

Ingela Bergman, Olle Zackrisson & Lars Östlund TRAVELLING IN BOREAL FORESTS: ROUTES OF COMMUNICATION IN PRE-INDUSTRIAL NORTHERN SWEDEN

Abstract

The archaeological record of northern Sweden verifies contact between people and societies over vast areas from the Stone Age onwards. By various means of contact and communication, technical innovations and objects of foreign provenance have found their way to the interior areas. This paper explores the structure of contacts between coastal and interior societies during the period AD 1000–1600. The study draws on archaeological data and historical records including maps and taxation records. Place names are also included in the analysis. The paper describes the design of ancient trails and the persistence of routes over long periods. It is proposed that the *birkarla* trading network developed during the course of the Late Iron Age and that there were regularly-used routes connecting the coastal and interior areas. Trails were established and maintained with consensus between the parties involved and signify continuous and mutual relationships between coastal and interior societies.

Keywords: Trails, northern Sweden, Iron Age, trade, networks, Sami, birkarlar

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INTRODUCTION

The two northernmost counties in Sweden, Norrbotten and Västerbotten, together cover an area of nearly 152000 square kilometres, comprising 40% of the total area of Sweden. They are populated by only 500000 inhabitants, just 3.4 people per square kilometre, constituting 5.4% of the total population. Larger towns are mainly located in the coastal areas by the Gulf of Bothnia while the interior is far less densely populated. At present, well-developed infrastructure and modern transportation makes travelling easy and comfortable, connecting people and places over vast areas. Two hundred years ago, the situation was quite different. The population was significantly

smaller, amounting to less than 71000 inhabitants, some 0.5 person per square kilometre, and there were few population centres (Hoppe 1945: 237, plates II & III). Farming, reindeer herding, hunting and fishing formed the economic basis for most of the population. Farmers either lived in small villages or at isolated farmsteads. In the interior and mountain areas, reindeer herders moved with their reindeer from site to site following an annual cycle. Although sparsely populated, northern Sweden formed an integral part of the economic, judicial and administrative system of the Swedish state, presupposing effective networks of communication (Hoppe 1945).

The seaway along the Bothnian coast formed the main route of communication in a north–

south direction. Harbours and shipping routes are marked in detail on 17th-century maps and historical records dating to the 16th century mention the regular transportation of commodities between Stockholm and northern towns by sea (Landskapshandlingar Västerbotten 1543–1630; Friberg 1983). The establishment of churches and marketplaces on the sea coast during the course of the 14th century mirror well-organised trading networks from even earlier times (cf. Huggert 1978; Wallerström 1995a: 52–6; Grundberg 2006).

Provincial laws dating to the Medieval Period (AD 1300) include a number of regulations concerning the construction and maintenance of public roads (Schück 1933). However, the earliest law (*Hälsingelagen*) covering northern Sweden applied only to areas with long-established agrarian settlements of Nordic origin, thereby leaving out northernmost Sweden. It is not until the late 16th century that public roads are verified by historical records, and then only indirectly. According to court orders, some farmers were fined for not having fulfilled their obligations to maintain roads and bridges (see Hoppe 1945: 65). Through an initiative of the Swedish King, a network of public roads along the coast was built up during the 17th century, mainly to facilitate central administration, but also to support economic enterprises such as silver mining and ironworks. Road standards were generally very poor. At best roads were built for transportation by carriage and barrow, but more often they were simple bridleways and footpaths (Hoppe 1945: 88–92).

Besides government efforts to build up a national and regional infrastructure, there was a large number of finely-interwoven communication networks on a local scale connecting the diverse parts that make up a cultural landscape. Pre-industrial coastal farming included a variety of subsistence activities, such as hunting and fishing, tending cattle, logging for firewood etc., that were carried out away from the farmsteads and involved a certain amount of travelling. Hay-making on mires, crucial to the survival of the stock during winter, meant travelling within quite extensive resource areas. In a similar way, reindeer herders in the interior forest areas maintained networks of communication as part of the subsistence structure. These trails were well-known to community members but other-

wise unfamiliar to travellers from the outside world. Paths and highways were adapted for travelling on foot, by boat or on skis and for the use of reindeer or draught horses. Occasionally, some of the trails connecting coastal villages are marked on 17th-century maps, thereby offering a glimpse into the character of communications, but most of the local networks were beyond the scope of the official cartographers and thus not registered. Going further back in time, the extent and character of communication networks are mostly unknown. Recent research, based on dendrochronological analyses of trunk causeways and blazed trees, has however presented new opportunities to study older trails in forest areas (Östlund et al. 2002; Ericsson et al. 2003). Also, the archaeological record verifies contact between people and societies over vast areas from the Stone Age onwards. By various means of contact and communication, technical innovations and objects of foreign provenance have found their way to the peoples of northernmost Sweden. How?

In this paper, we explore the structure of contacts between coastal and interior societies during the period AD 1000–1600. The study draws on archaeological data and historical records including maps and taxation records. Place names are also included in the analyses. The area under investigation includes northernmost Sweden comprising the two counties of Norrbotten and Västerbotten. Neighbouring areas in Finland and Norway are referred to when considered relevant to the discussion.

INTER-CULTURAL CONTACTS

Trails covering long distances and crossing boundaries between communities would have involved a number of agents with different incentives and agendas. Norse records written down in the Early Medieval Period but relating to events during the period AD 900–1000 mention trade and taxation as the main enterprises of chieftains travelling east with their men, but looting raids and warfare happened too (cf. Skallagrímsson 1979). The extent and character of inter-cultural contacts and, indirectly, the terms of travelling, may be reflected in the spatial distribution of foreign objects and cultural remains (cf. Huurre 1987). For instance, the continuous influx of foreign artefacts over long periods indicates regular, and probably friendly,

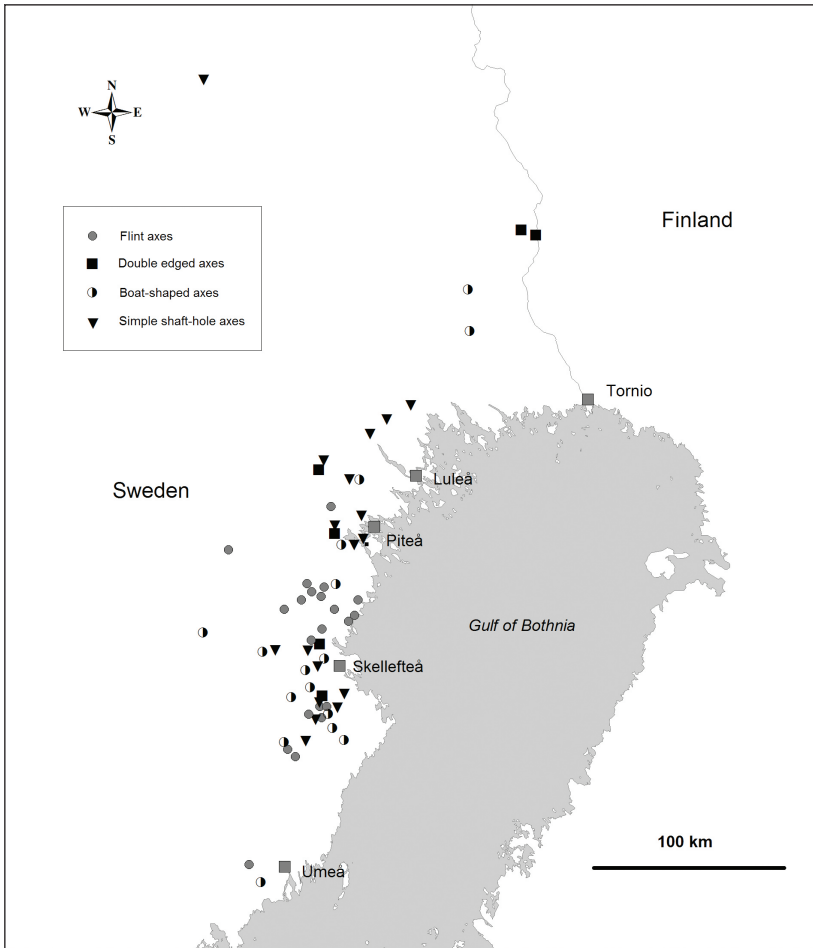


Fig. 1. Map showing the distribution of finds of south and central Scandinavian origin in the Norrbotten and Västerbotten regions of northern Sweden. Based on Broadbent 1982; Bergman 1986; Norrbottens Museum/archives.

contact between agents while discontinuities suggest some kind of break along the line.

In the interior areas of northern Sweden, there are few objects of foreign provenance pre-dating 500 BC. In contrast, coastal communities were apparently included in exchange networks providing stone axes, characteristic to the Neolithic inhabitants of south and central Scandinavia (Broadbent 1982; Bergman 1986). Judging from the spatial distribution of finds, the interior and coastal areas formed separate and persistent spheres of circulation (Fig. 1). However, around 600–500 BC, the coastal and interior networks seem to join, as shown by foreign bronze objects and moulds for the casting of bronze being found beyond previous boundaries (Fig. 2). From then on, inter-regional contacts are continuously reconfirmed by the wide distribution of foreign

objects (cf. Serning 1956: 95–105; 1960; Zachrisson 1976). The cessation of locally produced utensils (such as asbestos-tempered pottery and stone tools) among interior societies in favour of foreign commodities such as bronze vessels and iron tools, further emphasises the importance of well-organised communication networks (Bergman 2007). During the period AD 700–1100, there was a huge influx of foreign objects, specifically of central Scandinavian, Russian and Finno-Ugrian origin, occurring in settlements as well as at sacrificial sites (cf. Serning 1956: 95–105; 1960; Zachrisson 1976; 1984: 28–42; Bergman 1991; Makarov 1992: 334, Fig. 1; Mulk 1994: 177–85; Hedman 2003: 161–89). By then, interior Sami societies were greatly involved in extensive exchange networks as major suppliers of exclusive furs, much sought-after by the Eu-

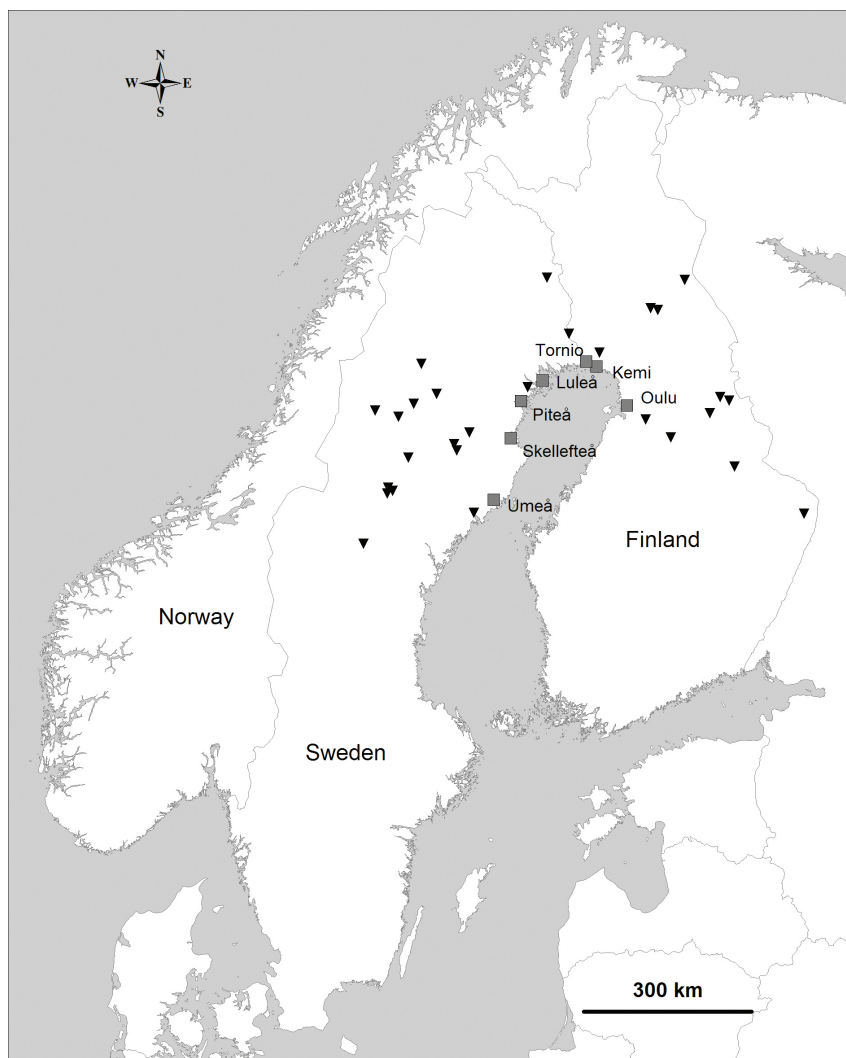


Fig. 2. Map showing the distribution of eastern bronze objects and moulds of soapstone in northern Sweden and Finland, c 600–500 BC. Based on Bakka (1974) with the addition of later finds.

ropean aristocracy. How was the transportation of merchandise organised and where did trading partners meet?

Contact may not have been restricted to the mere exchange of merchandise face-to-face, but may also have involved the actual movement of individuals from one area to the other. In fact, there are graves in the interior dating to the period AD 500–1100. They share close similarities to coastal graves, either in regard to construction or content, or both (Odenchrants 1943; Serning 1960: 128–9, 160–1; Lundholm 1973; Liedgren & Johansson 2005: 284–8), suggesting that people from coastal areas actually travelled west to the interior and mountain areas. If so, which routes did they follow to find their way?

Taxation records dating to the 16th century demonstrate the economic significance to the Swedish King of the trade in northern merchandise such as furs, fish and various reindeer products (Landskapshandlingar Västerbotten 1543–1630). Farmers and herders were involved as suppliers, but also as entrepreneurs in their own right. The renowned *birkarla* institution was active until the beginning of the 17th century and formed a strong and well-organised trading network involving both coastal and interior communities in northernmost Sweden, northern Finland and parts of northern Norway (Steckzén 1964). *Birkarlar* are first mentioned in early-14th-century records confirming their right to trade with the Sami as in earlier times (Vahtola 1991: 219),

thereby dating the *birkarla* institution back to, at least, the 13th century (for a critical view on Vahtola, see Wallerström 1995a: 245–9). The *birkarlar* were farmers living in villages by the Gulf of Bothnia who traded with the Sami on a regular basis. Meeting places were located in Sami territory, thus involving the *birkarlar* travelling over vast areas. The extensive *birkarla*–Sami trade implied well-established networks of communication with carefully planned routes, none of which, however, were identified and documented.

At the beginning of the 17th century, the Swedish King, trying to control the profitable northern trade, decreed that there would be only a few sanctioned marketplaces in the interior (Bergling 1964: 160–7). Indirectly, this meant the establishment of the main travel routes between coastal and inland areas. Following in the footsteps of the fiscal administration, judicial and ecclesiastical authorities advanced into Sami territory. Each year, judges and clergymen stationed in the coastal towns, were obliged to make journeys to the marketplaces to hold district court sessions and conduct religious services. Some of the routes of the 17th-century officials are known from rough maps. Also, official routes have left their traces in the form of place names, enabling the reconstruction of segments of trails (Ågren 1983). Given that the natural environment has remained largely unaltered over time, would it be possible, based on historically known trails, to deduce the layout of prehistoric routes?

LANDSCAPES TRAVERSED

In boreal and sub-arctic regions, the sharp disparity between summer and winter seasons implies significantly different conditions for travelling and transportation at different times of the year. In general, winter offers the best possible conditions with ice-covered lakes and a snow cover levelling uneven ground. Snow conditions vary significantly, as illustrated by the rich Sami terminology describing different qualities of snow and ice (Ryd 2007), thus having a huge impact on the techniques and means of transportation as well as the passability of routes. Transportation techniques adapted to winter conditions were developed early on, judging from the many prehistoric finds of skis. Snow shoes seem to be more recent with few prehistoric finds. The oldest ski to date, dating from 3200 BC (Åström & Norberg 1984), was found in the area of this investigation. Otherwise, sledges, or other vehicles on runners, were commonly used for transportation on snow. They were either drawn by humans or pulled by reindeer or horses. The *gieres* (Lule Sami dialect) i.e. the Sami boat-shaped sledge pulled by reindeer, is an example of a vehicle perfectly adapted to snowy conditions, balanced to handle narrow turns and with a pointed front to plough through the snowdrifts (Fig. 3). A *gieres* is first mentioned in an early-16th-century record (Olaus Magnus 1589 [1555]: 532). However, the *gieres* type of sledge undoubtedly originates further back in time, possibly even beyond the transition to reindeer herding around AD 800–1000 (Bergman et al. 2008a; 2013).



Fig. 3. Woman in a Sami *gieres* pulled by a reindeer. Photo: A. Jacobsson/Åjtte museum, Jokkmokk.

Transportation by skis or reindeer-drawn sledges meant a high degree of independence from the nature of the ground while horse-drawn vehicles required more preparatory work, for instance, clearing trees. Irrespective of which method was used, routes needed to be carefully planned to avoid any obstacles. Flat and open terrain presented optimum conditions and thus mires and ice-covered water were the preferred choices. The extensive journeys of the *birkarlar*, and later of the judges, bayliffs and clergymen, took place during winter, preferably in January or February when the snow cover had reached its maximum depth. Long distances were effectively covered by using reindeer-drawn *gieres*. Reindeer were commonly used for long distance transportation in the wintertime and reindeer pulling *gieres* was a common sight in 17th-century townscapes (Fig. 4).

Long-distance journeys during summer primarily involved travelling on foot and by boat. There are no remains of ancient footpaths on dry land but there are stretches covering mires that include footbridges and planks of significant age. There are numerous place names in coastal areas referring to footbridges; however, the age of the names has not yet been analysed. Small rivers with calm waters and few rapids formed ideal routes as did the many lakes of various sizes. If possible, trails were located in systems of lakes, either connected by navigable streams or by small spits of land that could be crossed by carrying boats or dragging them on causeways made of tree trunks. Also, boats could be placed in each of the lakes. There are a number

of Swedish and Sami place names that relate to the dragging and carrying of boats, thus indicating strategic locations along otherwise unknown routes. Historical records mention a specific type of rowboat, the so-called *håp*, made of thin boards 'sewn' together with roots or hemp (Westerdahl 1987: 56–70). These *håp* boats were light, fast and manoeuvrable. On his journey in 1732 to Swedish Lapland, Carl von Linné (2003 [1811]) drew a man carrying a *håp* on his head (Fig. 5). The oldest *håp* boats so far dated come from around AD 900 (Westerdahl 1987: 85).

Travelling and transportation by horse and horse-drawn vehicles are well-documented in coastal areas from the 17th century and onwards (Hoppe 1945). Whether or not coastal peasants travelled by horse on their fishing expeditions to the interior remains unclear. If so, horse trails would have been located across flat and preferably dry terrain. In connection with 17th-century mining enterprises in the mountain areas, extensive causeways made of tree trunks crossing mires were built to facilitate the transportation of ore and supplies. In Jämtland, southern Norrland and in the Trøndelag area of Norway, tree trunk causeways have been radiocarbon dated to the period AD 900–1300 (Sundström 1993; Smedstad 1996), showing the potential for old causeways to be preserved in mires.

In addition to questions about the design and construction of trails, there is the question of logistics: how did travellers find their way along the trails? Where were the cabins to stay the night and shelters to give protection from snow



Fig. 4. Depiction of the old town of Piteå in winter. Reindeer pulling sledges (*gieres*) are seen in the foreground. Drawing by Wollmar Gustaff Låw in 1695. Kungliga Biblioteket, Stockholm.



Fig. 5. Man carrying a *håp* boat on his head. Depiction by Carl von Linné 1732 (2003 [1811]).

and heavy rain? Travelling during winter, when temperatures can drop below -20°C , requires careful planning. 17th-century maps of mining trails show a number of cabins located along the trails at regular distances, where travellers could stay overnight and keep themselves warm by a fire. Supplies of dry firewood were crucial to survival. Winter logistics also involved the marking of trails with stakes or sticks or brushes of twigs. In the case of trails crossing ice-covered lakes, marking with brushes was absolutely essential. In forest areas, winter as well as summer trails were marked by cutting blazes on trees (Andersson & Östlund 2002). These methods of marking the trail routes are very old and have persisted until the present day. Old standing trees with blazes still mark the ancient trails, sometimes more than 400 years old (Ågren 1983; Östlund et al. 2002).

THE TRAILS

The earliest historical record mentioning trails and journeys on land in northern Fennoscandia is the famous story by Ottar, presented in AD 893 in an English translation of *Historiarum libri VII adversus paganos* by Paulus Orosius (Fjellström, Ph. 1986: 54–5). Ottar describes how *kväner*, meaning the people living by the Gulf of Bothnia, travelled westwards carrying their boats

from one lake to another, passed the mountain ridge and finally attacked the Scandinavians living by the Norwegian coast (Lund 1983: 23). A somewhat later source, the Egil Skallagrímsson saga, written at the beginning of the 13th century but relating the events of several hundred years earlier, tells of a chief, Torolv Kvällulvsson in northern Norway, who travelled east with his men and met the *kväner* (Skallagrímsson 1979: 22–37). Although the descriptions by Ottar and Egil Skallagrímsson are very brief, the routes travelled from Novgorod to the White Sea are described in some detail by the ‘Russian’ Nousia in his telling of the story, written down by Jacob Teitt in 1556 (Teitt 1894 [1555–1556]: 156–9) but believed to be much older (Forsell 1984: 66–70). Nousia tells of highways on land and water, giving information about directions and distances. Judging from the Nousia story, travelling by boat was the main method of transportation and this is confirmed by archaeological investigations of portage sites along Medieval trails in northern Russia (Makarov 1994; see also Vilkuna 1961).

Torneå–Ofoten -trail

A detailed description of summer trails was written by the Kings’ bailiff Olof Burman in 1598 (Fellman 1910: 302–8). He wrote about three rowing trails (*rooleedher*) connecting the town of Torneå with the Ofoten and Varanger areas of Norway, and a fourth trail reaching as far as the Kola Peninsula in Russia. The trails followed the major Rivers Torneälven, Tanaälven, Muniojoki and Könkämäjoki. Boats were pulled through passing streams and shallow waters, and between lakes. After crossing spits of land, there were tree trunks laid out so that two men easily could pull a boat (Fellman 1910: 301). These were well-used main roads stretching 400 and 600 km across sparsely populated areas with dense forests. No doubt there were a number of huts along the trails to provide shelter for travellers, however, none were mentioned by Burman. The route described by Burman stretching from the village of Enontekiö in Finland to Lyngen by the Norwegian coast passed a church at Rounala, situated in the mountains. This strategic location of the church, dating to the 14th century (Fjellström, M. 2011: 27) or possibly earlier, indicates the significance of the trail long before the description by Burman (Fig. 6).

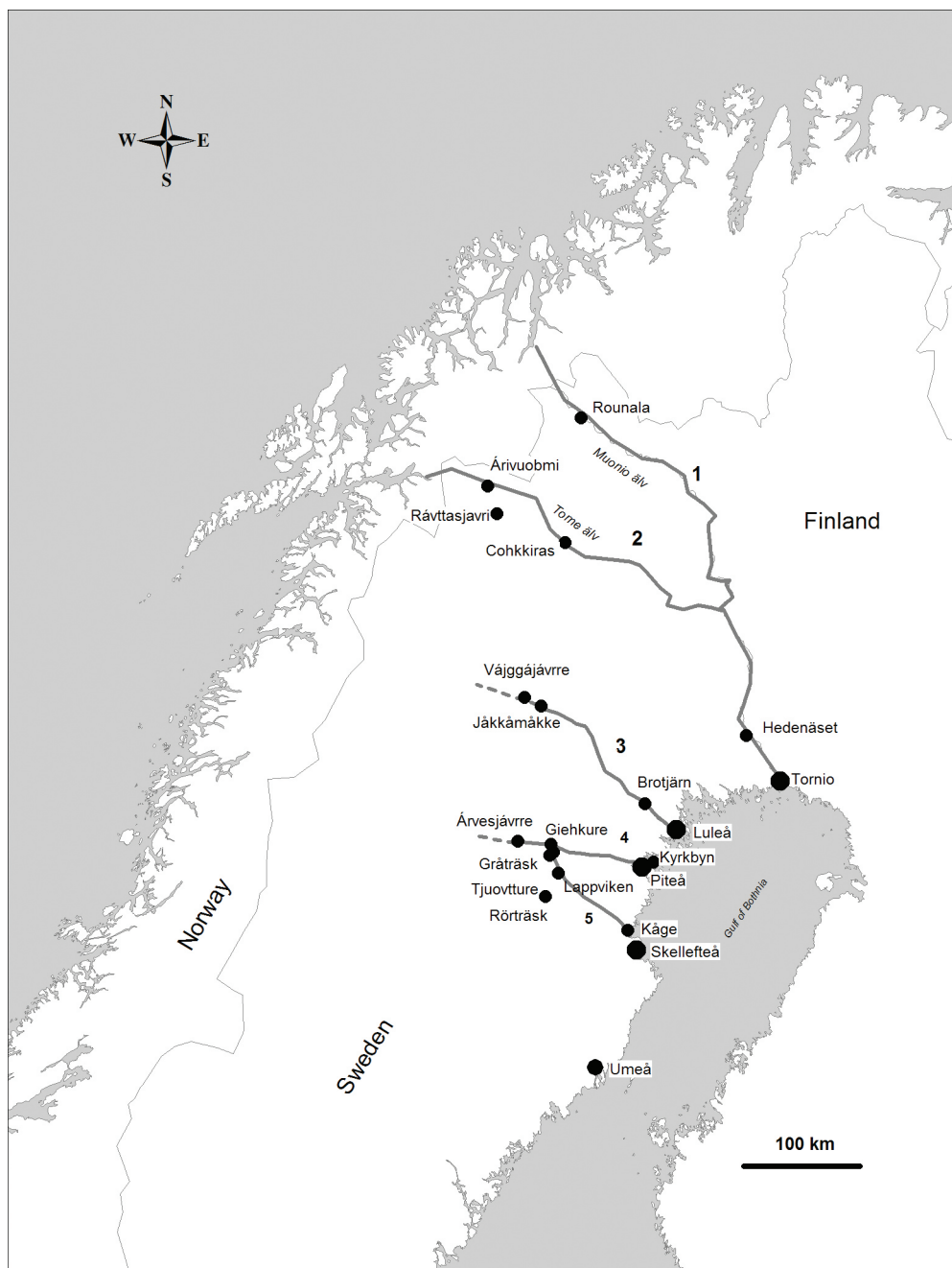


Fig. 6. Reconstruction of prehistoric and historic trails. 1) Trail between Torneå and Lyngen based on the description by Olof Burman in 1598 (Fellman 1910). The Medieval sites of Hedenäset (marketplace) and Rounala (church) are marked on the map. 2) Trail from Torneå to the Ofoten Fjord. The 11th-century grave at Árivuobmi, the sacrificial site at Rávttasjavri and the marketplace at ohkkiras are marked on the map. 3) Trail from Luleå to Jokkmokk. The 11th-century graves at Brotjárn and Váiggájávrrre are marked on the map. 4) and 5) Trails from Piteå and Kåge to Arvesjávrrre showing the Viking Age graves at Giehkure and Rörträsk, the sacrificial site at Tjuovtture, the Gråträsk fishing site and the Medieval trading post at Lappviken.

The description by Olof Burman of the route between Ofoten and Torneå is very rich in details and the sections so described are quite easy to identify. The trail passes the Medieval marketplace at Hedenäset (Fi. Hietaniemi), situated by the River Torneälven and dating to the period AD 1300–1600 (Wallerström 1995a: 146; 1995b: 179–80). Further upstream is the 17th-century marketplace at ohkkiras (Jukkasjärvi). The trail continues westwards along the south shore of Lake Torneträsk to the Ofoten Fjord in Norway (Fig. 6). In 1991, a grave dating to the 11th century was discovered close to the trail at Árivuobmi (Aravuobma) (Mulk et al. 1993; Schanche 2000: 407). The person buried there was 20–25 years old, probably a female. Clearly the deceased was a person of wealth and high social status, well-equipped according to the standards of his/her time. Among the grave goods were jewellery and ornaments of eastern provenance similar to items found in graves in the East Baltic and the Ladoga area. These are objects that form an integral part of the inventory at Sami sacrificial sites (Serning 1956; 1960; Zachrisson 1984), underlining the importance to the Sami of an eastern sphere of contacts. In fact, a sacrificial site, contemporary with the grave and including a huge quantity of foreign metal objects, is situated by Lake Rávttasjavri less than 30 km to the southeast of the grave (Fig. 6). It is impossible to establish whether or not the Árivuobmi woman had been travelling along the trail when she died, only that she was an exponent of a wide network of trade and exchange and that she was buried close to a strategic route.

Luleå–Jokkmokk -trail

During the 17th century, people regularly travelled between Luleå and Jokkmokk (Jáh-kámáhke) (Fig. 6) in connection with the large winter market that was held there each year in February. Merchants from Luleå, together with representatives of the Church and Crown, met with the Sami to trade, collect taxes and hold court sessions, conduct religious services and officiate at weddings, funerals and christenings. Those involved with the mining enterprises west of Jokkmokk travelled there regularly during winter as well as summer. There are two maps, dating to 1660 and 1670 respectively, briefly showing the outline of a trail following the River

Luleälven upstream towards Jokkmokk. Both maps show how the trail passes the rapids on land close to the Heden village. The older map covers land further to the west and shows how the trail continues following the River Lilla Luleäven, passing the Lakes Vájjgájávrrre (Vajkijaur) and Burgávrrre (Purkijaur). By the outflow of Lake Burgávrrre, there is a spit of land named Dragnäs, referring to the dragging of boats past the streams, and south of Lake Vájjgájávrrre there is a mountain named Palkesberget, referring to the Sami term *bálges* (Lule Sami dialect) meaning ‘trail’. Clearly, passing Lake Vájjgájávrrre was a strategic part of the trail, as was passing Heden further downstream. Based on the assumption that journeys were made under similar conditions further back in time, and that routes were meticulously tested following optimum terrain, then the 17th-century trail may well have originated from prehistoric times. Two graves, both dating to the 11th century and with similar contents, strongly suggest that this is actually the case. The deceased were buried wearing almost identical clothing with a huge number of ornaments and mountings of foreign provenance with analogues in Gotland, Finland, Russia and the Baltic states (Serning 1956; 1960: 128–9, 160–1). The graves are unparalleled in northernmost Sweden and are considered exotic when compared to others in the archaeological record. One grave is situated close to Heden, by a tarn called Brotjärn, meaning ‘the bridge tarn’, and the other one is on an islet in Lake Vájjgájávrrre (Fig. 7). The close similarities between the graves point to a common background and social status of the deceased. They may well have been tradesmen travelling to the interior to meet with their circle of suppliers and customers.

Nasa trails

In the period AD 1635–1659, mining enterprises took place at Nasafjäll in the high mountain areas of Arjeplog. An extensive transportation system was built up, stretching from the coastal towns of Piteå and Kåge to Árvesjávrrre (Arvidsjaur) and further west to the Nasafjäll mountain. There are three maps dating to the middle of the 17th century that show the routes, either in part or in whole. The maps describing the trail from Piteå note the location of huts and shelters and depict a number of tree trunk causeways across mires

and streams. The maps describing the route from Kåge to Árvesjávrrre are somewhat coarser in character, but indicate strategic passages, making it possible to reconstruct the route quite well (Fig. 6).

The Nasa trail from Piteå connects three significant marketplaces: the 14th-century marketplace of Kyrkbbyn (Wallerström 1995b: 78) situated by the mouth of River Piteälven and about 5 km from the Nasa trail, the marketplace by Lillpite village, where markets involving *birkarlar* and Sami took place during the early 17th century (Hoppe 1945: 59–60), or possibly earlier, and the Árvesjávrrre marketplace containing a church that was established in the early 17th century, replacing a former chapel (Liedgren 1997). Also, Árvesjávrrre is known to have been a Sami *dálvvadis* (Lule Sami dialect), i.e. a large winter camp in earlier times and this is corroborated by archaeological data, with hearths dating to the period AD 1200–1400 (Liedgren 1997). Clearly, the two Nasa trails were following already established routes into the interior, most likely related to trading activities.

The regular fishing enterprises carried out by coastal farmers at interior lakes are corroborated by taxation records dating to the early 16th century (cf. Göthe 1929: 1–8; Berggren 1995: 64–70). Fishing expeditions took place from early spring until midsummer, when the fishermen returned home with their catch. Each village only had access to a specified number of fishing lakes and these remained the same over the years, suggesting strong and old customs. These interior fishing lakes were referred to as ‘träsk’, forming the basis of taxation by the Swedish King. Tons of dried fish, preferably pike and perch, were transported from the interior lakes to the coast, requiring efficient and reliable trails. Taxation records include the names of each of the fishermen, their home village and the lakes they used for fishing. By connecting the coastal villages with their respective fishing lakes, it is possible to reconstruct all the travelling routes. Clearly, both of the Nasa trails coincide with an optimum layout of the 16th-century fishing routes. Another very distinct feature is the location of fishing expeditions to Sami territory, as signified by Sami place names that include the Sami names of the lakes. Evidently, this was an area of regular contact between interior and coastal societies over a long period.

The archaeological record describes a number of sites with unique inventories and strategically located in this liminal zone of contact. A house foundation, dating to the Late Medieval Period around AD 1400–1500, is located at Lappviken by the River Byske. The house measured 11 x 7 m, had three rooms and contained the remains of two furnaces and a cellar. The floors were carefully paved with flat stones. There were outer and inner walls constructed of timber with soil between them (Andersson & Sundqvist 1982) to provide insulation from the wind and cold. There have been no buildings found that are similar to this very solid and exclusive building in either the interior or coastal areas. Furthermore, the comprehensive range of materials found there is unparalleled, including three silver coins from around AD 1490–1520, a pearl from a rosary, miniature dice, ceramics with glazing and pieces of glazed tile, all of which are imported items. A few metres from the house was a melting furnace with a large quantity of damaged metal objects, some partly melted. Among the finds was a horseshoe nail, indicating the use of horses for transportation. Bone material found suggests summer activities such as egg pickling and fishing for pearl clams (Andersson & Sundqvist 1982). The settlement at Lappviken is interpreted as a trading post, founded either by the Church, the Crown or by *birkarlar* involved in trading activities with the Sami. Travelling from Lappviken to the coast and *vice versa* would have followed a route that coincided with the Nasa trail.

The Gråträsk area is of particular interest (Fig. 8). The Nasa trail passed Lake Gråträsket and there were two huts built at either end of the lake to provide shelter for travellers. This was an area that had been visited over a long time by farmers on fishing expeditions, not only to Lake Gråträsket but to neighbouring lakes as well. As the fishermen stayed on a seasonal basis in Sami territory year after year, there was most certainly frequent contact between the two parties. The internalisation among the fishermen of the Sami names of lakes, strongly points towards relationships based on reciprocity rather than confrontation. All the more interesting is the location of a prominent Sami sacrificial site at Tjuovtture (Tjautjer), less than 2 km south-east of Lake Gråträsket (Bergman et al. 2008b). The site stands out as being the richest in metal

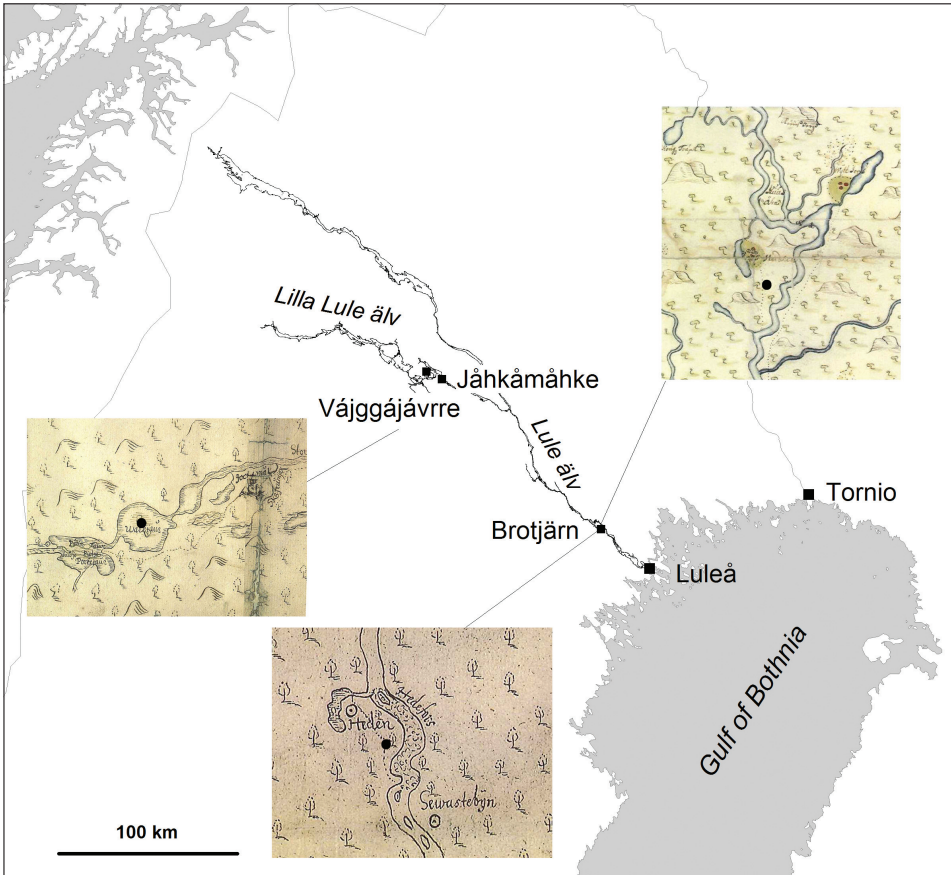


Fig. 7. Trail between Luleå and Jokkmokk based on two 17th-century maps showing the approximate location of the graves at Váiggájávrrre and Brotjärn.

objects, comprising around 1500 pieces of jewellery, mountings, pendants and various other items dating to the period AD 700–1300. Most objects are of west European, Finno-Ugrian, Russian and Baltic provenance (Serning 1956; 1960; Zachrisson 1984; Makarov 1992), thereby linking the Sami population of the Gråträsket area to the extensive trading networks of that time. The merchandise had travelled great distances before being sacrificed at Tjuovtture. Its journey involved a number of middlemen along the way, of which the coastal communities were the last in the line, being as they were in direct contact with interior Sami societies. The route that ended at Tjuovtture may well be identical to that used by the fishermen and, later, the Nasa trail.

The same repertoire of objects as those found at Tjuovtture has been found at contemporary

settlements located within a radius of about 10 km from the sacrificial site. One such settlement area, which contains a large number of hearths at different sites, is located in the land around Lake Giehkure (Östra Kikkejaure) (Mulk 1985; Liedgren 1986). Excavations of hearth sites have produced a rich inventory showing that objects of foreign design and manufacture formed an integral part of everyday life during the period AD 800–1300. The active role of trading activities is verified by a weight dating to the second half of the 9th century. Similar weights have been found at Birka and on Gotland (Hedman 2003: 161–2). A grave including the cremated remains of two individuals, an adult and a child, was found close to a hearth site. Grave goods included a horseshoe-shaped brooch and three silver coins (Hedman 2003: 92–4, 167, 177). The brooch is of a type frequently found in graves at Birka,

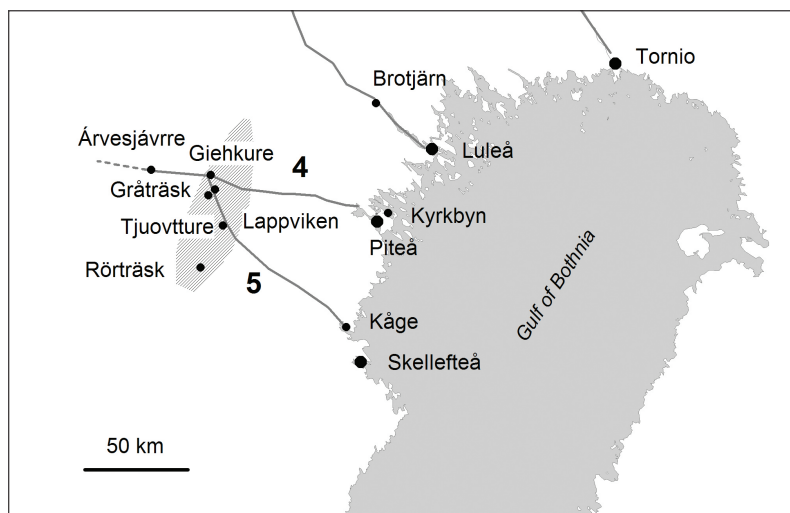


Fig. 8. Map showing the liminal zone (hatched area) of contact between coastal and interior communities during the period AD 1000–1500 in the Gråträsk area.

central Sweden, and in the Ladoga–Onega area of Russia. Similar brooches were found at the Tjuovtture site. The silver coins were all minted in Germany during the period AD 983–996 (Hedman 2003: 177). They were not pierced, unlike most of the coins at the Tjuovtture sacrificial site, suggesting that they had been in circulation before being deposited in the grave.

The grave at Lake Giehkure stands out as being unique. Cremation burials dating to the Viking Age are otherwise unknown in interior areas. However, there are a few skeletal graves known, one of which is situated by Lake Rörträsket, about 35 km south of the Tjuovtture sacrificial site. The grave contained the remains of an individual who had been buried with an oval-shaped and two horseshoe-shaped brooches. Also, a fourth brooch was among the grave goods, but has subsequently been lost (Serning 1960: 142). Like the Giehkure grave, all items were of foreign provenance and thus acquired by trade. The cultural context of the two Viking Age graves is still undecided. However, the exclusive content of the graves, as well as their location in the liminal zone between interior and coastal communities, underline the integral role of exchange for both parties, presupposing well-established routes for travelling. It is noteworthy that Lakes Giehkure and Rörträsket are located along the routes used by coastal farmers for their regular fishing expeditions during the early 16th century, and possibly much earlier (Landskapshandlingar Västerbotten 1543–1630)

(Fig. 8). Furthermore, journeys were undertaken even further to the west, as far as the Atlantic coast. A late-16th-century register mentions a route stretching from Norway to the River Skellefteälven and further eastwards to Lake Giehkure and River Byske (Lundström 2004: 66). The destination and distance of the route suggest that this was a trail used by tradesmen on vast trading expeditions.

CONCLUSION

Contact between interior and coastal areas seems to have intensified around 500 BC as foreign objects (bronze axes and moulds of soapstone) spread to the coastal and interior areas of northernmost Sweden. From then on, exchange networks linking Sami societies with Nordic and eastern societies, and later to the European markets, provided an influx of commodities sought after by the local communities. The actual circumstances under which contacts between customers and suppliers were established and maintained, including the routes and trails, travelling logistics etc., have not yet been the focus of research and remain unclear.

In this paper, we have followed the tracks of 17th-century priests, judges, bailiffs and miners on their journeys to Sami territory in the interior, in turn preceded by 16th-century farmers travelling from the coastal villages to interior fishing lakes. The elaborate outline of trails, coinciding with strategic archaeological sites, leads back to

prehistoric times when trade and exchange began to tie northern communities to commercial centres far away. Utility goods, jewellery and ornaments made their way from south and central Scandinavia, Russia, Finland and the Baltic states into the everyday life of northern farmers, fishers and reindeer herders (Bergman 2007). In return, the riches of the boreal forests, in the form of exclusive furs, supplied the demands of the European aristocracy (Serning 1956: 95–105; Fjellström, Ph. 1985: 181–4). The increasing involvement in trading networks necessitated well-developed logistics. The time and place of meetings had to be agreed upon in advance and long-distance journeys had to be planned with respect to the outline of routes, the means of transportation, shelters along the way and the selection of those to travel with. Operational routes implied the investment of labour, including not only initial measures such as scouting for navigable paths but also continuous maintenance. Journeys during summer required a number of boats placed at different locations along the route. Tree trunk causeways had to be built and trees cut down to clear the way. Huts would have been built to provide shelter for those travelling during winter, furnished with supplies of dry firewood. Maintenance also included the marking of routes by blazing trees or putting sticks along routes crossing mires or ice-covered lakes. In fact, there was an organisation that handled all of these demands – the *birkarla* institution. We argue that the *birkarla* trading network developed during the course of the Late Iron Age in connection with an intensified demand for furs and other northern products from European customers. During the period AD 1000–1500, there were regularly-used routes connecting the coastal and interior areas of northernmost Sweden, creating the passages that supplied sought after merchandise in both directions. Whether or not the construction and maintenance of trails included only one or several parties during the late prehistoric and early historical periods, is unclear. Regardless of which is true, the maintenance of communications presupposed consensus rather than confrontation. In the event of hostilities, communications would have been cut quite easily. The huge amount of foreign objects found in the coastal and interior areas seems to indicate continuous and mutual relationships rather than the opposite.

In this paper, an attempt has been made to investigate the preconditions of travelling in the boreal forest areas during pre-industrial times as far back as around AD 1000. By reconstructing the layout of 16th- and 17th- century trails, described in written records and on maps, and analyzing the archaeological record in connection with the trails, the layout of five prehistoric trails can be seen. A liminal zone of contact between coastal and interior communities has been identified in the Gråträsket–Lappviken area, suggesting that actual trading activities took place on Sami territory. The trails were maintained over long periods and with consensus between the parties involved.

Further investigations of ancient trails should preferentially focus on sections of the oldest known trails that remain undisturbed by modern development. The wide mires of northern Fennoscandia offer optimum preservation conditions for tree trunk causeways and have only been exposed to exploitation to a very limited extent. Also, there are forest reserves that may well include old forest stands marked with blazes. The primary tools for such studies would be ground penetrating radar, dendrochronological and radiocarbon analysis of the wood of trunk causeways and of old living and dead standing trees. Until now, studies of wooden causeways have not explored the possibility of detecting layers of causeways of different age or examining blazes on trees preserved in mires. By utilising such methods, the known history of existing trail systems could be substantially extended. This paper describes the very careful design of ancient trails, based on terrain, season and transportation techniques, and the persistence of routes over long periods. By combining spatial information from the archaeological record, details of the earliest maps depicting trails, and dendrochronology, it should be possible to decipher the extensive Medieval communication systems of northern Fennoscandia.

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