



Preparing Children's Burials in Postmedieval Finland: Emotions Awakened by Sensory Experiences

Sanna Lipkin · Annemari Tranberg · Titta Kallio-Seppä · Erika Ruhl

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Abstract Examination of northern Finnish postmedieval funerary attire and coffins reveals culturally constructed sensory experiences and emotions of the individuals who took care of preparing dead children for burial. Based on historical sources, the attire and coffins for small children were generally made by adolescent godparents, whereas dressing and handling of the dead bodies were left to mature women. Because of their beliefs, parents rarely took care of these duties. Archaeological funerary remains provide an avenue through which to explore the sensory experiences of social groups with strongly held religious beliefs and conceptions regarding the dead and the deceased. Common features in the burials allow the interpretation of emotional patterns and collective memories of contemporary people from three starting points: sleep and eternal life, the innocence of children, and coping mechanisms dealing with child deaths.

Resumen Examinar ataúdes y vestimentas funerarias postmedievales del norte de Finlandia revela experiencias sensoriales y emociones construidas culturalmente de las personas que se encargaron de preparar a los niños muertos para el entierro. Con base en fuentes históricas, la vestimenta y los ataúdes para los niños pequeños generalmente los hacían los padrinos adolescentes, mientras que el trabajo de vestir y manejar los cadáveres quedaba a cargo de mujeres maduras. Debido a sus creencias, los padres rara vez se ocupaban de estos deberes. Los restos arqueológicos funerarios brindan una vía para explorar las experiencias sensoriales de grupos sociales con creencias y concepciones religiosas fuertemente arraigadas sobre los muertos y los difuntos. Los rasgos comunes en los entierros permiten la interpretación de patrones emocionales y memorias colectivas de las personas contemporáneas desde tres puntos de partida: el sueño y la vida eterna, la inocencia de los niños y los mecanismos de afrontamiento frente a las muertes infantiles.

S. Lipkin (✉)
Department of Archaeology, University of Oulu, Pentti Kaiteran
katu 1, Linnanmaa, FI-90014 Oulu, Finland
e-mail: sanna.lipkin@oulu.fi

A. Tranberg · T. Kallio-Seppä
Museum of Torne Valley, Torikatu 4, FI-95400 Tornio, Finland

E. Ruhl
55 Tuxedo Place, Upper Buffalo, NY 14207, U.S.A.

Résumé L'étude des vêtements funéraires et des cercueils durant la période postmédiévale en Finlande du Nord met en lumière une construction culturelle des expériences et émotions sensorielles des individus chargés de la préparation des enfants morts avant leur enterrement. Il ressort des sources historiques que les vêtements et les cercueils pour les petits enfants étaient généralement préparés par les parrains et marraines adolescents, alors que l'habillement et la préparation des

cadavres étaient dévolus aux femmes d'âge mûr. En raison de leurs croyances, les parents se chargeaient rarement de ces préparatifs. Les vestiges funéraires archéologiques offrent une voie d'exploration des expériences sensorielles des groupes sociaux aux convictions et conceptions religieuses maintenues avec force concernant les morts et les défunts. Les caractéristiques communes des enterrements permettent une interprétation des modèles émotionnels et des mémoires collectives des peuples contemporains à partir de trois points de départ : le sommeil et la vie éternelle, l'innocence des enfants et les mécanismes d'acceptation face à la mort d'un enfant.

Keywords sensory experience · emotion · materiality · child burials · socialization

Introduction

Socially constructed emotions are both controlled and performed. Any social situation, including the willingness to perform according to societal expectations, raises emotions. Sensory experiences, in conjunction with intentional activities, such as pleasing a parent or one's personal investment in an activity, create an array of emotions. Burial traditions, in total, starting from the preparation of the deceased to the ceremony and placement in the grave, can be seen as a multisensory and corporeal experience. Rituals associated with burials bring together the experiences of bodily senses, things, and the environment (Hamilakis 2013). According to Jonathan Reinartz (2014), traditions link the impulses from different senses, creating multisensory experiences that can be examined as cultural phenomena. Sensory experiences surrounding ritual practices not only develop emotions but also create memories. Just as senses rely on the materiality and the physicality of the world, so too does memory rely on the senses. In other words, the senses are materiality's way of producing remembering (Cole 1998:6).

Because of their remarkable preservation, Finnish postmedieval burials offer an extraordinary starting point for studying the emotions related to children and sensory engagement associated with burial preparations. The burials examined here originate either from archaeological excavations in churchyards or from inventories of materials beneath church floors in northern Ostrobothnia (sites at Hailuoto, Haukipudas,

Keminmaa, and Oulu) (Fig. 1). Frost and well-ventilated spaces have resulted in at least 24 well-preserved burials, including 14 mummified children, beneath church floors at Haukipudas and Keminmaa (Lipkin, Ruhl et al. 2021) that facilitate interpretations of the more decayed burials at Hailuoto and Oulu. Altogether, 153 child burials, defined as those of individuals under 12 years of age, have been inventoried or excavated within these sites. Of these, 81 burials include textile remains or accessories, such as pins, beads, or floral arrangements (Table 1). The inventoried burials also contain plant remains from mattresses and other coffin furnishings. At Keminmaa, 19 child burials were inaccessible due to a lack of space under floors or tightly closed coffin lids, and these burials have not been studied in detail. At Hailuoto nine children were buried in coffins with adults, placed either by the legs or in the crook of an arm.

Interpretations of archaeological materials from funerary contexts are supported by historical sources. The memoirs of a local school teacher, Sara Wacklin (1844, 1845), are especially important for exploring emotions related to child death. In her book, *One Hundred Memories from Ostrobothnia*, she describes children's coffins, attire, and accessories in a manner that is easy to recognize in the archaeological examples. On northern Ostrobothnian sites the general attributes of child burials correspond with Wacklin's descriptions, although some local variations in material choices, in addition to temporal shifts in manufacturing techniques, do occur between the 17th century and mid-19th century.

Sensory Engagement, Emotions, and Material Culture

Human beings interpret their emotions on both a personal and social scale. The so-called basic emotions, such as fear, anger, shame, sorrow, and joy, reveal a personal and intimate aspect of emotions. Emotions are also a social phenomenon, however; they are activated on both collective and social occasions (Wood and Attfield 2005:80–81). Emotions do not occur in a void, but rather are culturally constructed and constituted (Tarlow 2012). They are learned through socialization (Wood and Attfield 2005:80–81). Socialization processes start in childhood and continue throughout an individual's life. Emotions are a social product, but they are also the reason for social interaction. To understand the



Fig. 1 Map of Finland and research sites. (Map by Krista Vajanto, 2018.)

principles of social action, it is important to understand that emotions are embedded in social processes and relationships (Barbalet 1998:8–9). Individuals and groups may learn to control their emotions through this

socialization process. By controlling one's emotions, a person may find individual peace of mind and wellness while contributing to the wellbeing of surrounding people. This process is performed according to learned

Table 1 Newborn, infant, and child burials from four sites in northern Ostrobothnia, Finland

Site	Context	Newborn/Infant Burials	Child Burials	Burials with Textile Remains or Accessories
Hailuoto	Under church floor, unearthed	10	6	15
Haukipudas	Under church floor, inventoried	3	3	6
Keminmaa	Under church floor, inventoried	40	4	24
Oulu	Churchyard, excavated	87 ^a		36

^a At Oulu Cathedral, osteological age estimation ranges do not allow differentiation of newborn/infant burials from older children's burials.

customs and norms that may be specific to certain occasions. Controlling emotions can also be destructive to individual and group welfare (Aldao et al. 2015). Strong negative emotions towards certain social realities, such as a child's inability to accept changes in the family following the birth of a sibling, may result in abandonment or the deliberate destruction of objects subject to emotion control—items that subsequently may be found in the archaeological record (Wilkie 2000).

In archaeology, few studies discuss emotions (Nyberg 2010; Tarlow 2012; Hill 2013), and, yet, in addition to being displayed through ritual manifestation, emotions are seen to give meaning, power, and memorability to ritual behavior (Nilsson Stutz 2003; Tarlow 2012). Indeed, objects and material culture are powerful repositories of collective memories and emotional patterns (Nyberg 2010:18–19).

Material culture may raise emotions and memories that are created through the senses. In *On the Soul* and *Parva Naturalia: De sensu et sensibilibus*, Aristotle (1975) defined the basic senses of human beings as vision, hearing, smell, taste, and touch. Sensory experiences also evolve from movement and warmth generated by muscular activities, as well as from hormones, such as endorphins and adrenaline. All senses work together and create one platform for emotions arising from material culture. Emotions impact actions and which social circumstances one considers important for oneself. Individuals direct their actions on purpose, and they feel the emotions that are acceptable in certain social settings, such as during funerary rituals. For this reason, social rituals may serve to channel and control emotions through actions and material choices that follow social norms and beliefs.

In the case of funerary textiles, emotions may develop through feeling the smooth linen fabric or smelling wool. This experience could also be heavily impacted by personal perceptions of these materials—for example, if a mother always wore silk, the personal association of that person with a particular material could evoke specific memories. Emotions may also be generated through experiencing a sense of accomplishment from making an item for the deceased—giving something worthy to a loved one. Physical action may give rise to emotions that may be reproduced through memories and memorization. Strong emotions are easily remembered, and these memory traces may be felt again, even years

later, as they become reactivated by the same sensory experiences by which they were originally created. By examining the sensory experiences related to funerary items, the collective emotions expressed through the production and use of that material culture may be explored.

Child Burials in Postmedieval Northern Finland: Sensory Engagement and Emotions

Some traditional Finnish lullabies describe a child's tomb as a comfortable place (Achté et al. 1987). It is possible that this singing tradition, which was documented during the 19th century, describes common conceptions of children's deaths (Fig. 2). Wacklin (1844:1,2) gives another example of the way a mother mourns:

[B]y the coffin of her dead child she represses her pain and thanks God, who mercifully took the child away from this miserable land. The Finnish woman often repeats an old proverb to provide comfort from worries or sorrow: “Would I had died while I was three-nights-old, vanished while still in swaddles.”¹

In Finland child mortality was high even into the late 19th century, and it may be assumed that parents' and siblings' emotions towards children were affected by the fact that about 40% of the children died before age four (Turpeinen 1979:107–111). The common experience of losing a child must have impacted contemporary perceptions of childhood, burial customs, and emotions related to losing a child or sibling. This created a number of coping mechanisms to handle the loss. Lullabies may have been a way for a mother to face the death of a child and to mourn even before the child died. In addition to lullabies, archaeological material and the sensory experiences it once offered contemporary mourners lead to a very close understanding of the grief of those who buried infants and small children.

Burial materials prove that, during the 17th and 18th centuries, Swedish burial practices were followed in northern Finland (Hagberg 1937:176–202; Pykkänen 1955; Jonsson 2009; Lipkin, Vajanto et al. 2015). At the

¹ This and other passages from Wacklin (1844, 1845) were translated by Sanna Lipkin.

Fig. 2 A lullaby in *Kanteletar* (Lönnrot 1887:178) describes a child's life in the underworld. St. Michael's Church in Keminmaa is in the background. (Translation and photo by Sanna Lipkin, 2014.)



time, Finland was part of Sweden and then, as the autonomous Grand Duchy of Finland, part of Russia from 1809 until 1917. Despite the shift of regime, there is no change in burial practices. The deceased were attired in “false” dresses made of fabric from old clothes or domestic textiles, such as sheets (Lipkin, Vajanto et al. 2015). One individual's attire could consist of several fabrics that were pleated and sewn or pinned together to resemble women's and men's clothing. Burial attire was often decorated with tapes or laces.

Depending on the parish and the era, children's coffins are white, yellow, green, blue, or black. Some coffins have feet worked with a lathe or cut with a fretsaw. Coffins are furnished with white fabrics. Children usually have caps on their heads and stockings on their feet. Sometimes children's bodies are covered with spruce branches. Artificial flowers made of silk, paper, and metal thread are usually found in the hands of the children. On their heads they have floral crowns. These are features distinctive to infant and young-child burials throughout the Nordic countries. Computed-tomography (CT) scans of a sample of four mummified newborns and infants enabled the accurate identification of the individuals' biological age, and a determination of the sex of two of these individuals was possible based

on an examination of their soft tissues. Their funerary dress indicates that children were culturally “gendered” from birth (Lipkin, Niinimäki et al. 2021). The placement of carefully crafted flowers differs based on the child's sex, as Wacklin (1844:2,21) describes:

If the child was a boy, he needed to have a green wreath on his head which was made from pieces of silk, and he had a similarly made rod in his hand and a wreath on top of the coffin. A girl was given a wreath and a crown on her head, as well as on top of the coffin, and a flower in her hand.

Manufacturing clothing and the coffin for the deceased would have produced different kinds of sensory experiences, but what is the possible array of emotions these people could encounter while crafting funerary clothing and accessories? We will discuss these from three starting points: ideas of sleep and heaven, a belief in children's purity, and emotional control.

Beds for Children: Heavenly Celebration

In Finnish folk tradition the coffin was a home for the deceased, where one of the person's souls lived. It was believed that a person had several souls. Breath (Henki)

soul was the power of life and was lost at the moment of death, but the selfhood (Itse) soul lived between the worlds of the living and the dead for six weeks, after which it moved to the body and appeared to the relatives. This ghost spirit followed the deceased to the grave, but little by little it dwindled away as the body decayed, and, in the end, it was only a sleeping shadow. After one year, the deceased's soul became part of the worshipped community of the dead or, if she/he had not rested in peace, the soul's destiny was to wander as a "restless" soul, a ghost. Selfhood lived in cycles, roamed from one generation to another, and could be inherited from ancestors with the same name (Pentikäinen 1990:21–27; Lehtikoinen 2011:20; Lipkin 2020). As the soul was believed to stay in the coffin and the relatives wanted her/him to feel comfortable, the coffin itself needed to be comfortable. Indeed, two clear material metaphors are visible in Swedish early modern burials: sleep and heavenly celebration (Nyberg 2010:20; Lipkin, Niinimäki et al. 2021).

During the 18th century in northern Finland, it was customary to bury infants and children within one week of their deaths (for example, in Hailuoto) (Oulun maakunta-arkisto 1758–1812). Within that week, the child's coffin and clothes were prepared and the last farewells were given. Before burial, the deceased were placed in storehouses where the relatives and friends could say goodbye.

Many children's as well as adults' coffins underneath church floors are decoratively engraved, and they were seemingly made for the persons to be buried, as the sizes of the human remains generally correspond with the sizes of the coffins. In the case of children it seems unlikely that the coffins were made in advance and stored for later use, a practice that may have been more common with elderly people (Hagberg 1937:176). Louise Hagberg (1937:169–170) implies that the coffins were usually made in one day because the deceased sought rest. She also tells of a six-month-old infant whose father did not finish the coffin before sunset, and at night the baby's footsteps and the rapping of fingers were heard in the room where her body was kept. Coffins were not usually made by immediate relatives. If the deceased were elderly, their godsons made the coffins, and, in case of infants, young godfathers made the coffins. Towns and villages also had coffin manufacturers from whom coffins were ordered (Hagberg 1937:168–169).

Many of the coffins under church floors were manufactured by skilled carpenters. The mid-18th-century coffins in Haukipudas are more or less similar, which suggests they were made by the same carpenter and possibly represent important professional achievements. The state of the Haukipudas coffins also suggests that they were not made by inexperienced youths. In the preserved coffins, the planks are carefully mitered and meticulously carved in "waved" form (Fig. 3). Every measurement and cutting has been made with extreme care. Some of the coffins at Keminmaa are simpler, however, and seemingly made by less-skilled woodworkers. Overall, the archaeological examples and documentary sources suggest that skill and aesthetics were important in manufacturing coffins for children. Additionally, mattresses and pillows were covered with white plant-fiber textiles that were attached to the edges of the coffin with red sealing wax. The neat appearance of the coffins is repeated with decoratively cut textiles or tulle hanging outside the coffin (Fig. 4).

Woodworking and the surface treatment of a coffin created smells. According to Wacklin (1844:2,21): "[T]he coffin was usually yellow as a shriveled leaf." Children's coffins are indeed painted or varnished with light colors, such as yellow, white, light green, and light blue. It was customary to paint children's coffins with light colors, while adult's coffins were predominantly black (Hagberg 1937:174–175). Most of the children's



Fig. 3 Coffin 2 belongs to a newborn buried under Haukipudas Church. The black coffin features the style and method of manufacture typical of all inventoried coffins in Haukipudas from the 1750s. The coffin boards are carved in a waved form and the carpentry is excellent. (Photo by Sanna Lipkin, 2017.)

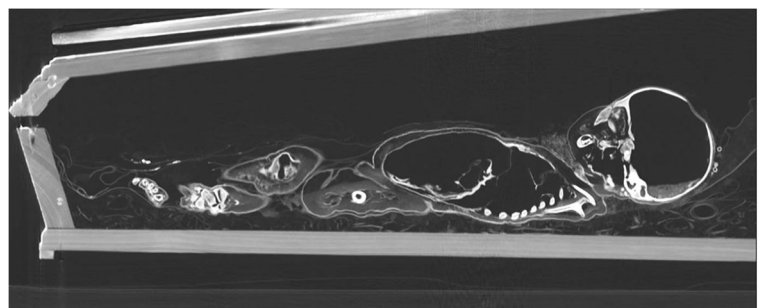


Fig. 4 Coffin-edge fabrics generally are decoratively cut and, as shown here on Coffin 5, hang outside the coffin. Different kinds of zigzag patterns have been recorded in Haukipudas. (Photo by Sanna Lipkin, 2017.)

coffins surveyed in this project were either painted black or coated with tar, however, especially those from the second half of the 18th century. While varnishes have a strong smell when they are spread, tar's distinctive smell remains on wood for considerably longer periods. Woodworking, painting, or coating with tar would each have created sensory experiences for those involved, but their possible effect on individual emotions, memories, and experiences would have been highly dependent on who the responsible carpenter was, whether father, godfather, or professional carpenter.

To make the deceased feel comfortable, the coffins were filled with soft materials that were also common in real mattresses and pillows. Under the deceased, sawdust, birch-bark rolls (*Betula* sp.), wooden shavings, hay or coarse flax, and even thistledowns (*Cirsium arvense*) have been recorded (Tranberg 2015; Lagerås 2016:15–28; Lempiäinen 2016) (Fig. 5). These materials effectively soaked up bodily fluids, especially the antibacterial and scented sawdust, which is also a traditional material in the mummification process (Tranberg 2015; Lipkin, Ruhl et al. 2021). Selecting these

Fig. 5 Flax, a mixture of hays, and birch-bark rolls are visible below the mattress in the bottom of Coffin 10 at Keminmaa. (Reconstructed CT image by Jaakko Niinimäki, 2014.)



materials for the mattresses was probably intentional because putrefying bodies produced unpleasant smells inside the churches. As a result, the 1686 Church Law allowed funeral ceremonies to be held inside the church only for those coffins that were to be buried there under the floors (Hellemaa et al. 1986:18.6.77). The beautiful scents of tar, herbs, spruce, or juniper may have helped during the funeral services, but when the coffins were placed under the floor planks, the plants faded away and the putrefaction process, with its foul odors, continued. The 1686 Church Law ordered that coffins had to be buried 3 ells deep (approximately 178 cm, or 5.85 ft.) and covered with soil (Hellemaa et al. 1986:18.8.32), but usually these orders were not followed properly, and the careless covering of the coffins resulted in foul odors spreading in churches and constantly reminding the churchgoers of death (Luho and Luukko 1957:383; Virrankoski 1973:678). Parishioners and clergy complained about the odors. At times services had to be held with open doors or even outside in the churchyard (Forsman 1899:207–208; Keränen 1977:188).

During the 18th century, odors played an important role in religious rituals and were seen as a part of nature, like plants and animals (Ruoff 2003:13–14). In addition, the church had created a system in which odors had multifaceted meanings. Incense was central in the ritual world, opening a connection between humans and God. Incense was believed to cleanse, improve, block, or create a connection with God. Similarly, good odors and smoke helped the deceased to get to heaven. If pleasant odors reflected a positive relationship with God, the foul ones reeked of sin (Reinarz 2014:25,44). Aromatic plants were strewn on the floors, at least during festivals or during church services, to expel bad smells and diseases. For example, bunches of southernwood (*Artemisia abrotanum*), which were fashionable in England in the 18th century, were used in St. Michael's Church in Kemi to improve the church

experience. In nearby Tornio, the parishioners shook nose herbs, such as mint (*Mentha* sp.) in front of their faces (Ruoff 2003:13,163,179–177,180; Piippo 2008:206). The smells associated with death or illness created fear, while the pursuit of a good odor was, in practice, also a deterrent to sinful behavior. The significance of the scent world was determined by the community. Though each person had his or her own experience of certain smells, the community gave the framework for their meanings. The bad smells in churches reminded parishioners about hell and the inferno.

According to Paul Connerton (2009:33), a sense of place depends upon a complex interplay of visual, auditory, and olfactory memories. The smell of death and burial created a strong memory in the minds of the parishioners about the church space and the deceased. The tradition of burials under church floors finally ended in most churches during the latter half of the 18th century or, at the latest, in the first decades of the 19th century (Paavola 1998:114). The memories of unpleasant church visits were transmitted to younger generations, however, through stories told by older people who had experienced the stench in holy spaces (Elmgren 1847:205–206). Materialist histories of smells have considered that the disappearance of a certain odor left the environment empty of all smells (Jenner 2011:346). The diminishment of putrid smells from churches created the possibility for other sensory experiences to grow and strengthen, however.

In addition to preparing a comfortable bed with as good a fragrance as the situation allowed, it is obvious that the deceased were dressed well and decorations were made aesthetically beautiful. Looking appropriate was not a matter of indifference, because the deceased were visible before and at the funerals (Hagberg 1937:179,227; Åhrén Snickare 2002:130). Relatives, friends, and other members of the community who were making their farewells may have made social judgments about the clothes that reflected well (or poorly) on the family. Even funerary clothing was supposed to follow class-based sumptuary laws. Since class divisions were created by God, they applied to life as well as life after death (Modée 1774:7142–7147; Pylkkänen 1982:26–37; Van der Wee 2003:452). The deceased were dressed according to the expectation that they were on their way to heaven. Thus, the sight of a dead person may have created emotions and memories related to the person him/herself or to social conceptions related to mortality, sleep, and heaven.

Additionally, proper clothing was also chosen to please the deceased. Generally, in Sweden it was believed that the deceased had to have a cap, socks, and gloves, and these articles were assigned superstitious value. There are several stories in which dead people returned as ghosts to complain of not having socks, gloves, or caps. To please the deceased, these items were later added to the coffin (Hagberg 1937:181–182,184–185). In contrast to the false gowns described earlier, caps, gloves, and stockings in northern Ostrobothnian burials were mostly old, used, and repaired items, perhaps belonging to the deceased. As funerary items, these articles had a long history of use, while individual items were possibly associated with the memories of the deceased or the emotions of those who were burying the dead. In northern Ostrobothnia children do not wear gloves, however, and some boys are buried bareheaded (Lipkin, Niinimäki et al. 2021). Nevertheless, socks or stocking remains are frequent finds in children's burials, suggesting that not all children were buried barefoot.

According to written sources and ethnographic evidence (Hagberg 1937:176–177), parents rarely participated to their own children's funerary preparations. Even though Wacklin (1844:2,21) suggests that young virgin godmothers were responsible for providing clothes for young children, it is likely that they did not dress them because people were generally afraid of death, and children and adolescents were not allowed close to the dead (Paulaharju 1924:116). No parents took part in dressing their dead children because it was believed that this action might prevent families from reuniting in heaven. The dresser, usually a female neighbor or friend, had experience for the task and was usually an older woman of courage. If the dresser were pregnant it was believed her child might become sickly and morbid. Generally, the task fell to women who had passed menopause and were not afraid of death (Paulaharju 1914:106; Hagberg 1937:176–177; Lahti 2016:128). The less-experienced dressers were guided for the occasion with warnings not to annoy the deceased.

Dressing happened according to certain procedures that respected the deceased. Dressing was also a multi-sensory experience, involving sound, touch, smell, and sight. The ritual was a quiet occasion on which raised voices were forbidden. Dressing included physical contact with the cold skin of the deceased. It is likely that dressing produced a swishing sound of fabrics, and the

dresser also smelled the fabrics. Additionally, voices from the surrounding environment may have been present. The action of dressing the deceased may also have made the dresser perspire. Her physical movement may have raised her levels of adrenaline and endorphins. The pins that attached the textiles also could not be pinned by reaching over the deceased. Rather, the dresser needed to go from one side of the coffin to the other. If one of these customs was not followed, the dresser had to restart her task from the beginning. Sometimes, if members of the community or the family did not want the deceased to rise from the coffin at the Judgment Day resurrection or to haunt the living, dressers would stick the needles towards the legs or tie the feet together (Hagberg 1937:201–206). This way the dresser had the power to reflect the community's negative emotions towards the deceased. In our material, however, we did not witness such ill-natured behavior.

Children and Purity

Wacklin's memoir (1844:2,21) introduces the symbolic importance of purity in connection with the burial arrangements of children. She writes that the "small body was wrapped in fabric like a cloud in the sky," which is another expression of burial customs surrounding a belief in heaven. Only certain parts of the attire—caps, socks, bows, cuffs—or silk flowers in the burials were made of green, yellow, and red fabrics. White is traditionally the color of purity, and the clothes of the deceased were customarily white, though children's attire could also include colored items (Hagberg 1937:188). Even though the clothes were usually constructed on the deceased from reused fabrics, 19th-century ethnographic evidence indicates that these articles were likely washed prior to burial. Washing was considered important because otherwise the deceased could not rest in peace (Hagberg 1937:179–180). After washing, the clothes may have smelled slightly of detergent or retained a "clean" smell. Visual examination of the burials also reveals that fabrics were ironed, because linen especially is wrinkled after washing, and all preserved funerary clothing examined for this project was free of wrinkles (Fig. 6). The warmth of the iron may have raised the temperature of the room and strengthened the scents of the fabrics and any remaining detergent or starch. In every aspect, children's burials indicate dedication and apparent neatness. It is obvious that



Fig. 6 Funerary attire of this newborn in Coffin 6 at Haukipudas is a good example of ironed and pleated textiles. (Photo by Sanna Lipkin, 2014.)

care was taken to ensure the deceased were dressed well and decorations were aesthetically beautiful.

In Sweden a long tradition existed of burying young children and unmarried youth as brides or grooms. Children as young as one year could be buried as brides or grooms, but most of the cases recorded in historical sources, the earliest dating to the 16th century, mention older children (Hagberg 1937:194–199). Swedish archaeologists have indicated that female children were indeed buried as brides, with floral crowns on their heads, flowers in their hands, and occasionally bridal crowns on their coffin lids (Jonsson 2009:146; Nyberg 2010). Child burials from Finland, dating to either the Swedish or Russian periods, are very similar to Swedish child burials, which makes it probable that the Finnish burials also incorporate bridal symbolism (Lipkin, Niinimäki et al. 2021). It is also possible that flower wreaths may have been used without any further symbolism, especially in case of newborn/infant burials. Nevertheless, Wacklin (1844:2,21) hints that the idea of combining funerary and bridal wreaths had cultural significance. She writes that "while laughing they tied the death wreath, and in consequence a bridal wreath was often tied shortly afterwards." According to Hagberg (1937:186–192), artificial flowers were used in Sweden as late as the early 20th century. Another

symbol of purity, according to Wacklin (1844:2,21), is the fact that the individual responsible for providing clothing for a child burial was a virgin godmother. These girls, confirmed by the church when they were 13–15 years of age (Seppälä 1998:33,41–42), were moving from the world of children to the world of adults. Because of high infant mortality, many of the young girls participated on these occasions, either as guests or hosts. Most likely they were the ones who produced flower wreaths for newborn/infant burials; cut, sewed, and ironed the fabrics; made the pillows; and, most importantly, made the fabric choices for individual decorations, clothing, or interior furnishing.

The properties of the textiles themselves would have also created sensory experiences for the girls manufacturing the funerary attire. Experiences related to sight are obvious, but the softness of the textiles or other properties felt while handling fabrics were also important in this context. Cotton is easily pleated, whereas linen is sturdier and has a harder surface. In comparison to cotton, linen is cooler to the touch. Wool may be harsh on skin, but may create awareness of the warmth it provides. Silk is soft, its texture smooth like skin, and it carries a distinctive scent. Silk was also a relatively rare material that was used mainly for small textile items, such as caps and bows. It is possible that crafting silk flowers was one of the rare opportunities for young girls to cut and handle silk (Fig. 7). Flowers were also cut from green paper and twisted from bronze-alloy wire spirals. Silk threads were wound around metal centers to produce floral arrangements placed on the children's heads, shoulders, and hands (Figs. 8, 9). Bows were tied, and tapes and laces were sewn or attached with pins to cuffs and necklines. Sewing and



Fig. 7 Girls were buried with a single flower in their hands. The flower in the hand of the newborn in Coffin 2 was made of white, red, and green silk fabrics. (Photo by Sanna Lipkin, 2014.)



Fig. 8 Decorations made of bronze wire and silk thread wrapped around bronze frames. This floral arrangement was placed in the hand of a newborn boy in Coffin 5 at Haukipudas. The boy's name and date of birth and death were written inside the coffin. (Photo by Sanna Lipkin, 2014.)

sticking a needle through different materials feels different. Depending on the material, sewing can require great attention or even considerable force.

As previously noted, another aspect of the preparation of children for burial relates to smell. In summertime, the deceased most likely started to smell before the funeral. Various methods were utilized to try to cover up the smell of decomposition. Norway-spruce twigs, juniper (*Juniperus* sp.), and herbs appear inside the coffins in northern Ostrobothnia and in Sweden. Common grave plants in Nordic funeral ceremonies are hyssop (*Hyssopus officinalis*), hops (*Humulus lupulus*), basil (*Ocimum basilicum*), laurel (*Laurus nobilis*), rosemary (*Rosmarinus officinalis*), mint (*Mentha* sp.), thyme (*Thymus vulgaris*), oregano (*Origanum vulgare*), and marjoram (*Origanum marjorana*) (Kehusmaa 1996; Sarkkinen and Kehusmaa 2002; Piippo 2008:457,462; Nyberg 2010:25–26). These burial plants not only have aesthetic and aromatic values, but antibacterial and antifungal properties. In Bishop Peder Winstруп's grave (Lund, Sweden, 1679), the attribute connecting the plants within the burial is their strong scent. A majority of the identified species have antiseptic or insect-repelling properties. Bishop Windstrup's pillows contained hops; grains of oats, barley, and rye; straw; lavender; hyssop; lemon balm; dill; berries and needles of juniper; leaves of common box; and flowers of dwarf everlasting (*Helichrysum arenarium*). A layer of *Artemisia absinthium* (wormwood) and southernwood was spread on the bottom of the coffin. Additionally, the use of myrtle (*Myrtus communis*), common box (*Buxus sempervirens*), clover (*Trifolium* sp.), lemon (*Citrus*

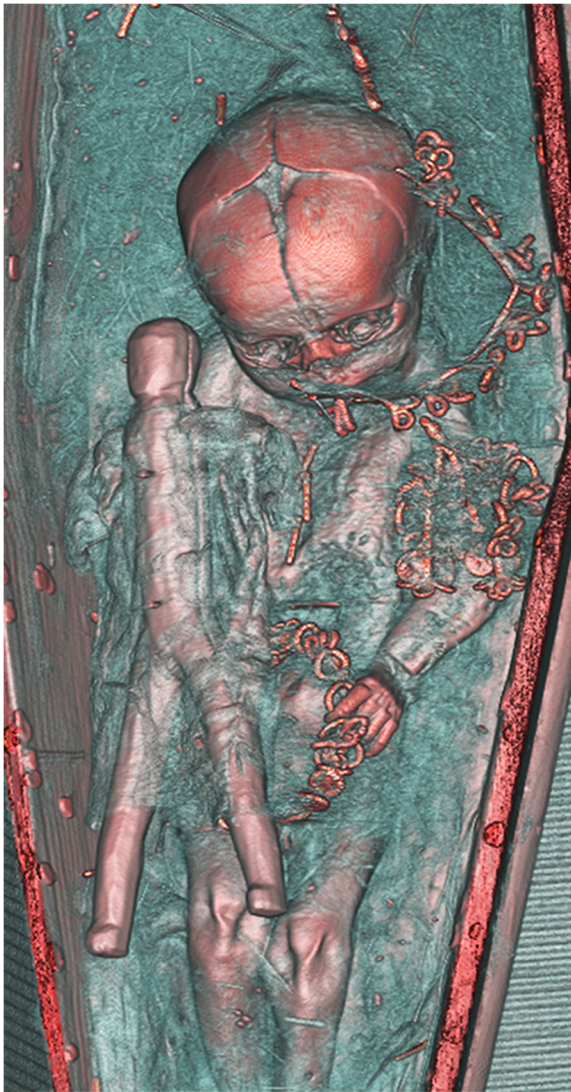


Fig. 9 Metal spiral-wire decorations are clearly visible in this CT-scan image of Coffin 5 at Haukipudas. The floral crown in the hand of this newborn boy has fallen to the side of his skull, and he also has floral arrangements on his left shoulder and hand. A wooden doll has been placed on his right side, suggesting a range of emotions experienced by family members, but it is also possible that this doll was not originally buried with the newborn in Burial 5. One source suggests the doll was taken from an unknown burial in 1961 and in the 1970s was placed in Burial 5, which was located just below the entrance to the space beneath the church (Alakärppä and Paavola 1997:2). (Reconstructed CT image by Jaakko Niinimäki, 2014.)

limon), and valeriana (*Valeriana officinalis*) has been documented (Lagerås 2016:15–28).

In Sweden, especially in early modern times, myrtle (*Myrtus communis*) was placed in young women's and children's coffins (Hagberg 1937:195–199). As an

evergreen plant, spruce twigs in the coffin might symbolize eternal life. Their use is also strongly associated with their smell and perceived ability to repel diseases (Ruoff 2003:179,186). According to Hagberg (1937:197–199,201), it was inappropriate to put plants such as spruce or lingonberry (*Vaccinium vitis-idaea*) in adult coffins, but it was suitable in children's coffins. The use of plants can be interpreted then as a way to create an ideal olfactory atmosphere in the church by taking thoughts away from putrefaction and highlighting the beautiful and pure sleep of the deceased (Nyberg 2010:25–27).

In Keminmaa, it appears that children were buried under old St. Michael's Church more frequently and that the practice continued for a longer period than for adults. This may be because children's smaller bodies produced fewer ill odors, which may have supported common conceptions of children as pure persons (Cunningham 1991; Heywood 2013; Lipkin, Niinimäki et al. 2021). Differences in children's burials in comparison with those of adults in terms of floral arrangements, use of spruce branches and herbs, and actual burial places under church floors may be seen as concrete representations of early modern perceptions of children as free of sin and important individuals in their own right.

Emotion in Control: The Sensory Experience of Making Burial Goods

Whether clothes were made for children or adults, designing them, cutting fabrics, and sewing them together may have been a therapeutic experience, and makers may have felt pleasure from doing something for and giving something self-made to the loved one. Wacklin (1844:2,21) says that the maiden godmother invited her friends to make the funerary decorations for an infant, and this was one of the rare occasions in which young gentlemen, brothers, and other relatives were allowed to participate without a chaperone. Work was conducted all night long, and the young people apparently did not think about death too much. Wacklin hints that these unsupervised activities eventually led to weddings. The gatherings were not quiet; laughing, chatting, and rhyming made funerary-attire preparations a relaxed occasion, allowing the youth a positive way to channel, control, and deal with emotions of sorrow and uncertainty that the death of a child brought to the community.

The youth preparing funerary attire for infants and small children worked through the night and were probably tired when the work was finished. Even though the burials are beautiful, the textiles are neatly pleated and ironed, and every detail has been thoroughly thought out, hastiness is clearly visible in the sewing. Stitches are long and give an appearance that the sewing was either completed in a hurry or their maker did not concentrate on the task. It is easy to believe the sewing was done while chatting and singing with a larger group of youth, including members of the opposite sex.

As child deaths were relatively common, it is not surprising that communities wanted to socialize their youth through funerary customs that allowed them to project and control their emotions, and to become acquainted with their prospects as parents (Lipkin, Niinimäki et al. 2021). These youth had recent memories from their own childhoods and possibly had experienced the deaths of their own siblings or other juvenile relatives. As children were commonly regarded as pure and innocent individuals, it was probably natural to give the task of funerary attire and coffin preparations to virgin, confirmed godparents. The occasion was extraordinary, something different from everyday life that created a permanent memory for these youth, whether one of sorrow or of love. It is thus certain that the artifacts found in the burials have been connected to a range of emotions: loss, sorrow, hope for a better life, sorrowful love, and expectant love, as well as joy over making something for and giving it to a loved one.

Because of societal fear of death, it was deemed inappropriate for adolescents to touch and handle dead bodies. This work was done in silence by experienced, older women (Paulaharju 1914:116; Hagberg 1937:176–177; Lahti 2016:128). Even though the youth and older dressers handled the same textile materials and witnessed the same funeral practices, the manufacture of funerary attire and the dressing of children had clear differences in soundscape (as well as overall sensory experience) and the types of social interaction surrounding the activities. As a result, the emotions and memories evolving from these situations were also different.

Even though emotions and rituals are controlled based on social norms and rules, it does not mean that official societal ways of expressing emotions are the only ones visible in archaeological material (Murphy 2011:425). Inside one burial at Haukipudas is a wooden

doll (Fig. 9) that may represent a family's, or one family member's, affection towards the child and probably also the child's personal attachment to this particular toy.

Conclusions

Combining information from written sources with the interpretation of the 17th- to mid-19th-century child burials from northern Ostrobothnia, Finland, we have been able to look more closely at the sensory experiences and emotions related to the deaths of children. Beliefs related to the soul (including the restless soul) and its resting place in the coffin were important for the development of certain customs related to the manufacture of coffins and burial attire. The sights and scents of death and burial were important for religious and practical purposes. Putrifying human remains produced unpleasant odors that the bereaved tried to prevent with practical choices for mattress materials and coffin plants. This was important because good odors were associated with God and bad ones with sin. Symbols of purity, innocence, sleep, and eternal life in heaven for the dead children were visible, olfactory, tactile, and sensed through physical activities by those who prepared the bodies for burial. It is clear that sensory experiences, emotions, and memories in these contexts are highly dependent on the social relationships of individuals with the deceased; common conventions related to the role the attire maker, dresser, or carpenter; and common conceptions and beliefs concerning death and eternal life. The funerary rituals were special, and the partakers' initial beliefs about the death and the deceased affected their reactions in each situation.

Sensory experiences have an effect on how emotions are created, and scents, visual appearance, voices, tactility, or even certain movement may bring emotions to the surface, even after many years. Emotions develop from a range of experiences, and strong emotions create strong memories. A human being is socialized quickly in many kinds of situations, and memories develop in the current of both personal and collective emotions. For this reason, both individual and collective memories related to making funerary attire and dressing are culturally significant.

While every member of the community inevitably faced the death of a child, different coping mechanisms evolved to handle emotions of sorrow, fear, and uncertainty. These practices were highly related to social

interaction: parents were usually not responsible for handling their dead children, and they were prepared for this unfortunate event through lullabies and proverbs that helped them to control and handle emotions of fear and uncertainty. The youth were socialized for their future roles as parents by making funerary attire and coffins, while the riskiest task spiritually, dressing the deceased, was the duty of experienced, elderly women. Even though we cannot say exactly what emotions were present in manufacturing individual objects, through examining properties of the items and the array of sensorial experiences that are related to them it is possible to interpret how experiences leading to emotions developed. Most important, the interpretation of this burial material is highly dependent on understanding the social reality of life in these communities. Sensory experiences, emotions, and memories did not develop in a vacuum, but rather in the context of social interaction structured by societal rules and religious belief systems.

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Declarations

Conflict of interest On behalf of all the authors, the corresponding author states that there is no conflict of interest.

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