

Kristin Ilves SEALS AS A RITUAL SIGNIFIER: RE-EVALUATING THE ÅLANDIC CLAY PAW BURIAL RITE

Abstract

In this article, it is suggested that finds of clay paws recovered from the Late Iron Age burials on the Åland Islands, Finland, should be identified with seals rather than bear or beaver, as previously often proposed. The clay paw burial rite is a distinctly Ålandic innovation, emerging in connection with a 6th century AD colonization of the archipelago. This colonization has recently been explained within a framework of global climatic disturbances, where Åland is proposed to have functioned as a refuge due to an ample availability of maritime resources, in particular seals. This provides the background and context to the emergence of the clay paw rite and circumvents much of the earlier confusion regarding these curious objects.

Keywords: the Åland Islands clay paws, environmental refugees, mortuary practices, seals and sealing, AD 536 event

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INTRODUCTION

How do some animals become totems? According to Claude Lévi-Strauss (1991: 89), it is because they are 'good to think', in contrast to 'good to eat'. If we would accept the dominant interpretation of the small figurines of clay found in the Late Iron Age (AD 550-1050) burial mounds of the Åland Islands of the Baltic Sea as symbols depicting the paws of a bear and/or a beaver (see below), that principle would definitely apply. The geological history and dispersed nature of the archipelago had made, and still makes, the islands an unlikely biotope for either the bear or the beaver, and there is no evidence of these species having played an important role as a food resource. Thus, reasons for either one of these species becoming important in the Late Iron Age society of Åland have mainly been sought outside the archipelago and/or in the mythological narratives of surrounding areas

(cf. Callmer 1994; resp. Frog 2014). However, regarding the Ålandic clay paw burial rite, the interpretational arguments seem more strained than they need be, and the discussion is at an impasse. In this article, while comprehensively exploring the clay paw data, I will present a new perspective built upon contextualising the Åland Islands at the onset of the Late Iron Age, during which time the clay paw burial rite emerged. As a result, the paw symbol is considered metonymic of a seal, also breaking the dichotomy between the symbolic and the functional.

BACKGROUND

The clay paw burial rite is a Late Iron Age practice characteristic of the Åland Islands, an autonomous part of today's Finland. Clay paws, which have only been found in burials, were made in connection with the cremation burial ritual that was typical for this time period. They

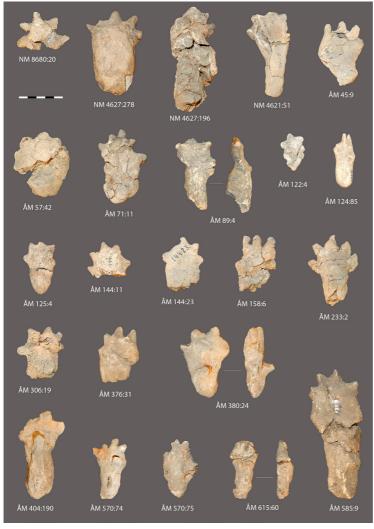


Fig. 1. A selection of betterpreserved clay paws found on the Åland Islands. Illustration: K Ilves

are of low-fired clay with little or no tempering material. The execution of the modelling is rough. Clay paws are oblong in shape, broadening towards one end and generally have four to five short digits at the wider end. They measure between 5 and 14 cm in length and have a rounded to oval cross-section. Often, one side of the paw is slightly concave and the opposite side slightly convex. Despite the evident uniformity of the idea, there is considerable variation in the design (Fig. 1).

There are about 450 registered Late Iron Age burial sites on the Åland Islands, with almost 11000 grave mounds. The grave mounds that were raised on top of the cremation burials are

mainly round stone cairns covered by a sandy mound. They are generally low and small in size. Excavations have been carried out on 25 percent of the Late Iron Age cemeteries on Åland, resulting in about 9 percent of the grave mounds having been archaeologically investigated. There have been finds of clay paws in almost half of the studied cemeteries. In 12 percent of the excavated grave mounds, just over 110 burials, the dead has been interred with a clay paw (Tables 1-2; see also Fig. 2). Clay paws have usually been placed on top of the cremation urns and/or the remains of cremation layers. They are found in graves of both men and women. It appears to have been common to only use one clay paw per burial, although there are a few exceptions. It has to be noted, that these objects are rough

and poorly burned, which entails poor preservation. In many cases, it is difficult to determine whether the low-fired clay fragments found during excavation actually represent the remains of a clay paw. Clay paw finds may also have been overlooked, especially during the pioneering phase of archaeological excavations on Åland.

The clay paw burial rite seems to have emerged on Åland in the middle of the first millennium AD, at the time when the archipelago also experienced sudden population growth connected to colonization from neighbouring areas (Hackman 1924a; Kivikoski 1962; Dreijer 1979; Callmer 1994; Núñez 1995; Tomtlund 1999; Gustavsson et al. 2014; Ilves 2018a). The tradi-

Clay paw ID		Cemetery ID	Mound ID	Parish	Rec.	Archaeologist	Site report
KM 3986:	31	Fi 8.6	28	Finström	1901	A. Hackman	+
NM 4282:	68	Jo 10.1	2	Jomala	1903	B. Cederhvarf	+
NM 4282:	128, 140, 155	Jo 10.1	3	Jomala	1903	B. Cederhvarf	+
NM 4282:	209	Jo 10.1	4	Jomala	1903	B. Cederhvarf	+
NM 4282:	236	Jo 10.1	6	Jomala	1903	B. Cederhvarf	+
NM 4282:	249	Jo 10.1	48	Jomala	1903	B. Cederhvarf	+
NM 4624:	17a, b	Sa 28.9 / Sa 28.10	10	Saltvik	1904	B. Cederhvarf	-
NM 4616:	117	Jo 10.1	21	Jomala	1904	B. Cederhvarf	-
NM 4616:	62, 65, 84, 101	Jo 10.1	61	Jomala	1904	B. Cederhvarf	-
NM 4616:	1101	Jo 10.1	61	Jomala	1904	B. Cederhvarf	-
NM 4616:	111, 113	Jo 10.1	31	Jomala	1904	B. Cederhvarf	-
NM 4629:	7	Fi 2.1	38	Finström	1905	B. Cederhvarf	-
NM 4627:	196	Sa 11.3	7	Saltvik	1905	B. Cederhvarf	-
NM 4627:	278	Sa 11.3	XXII	Saltvik	1905	B. Cederhvarf	-
NM 4626:	8, 15	Ge 6.1	3	Geta	1905	B. Cederhvarf	-
NM 4621:	35, 51	Sa 23.5	33	Saltvik	1905	B. Cederhvarf	-
NM 4620:	34, 43, 48	Jo 13.2	25	Jomala	1905	B. Cederhvarf	-
NM 4615:	46	Le 18.1	5	Lemland	1905	B. Cederhvarf	-
NM 4780:	46	Fi 2.1	49	Finström	1906	B. Cederhvarf	-
NM 5660:	3:1a	Fi 16.1	(3?)	Finström	1910	B. Cederhvarf	-
NM 8319:	17	Fi 2.2	2	Finström	1924	A. Hackman	+
NM 8318:	59	Sa 18.3	107	Saltvik	1924	A. Hackman	+
NM 8318:	74	Sa 18.3	106	Saltvik	1924	A. Hackman	+
NM 8584:	29	Sa 23.5	102	Saltvik	1925	A. Hackman	+
NM 8680:	20	Fi 2.2	4	Finström	1926	A. Hackman	+
NM 8680:	114	Fi 21.1	1	Finström	1926	A. Hackman	+
ÅM 45:	9	Fi 18.1	32	Finström	1935	M. Dreijer	+
ÅM 45:	74, 81	Fi 18.1	36	Finström	1935	M. Dreijer	+
ÅM 59:	3	Sa 10.2	57	Saltvik	1936	C. Ramsdahl	+
ÅM 57:	(4), 26, 35	Fi 18.1	28	Finström	1936	C. Ramsdahl	+
ÅM 57:	42	Fi 18.1	29	Finström	1936	C. Ramsdahl	+
ÅM 57:	71	Fi 18.1	31	Finström	1936	C. Ramsdahl	+
ÅM 81:	5	Fi 13.1	24	Finström	1937	M. Dreijer	+
ÅM 71:	11	Fi 18.1	1	Finström	1937	M. Dreijer	+
ÅM 94:	43	Sa 35.4	9	Saltvik	1938	M. Dreijer	+
ÅM 94:	55	Sa 35.4	10	Saltvik	1938	M. Dreijer	+
ÅM 89:	4	Le 18.2	6	Lemland	1938	M. Dreijer	+
ÅM 125:	4	Ha 17.3	33	Hammarland	1939	O. Hällström	+
ÅM 125:	30	Ha 17.3	35	Hammarland	1939	O. Hällström	+
ÅM 124:	10	Jo 26.4	2	Jomala	1939	O. Hällström	+
ÅM 124:	25	Jo 26.4	4	Jomala	1939	O. Hällström	+
ÅM 124:	34	Jo 26.4	5	Jomala	1939	O. Hällström	+
ÅM 124:	85	Jo 26.4	27	Jomala	1939	O. Hällström	+
ÅM 122:	4, 5	Jo 32.4	10	Jomala	1939	M. Dreijer	+
ÅM 122:	35	Jo 32.4	11	Jomala	1939	M. Dreijer	+

Table 1. Clay paw finds from the Åland Islands. Archaeological collections in the Museum of Åland (NM and ÅM; KM 3986:31 in the National Museum of Finland). Rec. – Recovered.

Clay paw ID		Cemetery ID	Mound ID	Parish	Rec.	Archaeologist	Site report
ÅM 136:	10	Jo 26.4	10	Jomala	1941	M. Dreijer	+
ÅM 203:	1	Fi 10.4	4	Finström	1943	E. Kivikoski	+
ÅM 144:	11	Fi 18.1	4	Finström	1943	M. Dreijer	+
ÅM 144:	23	Fi 18.1	12	Finström	1943	M. Dreijer	+
ÅM 144:	37	Fi 18.1	13	Finström	1943	M. Dreijer	+
ÅM 158:	6	Ma 14.1 / Ma 2	21	Mariehamn	1946	M. Dreijer	+
ÅM 158:	30	Ma 14.1 / Ma 2	26	Mariehamn	1946	M. Dreijer	+
ÅM 164:	12	Jo 5.6	9	Jomala	1947	M. Dreijer	+
ÅM 169:	15	Fi 13.3	28	Finström	1948	M. Dreijer	+
ÅM 234:	3	Su 6.3	24	Sund	1952	M. Dreijer	+
ÅM 234:	11	Su 6.3	23	Sund	1952	M. Dreijer	+
ÅM 233:	2	Su 12.3	5	Sund	1952	M. Dreijer	-
ÅM 259:	7	Ec 7.2	8	Eckerö	1954	M. Dreijer	+
ÅM 306:	19	Fi 20.2	2	Finström	1957	M. Dreijer	+
ÅM 339:	11	Sa 35.3	6	Saltvik	1959	M. Dreijer	+
ÅM 345:	231	Sa 2.4	90	Saltvik	1960	E. Kivikoski	+
ÅM 345:	433	Sa 2.4	115	Saltvik	1960	E. Kivikoski	+
ÅM 355:	3	Jo 32.2	40	Jomala	1961	M. Dreijer	+
ÅM 362:	59	Su 12.7	7	Sund	1962	E. Kivikoski	+
ÅM 358:	3	Su 17.4	1	Sund	1962	M. Dreijer	+
ÅM 365:	203	Su 12.14	28	Sund	1963	M. Dreijer	+
ÅM 365:	232	Su 12.14	33	Sund	1963	M. Dreijer	+
ÅM 376:	31	Su 12.7	31	Sund	1964	E. Kivikoski	+
ÅM 374:	39	Sa 21.9	9	Saltvik	1964	M. Dreijer	+
ÅM 386:	6	Su 12.7	37	Sund	1965	E. Kivikoski	+
ÅM 380:	24	Ge 16.1	12	Geta	1965	M. Dreijer	+
ÅM 397:	103	Su 12.7	84	Sund	1966	E. Kivikoski	+
ÅM 397:	153	Su 12.7	96	Sund	1966	E. Kivikoski	+
ÅM 397:	178	Su 12.7	101	Sund	1966	E. Kivikoski	+
ÅM 397:	192	Su 12.7	102	Sund	1966	E. Kivikoski	+
ÅM 396:	28	Sa 35.6	5	Saltvik	1966	M. Dreijer	+
ÅM 405:	9	Jo 16.5	3	Jomala	1967	M. Dreijer	+
ÅM 404:	190	Su 12.7	56	Sund	1967	E. Kivikoski	+
ÅM 450:	48	Sa 14.1	IV	Saltvik	1971	M. Karlsson?	+
ÅM 449:	31	Ha 9.2	V	Hammarland	1971	M. Karlsson?	+
ÅM 492:	3	Sa 14.1	41	Saltvik	1975	J. Janson	-
ÅM 501:	42	Jo 31.1	7	Jomala	1977	M. Karlsson	+
ÅM 501:	96	Jo 31.1	10	Jomala	1977	M. Karlsson	+
ÅM 522:	9	Le 18.3	1	Lemland	1980	M. Karlsson	-
ÅM 525:	94-97	Fi 8.11	6	Finström	1981	L. Aren	+
ÅM 525:	137, 138	Fi 8.11	8	Finström	1981	L. Aren	+
ÅM 525:	150	Fi 8.11	9	Finström	1981	L. Aren	+
ÅM 533:	73	Fi 8.11	13	Finström	1982	M. Landin	+
ÅM 533:	102	Fi 8.11	14	Finström	1982	M. Landin	+
ÅM 533:	256	Fi 8.11	36	Finström	1982	M. Landin	+
ÅM 560:	65	Sa 29.1	A2	Saltvik	1984	H. Martinsson	+

Table 1 continued. Clay paw finds from the Åland Islands. Archaeological collections in the Museum of Åland (NM and ÅM; KM 3986:31 in the National Museum of Finland). Rec. – Recovered.

Clay paw ID)	Cemetery ID	Mound ID	Parish	Rec.	Archaeologist	Site report
ÅM 560:	84	Sa 29.1	A3	Saltvik	1984	H. Martinsson	+
ÅM 560:	125	Sa 29.1	A5	Saltvik	1984	H. Martinsson	+
ÅM 557:	121	Sa 3.3	A18	Saltvik	1984	J.E. Tomtlund	+
ÅM 557:	124	Sa 3.3	A18	Saltvik	1984	J.E. Tomtlund	+
ÅM 570:	21	Sa 29.1	10A	Saltvik	1985	B. Rosborg	+
ÅM 570:	36	Sa 29.1	10B	Saltvik	1985	B. Rosborg	+
ÅM 570:	45	Sa 29.1	11	Saltvik	1985	B. Rosborg	+
ÅM 570:	74	Sa 29.1	12	Saltvik	1985	B. Rosborg	+
ÅM 570:	75	Sa 29.1	12	Saltvik	1985	B. Rosborg	+
ÅM 570:	76	Sa 29.1	12	Saltvik	1985	B. Rosborg	+
ÅM 570:	77, 78, 79	Sa 29.1	12	Saltvik	1985	B. Rosborg	+
ÅM 570:	94	Sa 29.1	15	Saltvik	1985	B. Rosborg	+
ÅM 586:	13-15	Fi 8.4	A1	Finström	1986	H. Martinsson-Wallin	+
ÅM 585:	9	Sa 18.3	A1	Saltvik	1986	H. Martinsson-Wallin	+
ÅM 604:	13	Sa 28.6	A19	Saltvik	1987	B. Rosborg	+
ÅM 604:	69	Sa 28.6	A29A	Saltvik	1987	B. Rosborg	+
ÅM 615:	60	Fi 12.1	A43	Finström	1988	O. Hörfors	+
ÅM 615:	143	Fi 12.1	A49	Finström	1988	O. Hörfors	+
ÅM 615:	394	Fi 12.1	A52	Finström	1988	O. Hörfors	+
ÅM 627:	23	Fi 8.9	A56	Finström	1989	O. Hörfors	+
ÅM 689:	33	Jo 35.25	A30	Jomala	1998	J.E. Tomtlund	+
ÅM 742:	163	Fi 12.1	A25	Finström	2008	R. Gustavsson	+
ÅM 742:	66, 70	Fi 12.1	A28	Finström	2008	D. Anderberg	+
ÅM 742:	117	Fi 12.1	A29	Finström	2008	D. Anderberg	+
ÅM 742:	134	Fi 12.1	A36	Finström	2008	D. Anderberg	+
ÅM 769:	2	Jo 37.7	A1	Jomala	2014	K. Ilves	+
ÅM 775:	16	Ge 15.4	A1	Geta	2015	L. Simponen	+
ÅM 780:	101	Ge 15.4	A5	Geta	2016	T. Schröder	+

Table 1 continued. Clay paw finds from the Åland Islands. Archaeological collections in the Museum of Åland (NM and ÅM; KM 3986:31 in the National Museum of Finland). Rec. – Recovered.

tion was in use for over roughly four centuries, to the end of the Late Iron Age. Outside of Åland, the rite is attested along the rivers in north-western Russia. During the middle of the Viking Age, several centuries later than on Aland, the local population of Jaroslavl-Vladimir area started using the modified version of the rite1, which thereafter spread considerably, only disappearing with the transition to inhumation practices in the 11th century (Callmer 1994: 30-40). Single clay paws have also been found in Sweden and Ukraine (Callmer 1994: 17). It has been generally accepted that the rite is an Ålandic innovation (Kivikoski 1967: 133; Jansson 1987: 782-4; Callmer 1994: 13; Ahola et al. 2014: 248; Heininen et al. 2014: 342; Raninen & Wessman 2015: 291).

Burials with clay paws are distributed widely over mainland Åland (Fasta Åland), which actually consists of four large islands, today connected with bridges and roadways. Since Åland is affected by shore displacement resulting in rising shorelines, mainland Åland was spatially much more fragmented in the past. It has been estimated that at the beginning of the Late Iron Age, in the middle of the 6th century, the shoreline was about 9-10 m higher than today, and by the end of the period, in the beginning of the 11th century, about 5-6 m higher than today (Ekman 2017). Thus, the Ålandic cemeteries were established in a maritime landscape of numerous islands and sea, which enabled both easy, waterborne connectivity and mobility as well as detachment and insularity.

Parish	Registered cemeteries	Excavated cemeteries	Clay paw cemeteries	Registerd mounds	Excavated mounds	Clay paw mounds	Clay paws
Finström	83	24	14	2057	174	35	35
Jomala	79	16	10	1854	108	23	24
Saltvik	97	28	14	2555	281	28	33
Sund	81	16	5	1992	240	14	14
Geta	17	4	3	485	34	4	4
Lemland	22	7	3	323	45	3	3
Hammarland	40	8	2	1214	54	3	3
Eckerö	26	4	1	250	4	1	1
Mariehamn	2	1	1	93	12	2	2
Total	447	108	53	10823	952	113	119

Table 2. The distributional clay paw data summarized and contextualized in relation to registered and excavated Late Iron Age cemeteries and grave mounds in the parishes of Åland.

RESEARCH HISTORY

The first clay paw found on the Åland Islands (KM 3986:31)² was discovered in 1901 during excavations led by Alfred Hackman, in the parish of Finström. He was investigating the Late Iron Age cemetery (Fi 8.6) that has some of the largest grave mounds ('The Kings' Mounds') known on Åland. Although the grave that yielded the clay paw was not among the largest ones, it did stand out by having a bauta/standing stone on top of the mound. The burial was not rich. It contained scattered bones, remains of at least two different pottery vessels, rivets and crampons, decorated fragments of a comb, a belt rivet, two fragments of bronze bars and a wellpreserved clay paw. In his subsequent comments on the excavation, Hackman (1902a; 1902b: 7) describes this object as 'a peculiar clay figure, somewhat similar to a human foot'. In his discussion on the nature of the find, to which he ascribed a ritual significance, Hackman remarks on the lack of parallels to 'such strange objects of clay' from Sweden and mainland Finland, but refers to numerous similar finds then already known from Viking Age graves in central Russia. Due to the higher amount of clay paws found in Russia, Hackman (1902b: 9-10) suggested that the rite originated in these areas and was brought to Åland.

The subsequent excavations of the early 20th century, conducted both by Björn Cederhvarf, and by Hackman, increased the number of known Ålandic clay paws. Cederhvarf (1905), in his only report on clay paw graves, calls these

objects simply 'clay symbols'. However, clay paw finds from unreported sites excavated by Cederhvarf are more often than not catalogued with a note that these objects represent a bear paw. At the same time, Hackman (1924b; 1925; 1926a; 1926b) was consistent in his site reports, describing the clay paws as 'clay amulet in the form of a bear paw'. Such a definite zoological identification of the clay paws as bear paws, however, was not discussed.

It has to be pointed out that the earliest excavations on Åland might have overlooked the existence of clay paws, slightly biasing our picture. Karl August Bomansson (1858), publishing the very first Finnish doctoral dissertation in archaeology, mentions that he has excavated and thereafter reconstructed between 50 and 60 Late Iron Age burial mounds on Åland. True to his era, his interest was mainly to obtain 'a rather beautiful collection of antiquities' and not a single clay paw was retrieved. However, a recent reopening of one of these graves (Ilves 2015) gives testimony to the amount and character of the finds left untouched by Bomansson. The case makes it plausible, that all of the burned bone material, fragmented pottery, rivets, fragmented bronze and iron objects, as well as pieces of burned clay, being remnants of possible clay paws (cf. Ilves 2015: 11), were redeposited during the reconstruction works. The rather inconspicuous character of the (badly preserved) clay paws that, furthermore, were not yet defined as an artefact category, would not have attracted the attention of the early archaeologist.

The Aland Islands Late Iron Age (550-1050 AD) Settlement site Hillfort Cemetery Excavated cemetery Clay paw cemetery HAMMARLAND MARIEHAMN LEMLAND

Fig. 2. The distribution of Late Iron Age and early medieval monuments in the parishes of Åland. The shoreline is roughly consistent with that of the beginning of Late Iron Age. On the inset: the location of the Åland Islands encircled in between Sweden and Finland. Maps: K. Ilves.

By 1934, when Ella Kivikoski (1934: 381) first and comprehensively wrote about this find category, while also planning to discuss these objects in her doctoral thesis (Núñez forthcoming), there was information about 20 paws. Thirty years later, in 1965, Kivikoski (1965: 28) accounted for over 50 clay paws from Åland. In her works, using interpretational help by zoologist G. Bergman, Kivikoski dwelled a good deal on the zoological classification of the paws. Bear, beaver, otter, dog and human were the species mentioned, but bear and beaver were the ones favoured (cf. Kivikoski 1934: 381-4; 1965: 30). This was also in line with the interpretations made in regard to the zoological classification of the paws from Russia (cf. Callmer 1994: 14–5). Kivikoski remarked that the paws were made for the occasion of the burial ceremony. In a later publication, while having a more solid chronological framework, she was also in no doubt that the rite originated in Åland, where it occurred endemically much earlier than in Russia (Kivikoski 1965: 28-9). However, concerning the reasons for their existence, Kivikoski (1965: 31) concludes: 'The clay paws are still keeping their secret'.

The archaeologists Carl Fredrik Meinander and Matts Dreijer briefly dealt with the clay paws during the 1970s. Both argued for the rite not having an Ålandic origin. Meinander (1973: 148; 1979) proposed an eastern genesis. Dreijer (1979: 99-103) suggested that the rite had an origin in the Mediterranean world, following the idea of the 'protecting hand' or 'hand of God'. In the present connection, it is relevant to note that at that point there were some well-preserved clay paws found on Åland which had a fifth digit placed opposed to the other four and were thereby more associable with a human hand than a paw (most notable among these, ÅM 124:85; see Fig. 1). According to Dreijer's idea, the rite emerged on Åland and in north-western Russia independently of each other. These theories of origin have not attracted much scholarly attention (cf., however, Núñez forthcoming).

In 1994, working on the empirical basis of the 61 known clay paws from Åland, as listed up by Kivikoski (1980: note 68; cf. Callmer 1994: 20), Johan Callmer implemented a study that is still one of the hallmarks of the research on the clay paw burial rite. Callmer's study is comprehensive and wide-ranging, also including the material from Russian graves. He found that Ålandic paws were zoologically connected with the beaver (Callmer 1994: 41), and that the rite was carried by Ålanders to the Russian areas in conjunction with the development of trade settlements. Moreover, Callmer argued for chronological and gender-related differences in the rite's practice. Clay paws first appear in graves identified as male in the north-eastern and eastern parts (Saltvik-Sund), after which the rite spreads over the archipelago. Thereafter, the rite becomes more unusual in the north-eastern and eastern parts and more common in the central and southern parts (Finström-Jomala) (see also Fig. 2), predominantly in graves identified as female. Towards the end, there was a more even balance in the gender attribution of the clay paw graves in the latter area (Callmer 1994: 22-4). The clay paw element has been understood as an innovation of the late Migration or early Merovingian period, which was a period of marked population increase on Åland. Callmer (1994: 20, 40–1) suggests that the origins of the clay paw rite are related to the creation of a new cultural identity forged by colonizing groups.

The argument regarding gender distribution was soon met with criticism. Ilse Tarsala (1998: 116) pointed out that it uncritically relies on a too scant empirical base. In fact, at the time of Callmer's study, none of the graves with clay paw finds had been radiometrically dated. His chronological estimations were based on only a few diagnostic finds and elements, such as glass beads and comb ornamentation. Gender attributions relied on the type and quantities of certain finds, beads in particular. However, despite the dearth of osteological analyses or a more highresolution chronology, the association with different sexes, as suggested by Callmer, seems to be generally accepted (cf. Frog 2014: 398; Gustavsson et al. 2014: 166). Somewhat paradoxically, Tarsala (1998: 116-8) vaguely argues for the same point, within the same chronological framework and on the basis of the same internal geographical division of the archipelago, but by noting that the Alandic clay paws are not commonly found together with weapons. This has been explained by the weapon graves representing another kind of attitude towards death. The phenomena of weapon graves is suggested to

emerge in an endeavour to differentiate as well as to manifest the dominance of a social identity which distances itself from the more earthly ideals represented by the practitioners of the clay paw burial rite (see closer Tarsala 1998: 120–1).

Concerning the zoological interpretation, similarly to Callmer but on different premises, Tarsala (1998: 118–9) favours the beaver. While Callmer (1994: 41), without neglecting the mythological and symbolic importance, emphasizes the importance of the beaver as a furbearing animal, Tarsala's argumentation was built upon the beaver as a liminal animal, living neither on land nor in water.

A significant recent contribution focusing on the clay paw burial rite on Aland is by Frog (2014). Discussing Alandic mythology, both theoretically and methodologically, Frog's (2014: 382) main concern is 'The Zoological Riddle'. Following the dominant zoological interpretations of the objects, the paw symbol is considered metonymic of a bear and/or a beaver. Frog (2014: 386-98) argues that the bear has a much more central symbolic role in Northern traditions. He demonstrates the importance of the bear in Germanic, Finno-Karelian and Sámi cultures. The rise to prominence of the symbol of the bear and its paw on Åland is interpreted as having been inherited and connected to the influence of cultural encounters, as the archipelago has been geographically and culturally at a nexus of Germanic-Finnic interactions (Frog 2014: 396-7).

The clay paw burial rite is a quite thoroughly studied subject compared to many other areas of Ålandic archaeology. It is clear that the focus has been on two intertwined aspects: the origin and distribution of the rite and the zoological interpretation of the objects. Being an archaeological phenomenon both distinguishing Åland and, during the Viking Age, connecting it with north-western Russia, it is also an important part of the general discussions of Scandinavian activities in the East (e.g. Duczko 2004: 193; Sedykh 2015: 177), as well as studies on the perception of death (e.g. Price 2010). In the discussions of the eastern distribution, the symbolism of clay paws has not been dealt with in notable detail. It is, however, important to emphasize, as also pointed out by Callmer (1994: 34-43), that the symbolism of these artefacts was most probably altered. When adapted into a new cultural space, located at a considerable distance from their area of origin and several centuries later of their emergence, the meaning changed. There is no plausible reason, why the clay paw rite must have remained unchanged over centuries and at the hand of different practitioners.

While the issue of the origin of the rite on a larger geographical scale has found its consensus in the Ålandic roots, the question of the symbol's zoological representation must still be considered open. Identified as bearers of symbolic meaning, clay paws have been variously associated with bear or beaver. However, throughout the history of research on the topic, it has been noted that neither of these species were actually likely to have been present in the natural environment of Åland during the period of the rite. Instead of exploring alternative identifications, the research has remained stuck on these two species, now arguing from within a set framework. As will be discussed further on in this article, clay paws should rather be identified with seals – living animals present in the environment at the time of the rite and significantly important in both the diet and economy of Late Iron Age Åland. The emergence of the rite is linked to the colonization processes that have been explained (Ilves 2018a) within the framework of the global climate catastrophe that came in the aftermath of the large volcanic events that occurred in the middle of the 6th century AD. The availability of seals, among other marine resources, served as a motivating factor for the colonization of Aland from neighbouring areas, in response to the effects of the climatic disturbances (Ilves 2018a: 314).

This article is accompanied with a dataset of all hitherto known, certain and possible clay paws found on Åland (Table 1). Except for Ella Kivikoski (1980: note 68), who opened up her research with information about the empirical base, studies dealing with the clay paws have not been supported by detailed information about the data used. It is common to state the numbers of clay paws found (Callmer 1994: 19–20; Tarsala 1998: 116–7; Gustavsson et al. 2014: 166), but without lists or tables of other information about the objects and their find contexts. The data is thus not readily available to the research community. Opening up and analysing this data,

which is otherwise accessible only to Swedishspeaking scholars through old research reports and find catalogues, is considered a beneficial contribution to facilitating the discovery and/or creation of new knowledge.

CLAY PAWS

Table 1 accounts for 119 clay paws from 113 different grave mounds in 53 Late Iron Age cemeteries, recovered from nine of the ten parishes on mainland Åland. The table has been composed based on data held by the Museum of Åland – site reports, find catalogues and finds in the museum collection. In Table 2, the distributional clay paw data is summarized and contextualised in relation to registered and excavated Late Iron Age cemeteries and grave mounds.

As is evident from Table 2, the clay paws recovered on Åland do not have an even distribution. Most of the paws have been recovered from the parishes of Finström, Jomala and Saltvik. These three parishes were densely populated during the Late Iron Age, as was the parish of Sund. It is therefore interesting, that Sund does not parallel the other three parishes mentioned, when it comes to clay paw density. This is particularly obvious when relating the number of clay paws to the number of grave mounds excavated. In this respect, both Finström and Jomala have the highest correspondence rates (20% resp. 22%). In comparison to these parishes, the percentage is much less in the parishes of Saltvik and Geta, which exhibit the same percentage of clay paws in relation to excavated grave mounds (12%), though in relation to the number of registered mounds, more grave mounds have been excavated in Saltvik. Although the actual number of recovered clay paws from Sund is not negligible, in relation to the number of grave mounds excavated the values are more comparable to Lemland (6% resp. 7%), where only three clay paws have been recovered. It is also notable that both of these parishes have had, on a percentage basis, the most excavations conducted to investigate the Late Iron Age grave mounds. Only one paw has been recovered from the parish of Eckerö and three paws from the parish of Hammarland, but both areas also have the least amount, on a percentage basis, of investigated Late Iron Age grave mounds on Åland. Data from the parish of Mariehamn – the capital city of Åland – should actually be counted within the parish of Jomala; two Late Iron Age cemeteries registered in Mariehamn were considered among the parish of Jomala before 1961, when Mariehamn went through an amalgamation with parts of Jomala (see also Fig. 2). Despite the considerably smaller amount of data, Callmer (1994: 20–2) had already observed similar tendencies and there is no doubt that the frequency and the distribution of the clay paw rite differs in different parts of Åland. At the same time, obviously, this assertion might change somewhat when more investigations have been conducted.

In general, there is one clay paw per mound, but there are some certain and some possible exceptions. Two different clay paws were found in grave mound nr 61, in the cemetery Jo 10.1, in the parish of Jomala. There is another grave mound in the same cemetery, mound nr 3, that according to the site report description might have fragments from two different clay paws (see Cederhvarf 1905), though for source-critical reasons, after the examination of the material in the Museum of Åland, these are not accounted for as such in Table 1. Even in the case of grave mound nr 25, in cemetery Jo 13.2, the fragments catalogued might originate from two different paws, although they are not accounted for as such in Table 1 because of the scant amount and the undiagnostic nature of the clay fragments recovered, coupled with the too vague description provided by the responsible archaeologist. At the same time, according to the site report description (Tomtlund 1986), fragments from two different clay paws were also found in grave mound nr 18, in cemetery Sa 3.3, and are accounted for as such in Table 1. However, the most deviating case is grave mound nr 12, in cemetery Sa 29.1, in the parish of Saltvik. In total, four different clay paws, two of them well preserved (see also Fig. 1; ÅM 570:74 and ÅM 570:75), were found in the double burial of an adult with a child that has been dated through artefacts to the first half of the Late Iron Age, the Merovingian period (Rosborg 1985). Also, another grave mound in the same cemetery, mound nr 10, which covered two different burials, had two clay paws. One paw, from a double burial of an adult female with a child, was artefactually dated to the Merovingian period; a second one, from the burial of an adult, has been interpreted to be later than the double burial in the same mound (Rosborg 1985). Furthermore, it is remarkable that of the 36 registered grave mounds in this cemetery, nine mounds have been archaeologically investigated and in seven of these a total of 11 clay paws have been found (Martinsson 1984; Rosborg 1985).

There have been few osteological analyses conducted on the skeletal material from clay paw burials. The previously described burials, as well as other graves investigated in cemetery Sa 29.1, are among the few analysed datasets. Bone material from all seven grave mounds there has been analysed (Martinsson 1984; Rosborg 1985). Together with some other clay paw burials that also were subject to osteological analyses3 (see Landin 1982; Vormisto 1984; Martinsson-Wallin 1986; Martinsson-Wallin & Wallin 1986; Wallin 1986; Auner 2012; also Ilves 2015), these testify to the fact that clay paws were employed in graves of different genders, for adults as well as children, who were buried with several or few or even without any archaeologically visible animals. Clay paws occur in both single and double burials. It is also evident that clay paws were used in burials both rich and poor in artefacts; likewise, in burials covered with highly visible mounds as well as with barely distinguishable mounds.

From the chronological point of view, as seen from the evidence of the artefact typologies, it is clear that the rite was in use on Åland throughout the Late Iron Age. However, there is a need to complement the artefact-based chronology with radiocarbon dates, because many clay paw burials do not have well-preserved diagnostic material to date. The initial radiocarbon dating of short-lived materials from five different clay paw cemeteries and burial mounds from three different parishes on Aland indicates that the rite was in much more extensive practice in the beginning of the Late Iron Age (see Table 3). Nevertheless, more radiocarbon analyses are needed as the issue of better chronology is vital to advancing the discussion of the possible shift in mental templates on Aland preconditioning the application of the rite, as suggested by both Callmer (1994: 24) and Tarsala (1998: 120). However, these radiocarbon dates are further cementing

the already-established conclusion that the clay paw rite originated in Åland, where it occurred endemically much earlier than in what is today the Yaroslavl Oblast in Russia.

The clay paw material is very fragmentary. Only about 25 paws are preserved in a physically describable condition. These better-preserved objects, however, represent a wide variety of paw design. This is illustrated in Fig. 1. There are small paws – the smallest, more or less wholly preserved paw measures 4.3 cm in length (ÅM 122:4), and large ones – the largest, more or less wholly preserved paw measures 13.9 cm in length (ÅM 585:9). There are symmetrically moulded paws (ÅM 124:4, 144:11, 233:2) and paws with such rough execution that they are no more than just thick, oblong, smaller or larger lumps of clay with short digits at one end (NM 4627:196, ÅM 570:75). Clay paws can have their digits splayed (NM 8680:20) or not splayed (ÅM 158:6). Paws can have very short digits (ÅM 57:42) or they can have no digits at all, just marking furrows (ÅM 615:60). There are clay paws with a fifth digit placed opposed to the other four. This fifth digit can be in the middle of the paw (ÅM 380:24, 404:190) or on one side of the paw (ÅM 124:85, 570:74). Paws can also have just four digits (ÅM 45:9, 376:31). Furthermore, there is at least one better preserved paw documented that has six digits. Sometimes, the execution of the paw gives an impression of a right limb (ÅM 306:19) and sometimes of a left limb (ÅM 71:11). Clay paws can have a narrow or broad arm (NM 4621:51 resp. NM 4627:278, ÅM 144:23) or in relation to the palm a considerably thickening arm (ÅM 89:4). Based on the shaping of the documented clay paw material, it is clear that the primary focus was not on the imitation itself, but on the mediation of the concept.

As explained above (see also Fig. 1), there is a distinct variation in the design of the Ålandic clay paws and it is difficult to find even two paws that can be said to be identical. The first clay paw found on Åland was compared to a human foot, most probably because at first glance, within the cultural setting of the archipelago, there was nothing else to compare it to. As more finds that were branched at one end, often with splayed short digits in a row on an arm rather than a footpad-like stump, were unearthed, the association with the human foot was broken.

Lab-index	Cemetery ID	Mound ID	Material	ВР	±	calAD (95.4%)
Ua-60671	Fi 10.4	A4	Nutshell	1244	32	670-880
Ua-60672	Sa 29.1	A5	Cereal	1341	32	640-720 (82.8%)
0a-00012						740-770 (12.6%)
Ua-60673	Sa 18.3	A1	Cereal	1333	32	640-730 (78.6%)
0a-00073	3a 10.3	ΛI	Cerear	1333	32	740-770 (16.8%)
Ua-60674	Jo 10.1	A2	Cereal	1301	33	650-770
Ua-60675	Sa 11.3	A22	Cereal	1376	31	605-685

Table 3. Radiocarbon dating results from five different clay paw cemeteries and burial mounds from three different parishes. Calibrated with OxCal v3.10 (Bronk Ramsey 2001), using IntCal 13 atmospheric curve (Reimer et al. 2013).

A similarity to a bear paw was suggested very soon based on these characteristics, but not explained. The few finds with the fifth digit placed opposed to the other four and thereby associable with a human hand, were not yet identified at this stage. After different assessments by zoologists, the clay paws were understood as reproductions in clay of bear and/or beaver paws. It is difficult to evaluate the premise of the zoological interpretations made at the request of the archaeologists already working within a certain framework of hypotheses. Or, to assess the framework of reference that the zoologists had while providing their estimate.4 Due to the considerable variation in design of Ålandic clay paws, it has become clear that it is challenging to argue for one certain species based solely on the visual appraisal of the objects themselves. This also makes it challenging to explain the rite in a plausibly meaningful way. In order to determine the idea behind the clay paw burial rite, which is dependent on the question of the representation of the actual objects, I would like to offer a new perspective based upon contextualising the Åland Islands at the beginning of the Late Iron Age, during the time when the clay paw burial rite emerged.

THE CONTEXT OF THE EMERGENCE OF THE CLAY PAW BURIAL RITE

In the beginning of the Late Iron Age, settlements as well as burial sites become visible in

a dramatic manner on the Åland Islands. In the middle of the 6th century AD, the archipelago, which had a sparse and small population during the previous periods of the Early Iron Age, underwent profound changes in settlement structure, including the emergence of elite structures that would maintain their prominence throughout the coming centuries (Ilves 2018a; 2018b). New burial grounds and settlements were established seemingly simultaneously in many different parts of the archipelago and land use became more intensified. This is in sharp contrast to the Nordic area in general, which at the same, but during a short period of time experienced a widespread decline of settlements, the abandonment of many otherwise stable villages and their burial grounds, as well as a detectible woodland regression into a very large proportion of what had previously been actively cultivated land, accompanied with changing ritual practices. Many areas in Scandinavia suffered a very significant population collapse at the same time as Åland experienced a major population expansion, which cannot be understood as an endogenetic demographic process. The marked socio-demographic changes in Scandinavia, but also in the Baltics, have been causally related to several geological or climate events in the 6th century, when a number of volcanic eruptions and their atmospheric effects caused a prolonged period of sustained northern hemisphere cooling (Gräslund & Price 2012; Tvauri 2014; Riede et al. 2016: 4-5 with references; Iversen 2017). A cold period, starting from AD 536 (Sigl et al. 2015; Toohey et al. 2016) and lasting possibly as long as to AD 660 (Büntgen et al. 2016), has been considered as an additional environmental driver of crop failure, plague and famine, as well as a trigger for political, societal and economic turmoil, with one of the outcomes being a large-scale population displacement. The Åland Islands were one of the areas targeted by these environmental refugees.

Unlike the mid-6th century AD socio-demographic changes in Scandinavia, which were at least partly manifested through a settlement concentration into fewer villages, a proportionally greater number of scattered, single farmsteads dominated the coeval Alandic settlement pattern. This pattern on Åland represents a preferred form of settlement, as its establishment resulted from a sudden growth in population and, based on the artefact evidence, migration from different neighbouring areas. The sparsely populated archipelago setting, with a wide variety of available marine resources combined with available agricultural and pastoral land, governed the formation of the initial settlement pattern, which also resulted in low levels of social disturbance. This is, in contrast, very different from the developments in the much more densely populated region of southern Scandinavia, which saw large-scale demographic and economic changes instigated by a combination of unfavourable climatic conditions and the arrival of environmental refugees from further to the north (Riede et al. 2016: 5).

The newcomers on Aland preferred locations with an easy access to the shore, in areas maximising access to a variety of the available marine and terrestrial resources. Such topographical premises were important during the initial establishment phase (Ilves 2018b) due to an increased focus on marine resources, which is also concurrently evident in the other Nordic areas (cf. Nilsen 2017). The choice of the settlement sites on Åland reflects the diverse nutritional base sought after during the cold period that had led to an agricultural crisis and collapse. Similarly, previously settled areas in Scandinavia that drew upon a variety of marine resources in addition to terrestrial ones experienced more limited effects from the climatic recession (Gräslund 2007: 112; Naumann et al. 2014: 322-3).

SEALS AND SEALING ON LATE IRON AGE ÅLAND

Vertebrate material from a number of Late Iron Age settlement sites on Åland testifies that sealing, combined with fowling and fishing, was extensively practised and significantly contributed to the supply of food, alongside the animal husbandry of sheep as the main meat source (Gustavsson et al. 2014: 162-4; Gustavsson 2016; Bäckström 2017). A regional specialization in seals has in fact been argued for (Gustavsson 2007; 2016). In the present connection, it is also notable that in the case of the oldest of these Late Iron Age settlement sites that has been subjected to osteological analysis, the frequency of seals outnumbers the identified specimens of domestic animals (Storå et al. 2012: 181-2). The Late Iron Age seal bone assemblages on Åland include material from grey seal, harp seal and ringed seal. All three species are somewhat different from each other. The large and more aggressive north temperate grey seals are nonmigratory and highly visible in coastal areas. Ringed seals are much smaller and also nonmigratory, but are true arctic seals and thrive in fast ice conditions. Harp seals, on the other hand, are migratory and are closely associated with the movements of ice. This means that in addition to very different associations with environmental conditions, the different species have different behaviours requiring different hunting strategies. From an archaeological point of view, the presence of such a variety of types is also suggestive of an all-year-round sealing practice (see also Storå & Lõugas 2005).

Zooarchaeological evidence testifies to the importance of seals as food during the Late Iron Age on Åland. Furthermore, there are indications of seals potentially having a very prominent role in subsistence strategies, especially in the beginning of the period, which coincided with a period of sustained northern hemisphere cooling. The potentially symbolic role of seals at that time, however, is far less documented or discussed. However, finds from the combined blubber production/settlement site Ma 5, within the limits of today's city of Mariehamn, are indicative of specialized depositional practices involving seal paws (Darmark & Ilves 2016). At that site, the unburnt bones of a right front flip-

per from an old Greenland seal were found articulated right at the edge of a cooking pit dated to the 7th–9th centuries AD. This could perhaps be given a mundane interpretation, but it is seen as remarkable both that the flipper had been intentionally placed, untouched by fire and was left undisturbed next to the feature. It should also be noted that 100 m to the north-west of this site is a cemetery (Ma 2) containing clay paw burials (see also Table 1).

Seals are rare in the Ålandic osteological burial assemblages from the Late Iron Age. This, however, might not reflect an accurate representation. As has been shown by Tuija Kirkinen (2015) regarding the role of wild animals in Late Iron Age death rituals in south-east Fennoscandia, by employing a new microscopic methodology she was able to demonstrate that wild animal skins were commonly used, especially for wrapping, but also for clothing and as grave goods. Meaty, wild mammals, cervids in particular, had a high degree of representation in her study, showing the continuation of a ritual significance of the wilderness in an age where pastoralism had already started to acquire a dominant economic position. Similar research on the burial material from the Åland Island might well contribute valuable information about the wild animals' roles in Late Iron Age death rituals in the archipelago.

DISCUSSION

In his work on Stone Age hunters and seals, Jan Storå (2001: 50-1) suggested that Neolithic clay figurines found on the Åland Islands - previously interpreted as anthropomorphic (cf. Núñez 1986) - could also be understood to represent seals and that there was a religious relationship between humans and seals. The Late Iron Age clay paws found in religious settings have also been associated to both the zoomorphic and anthropomorphic spheres by virtue of the species' paws being identified with, bear and beaver, which have been suggested to be human-like. Bears have been widely identified with human beings on both biological and behavioural levels, and the symbolic and ritual significance of bears to humans throughout the history of the North is undeniable (cf. Helskog 2012: 212-6 with references; Piludu 2019). Beavers have

also been recognized for their humanlike qualities. In addition, the amphibious nature of beavers has been emphasized. Clay paws, when argued as metonymic of a beaver, are suggested to invoke beavers as shamanic familiars, guiding the dead to a watery underworld (cf. Tarsala 1998: 118-9; Williams 2013: 203). Both species are also linked in spiritual worlds (see Schmölcke et al. 2017), and in addition to their magical and mythological associations, their economic significance has been emphasized and the clay paw burial rite is connected to hunting expeditions. However, the arguments used in favour of bear and/or beaver would also apply to seals, with one important addition - seals were actually present in the biotope of the archipelago and were a very essential part of life lived on Aland.

With both a physical and a behavioural resemblance to humans, including the fact that seals call and murmur to each other in tones similar to humans, the seal has been ascribed a mythical human origin in a large and varied body of traditions, often in considerable detail, especially in the countries surrounding the Baltic Sea (Loorits 1935; Puhvel 1963). In Scotland and Ireland, there are many stories of people descending from seals and the intermarriage of seal and human is a common aspect of numerous and widely spread legends of transformations from seal to human and from human to seal (Williamson 1998; Turner 2004). In addition to folklore, seals also feature in the mythology with gods taking the seal-form⁵ (see North 2007), and in the Icelandic sagas as animals closely connected to the human community, for which seals were an extremely important addition to the daily diet (see Ogilvie 2009: 65-7). The seals that played significant roles in the saga literature are generally supernatural, linked with death (Murray-Bergquist 2017: 57-60). This might be due to the amphibious nature of seals, representing their possibly liminal role in myth as creatures crossing between two worlds. That their role in human-animal relations, although closely connected to the mundane sphere of subsistence, has not been limited to that sphere is also evident from the archaeological record. For example, the seals inhabiting eastern Siberia's Lake Baikal, in addition to their economic value, had and still have prominent roles in local ontology and cosmology, constituting a vital part in the processes

of identity formation (Nomokonova et al. 2013; 2014). A broader examination of the archaeological past of Russia's Lake Baikal region, including finds of portable seal representations and the presence of seals in rock art, even at sites far from the lake itself, indicates that seals were significant even to people living at some distance from their habitat and hunting grounds (Nomokonova et al. 2013: 273–7).

Christer Westerdahl (2005) has argued that the land-sea boundary was a major cosmological element in the North (see also Herva & Salmi 2010). Taking the ritual use of seals' heads as an example, Westerdahl (2005: 9-10) illustrates how the transfer of a thing from one world to another has been used for strong intentional magic. Seals live at the interface of the sea and land or ice, they are thus liminal agents, boundary-crossers, due to their amphibious nature, and therefore had a potential role in ritual contexts. The seal was thought to be a magical creature while on land (Westerdahl 2005: 9), as is also evidenced by the 16th century account of northern culture by Olaus Magnus. His work describes the magical properties of different parts of the seal - for example, the skin protected one from lightning, while the right front paw was used under the head to tease dreams (Olaus Magnus 1976[1555]: xx, 4-6).

Acknowledging the potential magical associations of the seal – especially within the framework of the seal's importance for survival during the prolonged period of sustained northern hemisphere cooling in the middle of the first millennium AD – elevates the seal to a position comparable to that earlier ascribed to bears and beavers, and can thus arguably link them to the clay paw burial rite in a more straightforward manner.

In this framework, it is relevant to wonder why a votive representation in clay was produced, rather than directly using a part of the animal itself, which would have been readily available. Would not the original item be magically more potent than the skeuomorph? There is very little archaeological evidence of the clay paw rite being preceded or complemented by the use of actual animal parts. However, it has to be pointed out that such a question has never been systematically addressed. Preservation could potentially be an issue in this regard. If animal paws were deposited unburnt on top of the cre-

mation urns, they are more likely to have perished. However, as indicated by the studies on animal fibres emphasized earlier in this article, employing similar new methodologies in combination with the hypothesis argued for could potentially reveal a hitherto unverified deposition of symbolic seal parts in the Iron Age graves of Åland, and further highlight how the strongly maritime nature of the place and period put its mark on the mortuary practices of the time.

CONCLUSION

I suggest that the custom of the clay paw burial rite originated in a struggle for survival in which sealing played a vital part, which is the reason why people entered into a close relationship with seals, one transcending their economic and dietary value. This explanation seems to avoid much of the redundancy that arises when using the bear and/or beaver as templates. This paper has shown the considerable variation in clay paw design, thus illuminating the need for a contextual approach to the rite rather than a zoological one, within which the wide variety of differently formed paws enables argument for practically any species with digited limbs. Each of the three animals considered in this article have been shown to have functioned historically as 'food for thought', but only the seal can be argued to have had a role as 'food for food' in the context at hand. Although symbolically important animals do not necessarily have to fulfil economic functions, as incorporative signs the utilization of totemic animals is highly empirically motivated by the activities of hunting and eating (Shore 1989: 190).

From this perspective, the rite would be truly Ålandic in its essence and not only a local variation of an imported mythology. The exact origin of the rite has still to be pinpointed. Being that it is believed to be of a local origin, it is plausible to envision a more nuanced evolution of the tradition. In order to enhance our understanding of this process, there is a need for a more finegrained chronological resolution of the clay paw graves, their relative frequency and distribution. Such studies, which could clarify the evolution and fate of this local tradition, are believed to be a more fruitful avenue for understanding the meaning of the ritual than considering only the

objects themselves, which will inevitably lead to a never-ending, argumentative, unsolvable loop.

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NOTES

- ¹ As a sort of parallel to the clay paw, the clay ring element of the rite was innovated and part of this practice in Russia.
- ² This find is not stored on Åland, but in the collections of the National Museum of Finland and has therefore the find-id used for these collections (KM). Archaeological finds stored in the collections of the Museum of Åland have two different find-ids before the islands received an autonomous status in 1921, as well as some time after that, finds were registered with the abbreviation for the National Museum of Finland (NM) and, in many cases, these early find-ids were not changed when the Museum of Åland started to use a different abbreviation (ÅM) for the finds in their archaeological collections. Thus, archaeological collections in the Museum of Åland include finds with NM as well as ÅM id.
- ³ In the cemeteries Su 12.7, Fi 8.11, Sa 18.3, Fi 8.4, Sa 2.4, Fi 12.1 and Jo 37.7.
- ⁴ In this connection, it is worthwhile to note that among the zoological determinations of clay paws we can also find an interpretation of a paw as a representation of a mandible (ÅM 81:5), as well as of a paw interpreted to resemble a tooth (ÅM 339:11) (see Kivikoski 1965: note 25).
- ⁵ I am grateful to docent Mr. Frog who has drawn my attention to this.

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