Excavations at Hornslandsudde, Hälsingland, Sweden: nine hundred years of sealing and new evidence of Sámi iron working

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Abstract

In this article new results of fieldwork at the Hornslandsudde site on the south Bothnian coast are presented. The site consists of over 48 hut foundations (Sw. tomtningar*) distributed in four groups between 12 to 25 m a.s.l. Radiocarbon and AMS-datings show site use from the 2nd century AD to the Viking Period. Bones of harp or gray seals suggest hunting during the summer and fall months. A tooth of a ruminant (sheep / goat / reindeer) indicates that livestock were also kept. Slag, clay furnace linings and iron scales show that secondary forging of iron tools was carried out.*

There are many similarities to contemporary sites in Västerbotten including hut forms, storage cairns, iron working and even a ritual stone circle. Hornslandsudde is interpreted as a Sámi site with a long history in a region of Germanic colonization in southern Norrland.

Keywords:

Sápmi, sealing, iron working, husbandry, storage

Archaeological background and oral history

The Hornslandsudde excavation was conducted as part of a research project supported by the U.S. National Science Foundation. The overarching goals of the NSF project are to document Proto-Sámi / Sámi land-uses and settlement in northern coastal Sweden using archaeological, place-name, ethnographic and historical data. This project is an attempt to better define Sámi territory, sites and features outside of Lapland and a necessary prerequisite to discussions regarding interactions with other groups in these regions.

The coastal regions were principal areas of long-term contacts with the outside world. The coastal zone, it is argued, supported enclaves of European / Germanic settlement at various times, but within a matrix of territories that had been utilized by northern indigenous groups for thousands of years. The goal is to shift the narrative from a passive mountain or inland Sámi culture, to a more complex and active northern coastal system.

Fieldwork has previously been carried out in Norrbotten and Västerbotten north of the limit of Germanic settlement as represented by Iron Age longhouses, forts, rune-stones, tumulus mound cemeteries and the place-names *-hem*, *-sta* and *-vin* etc. (Broadbent 1987; 1989; 2000; 2006; Broadbent & Storå 2003; Wennstedt Edvinger & Broadbent 2006; Broadbent & Wennstedt Edvinger in print). The *Search for a Past* project website can be seen at: http://www.mnh2.si.edu/arctic/features/Sámi/index.html.

The Hornslandsudde site on the southern Bothnian coast in Hälsingland (RAÄ 119 and RAÄ 132), was chosen as a comparative site as it lies within a region of early Germanic settlement (cf. Liedgren 1992). Hornslandsudde is located in Rogsta parish ca 550 km south of Västerbotten and ca 300 km north of Stockholm (Fig. 1).

Hornslandsudde was first published by Westberg (1964). Ambrosiani (1971) excavated some hut foundations and stone alignments at the site in 1966. Photogrammetry-based mapping was carried out in 1966 and 1973 (Eriksson 1975). A new site survey was reported in 1985 (Jönsson 1985). The site is frequently mentioned in archaeological literature (cf. Zachrisson 1997).

Westberg (1964: 24) relates the oral history of the Hornsland area as follows (in translation):

> According to tradition, which is still preserved among the older population who practiced fishing at Hölick's fishing village ca 2 km west of Hornslandsudde, the dwelling sites on the point derive from a fishing people of Lappish origin.

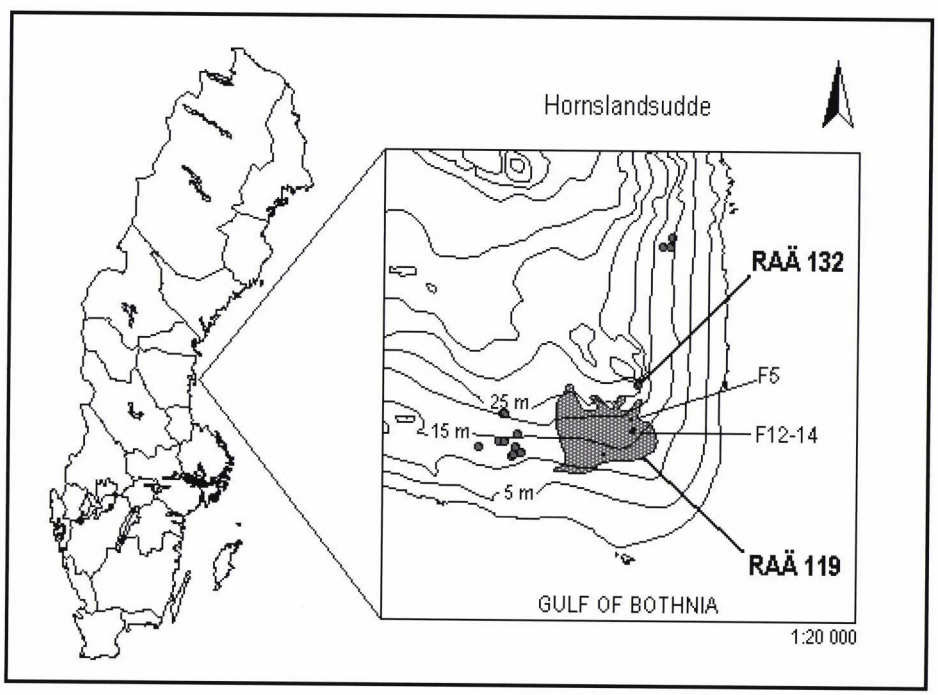

Fig. 1. Map showing Hornslandsudde location and site areas.

Fig. 2.
View of Hut 5. Note double wall lines. Photo taken during excavations in 2005.

It should be noted that sealing was referred to as "fishing" in the Bothnian region (*själfiske*). According to a map of Rogsta parish from 1799, a fishing site at Hornslandet was named *Lappbäck*. The place-names *Lappmon* and *Lappmoberget* ('Lapp sand' and 'Lapp sand mountain') also suggest a Sámi presence. Westberg identifies Hornslandet as a historically documented sealing place, which is also indicated by the place-name *Själlhällorna* '(Seal rocks'). In our recent survey of 1147 *Lapp* place-names in Sweden, 87% were found distributed along the Bothnian coast (Broadbent & Wennstedt Edvinger in press). Although some of these are of more recent date, many are associated with prehistoric sites and Iron Age shorelines.

Hölick residents still give accounts of non-reindeer herding Sámi at Hornslandet. As late as the 19th century these Sámi families spent the summer fishing in the area. Their settlement was not at Hornslandsudde, but in the forest just north of Hölick near *Lappkällan*, a freshwater spring (Wennstedt Edvinger & Ulfhielm 2004: 18 f.).

According to Jönsson (1985), the Hornslandsudde site has 48 hut foundations (*tomtningar*). In 2005 we investigated hut foundations at ca 20 m, 18 m, 16 m and 13 m above sea level. The huts are similar in size and form (sub-rectangular / oval) to the North Bothnian material.

The huts lie in roughly four groups ranging between 12 and 25 m above sea level. They form loose clusters aligned parallel with the shorelines and face south and southeast. Seven huts cluster along the 12 m level, 4–5 huts at the 14 m level, 7–9 huts at the 16 m level, 5–7 huts at the 17 m level, and 2–5 huts at the 20 m level and higher. This suggests that for the whole settlement period no more than 9 huts were used at any one time, on average 3–7 huts. These are interpreted as *sijdda* or *sijte* groups or bands, as evidenced elsewhere in Sápmi (Mulk 1995: 26; Bergsland 1999: 19; Hansen & Olsen 2004: 191).

This site will be published in greater detail elsewhere and the purpose of this paper is to summarize chronological and osteological results and new evidence of sophisticated Sámi metallurgy.

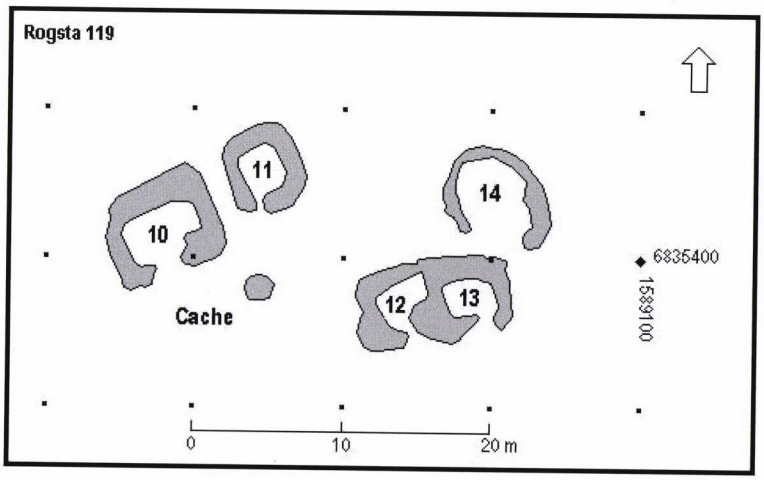

Fig. 3. Features 10–14 and a storage cache

A 7th century hut

Feature 5 is a roughly rectangular hut foundation measuring ca 3.5 x 6 m, and with cobble walls measuring 0.2–0.3 m height (Fig. 2). The hut is situated at 18 m above present sea level. This hut shows secondary walls suggesting reuse. A hearth deposit with charcoal, burned bone and slag was found and investigated. The hearth was ca. 1 m in diameter and lacked a stone circle or demarcation. Because of the risk of surface contamination from 19th century forest fires, bone was submitted to the Ångström Laboratory, Uppsala, and rendered a date of 1390±30 BP (Ua-32857): calAD 620–665. This date is especially interesting as it occurs during a period when Germanic Iron Age settlement had apparently ceased in the region (Liedgren 1992: 89).

An iron smithy, dwelling and livestock enclosure (Fig. 3)

Features 12 and 13 are a double hut situated between 16 and 16.5 m above sea level. Feature 12 is rectangular in shape and measures 3.5 by 4.5 m with walls 0.1 to 0.2 m high. Feature 13 is approximately square and measures 4 x 4 m, with walls 0.3 to 0.5 m high. Feature 14 is a larger irregular enclosure measuring 5 by 7 m with lower walls.

A 1 m wide and 5 m long trench was excavated through the middle of Features 12 and 13. The trench exposed a hearth in Feature 13. Two liters of fire cracked rocks were found in the hearth which otherwise lacked a stone ring. A small whetstone was found but no bones or charcoal suitable for analysis. One larger cobble lay beside the hearth.

Feature 12 also contained a small hearth, but it was situated by the back (northwest) wall of the hut. Iron slag (1.1 kg) and iron "scales"

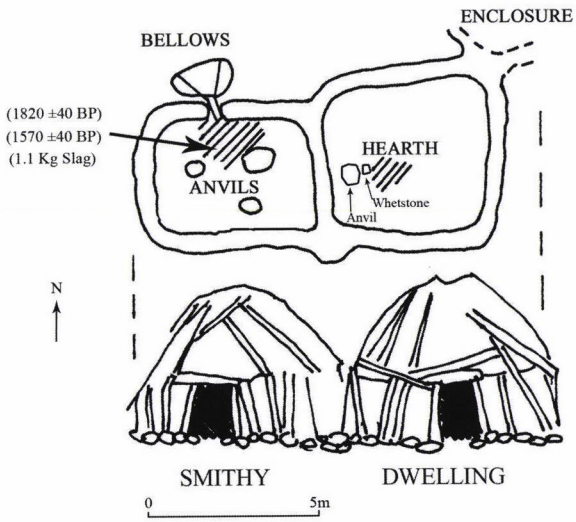

Fig. 4.
Sketch map and reconstruction of Features 12-13. A possible enclosure for livestock (Feature 14) is shown in the northeast corner of the dwelling.

(60 g) were found in the hearth and on the surrounding hut floor. No bones or other food residues were in evidence. Two samples of charcoal found at 10–15 cm b.s. were dated:

Sample 1: 1570±40 BP (Beta 209908), calAD 430 to 540.
Sample 2: 1820±40 BP (Beta 207939), calAD 130 to 240.

The hearth in Feature 12 is clearly part of a forge. The rear wall was penetrated by a ca 15 cm wide channel which is interpreted as an air duct and/or opening for a bellows. Exactly the same construction, a rear wall hearth and duct, was observed in a hut at Bjuröklubb, RAÄ 67 in Västerbotten, dating to calAD 460–650 (Broadbent 1987: 44).

The interpretation as a secondary forging hearth is supported by finds of iron scales which are by-products of hammering. Hundreds of them were collected from the floor of Hut 12 using magnets. Larger cobbles were also found on the floor near the hearth and these stones had evidently served as anvils. This phenomenon was also observed at the Bjuröklubb site. The cobbles more or less precluded this hut from serving as a dwelling.

The artifacts (slag and furnace lining clay) have direct parallels to finds at Grundskatan and Bjuröklubb in Västerbotten (Broadbent 1987). Technical analyses of the slag from these two sites have been conducted by Geoarkeologiskt Laboratorium (GAL), Uppsala (Grandin et al. 2005). These analyses indicate that high quality iron had been worked. The Hornslandsudde slag is currently being analyzed.

Feature 12 is thus interpreted as an iron smithy attached to a dwelling. A larger and more irregular stone enclosure lies to the northwest and could have been used for keeping livestock. Twenty-one soil samples, taken across the area of these three features, showed very low levels of phosphate enrichment (0 – 50 P°) although these soils are exceptionally poor and consist mostly of gravel. The highest reading was found in the northwest corner of the dwelling. Although there was no apparent phosphate enrichment in the enclosure, tooth fragments of a ruminant (sheep/goat or reindeer) were found in the dividing wall between the smithy and the dwelling, evidence that livestock had been kept at the site.

Site 132: More Dwellings and a Storage Cairn

RAÄ 132 consists of two hut floors lying approximately 100 m to the northeast of the main hut site area. The elevation is ca 20–25 m above present sea level. According to a footnote in the survey from 1982, a local informant believed these were connected with the military signal station that had been established nearby in World War I. Their similarity to other huts at Hornslandsudde made this not very likely, however. Hut A, the smaller of the two huts, is located up against a rock outcrop and is bounded on the west by a wave-washed cobble beach. This hut measures ca 4 × 4 m and contains a simple central hearth.

Hut B is larger and located to the south of Hut A on the opposite side of a large boulder. The hut measures ca 6 × 4 m. The hearth in Hut B is adjacent to the boulder and is enclosed by a ca 4 m long alignment of stones that appears to be the base of a lean-to. Three meters to the south of Hut B is a circular construction with a central cavity that is interpreted as a storage cairn.

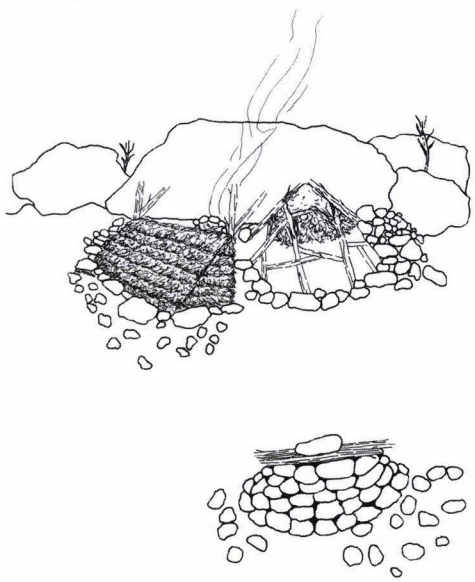

Fig. 5.
Reconstruction of Hut B, the lean-to and the storage cairn at Site RAÄ 132. Reconstruction sketch by Jacquelyn Graham.

Hut B charcoal dated to 1130 ± 40 BP (Beta 210238): calAD 790 to 1000. Hut B also contained bones: the proximal epiphysis of the second phalange, weighing 0.84 g, from a large individual probably a gray or harp seal and a 0.94 cm long bone fragment (Jan Storå: unpublished report).

The seal bones found in Hut B are consistent with the interpretation of the site as a place for marine hunting. RAÄ 132 was well protected from winds and had good access to the former shoreline. Judging from the dates of other North Bothnian sites, the Viking Period was an especially active period in coastal sealing.

Storage Caches: surplus management

Nine distinctive storage caches at Hornslandsudde are another close parallel to the Västerbotten material. Some are adjacent to huts while others could have been more communal. These are viewed as particularly significant manifestations of surplus management (cf. Ingold 1983). Surplus production and storage was an essential factor in trading relations as well as subsistence planning. Seal oil was undoubtedly one of the main products obtained at Hornslandsudde.

Five small stone caches were identified at the foot of a rocky outcropping less than 10 meters to the north of the upper dwelling area (Huts 1– 5). These features appear as small pits and niches by the bedrock outcrop. They could have been covered over to protect supplies. A larger and deeper cache was found in the moraine field ca 15 m east of Hut 5. This well-constructed cache measures 1.0 to 1.5 m across and is 1.2 m deep. A similar, but now totally overgrown cache was

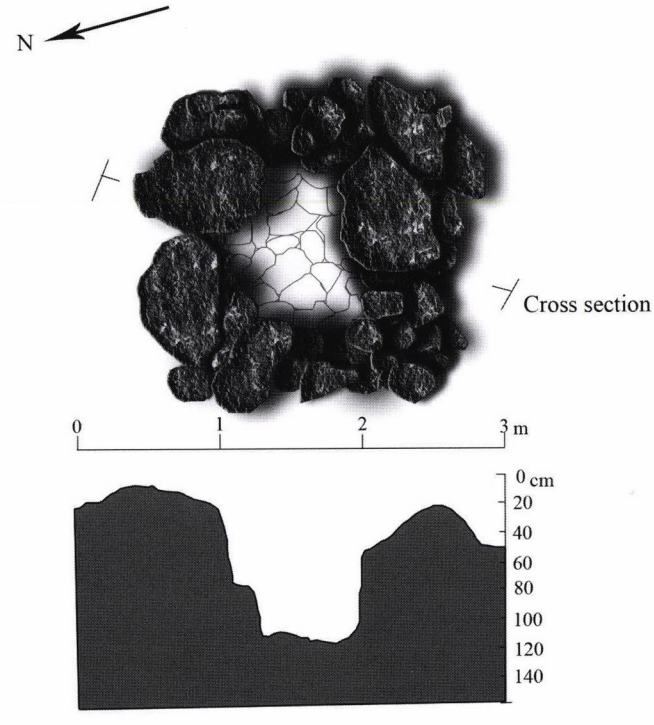

Fig. 6.
Drawing and Profile of Cache between Huts 10-11 and 12-14. This well-made storage pit was found in a wave-washed moraine area between several hut groups and may have served as a communal facility. Drawing by Jacquelyn Graham.

discovered between Huts 10-11 and 12-13 (refer Figure 3 and 6). It is a type of cache construction well-known in the mountains in Lapland as well as on wave-washed moraine fields elsewhere on the coast and used by the Sámi to store milk or other perishable supplies (Wennstedt Edvinger 2002:124; Wennstedt Edvinger & Winka 2001:33 ff.).

Conclusions

The chronology of the site spans much of the Iron Age, from cal AD 100 to AD 1000. The double walls of Hut 5 and the two dates from Hut 12 clearly show re-use of structures although there is no apparent change in site organization or activity. The bone material has been analyzed by archaeozoologist Jan Storå. The identification of an adult gray or harp seal corresponds to finds from the island of Stora Fjäderägg in Västerbotten (Storå: unpublished report). The seal species implies that the site had been used in the fall / summer. A fragmentary tooth of a ruminant (sheep-goat / reindeer) was found in the wall of the oldest hut, indicating animal husbandry. Ruminant bones have also been identified at project sites in Västerbotten.

Of particular importance is the new evidence of Sámi iron working on the Swedish coast during the Early Iron Age. These dates correspond with evidence of early Sámi iron working in Finland and northern Norway (Carpelan 1975; Olsen 1984 plus references). Mulk (1994: 179) has recorded iron slag from two *Stalo* huts at Suollakavalta, together with an iron blank, from a hearth in Singi and at the Lappviken site. These sites date to ca AD 1000 to 1200. Iron blanks, rivets, tongs and other tools together with iron fragments are otherwise noted from *Stalo* sites.

Iron blanks and rods have also been documented on sites in the northern interior (Hälla (nos. 869–870) in Åsele, Lake

Överuman, Tärna, Norrvik, Palundsvallen in Lycksele, Rappasundet in Arjeplog and Landsjärv, Sörviken and Varghalsen (Zachrisson 1976: 71). Zachrisson also notes that slag was found on many additional sites and includes small plano-convex cakes measuring 10 cm in diameter. Four slag pieces were analyzed by the technical department of the Museum of National Antiquities and two, from Gafsele in Åsele Parish and Ställverket on the Ångermanland River, were definitely determined to be iron slag (Zachrisson 1976: 129). Considerable amounts of iron were produced in Dalarna, Jämtland and Hälsingland during the period AD 0–550 (Magnusson 1994: 54–56).

In the Elder (poetic) Edda from ca AD 1000, the Master Smith is the "dwarf" Völund. He is the son of the *Finn* King. He and his two brothers, Slagfinn and Egil, were known to travel on skis and hunt reindeer. The smithies documented within the project at Hornslandsudde and in coastal Västerbotten, combined with secondary evidence from the interior, corroborate the Saga accounts and suggest the probable Sámi identity of the iron workers.

To summarize, Hornslandsudde sites 119 and 132 match the North Bothnian sites by chronology, function, clustering, storage features and even by ritual activity: a circular feature of Sámi type was documented on a hill at nearby Arnöviken (Wennstedt Edvinger & Broadbent 2006). This combined material indicates the existence of a hunting / pastoralist / iron working group of Sámi during much of the Iron Age in coastal Hälsingland. The Sámi may have offered Germanic colonists their specialized hunting and sealing, and possibly even iron-working, skills and benefited from trade with them. The new Hornslandsudde dates suggest, nevertheless, greater Sámi site continuity during the Iron Age in this region. The oral history of Hornslandsudde and use of the area by fishing Sámi in relatively recent times adds to the picture of a long term presence in this coastal region.

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