the possibility remains that bear skin was placed on the entire chamber floor. Bear hairs found on the belt and sword suggest that a skin was once placed over the deceased. Roe deer/reindeer fur hairs only originate from the dead person, around his belt and up to the throat, whereas beaver and marten hairs were also found above and around the head. The beaver hairs may originate from a cap, while the reindeer/roe deer and other fur hairs may come from garments. Furthermore, sable, polecat and pinniped/musquash hair remains have been found but there is no information about their exact positions in the burial.

This burial, unrobbed and with a dating to c. AD 500, is among the richest ones of northern Europe's Migration period, owing to exquisite finds, such as weapons (in particular the sword), a horse harness, glass beakers from the Black Sea area, bronze vessels, and so on (Ramqvist 1992, 31–153. 223; 2000). At the site, there were altogether four substantial burial mounds in one row. One of these yielded a special type of building, perhaps a hall, which was later covered by the mound. It can be taken as given that, in the period from 200/300 to the 6th century, a magnate's seat existed in Högom.

Number and Typology of »Bear Skin Burials« in Fennoscandia

All in all, 24 Iron Age and medieval burials in Fennoscandia have yielded (published) remains of bear skins, seven from Finland and 17 from Norway and Sweden (**fig. 2; tab. 1**). Three different types can be discerned, with types 1 and 2 relevant for Norway and Sweden and type 3 for Finland:

Fig. 2 Distribution of Iron Age and medieval »bear skin burials« in Fennoscandia (see **tab. 1** for sites). – (Map M. Bolte, LEIZA).

Type 1: skin or hair remains, often with claws still attached or claws found nearby,
a) substantial hair/fur remains,
b) small hair/fur remains;

Type 2: groups of claws in correct anatomical order in the burial, suggesting that there was once a bear skin;

Type 3: loose bear hairs (and sometimes skin), the identification of which is based on morphological analysis by microscope.

All relevant burials have seen recent (re-)analysis by the authors of this paper, the results of which will be shortly introduced in the following two sections.

No.	Site	Dating	Burial rite	Sex of the deceased	Status of the burial	Skin burial type	Selected literature
1	Føre, Bø, grave 1 (northern Norway)	c. 325-375/400	Inhumation	Male	Above average	1a	Sjøvold 1962, 77; Lund Hansen 1987, 442
2	Føre, Bø, grave 2 (northern Norway)	c. 160/180-260	Inhumation	Female	Above average	1a	Ilkjær 1990, cat. no. 182; Bemmann/Hahne 1994, cat. no. 410; Klokkervoll 2015, 66-67; Roth Niemi 2018, 48
3	Hillesøy, Kvaløy (northern Norway)	c. 800	Inhumation	Male	Above average	1a	Roth Niemi 2018
4	Haram, Haram (western Norway)	c. 325-375/400	Cremation	Male	Top status	1b	Solberg 1984, 100-101; 2000, 121; Lund Hansen 1987, 440
5	Evebø, Gloppen (western Norway)	Late 4th/5th century	Inhumation	Male	Top status	1b	Shetelig 1912, 111-117; Kristoffersen 2000, cat. no. 92
6	Nedre Aure, Voss (western Norway)	Unknown	Inhumation	Double grave; sex of individuals unknown	Unknown	?	Description of the find: B520-525 (Bergen Museum)
7	Døsen, Os (western Norway)	c. 425-475	Inhumation	Male	Meagre	1a	Shetelig 1912, 141-148
8	Krosshaug, Tu (south-western Norway)	c. 450	Inhumation	Female	Top status	1b	Magnus 1975, 19-20. 106; 2014, 74; Kristoffersen 2000, cat. no. 47
9	Sletten, Vanse (southern Norway)	Late 5th/early 6th century	Inhumation	Female (several individuals)	Above average	1b	Kristoffersen 2000, cat. no. 26
10	Snartemo, Hægebostad, grave V (southern Norway)	Late 5th or 6th century	Inhumation	Male	Top status	1b	Hougen 1935, 8-9; Kristoffersen 2000, cat. no. 19
11	Vemestad, Lyngdal (southern Norway)	Mid-5th century	Inhumation	Male and female	Above average	1b	Shetelig 1912, 158; Bemmann/Hahne 1994, cat. no. 201
12	Vestre Skogsfjord, Mandal (southern Norway)	Late 5th/6th century	Cremation	Male	Above average	1b	Gjessing 1925, 44; Holck 1986, 277; Hauken 2005, cat. no. 21
13	Eik, Søgne (southern Norway)	c. 325-375/400	Cremation	Male; second individual undetermined	Above average	1b	Gjessing 1925, 44; Holck 1986, 277; Lund Hansen 1987, 436; Hauken 2005, cat. no. 25
14	Smiss, Eke (Gotland, Sweden)	c. 160/180-325	Inhumation	Female	Above average	2	Almgren/Nerman 1923, 89 fig. 156a, Petré 1980, 6; Lund Hansen 1987, 446

No.	Site	Dating	Burial rite	Sex of the deceased	Status of the burial	Skin burial type	Selected literature
15	Hallvede, Eke (Gotland, Sweden)	c. 550/575-750/800	Inhumation	Male	Above average	2	Description of the find: SHM 25133 (Statens Historiska Museer); Petré 1980, 6 fig. 2
16	Högom, Selånger, mound 2 (northern Sweden)	c. 500	Inhumation	Male	Top status	1a	Ramqvist 1992, 31-153. 223; 2000
17	Högom, Selånger, mound 4 (northern Sweden)	c. 375/400-550/575	Cremation	Unknown	Above average	1a	Ramqvist 1992, 194-198
18	Kekomäki, Kaukola, grave 1 (Karelian Isthmus, formerly Finland; now Russia)	c. 13th/14th century	Inhumation	Male and female	Top status	3	Schwindt 1893, 16-32. 144-145. 182; Kirkinen 2015
19	Luistari, Eura, grave 95 (south-western Finland)	9th century	Inhumation	Female	Above average	3	Lehtosalo-Hilander 1982a; 1982b; Kirkinen 2015
20	Luistari, Eura, grave 377 (south-western Finland)	11th century	Inhumation	Female	Above average	3	Lehtosalo-Hilander 1982a; 1982b; Kirkinen 2015
21	Luistari, Eura, grave 56 (south-western Finland)	11th century	Inhumation	Female	Top status	3	Kirkinen et al. 2020b
22	Ristimäki, Ravattula, grave 4/2014 (south-western Finland)	12th/13th century	Inhumation	Female	Above average	3	Kirkinen et al. 2020a
23	Ristimäki, Ravattula, grave 18/2016 (south-western Finland)	12th/13th century	Inhumation	Female	Above average	3	Kirkinen et al. 2020a
24	Mukkala, Savukoski, grave III (northern Finland)	17th century	Inhumation	Male	No estimation possible	3	Kirkinen et al. 2019

Tab. 1 Iron Age and medieval »bear skin burials« from Fennoscandia.

Recent Research: Analysis of All Available Archaeological Information on Iron Age »Bear Skin Burials« in Norway and Sweden

Present analysis has placed an emphasis on the evidence of actual bear skins for assuming »bear skin burials« (see Grimm 2013; 2023). In contrast, the hundreds of Iron Age burials with bear claws known from Norway, Sweden, Finland and Denmark do not qualify as »bear skin burials« (contrary to Beermann 2016, amongst others, who equates bear claws in graves with bear skin burials). It might well be

that bear skins were also part of the burial custom in these instances, but this cannot be proven, in contrast to cases with actual remains of skins in mortuary contexts.

The bulk of »bear skin burials« came to light in the early days of archaeology in the 19th and early 20th century under excavation conditions that were rather rough when compared with present-day standards (Grimm 2013; 2023). Remarkably, however, two more such finds have been discovered in recent years in northern Norway (see further below), which increases the number of such instances to currently 17 for Iron Age Norway and Sweden, whereas no such finds have come to light in Denmark. The material is thus limited, unrepresentative and statistically irrelevant (see **tab. 1**). Each new find may change the entire picture (see further below on northern Norway).

As already stated, two different types of »bear skin burials« are relevant for Norway and Sweden. Firstly, there is type 1 in the form of skin remains, often with claws attached. In this respect, however, the difference between the substantial number of skin- or hair-leftovers (type 1a) in six burials and the small ones (type 1b) in eight cases must be noted. Secondly, type 2 with groups of bear claws in correct anatomical order suggests a decayed skin (three burials). It warrants a mention that grave 2 in Føre represents type 1a as well as type 2, and that for a burial in Aure (western Norway) all we have is a mention of a bear skin.

Critically regarded, »bear skin burials« can be suggested for only about one half of the cases (types 1a and 2). In the other ones, the information from the old excavations is simply too sparse and the skin remains too small. They may well originate from claws with attached skin/hair remains.

To frame these finds properly: thirteen originate from inhumation and four more from cremation burials, and they mostly date to the Late Roman and Migration periods, c. 200–550/575 (14 out of 17; Grimm 2013; 2023). It is worth mentioning, too, that the earliest of these burials (Smiss on Gotland; 160/180–325) is that of a woman (see Jordahl et al. 2023 for Gotland and Ljungkvist/Lindholm 2023 for Sweden on the whole). Equally remarkable is a new find from Hillesøy in northern Norway (see below), which pushes the chronological frame up to the Late Vendel/Early Viking Age (around 800). Socially regarded, burials with bear skins are mostly furnished above average (Grimm 2013; 2023). Even more, in a number of cases (five out of seventeen), they represent the richest graves of their time, and this applies in particular to Migration period weapon graves in Norway (Evebø in the western and Snartemo [grave 5] in the southern part of the country) and Sweden (Högom [mound 2] in the north of the country). However, the burial of the Migration period petty queen from Krosshaug, Tu, south-western Norwegian Rogaland, may also belong to that group of graves.

Recent Research: Microscopic Analysis of Bear Skin Remains in Finland and on the Karelian Isthmus

In Finland, loose bear hairs, interpreted as bear skin remains, have been detected in the Luistari and Ristimäki cemeteries, south-western Finland, the Kekomäki cemetery on the Karelian Isthmus (former Finland) and in Mukkala in northern Finland (Kirkinen 2015; 2017; 2019; Kirkinen et al. 2020a; 2020b). These burials have been classified as type 3 ones for the present article. In contrast to types 1 and 2, no third phalanges of bear have been detected there. This can be interpreted either as the removal of claws from pelts for other purposes or the decaying of bones in the acidic soils of Finland.

The Kekomäki cemetery was excavated by Theodor Schwindt (1893) in the 1890s. Grave 1, a richly furnished chamber-like burial of two females and two males, dated to the first half of the 13th century (Uino 1997, 233), is of particular interest. The grave was covered with birch bark painted with red ochre and furnished with wild animal skins. The distribution of bear and reindeer hairs indicates that the deceased were laid to rest on the pelts of these specimens. In addition, hairs and skin fragments of garments made of furred animal/mustelids, cervids, seal (Phocidae), and possibly red fox (*Vulpes vulpes*) skins have been identified (Kirkinen 2015; 2019; see Schwindt 1893, 16–32. 144–145. 182).

In 2019, a large-scale survey on the fur and hair remains in Late Iron Age (800–1200) and medieval (1200–1500) inhumation graves revealed that bear hairs were also present in the Luistari inhumation cemetery, south-western Finland. In the female burials 95 and 377, dated to the 9th and 11th centuries, those bear hairs which were found under the bracelet and necklace and under the apron hem, all had direct contact with the spiral ornaments. This has led to their preservation since toxic metal alloys have prevented the activity of bacteria and fungi (Lehtosalo-Hilander 1982a, 112. 262; 1982b, 184. 188;

Kirkinen 2015). Most interestingly, in the 11th-century female grave 56, minuscule bear hair fragments that were in direct contact with pendants, oval tortoise brooches and a chain, were detected during microscopic analysis. By studying the distribution of the fragments on the upper body of the deceased, the hairs were interpreted tentatively as the remains of a traditional *sieppuri*, a short cape made of bear or wolverine pelt, which is known to have been used by the Sámi (Sirelius 1912, 50–51; Itkonen 1948, 339; Kirkinen et al. 2020b). Another possible explanation is that her upper body was covered with a bear pelt while a (wild forest) reindeer pelt was placed on her lower body. Also, hairs and skin fragments of a pouch made of otter (*Lutra lutra*) skin, hairs possibly from a mustelid collar, and a sheath lined with lynx (*Lynx lynx*) fur were recovered (Kirkinen et al. 2020b). Here, the richness in metal items as well as wild animal pelts can be interpreted as indicators of wealth and high social rank.

In the Ravattula Ristimäki cemetery, about 80 km south of Luistari, bear skin remains were detected in two female graves. In grave 4/2014, bear hairs were recovered from the top of a wide, bronze-plated knife sheath found under the deceased's head, and from the bottom of the coffin. In grave 18/2016, brown bear hairs were identified near the deceased's waist and from a soil sample taken from her stomach area. Additionally, bear hairs and skin fragments were recovered from a soil sample collected from the grave. In these burials, the corpses were evidently wrapped in a bear pelt (Kirkinen et al. 2020a). Most interestingly, Ristimäki cemetery is located around the earliest (12th–13th centuries) known church foundations in Finland, and the burials can be described as Christian in character (Ruohonen 2017). It can be supposed that the use of bear skins in burials was not favoured by the Church; instead, the clergy later aimed to stop the tradition by collecting the pelts from parishioners and by using them in front of the altar as carpets (Korhonen 1982a; 1982b; see also Østergård 2009, 120–121).

Bear skin remains have also been found in northern Finland, in the Mukkala forest Sámi cemetery in Savukoski in eastern Lapland. In grave III, the burial of a man, dated to the 17th century, big clumps of bear hair were detected (**fig. 3**; compare Kirkinen et al. 2019). Unfortunately, the site was excavated almost one hundred years ago, and the documenting of the skin remains cannot be regarded as adequate. Also in this case, the cemetery falls into the Christianization period of eastern Lapland, evidenced by historical sources as well as the burial crosses and Christian motifs found at the site (Leppäaho 1937).

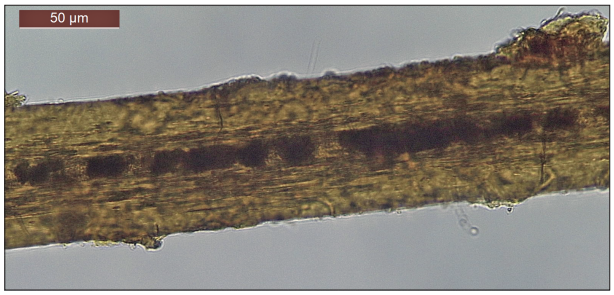

Fig. 3 A microscopic image of bear hair from a 17th-century male grave in Mukkala cemetery, northern Finland. – (Photo T. Kirkinen).

Potential of Future Research: Northern Norway as an Example

For a long time, only one burial with an assumed bear skin was known from northern Norway: grave 2 from Føre, Bø (Nordland), the burial of a woman, which dates back to the period of c. 325–375/400. This assumption is based on seven bear claws that were detected in the four corners of the cist (Sjøvold 1962, 77). Furthermore, an organic layer was found beneath the interred person, which is considered to be the remnants of the fur. However, in the past years, new knowledge about bear skins in burials has been obtained for that part of Norway.

When it comes to grave 1 at Føre, the burial of a man with weapons, one has to return to the original excavation report from the 1950s; it is only now that information from that report has been made available. As was the case in grave 2, an organic layer was observed beneath the interred person in grave 1, this time accompanied by one group of four claws in one of the corners of the burial (Klokkervoll 2015, 66–67; Roth Niemi 2018, 48). The find can be dated to the late second or the first part of the 3rd century AD (Ilkjær 1990, cat. no. 182; Bemmann/Hahne 1994, cat. no. 410).

Another instance of old documentation concerning skin remains is provided by the well-known weapon grave in mound I at Bø, Steigen (Nordland), found together with a female burial and excavated in the early 1950s (Slomann 1959). Both burials have the same dating as the aforementioned grave 1 at Føre (Slomann 1959, 3–4; cf. Ilkjær 1990, cat. no. 78; Bemmann/Hahne 1994, cat. no. 409). The find context of the weapon burial needs further clarification: in the original publication, the remains of skin are mentioned (Slomann 1959, 3–4), and the find cata-

logue from Tromsø Museum (Ts 5401 I) lists the remains of animal hair, whereas in recent publications reference is made to »remains of fur with thick hairs, presumably from bear« (Bakke 2012, 46; cf. Roth Niemi 2018, 48–49). Thus, there are two questions: what is really stated in the original excavation report about skin and hair, and what would be the results of a modern scientific analysis of these organic materials – if they still exist? In the present situation, since bear claws are absent, the burial at Bø can only tentatively be considered as a »bear skin burial«.

In addition to these old cases, a quite remarkable find came to light during a rescue excavation in 2017 at Hillesøy, located southwest of Kvaløya, just outside Tromsø (Troms; cf. Roth Niemi 2018). Nearly half of the burial had already been destroyed before the archaeologists got the word. What remains is a weapon burial placed in a 5-m-long boat that belongs to the transition from the Vendel to the Viking age, based on the chronology of the artefacts and the radiocarbon datings. One group of five claws was found in the intact part of the grave; five more were discovered, but they were no longer *in situ*. Beneath the deceased there was a dark layer, interpreted as the remnants of a bear skin (see above on Føre).

The mentioned burials at Føre and Hillesøy (and also the one at Bø) are quite similar as they are »above average« in their furnishings and belong to small groups of mounds that may reflect different generations of local farm populations (see mentioned literature). The new finds change the situation for Norway: grave 1 in Føre is the earliest in Norway with an assumed bear skin, whereas the interment at Hillesøy is the latest confirmed burial with a bear skin known in Norway and Sweden (however, one find in western Norway – Nedre Aure, Voss [Vestland] – defies a dating).

Thus, northern Norway points to the potential for further research; old excavation documents may add detail to graves and, in fact, turn them into »bear skin burials«. Re-analysed remains, kept in archives, may lead to a similar result. At the same time, the excavation at Hillesøy shows that new finds may still come to light and potentially improve our understanding of those which were unearthed much earlier.

Conclusion

Bear skin remains are most evidently underrepresented in archaeology because the preservation of soft organic materials depends on favourable conditions. In Late Iron Age and medieval inhumation burials in Finland, fur fragments have been preserved due to direct contact with silver and copper-alloy grave goods, where toxic metal alloys have prevented the activity of bacteria and fungi. Recently, even microscopic hair fragments have been detected on the surfaces of artefacts and in soil samples. In many cases, the lack of fur finds can be explained not only by the poor preservation conditions but also by the lack of systematic research. It would be worthwhile to use present-day standards in microscopic fur and hair analysis to re-analyse finds from earlier excavations.

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