JARKKO SAIPIO
University of Helsinki
Department of Philosophy, History, Culture and Art Studies, Archaeology

Ritualisation of Landscape in the Finnish Lake District during the Early Metal Period

The Forms and Landscape Settings of Early Metal Period Burial Cairns

ABSTRACT: Early Metal Period sites in the Finnish Lake District are almost exclusively either dwelling sites or cairn sites, so-called Lapp cairns, which number 200–300. They are typically built on bedrock promontories on lakeshores. The adoption of cairn building in the Lake District has traditionally been interpreted as a sign of increasing territoriality and culturalisation of landscape. However, such an interpretation is in contradiction with the contemporary dwelling site material indicating mobile settlement pattern. Furthermore, Lapp cairns are not monumental but usually only 2.5–10 m in diameter and 0.25–0.7 m in height. Finds from excavated Lapp cairns connect them with mortuary rituals and sacrificial activities.

Scrutiny of the natural environment around the cairns suggests that they were not made to stand out from the landscape but to integrate with it. Attested Lapp cairn sites have had long and wide lake-views. The ritual significance of the connection with water through stone is further indicated by more than half of the verified Lapp cairns being situated on rocky lake islands. It seems that during the Early Metal Period in the Lake District, human-made stone structures and natural lakeshore stone features were both part of the same ritual landscape, governed by the same perception of ritual time. Such cosmology is also implied by the re-use of old lakeshore cairns, and by Early Metal Period sacrificial activities at Stone Age rock painting sites on lakeshores.

KEY WORDS: Early Metal Period, Arctic Bronze Age, Finnish Lake District, Lapp cairns, burial cairns, ritual archaeology, ritualisation of landscape

INTRODUCTION

"Landscape" is an amorphous concept that is obviously hard to define. It generally refers to a geographic space consisting of topographical, vegetational, and possibly also architectural features, experienced as some kind of entity by human perception. As pointed out by Richard Bradley (2000: 31), landscape is for the archaeologist both a promising and deceptive line of inquiry in reconstructing past human experience. Some landscape features may remain quite similar over millennia, but the way they are experienced is highly cultural specific. However, there are also some discernible patterns in cultural notions attributable to the concept of landscape. Christopher Tilley (1994) has noted that for small-

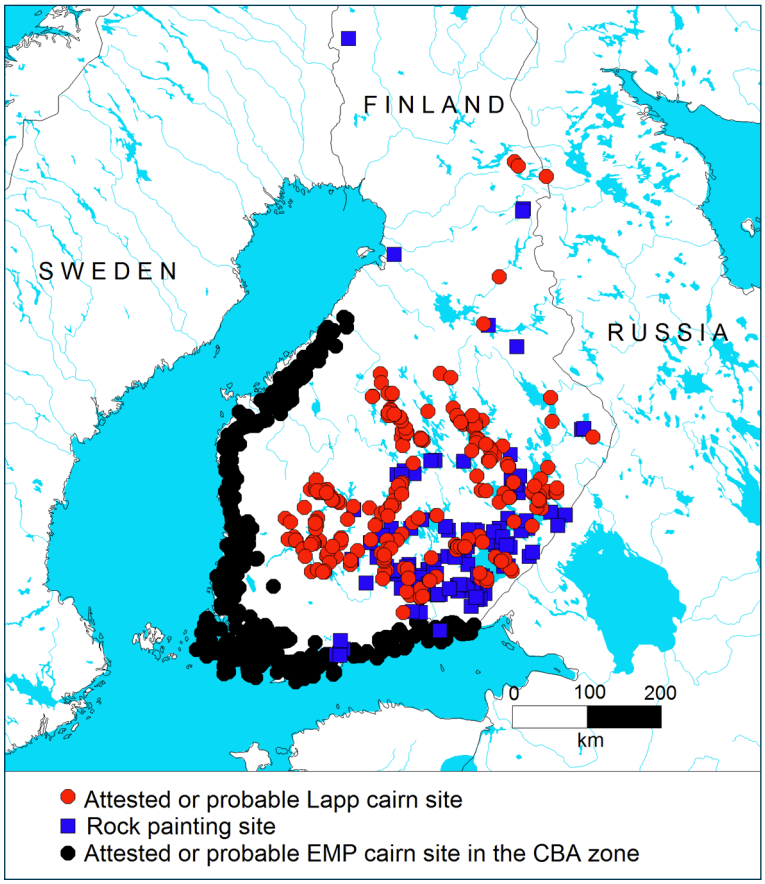

Figure 1. Distribution of Stone Age rock art and cairns connected with the Early Metal Period cairn-building traditions of the Coastal Bronze Age Culture and the Lake District in the area of Finland.

scale societies landscape is typically both a "mundane" and "ritual" entity in terms of modern western conceptualisation. It functions as a history book and a ritual map, where geographic locations mark past actions and initiate ritual action (Tilley 1994: 67). In the landscape, the present and the mythical past exist simultaneously (e.g. Tilley 1994; Bradley 1998). To describe and study this phenomenon, it is necessary to provide specific definitions for the terms "ritual" and "ritualisation". Following Roy Rappaport (1999: 24), "ritual" is defined here as 'the performance of more or less invariant sequences of formal acts and utterances not entirely encoded by the performers'. As pointed out by Catherine Bell (1992), ritual is not a passive reflection of some premeditated symbolic meaning, but an interaction between physical action and symbolic thinking. Participants in a ritual actively create meaning for their acts through their mutual physical and sensual experiences (Bell 1992: 90). In this article, the term "ritualisation" is used as a reference for this process, through which certain acts obtain their position as rituals and certain sites as ritual sites.

In relation to landscape, ritualisation is a two-way process. While the meanings of rituals often become inseparable from their specific spatial contexts, ritual activities at specific sites also have considerable impact on the ways these sites are anchored in experienced reality. Through this process of ritualisation, ostensibly invisible meanings become intrinsic parts of landscape features, and the landscape as an experienced entity. These meanings are, however, not immutable or outside personal interpretation, since the mythical past is constantly recreated and re-interpreted in ritual action (Bell 1992: 123–24, 183–86). In interpreting the archaeological record, the temporal variation and negotiability of rituals can be a strength as well as a challenge (Berggren & Nilsson Stutz 2010). Chronological patterns and the variation within them provide clues about what the core elements of ritual meanings were for certain sites, and how they may relate to other activities of the communities using the sites. Tracing such elements, in turn, helps us to grasp the role of local ritual landscape in the integration and re-interpretation of both old and new ritual practises.

This article examines the placing of ritual sites in the landscape of the Finnish Lake District during the Early Metal Period (c. 1900 BC–AD 300/400), e.g. the Bronze Age (1900/1600–500 BC) and the Early Iron Age (500 BC–AD 400). The area provides a good case study of the integration of Bronze Age influences in a local ritual landscape. In studies of Bronze Age northern Europe, such localisation processes are currently easily hidden under the grand narrative of pan-European networks and al-

leged travelling chiefs (e.g. Kristiansen & Larsson 2005; Harding 2013; Kristiansen 2013; Vandkilde *et al*. 2015). The focus of this study is on the Early Metal Period burial/sacrificial cairns, but the possible Early Metal Period ritualisation of Stone Age rock art sites is also touched upon. Cairns are examined as both elements within the landscape and as points from whence the landscape is experienced. The factors under scrutiny are the forms and sizes of cairns and their spatial relations to lakes, bedrock exposures, natural boulder fields, and rock art sites. Due to the volume and geographical distribution of the material, most of the data is not based on personal on-site observations, but on archaeological fieldwork reports and open access GIS-material provided by the National Board of Antiquities and the National Land Survey of Finland. Calibrations of radiocarbon datings are made by the OxCal 4.2 programme with the IntCal13 calibration curve (Bronk Ramsey 2009; Reimer *et a*l. 2013). The precision of the calibrations is 95.4% if not stated otherwise.

EARLY METAL PERIOD LAKE DISTRICT: GENERAL SETTING

The Finnish Lake District is a geographically distinct zone that covers most of the inland areas of southern and central Finland (Fig. 1). Numerous lakes, large and small, presently comprise about a quarter of all the surface area within the zone. The prominence of the lakes, created by post-glacial isostatic land uplift, is characteristic of the archaeological record of the area from the beginning of the Finnish Late Mesolithic (c. 6500 BC) onwards. Fishing was consistently the backbone of subsistence, until the gradual spread of permanent field cultivation from the Middle Iron Age (c. AD 400–800) onwards. For the prehistoric fisher-hunter-gatherers of the area, lakes were not only the main source of subsistence, but they apparently also had strong ritual and cosmological dimensions. In the archaeological record, this phenomenon is most clearly embodied by Stone Age rock art panels and Early Metal Period burial/sacrificial cairns. These two site categories differ in many ways, but they share a close spatial relation to lakes. This relation is still visible after the inevitable destruction of most of the physical remains of the actual use of these sites, over the time since their initial creation.

Bronze Age Finland is traditionally divided into two main zones: the heavily Scandinavian-influenced Coastal Bronze Age culture (CBA) and inland Finland, whose material culture features North-Russian and even Siberian influences more strongly than Scandinavian. In this dualistic division, the Lake District is defined as part of the inland zone. In the CBA zone, subsistence and settlement patterns centred on marine resources and gradually increasing cultivation and animal husbandry (Salo 1981; 1984; Lavento 2015: 131–34, 139–41). In the Lake District, the Early Metal Period societies were foragers relying heavily on lake fishing, although some small-scale swidden cultivation was also practised (e.g. Lavento 2001). Based on the typically small size of the dwelling sites, the thinness of the cultural layers, and the general, though not total, lack of house pits, the settlement pattern appears to have been mobile rather than sedentary or semi-sedentary (Lavento 2001; but see Mökkönen 2011: 63–4). Such a pattern clearly differs from the Neolithic dwelling site material containing indications of semi-sedentary, and at some places perhaps even fully sedentary, settlement pattern (e.g. Karjalainen 1999; Pesonen 2002; Mökkönen 2011).

A severe depopulation of the Lake District during the Late Neolithic has been argued by several scholars, on grounds of a substantial weakening in the archaeological signal, accompanied by the gradual cooling of the climate and supported by studies of modern Finnish DNA, indicating a genetic bottleneck around 1900 BC (Lavento 2001; Tallavaara *et al*. 2010; 2012; Sundell 2014). Mika Lavento (2001) even suggests that the Lake District became nearly desolate at the end of the Neolithic, and the population vacuum was refilled during the Early Metal Period by a new population from the east, connected with the appearance of Textile Ware (c. 1900–500 BC) and indications of increasing residential mobility. Therefore, it is probable that for the Early Metal Period societies of the Lake District, the landscape as an embodiment of the mythical past was more central to their ritual life than any particular settlement site. Such a scenario is sup-

MUNICIPALITY	SITE	OTHER CAIRNS	DATING	FINDS
Mikkeli	Haukkavuori	-	Hela-2517: 3113 ±31BP, 1443–1287 cal. BC (m)	Some burnt mammal (human?) bone
Mikkeli	Hietaniemi	1	Hela-3815: 3138 ±30BP, 1500–1300 cal. BC; Hela-3816: 3050±28 BP, 1400–1225 cal. BC (h)	Burnt human and animal bone 115 g, quartz flakes
Iitti	Hiidensalmi	-	Hela-2519: 3160 ±31BP, 1501–1323 cal. BC (h)	Burnt human bone 64 g, quartz flakes, bowl-like stone
Kuopio	Honkasaari	4 (n)	-	-
Savonlinna	Häyrynjärvi a, cairn 5	8 (n)	-	Flint and quartz flakes
Savonlinna	Häyrynjärvi a, cairn 2	8 (n)	Hela-2518: 2311 ±30BP, 411–235 cal. BC (h); artefacts in accordance	Burnt human bone 79 g, ceramics, quartz flakes
Jyväskylä	Iso-Poro	-	-	-
Nokia	Kirkkosaari	-	Roman Iron Age artefacts	Bronze bracelet, iron axe
Mikkeli	Kitulansuo B	1	Hela-3733: 3079 ±27BP, 1415–1265 cal. BC (h and m)	Burnt human and animal bone 4 g, quartz flakes
Mikkeli	Kitulansuo C	1	Hela 3635: 3044 ±25BP, 1395–1220 calBC (h); Hela 2636: 2914±26 BP, 1210–1015 cal. BC (h)	Burnt human and animal bone 196 g, quartz flakes
Kuopio	Kuusikkolahdenniemi	3	Late Bronze Age artefacts	Bronze button and razor, some burnt human bone, ceramics
Iitti	Lapinsaari	-	-	Flint and quartz flakes
Hankasalmi	Luojinniemi	-	-	Bronze sheet
Viitasaari	Luotolansaari	-	-	Burnt bone <1 g
Mänttä-Vilppula	Nuijanniemi	-	GrA-19108: 1680 ±45BP, cal. AD 242(91.7%)430 (undet.); artefacts in accordance	2 bronze ornaments, iron arrow-head(?), burnt bone, ceramics
Jyväskylä	Oravasaari	-	-	-
Virrat	Pöykkysaari b	2	-	-
Äänekoski	Pyhänsalo 1	-	GrA-18299: 2460 ±50BP, 763–414 cal. BC (h)	Burnt human bone 610 g
Jyväskylä	Pyhäsaari	2	GrA-18301: 3010 ±30BP, 1386–1128 cal. BC (h)	Burnt human bone 44 g
Viitasaari	Pyykkisaari 1	1 (h)	GrA-18302: 3570 ±60 BP, 2045(91.9%)1746 cal. BC (s)	Burnt seal and pike bone 15 g
Viitasaari	Rantala B	2 (b)	Hela-3119: 3041 ±29 BP, 1396–1217 cal. BC (h); Roman Iron Age artefacts	3 bronze ornaments, glass bead, iron axe, burnt human bone 23 g, quartz flakes
Tampere	Reuharinniemi	1	Hel-4440: 1240 ±80BP, cal. AD 654–968 (c); artefacts in accordance.	Ceramics
Siilinjärvi	Saunalahti	1	Bronze Age artefact	Flint arrowhead
Jyväskylä	Taikinaisniemi	-	-	Burnt human bone 370 g
Nokia	Urhatunsaari	2	Roman Iron Age artefacts	Bronze bracelet, burnt bone
Pihtipudas	Vaaksianniemi	1**	-	Bronze sheet found outside two tampered cairns

Table 1. The attested Lapp cairns in the Lake District. * Dimensions based on J.R. Aspelin's (1886) and Julius Paasonen's (1888) somewhat contradictory reports of cairns' measurements before excavation and subsequent reassembling. **Either of the two cairns at the site could have contained the bronze sheet. (b) – bone, (c) – charcoal, (h) – human bone, (m) – mammal bone, (n) – some natural, (s) – seal bone.

STRUCTURES	SIZE (m)	DIST. TO LAKE	BUILT ON	REFERENCES
-	7.5 x 9 x 0.6(?)*	30 m	Bedrock	Aspelin 1886; Paasonen 1888; Mannermaa 2010b; Saipio 2011
-	7,5 x 7 x 0.5	170 m	Bedrock	Saipio 2015b; Vuorenmaa 2016
Wall-like structure in S side	16 x 7 x 0.3–0.4 (double cairn)	20 m	Bedrock	Miettinen 1995; Mannermaa 2010a; Saipio 2011
Kerb in N side	9 x 5 x 0.5	70 m	Bedrock	Pohjakallio 1974; 1978a
Kerb in W and S sides, natural bedrock crevice under cairn	4.5 x 2.5 x 0.4	20 m	Bedrock	Lehtinen 1994
-	3.5 x 2 x ?	20 m	Bedrock	NM 28930; Mannermaa 2010c; Saipio 2011
Partial kerb	7.2 x 7 x 0.6	>200 m(?)	Bedrock	Ailio 1912
-	14 x 8 x shallowish	20–30 m	Natural stone field	Kivikoski 1935
Transversal stone row in S part	10 x 5–6,5 x 0.3	130 m	Bedrock	Saipio 2015b; Vuorenmaa 2015
Partial stone cist with W and N sides	9 x 6 x 0.4-0.5	150 m	Bedrock	Saipio 2014; Vuorenmaa 2014
-	7 x 7 x 0.7	<10 m	Natural stone field	Pohjakallio 1974; 1976
Kerb in SE and S sides	8 x 8 x 1	15 m	Bedrock	Miettinen 1992
-	10 x 10 x 0.4-0.5	40 m	Bedrock	Vilkuna 1983
-	9 x 9 x 0.5	70 m	Bedrock	Taavitsainen 1993a
-	6 x 6 x ?	30 m	Bedrock	Taavitsainen 2003b; Adel 1999b
Partial cist-like stone setting in N side	7 x 5 x 0.4	30 m	Bedrock	Sarasmo 1955; Miettinen & Miettinen 1964; Seppä 2005
Kerb, natural bedrock crevice under cairn	10 x 10 x 0.6	70 m	Bedrock	Salo 1954
Outer wall around N, NW, E and SE sides	7 x 7 x 0.7	15 m	Bedrock	Taavitsainen & Vilkuna 1981; Taavitsainen 2003a.
Wall-like stone setting "in the lakeside"	14 x 4.5–6 x 0.7	40 m	Bedrock	Taavitsainen 1992; Taavitsainen 2003a.
-	16 x 7 x 0.5	30 m	Stony moraine	Taavitsainen 1993b; 2003a; Ukkonen1993
-	6 x 6 x ?	<10 m	Bedrock	Europaeus 1927a; 1927b; Mannermaa 2012c.
Cist-like stone structures	8 x 8 x 0.5	30 m	Bedrock	Adel 1999a
Cup marks under cairn	6.5 x 6.5x 0.6	140 m	Bedrock	Pohjakallio 1977; 1978b
Natural bedrock crevice under cairn	?	20 m	Bedrock	Miettinen 1965
-	5 x 5 x 0.5	30 m	Bedrock and stony gravel	Sarasmo 1971
-	5 x 5 x 0.3 and 2.5–3 x 4 x 0.2	30 m	Bedrock	Miettinen 2002

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ported by the fact that while Neolithic pit burials have typically been found within a settlement area or adjacent to such (Lappalainen 2007), most of the alleged and confirmed Early Metal Period cairns in the Lake District have been found more than 1 km away from any prehistoric settlement, while those within a few hundred metres of an Early Metal Period dwelling site are usually separated from it by water.

EARLY METAL PERIOD CAIRNS IN THE LAKE DISTRICT

Judging from the current assemblage of AMS datings, cairn-building was adopted in the Lake District at the turn of the Neolithic and the Early Metal Period (Table 1). Early Metal Period burial/ritual cairns are also typical for the coastal areas of Finland. As a matter fact, coastal Early Metal Period cairns appear to number in the thousands, while only a few hundred possible or attestable Early Metal Period cairns have been located in the Lake District. The coastal cairns are, however, geographically mostly separated from the Lake District cairns by lake-poor zones containing no attested Early Metal Period cairns (Fig. 1). In terms of archaeological cultures, this border zone generally coincides with the traditional division of Bronze Age Finland into the Scandinavian-influenced CBA zone and inland Finland. In terms of finds, and morphology and spatial relation to water, the Lake District cairns and the cairns within the CBA zone have much in common, but there are also some interesting differences. The most obvious differences are related to the facts that Lake District cairns consistently lack monumental size, and have no spatial connection with agricultural activities. These differences and their possible implications are examined later in this article.

The Lake District cairns presumed or confirmed to be of Early Metal Period origin are called "Lapp cairns" (*lapinrauniot)* in Finnish archaeological research. The term derives from an old common name given to these enigmatic cairns by the historical period inhabitants of the Lake District. To be precise, a literal English translation would be "Lapland's cairn". "Lapland" (*Lappi)* is a recurring toponym for (former) wilderness areas in southern and central Finland. In the past, archaeologists have sometimes referred to all Lake District cairns outwardly resembling Early Metal Period coastal cairns as "Lapp cairns", but nowadays the term implies a suggestion that the cairns were built by the prehistoric fisher-hunter-gatherers of the Lake District, for burials or other ritual purposes. Some coastal cairns are also occasionally called Lapp cairns, based upon the assumption that these particular cairns have been built by people originating in the inland zone (e.g. Perttola 2005: 14). The interpretative use of the term "Lapp cairn", followed also in this article, means that a cairn originally classified as a Lapp cairn may lose this classification by turning out to be an Iron Age hearth, a historical period border marker, the base of a decayed cottage, etc. Since only a fraction of the Lake District cairns classified as Lapp cairns have been excavated, in most cases the classification is more or less uncertain. Sometimes the nature of the cairn remains uncertain even after excavation, since unburned organic material normally does not survive more than about a thousand years in the acidic soil of Finland. The number of Lake District cairns confirmed as Lapp cairns by finds or structural type currently number less than 30 (Table 1). Therefore, defining a "typical Lapp cairn" is a tricky procedure. However, the confirmed Lapp cairns have some notable similarities that appear to be generally common among lakeshore cairns that give no indication of an origin in the Late Iron Age historical period.

As far as we know, Lapp cairns are invariably located on lakeshores, typically on a bedrock exposure with a good view to the lake (Table 1). Occurrence of Lapp cairns farther away from lakeshores is sometimes suggested, but remains unattested (e.g. Lehtosalo-Hilander 1988: 146, 148; Perttola 2009: 63). The significance of the relation between Lapp cairns and lakes is emphasized by the fact that more than half of the confirmed Lapp cairns have been built on a lake island (which is sometimes nowadays a cape due to shore displacement or modern water regulation).

Some confirmed Lapp cairns have been built on natural boulder fields, but location on soil ap-

pears to be an indication that the cairn is not a Lapp cairn. The now destroyed "Lapp cairn" of Multapakanniemi 1 in Saarijärvi, excavated by Hjalmar Appelgren-Kivalo in 1914, was built on podzol soil and contained some burnt bone among charcoal. Osteological analyses by Kristiina Mannermaa (2012b) and AMS dating (Hela-3120: 736 ±24 BP) revealed that the cairn was a proto-historic hearth, probably related to long-distance hunting and fishing activities in the wilderness areas (*eränkäynti)*. There are also a number of other cairns located on soil that have been excavated as possible Lapp cairns, but have turned out to be something else (e.g. Lehtinen 1988; Taavitsainen 1992a; Sepänmaa 1996).

Approximately 85% of attested Lapp cairns are located within 50 m of the nearest Early Metal Period lake shoreline; however, it seems that the distance can sometimes be more than 200 m, if the cairn is located on a high cliff from where the view to the lake is topographically unobstructed. The height of a Lapp cairn from the water level thus varies greatly, from a few metres to 30–40 m.

Unlike later Iron Age burial cairns situated near farms and fields, Lapp cairns typically contain no earth-fill, apart from a thin sand or silt layer at the bottom of the cairn. Lake District cairns are usually round or roundish, 2.5–10 m in diameter and only 0.25–0.7 m in height (although some reach the height of 1 m). Notable exceptions to the generally roundish morphology are some long-cairns, whose length is 10–18 m and width less than half of the length. These long-cairns are quite possibly originally round cairns that have been later extended, considering that the two ends of these cairns are typically of clearly different width (Taavitsainen 1992b; Taavitsainen 1993b; Miettinen 1995). There are usually only one or two Lapp cairns at one site, although groups of some half a dozen Lapp cairns are also known (Table 1). Approximately half of the excavated Lapp cairns have revealed some clear structures. Detected structures are mostly kerbs and wall-like stone settings; cist-like inner structures have been documented in a few cases. Interestingly, kerbs, linear settings, and cists are all typically partial, at least at the time of excavation.

Lapp cairns are notoriously poor in finds. Excavations usually yield only burnt bone and perhaps quartz flakes, if any finds at all. The bone fragments are typically deposited in the sand layer at the bottom of the cairn, without pyre debris. In a few cases, small ceramic sherds have been found in the sand layer (Table 1). Quartz and flint flakes found in Lapp cairns appear to be spatially detached from bone depositions, sometimes occurring mostly within the stone packing rather than below it (Saipio 2014; 2015a; 2015b). In a couple of cases, knapped flint and/or quartz constitute the only find material of a Lapp cairn (Miettinen 1992; Lehtinen 1994). As for the bone finds, in most cases *Homo sapiens* is the only identified species, although non-human bone undetermined at the species level has been encountered in several recent osteological analyses (Vuorenmaa 2014; 2015; 2016). An interesting exception is the earliest dated Lapp cairn, Pyykkisaari 1 in Viitasaari, containing only seal and pike bone, deposited in the sand layer in a similar way that human bone usually is (Taavitsainen 2003a). The amount of bone in properly excavated Lapp cairns varies between a few fragments and some 600 g, indicating that typically only part of the bone material of the deceased had been deposited in the Lapp cairn (Taavitsainen 2003a; Asplund 2008: 79; Perttola 2009: 64; Saipio 2011). In excavated coastal cairns the amount of bone is generally within the same range, apart from some cases where multiple events of bone deposition are implied by osteological analyses or the spatial distribution of bone material (Salo & Lehtiperä 1970; Vormisto 1985; Tuovinen 2002: 173). The presence of more than one human individual has been osteologically determined in only one Lapp cairn so far, Kitulansuo C in Mikkeli (Vuorenmaa 2014). This probably has more to do with the limited nature of many of the analyses of Lapp cairn bone finds than the actual frequency of multiple bone depositions in Lapp cairns.

Some Lapp cairns have yielded metal or stone artefacts besides or instead of burnt bone material. Most of the typologically dateable metal artefacts are from the Roman Iron Age (AD 0–400), at the very end of the Early Metal Period. According to the current AMS datings, the earliest bone deposi-

tions in Lapp cairns appear not to have been accompanied by metal or stone artefacts. Interestingly, a recent AMS date from the Rantala B Lapp cairn in Viitasaari indicates that the dated bone deposition was more than a thousand years old when the cairn received an exceptionally rich Roman Iron Age prestige good deposition (see Table 1). Since the cairn was subject to two episodes of treasure hunting before the excavation, it is unfortunately not possible to say whether the Roman Iron Age artefact deposition was accompanied by a new bone deposition or not (Europaeus 1927a; 1927b). Metal artefact finds in two other Lake District cairns indicate that offerings related to old cairns may have been common during the Roman Iron Age. The Kirkkosaari Lapp cairn in Nokia appears to be only a slightly modified natural stone formation, but an iron axe and a bronze bracelet of Roman Iron Age date have nonetheless been found in it, and it is possible that it has never contained any bone material (Kivikoski 1935). At the site Taikinaisniemi in Jyväskylä, an iron spearhead and iron knife of Roman Iron Age date appear to have been deposited outside a Lapp cairn containing burnt human bone (Miettinen 1965). AMS dating of a human bone fragment from the cairn (Hela-3118: 2148 BP) is unfortunately not reliable due to incomplete combustion of collagen in the bone.

The often meagre amount of human bone material in Lapp cairns suggests that the bone depositions were not related to funerary rituals dealing with the death of the particular individual, but to ancestral rituals made for the benefit of the living (Bolin 1999; Taavitsainen 2003a; Asplund 2008: 79, 82). Considering this, it is of interest that some Lapp cairns have contained no indication of human bone depositions (Table 1). The presence of burnt non-human material in the Saunalahti and Pyykkisaari 1 Lapp cairns suggests that the choice of inhumation over cremation is not a categorically applicable explanation for such cases. Excavation of the Saunalahti cairn by Lauri Pohjakallio (1977) yielded a burnt straight-based flint arrowhead, broadly dateable in the range of 1900–600 cal. BC. In the bedrock surface below the cairn, there were small depressions interpreted as cups for offerings (so called cup marks) by Pohjakallio (1978b), but later suggested to be natural formations by Jussi-Pekka Taavitsainen (Perttola 2005: 11). Unusually for a Lapp cairn, the bedrock surface under the cairn also manifested clear traces of burning. Since flint does not occur in the Finnish bedrock, the arrowhead was probably considered a special artefact. Interestingly, in Middle and Late Neolithic Sweden flint artefacts were often ritually burnt in a way that made them resemble cremated human bone (Larsson 2011). Equally interesting is the fact that the Pyykkisaari 1 cairn containing burnt seal bone is located in an island in Lake Keitele, where no relic seal population has ever been attested, unlike in Lake Saimaa and Lake Ladoga (Ukkonen 2002). It is quite plausible that the power of human bone was in some circumstances substituted by other powerful material in Lapp cairns. When combined with the evidence of stone knapping and sacrificial artefact depositions at Lapp cairn sites, such negotiability would suggest that the location of a cairn within a landscape may have been more essential to its ritual significance than any specific episode of ritual activity.

STANDING OUT OR MERGING INTO?

While the fact that Lapp cairns are spatially related to bedrock exposures and lakeshores is well-established, the nature of the relation is open to many questions. There is a general tendency to presume that the appearance of cairn-building in the Lake District at the beginning of the Early Metal Period was related to territoriality and stratification (e.g. Salo 1981: 421; Vilkuna 1993: 51; 1999: 60; Maaranen 1995: 174). According to this line of thinking, a Lapp cairn situated on a bedrock promontory of a lakeshore manifested ownership of land and fishing water, as well as the might of the person whose bones were deposited in the cairn, sending a message to outsiders approaching the cairns from the lake or from inland. Such a practise is assumed to have been adopted from the CBA zone (e.g. Salo 1984: 181–82; Maaranen 1995: 174; Lavento 2015: 168). An important influence behind this chain of thought is Colin Refrew's (1973: 132–42) classical processualist interpretation of the earliest Neolithic megaliths of the Orkney Islands as ter-

◄ Figure 2. The Kitulansuo C Lapp cairn from the west before the excavation in 2014, covered by a thick layer of vegetation. Photo: Jarkko Saipio.

▼ Figure 3. The Kitulansuo C Lapp cairn from the south-west during the excavation in 2014. The vegetation layer has been removed but all the stones are still in place. Photo: Jarkko Saipio.

ritorial markers of segmentary societies. However, as a whole, the functionalist-diffusionist interpretation of Lapp cairns rests more on loose intuitive argumentation than any theoretical framework (see Vilkuna 1993: 51; Salo 1984: 181; Lavento 2015: 168). Therefore, the assumption of intensified territoriality behind the adoption of cairn-building in the Lake District has not been examined against the post-processualist critique of Renfrew's model. The contextual archaeological strand of such critique emphasises that archaeological remains of mortuary activities are always related to a particular historical situation whose archaeological study requires hermeneutic dialogue between data and theory (e.g. Hodder 1992: 30–42; Parker Pearson 1999: 132–141; Hodder & Hutson 2003: 29–30).

In case of Lapp cairns, the need to take into account the particularities of the phenomenon is quite pressing. There are a number of problems with the idea that the Lapp cairns were meant to stand out from the surrounding landscape as signs of land ownership. One of these is the general archaeological context of Lapp cairns. Textile Ware settlements in the Lake District give no implication of stratification, growing complexity, regular long-distance exchange, or increasing territoriality (Lavento 2001). On the contrary, the changes in settlement pattern and the suggested population decline at the turn of Early Metal Period strongly point to disintegration of possible Late Neolithic territoriality and stratification.

Furthermore, the idea of Lapp cairns as imitations of coastal cairns, and the ideological values related to them, was born before AMS dating of burnt bone became possible at the turn of the millennium. The notable lack of Bronze Age artefact finds from Lapp cairns and possible Lapp cairns led archaeologists to believe that the Lapp cairn tradition was much younger than the coastal cairn-building tradition, since such finds are relatively common in coastal cairns (e.g. Salo 1984: 140; Salo *et al.* 1992). The number of AMS datings from Lapp cairns is still meagre, but the existing dates have changed the picture radically. Early Bronze Age dates are currently

Figure 4. Unexcavated probable Lapp cairn Piikinperse A on a bedrock promontory covered by vegetation, on the shore of Lake Louhivesi in Mikkeli municipality. Photo: Niko Anttiroiko.

proportionally more common in AMS dated Lapp cairns than in AMS dated coastal cairns, while the calibrated mean of the date of Pyykkisaari 1 is some three hundred years earlier than that of the earliest AMS dated coastal cairns so far (Asplund 2011).

The idea of Lapp cairns as territorial markers is also challenged by the fact that they are remarkably flat in shape and thus not very visible (Figs. 2–4). According to the cairn studies of Tapani Tuovinen (2002: 248) in the Turunmaa archipelago, the visibility of coastal Bronze Age cairns from the sea is generally grossly overestimated in Finnish Bronze Age studies. The visibility of Lapp cairns has not been studied systematically, but there is little doubt that most of the Lapp cairns are quite hard to notice from a distance due to their shallowness (see references in Table 1). Tampering with Lapp cairns in the course of their existence has, no doubt, often had some impact on their shape. However, Bronze Age coastal cairns appear to be generally much more conical in shape than Lapp cairns, despite the fact that they have been frequently subject to tampering as well (Salo *et al.* 1992; Vuorinen 2000: 182; Asplund 2008: 80). Furthermore, coastal cairns on Iron Age shorelines are also generally more flat in profile than Bronze Age coastal cairns (Salo *et al.* 1992; Vuorinen 2000: 182; Tuovinen 2002).

What makes the shallowness of Lapp cairns noteworthy is that if builders of Lapp cairns had wanted them to stand out from the landscape they could in many cases have made them significantly more visible with little additional labour input. Many of the excavated Lapp cairns are surrounded by great amount of stones that appear never to have been integrated into the cairn. The Kuusikkolahdenniemi Lapp cairn is built on a natural stone field containing three other possible Lapp cairns, all surrounded by stones apparently left *in situ* (Pohjakallio 1974; 1976). The excavated cairn at the site Rantala B is situated next to a lakeshore boulder field that appears to contain two natural stone formations resembling Lapp cairns (Europaeus 1927a; 1927b). Of the excavated Lapp cairns, the examples at the site Häyrynjärvi A and the example at Honkasaari are situated near cairns that were originally classified as Lapp cairns, but turned out to be natural on closer examination (Pohjakallio 1975; Bilund 1995).

In short, Lapp cairns piled on or adjacent to natural lakeshore stone formations tend to resemble such natural formations rather than stand out from them. The resemblances between Lapp cairns and natural lakeshore stone formations are not limited to cases where such phenomena are spatially connected to each other. According to Timo Miettinen (1995), the solitary Hiidensalmi Lapp cairn excavated by him had been taken to be a natural lakeshore stone formation by the local inhabitants before he classified it as a Lapp cairn during an archaeological survey in the area.

The smooth assimilation of Lapp cairns in their natural environment is all the more interesting when their spatial and visual patterns are compared with coastal cairns. Although most coastal cairns are no bigger than typical Lapp cairns, there is a significant minority of very large cairns among them. The largest of the round coastal cairns are more than 30 m in diameter and up to 4 m in height, while the largest

long cairns in the CBA zone well exceed the length of 40 m (Salo 1981: 131–143; Salo et al 1992; Vuorinen 2000; Asplund 2008: 80). Furthermore, the largest cairn groups in the CBA zone contain dozens of cairns. Importantly, the largest cairn groups and the most monumental cairns in the CBA zone appear to be connected with farmsteads (Salo 1981: 143–150; 1984: 134–137; Raike 2012; Lavento 167–168). Such a pattern in the CBA zone emphasises the lack of apparent association with domestication in the ritualisation process between Lapp cairns and their environment.

THE LAKESCAPE FROM THE LAPP CAIRNS

An important question is why Lapp cairns were so consistently built on elevated spots on lakeshores, if it was not to maximise their visibility. A closer scrutiny of the attested Lapp cairns suggests that the location of Lapp cairns on lakeshores has more to do with the view *to* the lake than with the view *from* the lake. A good view to the lake in the current time is almost invariably demonstrated in the excavation reports, by photographic documentation and spatial information, and in many cases also explicitly mentioned (Table 2). The situation at the time the cairns were built and used is indicated by the estimated original heights and distances of the cairns from the lake presented in Table 2. These estimations are only approximate, since the suggested Early Metal Period shore displacement chronologies of the lakes in question are mostly based on locations of dateable dwelling sites in relation to ancient shore banks. Short-term fluctuations in the water level may have been an important factor in choosing a location for a dwelling site at any given time. A further difficulty is posed by the fact that many of the confirmed Lapp cairns lack dating apart from the presumed Early Metal Period origin. However, there is no doubt that the Early Metal Period lake view from the cairns has invariably been either as good as or better than the current lake view. In the cases of Hietaniemi, Kitulansuo B–C, and Saunalahti, the water line has receded from the immediate surroundings of the cairn after the Early Metal Period, turning the original lake view into a view over a former lake bottom (Pohjakallio 1978b; Lavento 1994; Sepänmaa 1995). In the other cases, the view to the lake appears to have been roughly similar or somewhat better than presently.

Importantly, in most cases the topographic context of the cairn appears to have guaranteed a wide view to the lake even in densely forested landscape. The Lapp cairns situated near the lakeshore are typically located on an elevated bedrock exposure that continued right into the water during the Early Metal Period. The exposures may have become overgrown by moss, grasses, and shrubs if not cleared or subjected to eroding activities regularly, but their possible tree cover must have typically remained faint (see Fig. 4). It is probably notable that the Kilpisaari 2 "Lapp cairn", which is situated on a bedrock promontory from whence the view to the lake is almost completely blocked by dense forest, recently turned out to be a hearth structure (Saipio 2015c). The importance of a more or less unobstructed lake view is perhaps suggested even more strongly by the one attested Lapp cairn that appears to have been located more than 100 m away from the Early Metal Period lakeshore, Iso-Poro in Jyväskylä. The exact location of the cairn is in fact not known, since the excavation report of the now destroyed cairn is quite vague by modern standards (Ailio 1912). However, the photos in the excavation report clearly demonstrate that the very high elevation of the cairn must have provided an excellent lake view under any circumstances (Ailio 1912). Iso-Poro is not the only Lake District cairn classified as a Lapp cairn that is situated some distance from the Early Metal Period lakeshore but has an excellent view to the lake. The other such cases, however, remain as "probable" Lapp cairns due to lack of excavation. The cruciality of a lake view for a ritual cairn site in the Early Metal Period Lake District is further suggested by the fact that some of the attested Lapp cairns are located on spots where the longest line of sight over open water is more than 1 km (Table 2). This is notable, considering that the lakes in the Lake District are typically dotted by islands separated from the mainland and each other by narrow straits. The potential significance of a long view over water for Lapp cairn sites is further emphasised by the fact that Neolithic rock art panels are very

SITE	EMP LAKESCAPE CONTEXT	EMP HEIGHT AND DISTANCE FROM THE LAKE (m)	TOPOGRAPHIC CONTEXT	DIRECTIONS OF LAKE VIEWS
Haukkavuori	Mainland, <100 m wide cape	Height ~7, distance 20	Bedrock promontory	W
Hietaniemi	~5 ha island(?)	Height ~5, distance 15	Bedrock promotnory	SW+W+S
Hiidensalmi	>100 ha island	Height ~5, distance 15	Bedrock promontory	S+E
Honkasaari	15–20 ha island	Height 5–9, distance 20–70	Bedrock promontory	NW+N
Häyrynjärvi a	>100 ha island	Height ~5, distance 10	Bedrock promontory	S+SE+SW
Iso-Poro	60–70 ha island	Height 30–40, distance > 200(?)	Highest part of a bedrock island	W(?)
Kirkkosaari	<2 ha island	<5, distance 20–30	Shoreline stonefield	E+N+S
Kitulansuo B	5–10 ha island(?)	Height ~8, distance 20	Bedrock promontory	W+E
Kitulansuo C	5–10 ha island(?)	Height ~7, distance 20	Bedrock promontory	W+E
Kuusikkolahdenniemi	Mainland, <100 m wide cape	Height <5, distance <10	Stony moraine hill	W+NW+SW
Lapinsaari	2–3 ha island	Height ~5, distance 15	Bedrock promontory	N+E+W
Luojinniemi	>100 ha island	Height <5, distance 30–35 (?)	Bedrock promontory	N+E+NW
Luotolansaari	>100 ha island	Height ~14, distance 70	Bedrock promontory	S+W
Nuijanniemi	Mainland, 100 m wide cape	Height <6, distance 30	Bedrock promontory	N+W+E
Oravasaari	>100 ha island	Height <5, distance 30 m	Bedrock exposure	N+E
Pöykkysaari b	<2 ha island	Height ~19 , distance 70	Highest part of a bedrock island	SW+NE
Pyhänsalo 1	>100 ha island	Height <5, distance 15	Bedrock promontory	N+E+NW
Pyhäsaari	20–25 ha island(?)	Height ~5, distance 40	Bedrock promontory	W
Pyykkisaari 1	<2 ha island	Height 5–6, distance 30	Stony moraine hill	E+N
Rantala B	Mainland, shoreline	Height <5, distance <10	Shoreline stone formation	W+N
Reuharinniemi	Mainland, <100 m wide cape	Height ~5, distance 30	Bedrock promontory	N+E+S
Saunalahti	Mainland, shoreline	Height <5, distance 20–30	Elevated bedrock exposure	S+W
Taikinaisniemi	Mainland, 100 m wide cape	Height <5, distance <10	Bedrock promontory	NW
Urhatunsaari	<2 ha island	Height ~6, distance 30	Highest part of a bedrock island	E+W+S
Vaaksianniemi	Mainland, 100 m wide cape	Height ~5, distance 30	Bedrock promontory	S+W

Table 2. The attested Lapp cairns in the Early Metal Period (EMP) and the current lakescape.

often located on cliffs from whence the lake view is limited to a few hundred metres wide strait (Miettinen 2005: 108; see also Fig. 5). Attested Lapp cairns are also sometimes situated by a narrow strait but, in contrast to rock art panels, they are in such cases invariably located on a spot that also provides a long line of sight over open water (Fig. 5–6).

Most of the attested Lapp cairn sites have a lake view to more than one direction. That appears to reflect the fact that they are typically not merely accompanied by a lake but surrounded by it. Almost two thirds of all attested Lapp cairns were built on a lake island, while those located on the mainland typically lay in a narrow cape. Interestingly, the islands containing attested Lapp cairns fall into two main groups in terms of size (Table 2). Some of them are major islands, where circumstances for human habitation may have resembled those on the mainland shores of the same lake. Others, in contrast, are (or were during the Ear-

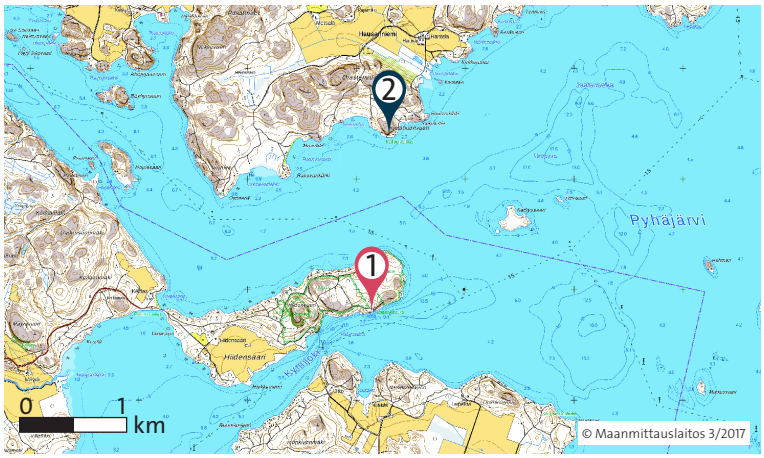
GEN. DIR. OF LAKE FROM THE SHORE AROUND	LONGEST LAKE VIEW IN THE EMP	QUALITY OF LAKE VIEW DURING EXCAVATION	LAKE VIEW IF DENSE FOREST AROUND
W	2000 m in W	Good	Good
SW	1600 m in SW	Good (to the former bay)	Good
S	3600 m in E	"Magnificent" (Miettinen 1995)	Good
N	2200 m in W	Partially obstructed by trees	Possibly partially obstructed
SW	800 m in SE	Good	Good
W?	800-1000 m in W (?)	Good	Good
NE	4500 m in NE	Good	Good
W	300 m in W	Good (to the former bay)	Good
W	300 m in W	Good (to the former bay)	Good
W	2200 m in NW	Slightly obstructed by trees	Possibly partially obstructed
N	2500 m in NNE	"Magnificent" (Miettinen 1992)	Good
NE	1600 m in N	"Beautiful" (Vilkuna 1983)	Possibly partially obstructed
SW	1200 m in S	"Magnificent" (Taavitsainen 1993a)	Possibly partially obstructed
N	2600 m in N	"Wide" (Adel 1999b)	Possibly partially obstructed
NE	2000 m in E	Partially obstructed by trees	Possibly mostly obstructed
SW	1000 m in NE	"Wide" (Salo 1954)	Possibly mostly obstructed
N	3700 m in NE	Good	Good
W	700 m in W	"Good" (Taavitsainen 1992b)	Possibly partially obstructedd
NE	700 m in ESE	Slightly obstructed by trees	Possibly partially obstructed
NW	3300 in WNW	Good	Good
N	>5000 m in N	"Good to all directions" (Adel 1999a)	Possibly partially obstructed
W	300 m in W	Mostly obstructed by trees	Possibly partially obstructed
NW	>5000 m in W	Slightly obstructed by trees	Good
E	>5000 m in S	"Wide" (Sarasmo 1955)	Possibly partially obstructed
SW	1300 m in S	Partially obstructed by trees	Possibly partially obstructed

Table 2. The attested Lapp cairns in the Early Metal Period (EMP) and the current lakescape.

ly Metal Period) small islands consisting mostly of bedrock covered by only a thin layer of soil. Only one of the islands containing an attested Lapp cairn site also features a detected Early Metal Period dwelling site, or any prehistoric dwelling site. This exception is a former lake island by the Kitulansuo bog, containing cairn sites Kitulansuo A–C and the dwelling site Kitulansuo D, which appears to have been used throughout the Early Metal Period (Lavento 1998: 50; 2001: 238).

Another interesting indication of the importance of the lakescape for a Lapp cairn site is provided by the partial encircling or inner stone structures detected in some excavated Lapp cairns. Such structures appear to be generally directed towards the lake. Although the number of excavated Lapp cairns containing a kerb or an inner stone setting is small, the pattern of partial structures covering only the sides towards the lake is notable. In seven out of the nine excavated Lapp cairns where a stone wall, a

◄ Figure 5. The Lapp cairn site Lapinsaari (1) and the rock art sites Karhusaari (2), Kelloniemi Haukkavuori (3,) and Rautakannanvuori (4) on Lake Konnivesi, Iitti municipality.



▼ Figure 6. The Lapp cairn site Hiidensalmi (1) and the rock art site Kintahuonvuori (2) on Lake Pyhäjärvi, Iitti municipality.

kerb, or a stone cist is discernible only on some particular side or sides, the primary lakeside is present in the structure (Table 3). Admittedly, the majority of the excavated Lapp cairns have clearly been tampered with to some extent before excavation (e.g. Taavitsainen 2003a). However, the wall-like multi-layered stone setting of Hiidensalmi Lapp cairn on the lakeside of the cairn is unlikely to have originally surrounded the whole double cairn (Miettinen 1995). Similarly, the well-preserved encircling stone ring of the Pyhänsalo 1 cairn, consisting of 3–4 layers of dry-walled stones, covers all the sides facing the lake but is totally absent in the one quarter of the cairn where it would have faced only land (Taavitsainen & Vilkuna 1981). The partiality of the stone cist in the Kitulansuo C cairn is also notable. The osteological minimum number of individuals among the human bone material of the cairn is two (Vuorenmaa 2014), while the vertical and horizontal distribution of the bone material within the cist suggests that the actual number of bone depositions is higher (Saipio 2014). The existing long side of the cist was aligned with the nearest lakeshore during the Early Metal Period. The absence of the eastern long side of the cist may thus be related to a practice of approaching the cairn face towards the lake while conducting bone depositions inside the cist. In the Oravasaari Lapp cairn, which contained no finds, the alleged stone cist also appears to lack the side facing inland (Sarasmo 1955).

LAPP CAIRNS AND CARDINAL DIRECTIONS

Some scholars have suggested that Lapp cairns are often located in capes aligned towards the north, on the basis of their personal experiences in archaeological field surveys (Vilkuna 1993: 50; Miettinen 1993: 88). Such impressions are neither based on systematic studies nor shared by all archaeologists (Perttola 2009: 66). As for the attested Lapp

LAPP CAIRN	LONGITUDINAL AXIS OF THE CAIRN	ALIGNMENT OF THE PROMONTORY	ALIGNMENT OF THE NEAREST LAKESHORE
Hiidensalmi	SW–NE	SW–NE	WSW–ENE
Honkasaari	E–W	SE–NW	SE–NW
Kitulansuo B	SSE–NNW	SSE–NNW	SSE–NNW
Kitulansuo C	SSE–NNW	SSE–NNW	SSE–NNW
Pyhäsaari 1	SE–NW	S–N	S–N
Pyykkisaari 1	SE–NW	SSE–NNW	S–N

Table 3. The longitudinal axes of elongated attested Lapp cairns in relation to their topographic settings.

cairns, the general orientation of the capes or shorelines around them, in terms of the eight cardinal and intercardinal directions, are presented in Table 2. The results are interesting but rather ambiguous. Orientations related to the west and north figure much more prominently than those related to the east and south. There is not a single case where the shore around an attested Lapp cairn would clearly face south-east. However, the situation becomes much more complicated if the direction of the longest lake view from each Lapp cairn site is taken into account. The Hiidensalmi Lapp cairn, for example, is located on the southern shore of a lake island, on a spot where the longest lake view opens towards the east (Fig. 7). It is also notable that, of the six Lapp cairns sites where the shoreline faces south-west, four have the longest lake view towards the south-east or south. The definition of the lake orientation of a Lapp cairn site in terms of cardinal directions is thus often open to interpretation. The orientation of the shoreline and the direction of the longest line of sight over water appear to be most consistent at the Lapp cairn sites located on shores opening straight to the west. However, as noted above, some of the attested Lapp cairns are clearly not oriented towards the west by any definition. More research is apparently needed before any firm conclusion can be made - apart from that there is clearly no pattern without exceptions.

There is of course also the possibility that Lapp cairns have some cardinal orientations not dictated by the location of the lakeshore. The longitudinal axis of the clearly elongated cases among Lapp cairns could potentially offer a possibility to detect such orientations. The topographical settings of such Lapp cairns, however, suggest that the cardinal direction of the longitudinal axis is not significant independently of the lakeshore. Among the attested Lapp cairns there are three clear long-cairns (Hiidensalmi, Pyhäsaari 1 and Pyykkisaari 1) and three less pronouncedly elongated cairns (Honkasaari, Kitulansuo B and Kitulansuo C). In all these

Figure 7. Human figures on the Juusjärvi rock painting panel, in Kirkkonummi municipality. Photo. Jarkko Saipio.

six cases, the longitudinal axis of the cairn more or less follows the lakeside edge of the promontory that the cairn is located on (Table 3). Tapani Tuovinen (2002: 161) published similar results with coastal cairns in Turunmaa archipelago.

ROCK ART PANELS IN THE LAKE DISTRICT

As implied above, Stone Age rock art sites are of interest in contextualising Lapp cairns in the ritual landscape of the Early Metal Period Lake District. Most importantly, the art must have been generally visible to the Early Metal Period communities building the cairns. In the area of Finland, the detected prehistoric rock art consists of paintings made of red ochre. Of the approximately 140 rock surfaces where obvious or possible prehistoric rock paintings have been found in Finland, more than 90% are situated in the Lake District (Fig.1). The rock art panels of the area consist almost exclusively of vertical surfaces of steep lakeshore cliffs (e.g. Lahelma 2008: 20). The number of discernible figures in a rock art site varies from one to more than fifty. The most common subjects are schematic humans (Fig. 7), elks, and boats with crews drawn with schematic lines (Lahelma 2008: 23–6). Geometric patterns and hand prints also feature prominently, while snakes, birds, fish, bear, and some other non-cervid animal figures appear occasionally (Lahelma 2008: 26–8).

According to current shore displacement datings of rock paintings on the shores of the major lakes Päijänne and Saimaa (and lakes formerly connected to them), the rock art tradition seems to have been established around 5000 BC and come to an end around the turn of the Neolithic and the Early Metal Period (Jussila 1999; Poutiainen & Lahelma 2004; Seitsonen 2008). However, there is sparse but convincing evidence that the Stone Age rock paintings continued to be venerated during the Early Metal Period. The few prehistoric artefact or bone finds plausibly related to rock art panels are mostly of Early Metal Period origin, according to both radiocarbon datings and artefact typology (Table 4). The most notable of these finds is a hearth on a narrow ledge below the Taipalsaari Valkeisaari rock art panel, containing sherds of a Textile Ware vessel that appears to have contained an anthropomorphic pebble (Lahelma 2006). The find assemblage of the hearth also contains simple quartz artefacts and the charred remains of plants, including some edible plants, such as raspberry and fat hen (Lahelma 2006).

The general lack of Neolithic finds related to rock art panels suggests that the Early Metal Period activities around these sites may not represent a direct ritual continuation from the Neolithic, but rather a later re-interpretation of the sites (Lahelma 2008: 41). The substantial population change suggested by Lavento (2001) provides a possible explanation for such a shift in the use of the rock art sites.

SITE (municipality and name)	DATEABLE FINDS	DATINGS
Taipalsaari Valkeisaari	Textile Ware sherds from land (NM 17049; NM 35202)	(Hela-1127) 3100 ±50BP, 1494–1227 cal. BC
Iitti Kotojärvi (Haukkavuori)	Unburned woodcock bones from water (NM 18428), unburned elk bones from water (NM 18428)	(Hela-434) 3275 ±35BP, 1631–1455 cal. BC (Su-775) 3300 ±100BP, 1879–1329 cal. BC
Laukaa Saraakallio	2 straight-based quartz/stone arrowheads from land (NM 21774; NM 39143)	Early Metal Period
Mikkeli (Ristiina) Astuvansalmi	Straight-based quartz arrowhead from land (NM 17636) slate arrowhead from land (NM 17636) 4 anthropomorphic and zoomorphic amber objects from water (NM 25771; NM 26331; NM 27146)	Early Metal Peiod Neolithic Neolithic

Table 4. Dateable prehistoric finds associated with rock art panels.
NM= Finnish National Museum collections.

Figure 8. The bedrock promontory of the rock art site Ruusin Turasalo in Taipalsaari would have provided an excellent location for a Lapp cairn, but the nearest probable Lapp cairn site is located some 1500 m from the site. Photo: Antti Lahelma.

LAPP CAIRNS AND ROCK ART: SPATIAL CONSIDERATIONS

Continued veneration of at least some rock art sites during the Early Metal Period indicate that cairns did not replaces rock paintings as sites of ritual activities, but rather co-existed with them in the ritualised landscape. The spatial relations between Lapp cairns and rock art sites are of obvious interest in this context. Many of the rock art sites are located on promontories that would have been ideal Lapp cairn sites, at least in the light of the common denominators of the attested Lapp cairn sites studied so far (Fig. 8, see also Lahelma 2008: Appendix 3). No Lapp cairns, however, have been located on bedrock promontories containing rock paintings. The number of attested Lapp cairns is of course too meagre to form a basis for firm conclusions about the subject. However, the situation changes if "probable Lapp cairns" are also taken into account. Basing a spatial study of Lapp cairn contexts on uncertain Lapp cairns is of course risky, given the fact that many "typical Lapp cairns" have turned out to be other types of cairns upon excavation. Any emerging pattern unsupported by the attested specimens could easily be a result of the significant presence of some other cairn type in the material. Simple use of sites officially classified as "Lapp cairns" in the Registry of Ancient Monuments as "probable Lapp cairns" would be especially risky, since the classification of cairns in the registry is greatly influenced by inter-observer variation and ambiguities in the classification system itself. Therefore, I have thus far limited the scope of this article to attested Lapp cairns. However, the absence of certain kinds of sites in certain kinds of places is possible to point out even by material containing a great number of uncertain cases.

In the Registry of Ancient Monuments, at the beginning of the year 2015 there were altogether 215 sites classified as Lapp cairn sites. A few of them are located in coastal areas, due to variable uses of the term in archaeological studies. Besides, some of those located in the Lake District should have been updated as other kinds of sites, while some of the attested Lapp cairns have not been tagged as "Lapp cairns" in the rather confusing classification system of the registry. Therefore, the locations of those 215 sites can only be used for preliminary conclusions. Nevertheless, they provide a research data set that has not been modified by the present author in any way.

Rock painting sites considered to represent the Stone Age painting tradition in the Registry of Ancient Monuments numbered 134 at the beginning of the year 2015. To examine the distances between "Lapp cairn sites" and "rock painting sites" in the Registry of Ancient Monuments, I ran a simple distance calculation in MapInfo 11.5 GIS-programme between these two types of sites, according to the ETRS-TM35FIN-coordinates of the sites in the registry. The coordinates are mostly based on hand-GPS measurements, and may thus contain measurement errors of several metres (besides some generally

DISTANCE GROUP	NO. OF LAPP CAIRN SITES WITHIN THE DISTANCE GROUP
1–1000 m	1
1001–2000 m	3
2001–3000 m	4
3001–4000 m	6
40001–5000 m	6
5001–6000 m	6
6001–7000 m	4
7001–8000 m	9
8001–9000 m	4
9001–10 000 m	5
>10000 m	164

Table 5. Distances of sites classified as "Lapp cairns" in the Registry of Ancient Monuments from the nearest rock art site in the registry.

smaller distortions related to the map projection). For the purpose at hand, however, such distortions are of insignificant magnitude.

The distance calculations reveal that only 1 of the 215 sites classified as Lapp cairn sites in the registry is situated within 1 km of a rock painting site. The exception is the cairn site Riihonniemi in Puumala, located within 70 m of the Maksasaarenselkä rock painting panel and containing two cairns 2–3 m in diameter on a bedrock exposure. However, the site description in the registry (site code 623010024) states that, according to geologists Matti Hakulinen and Matti Saarnisto, the cairns are obviously clearance cairns since there are numerous other small cairns in a forest within 100 m of these two, and the whole cairn group is situated near a deserted farm yard.

The Riihonniemi case is an excellent illustration of the importance of defining uniform criteria for what comprises a "Lapp cairn site" in any study where the Lapp cairn material mostly consists of unattested Lapp cairns. I have formulated such criteria on the grounds of the above-mentioned uniform features of the attested Lapp cairns, also taking into account some recurring features of the Lake District cairns that have turned out *not* to be Lapp cairns upon excavation. These criteria are presented in Table 6. Not all of them are free of subjective interpretation, but they still provide more appropriate research material than the mechanical use of the existing site classifications of the Registry of Ancient Monuments. Scrutiny of the site descriptions and archaeological research reports of the cairn sites in the Registry of Ancient Monuments left me with 266 Lake District cairn sites which I classified as "probable Lapp cairns" (including the attested ones). Some of the sites have subsequently been removed from the registry due to a new policy of not including totally destroyed sites.

Distances from the 266 probable Lapp cairn sites to the nearest rock painting sites were calculated in a similar way as with the sites classified as Lapp cairn sites in the Registry of Ancient Monuments. The basic results can be seen in Table 7. They strongly suggest that Lapp cairns and rock painting were intentionally kept separated from each other. Only 4 of the probable Lapp cairn sites are situated within 2 km of the nearest detected rock painting site. More important than the distances them-

LANDSCAPE SETTING	MORPHOLOGY	ARCHAEOLOGICAL SETTING
Less than 250 m from the Early Metal Period lakeshore.	Made of natural stones, no earth-fill in the uppermost stone layer.	Not part of a group of small cairns containing specimens less than 2 m in width.
On a bedrock exposure or a natural stone field.	Round, roundish or elongated; not perfectly angular, wall-like or ring-like.	No strong alternative explanation related to known activities around the site or local geology.
On elevated site in relation to the nearest lakeshore.	Width at least 2 m, height no more than 1/5 of the width.	No strong alternative explanation suggested by results of archaeological excavations at the site.

Table 6. Criteria for a "probable Lapp cairn".

DISTANCE GROUP	PROBABLE LAPP CAIRN SITES WITHIN THE DISTANCE GROUP
1–1000 m	1
1001–2000 m	3
2001–3000 m	5
3001–4000 m	8
40001–5000 m	9
5001–6000 m	6
6001–7000 m	6
7001–8000 m	11
8001–9000 m	4
9001–10 000 m	7
>10 0000 m	206

Table 7. Distances of probable Lapp cairn sites from the nearest rock painting sites.

LAPP CAIRN SITE (municipality and name)	ROCK ART SITE (name)	DISTANCE (m)
Iitti Lapinsaari	Karhusaari	781
Taipalsaari Kirjamoinniemi	Ruusin Turasalo	1518
Iitti Hiidensalmi	Kintahuonvuori	1561
Ruokolahti Vanhakanniemi	Kolmiköytisienvuori	1787

Table 8. Lapp cairns sites and rock art sites situated within 2 km of each other.

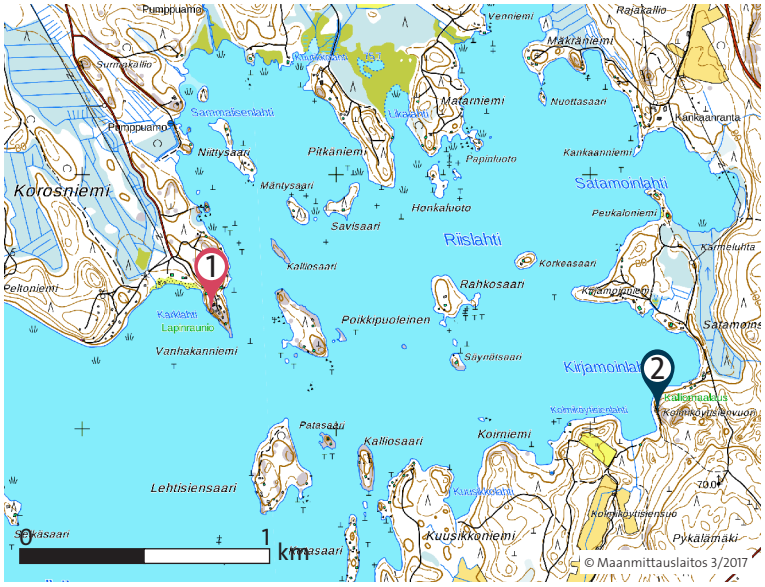
selves are the topographic settings of those Lapp cairn sites and rock art sites that are situated relatively near each other. The rock art sites and probable Lapp cairns situated within 2000 m of each other are presented in Table 8. Two of the Lapp cairn sites are in fact among the attested Lapp cairns. A closer look at the landscape settings of the probable or attested Lapp cairn sites situated within 2 km of a rock painting site reveals that a certain mutual exclusiveness between rock art sites and Lapp cairn sites appears to have been maintained in the lakescape, even in cases where the sites were located within the same bay. While there is less than 800 m between the Lapinsaari Lapp cairn and the Karhusaari rock painting as the crow flies, they are located on different islands and face different straits in Lake Konnivesi (Fig 6.) Perhaps even more importantly, there is a whole cluster of rock art sites on Lake Konnivesi, but the Lapinsaari Lapp cairn is situated outside of it, not sharing a strait with any of the rock art panels. A similar pattern can be seen with the other three Lapp cairn sites in Table 8; the lake views from them do not open in the direction of the nearest rock art site (Fig. 5–6; 9–10).

DISCUSSION AND CONCLUSIONS

To sum up the evidence scrutinised in this article, location in a specific landscape setting appears to be the most consistent common denominator of Early Metal Period cairns in the Finnish Lake District. The most obvious landscape feature related to them is a body of water that is not a mere pond but a proper lake. Visibility of a major part of a lake appears to have been an important factor in choosing a site for a ritual cairn in the Early Metal Period Lake District. Attested Lapp cairns are in most cases situated on spots where more than 1 km of open water can be seen, despite the high frequency of narrow straits in lakes of the Lake District. It is also typical that the view to the lake is not limited to one cardinal direction. Eye contact to the lake can often be maintained while turning 90° or even 180° from the direction of the optimal lake view. A clear majority of the attested Lapp cairn sites are located on islands, and most of the rest are located at narrow capes. Many of the lake islands (or former lake islands) containing Lapp cairns are very small, often less than 2 hectares in size (Table 2). All in all, it seems that visibility to a lake and the general physical significance of the lake in the surrounding landscape were both essential in the ritualisation process related to cairn-building and activities around cairns. Even the construction of a kerb or a stone cist in a Lapp cairn may have been guided by the lake as something to be approached and looked at.

Besides the overarching presence of a lake, another important factor in choosing a site for a Lapp cairn appears to have been rock. Vast majority of attested Lapp cairns are located on bedrock promontories, while most of the rest are modified natural stone formations (Table 2). A partial exception appears to be the generally unusual Pyykkisaari 1 cairn, which is located on a stony moraine promontory rather than a bedrock exposure. However, it is clear that Lapp cairns are essentially stone struc-

◄ Figure 9. The probable Lapp cairn site Kirjamoinnimi (1) and the rock art site Ruusin Turasalo (2), on Lake Pien-Saimaa, Taipalsaari municipality.



▼ Figure 10. The probable Lapp cairn site Vanhakanniemi (1) and the rock art site Kolmiköytisienvuori (2), on Lake Saimaa, Ruokolahti municipality.

tures built on stone. In this context, it is notable that they seem not to have been made to stand out from their stony surroundings as impressive landscape nodes. Due to their shallowness, their visibility from the lake is usually questionable, and from the land they are typically very hard to notice from a distance in the forested landscape. Furthermore, as shallow stone cairns they often resemble natural lakeshore stone fields, and in some cases they are even built as parts of such features. Although most attested Lapp cairns are easy to recognise as human-made cairns by a seasoned field archaeologist, their structure does not emphasise their artificiality. Some attested Lapp cairns are in fact surrounded by cairns that are, on closer inspection, obviously natural but could easily be mistaken as human-made.

The consistency in spatial and visual relation to lakes and natural stone features is especially interesting when compared to the variation in the physical remains of ritual activities found in Lapp cairns. While the majority of the attested Lapp cairns have yielded some amount of burnt human bone, burnt seal bone and a burnt flint arrowhead found without human bone from the Pyykkisaari 1 and Saunalahti cairns suggest that human bone was not the only burnt material that could give ritual significance to a lakeshore cairn in the Early Metal Period Lake District. Furthermore, a significant number of attested Lapp cairns contain no burnt material at all. Finds from such cairns vary from metal artefacts to quartz or flint flakes or nothing at all, while most of them have no cist-like inner structures (Table 1). In other words, forms of ritual action conducted at Lapp cairn sites may have been more negotiable than places considered appropriate for such actions. It is quite possible that all the actions that have left Early Metal Period remains at Lapp cairns sites would have lost their ritual meaning, or acquired a totally different ritual meaning, if conducted outside these specific sites (Bell 1992:

99). Cairns not only ritualised certain spots in the landscape, but were also ritualised by the landscape around them (see Berggren & Nilsson Stutz 2010).

Considering this, it is of interest that a close spatial connection with lakes, and specifically bedrock promontories on lakeshores, is shared by the other major group of prehistoric ritual sites in the Lake District, Stone Age rock paintings. This is all the more interesting, considering that no Lapp cairns have been found on bedrock promontories containing rock paintings, despite evidence of Early Metal Period sacrificial activities at some rock painting sites. It seems that Lapp cairns are absent even on islands containing rock paintings. Such a pattern suggests that rock paintings and Lapp cairns were signified not only by the same natural landscape, but also by other criteria in the world of the Early Metal societies in the Lake District. As features of a ritualised landscape, they probably shared the same ritual time where the past and the present existed simultaneously (Tilley 1994: 67; Bradley 1998). This idea is supported by the fact that natural stone fields were apparently sometimes treated like Lapp cairns, and Lapp cairns were re-used long after their original builders must have been forgotten. It seems likely that the Early Metal Period communities of the Lake District saw rock paintings, natural stone formations, and ancient human-made cairns as parts of the same mythical past. The communities that built Lapp cairns probably considered their intimate knowledge of the local landscape as a special asset, not possessed by communities that lacked their history of interaction with the local landscape features. As modest structures, Lapp cairns could not have invoked awe in secular terms, but they may have had an aspect of territoriality in cultic terms. Borders are often fluid in a landscape of small mobile communities, but the crossing of borders typically requires the proper veneration of local powers (e.g. Tilley 1994: 39). Lapp cairn sites could have provided visitors the possibility to profess such veneration. Evidence of sacrificial activities and stone knapping at several excavated sites imply that they were visited repeatedly. Considering the very challenging taphonomic circumstances at Lapp cairns sites, we are in all probability aware of only a small fraction of all of the activities that took place at the sites during the Early Metal Period. The spatial separation of Lapp cairns and rock painting panels suggests that their roles in the ritualised landscape where differentiated. In this context, it may be of relevance that Lapp cairns had an obvious connection with mortuary rituals, while such a connection cannot be established for rock painting sites. Perhaps the powers connected with rock art sites were considered to be beyond the control of the community in a way dead members of the community were not. It is quite possible that the veneration of certain rock art sites was shared by many communities, while Lapp cairns were more closely connected with some specific community or a smaller number of communities.

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