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Kinship and Settlements: Sami Residence Patterns in the Fennoscandian Alpine Areas around A.D. 1000

Ingela Bergman, Lars Liedgren, Lars Östlund, and Olle Zackrisson

Abstract. The transition from a hunter-gatherer economy to reindeer pastoralism among the Sami of northern Fennoscandia has been the subject of much debate among scholars concerned with Sami history. This paper adds a new angle to the discussion by focusing on the social structure of a Sami society in the high mountain area of northern Sweden around A.D. 1000. The spatial and temporal patterns of the so-called *stállo* settlements were analyzed in relation to the seventeenth and eighteenth century demography and community organization of a historically known Sami society. It is proposed that the overall regularity of *stállo* dwellings, arranged close to each other and in rows, reflects an emphasis on kinship relations and the consolidation of village solidarity. The consolidation of the local community, expressed by the spatial structuring of dwellings, formed a means of addressing internal tensions in times of dramatic and substantial change related to the transition to reindeer pastoralism.

Introduction

Some of the main issues discussed by scholars studying Sami societies in northern Fennoscandia and the Kola Peninsula have been related to the transition from a hunting economy to reindeer pastoralism. When, where, and why did reindeer herding develop as the economic basis of Sami societies? A variety of sources, ranging from archaeological remains and historical records to ethnographic data and ecological studies, have been called upon (cf., Aronsson 1991; Hansen 1990; Hedman 2003; Lundmark 1982; Mulk 1994; Storli 1994; Wallerström 1994). There are two main points of view. According to one line of argument, reindeer herding developed during the sixteenth

century (cf. Hansen 1990; Lundmark 1982; Mulk 1994), while another suggests that the transition to reindeer herding took place much earlier, during the period A.D. 200–1000 (cf. Aronsson 1991; Storli 1994). Regardless of which of these positions is adopted, a specific type of ancient feature, the so-called *stállo* foundation, is a recurrent object of discussion.¹ *Stállo* foundations are the remains of hut dwellings that exclusively occur in the high mountain areas of the Scandes. They consist of sunken floors with earthen embankments surrounding the shallow depressions. The origin of the *stállo* foundations (Norse or Sami) has been a matter of dispute, although most scholars currently consider them to be Sami (cf. Baudou 1981, 1988; Bergman 2007; Hansen 1990; Hansen and

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Olsen 2004; Liedgren et al. 2007; Mulk 1994; Storli 1994). *Stállo* dwellings are generally considered to have been seasonal camps inhabited only during the summer (cf. Mulk 1994; Storli 1993, 1994), but recently this interpretation has been questioned (Bergman et al. 2007; Liedgren and Bergman, forthcoming).

In this paper we focus on the social structure of a Sami society around A.D. 1000 by studying the spatial and temporal patterns of *stállo* sites in the Adamvalldá area, Arjeplog, northern Sweden (Fig. 1). We approached this task from two perspectives. First, we analyzed the spatial and temporal patterns of *stállo* sites in the study area. Spatial aspects include the size of *stállo* sites, i.e., the number of dwellings at each site, and the size and spatial configuration of dwellings. Second, we analyzed parish surveys (sw. *husförhörlängder*) dating to the eighteenth century including notes on household members within the Mahasvuome village community, covering the Adamvalldá area. These were examined in order to reveal the principal aspects of demography and community structure among pastoral reindeer herders in the area in question. The eighteenth century household structure, band organization, and spatial organization of settlements and dwellings were then interpreted in relation to the prehistoric *stállo* sites in the Adamvalldá valley. Finally, the spatial out-

line of *stállo* settlements was interpreted from a socio-economic perspective and in relation to ethnographic accounts of kinship systems among the Sami and other sub-arctic and arctic indigenous peoples.

Stállo Foundations

To date nearly 500 *stállo* foundations have been identified along the Scandinavian mountain chain from the 65th parallel in the south to the 69th parallel in the north. They consist of slightly sunken floors, oval in shape, surrounded by embankments, 0.6–1.75 m wide and about 0.2 m high (Fig. 2). The length and width of the floor areas range between 2–6.5 m and 2.0–5 m, respectively (Liedgren and Bergman, forthcoming; Mulk 1994:135). Hearths are located towards the center of the floors. A number of alternatives have been proposed with respect to the appearance of the superstructure, from permanent turf-covered constructions to portable tents (cf. Kjellström 1983; Mulk 1994:136–142; Storli 1991:33–35). However, detailed studies of excavated remains suggest that *stállo* foundations are the remains of permanent hut buildings consisting of bow poles covered by birch bark and scaffold poles (Liedgren and Bergman, forthcoming). Radiocarbon dates for foundations excavated prior to 2000 range from A.D. 500 to A.D. 1600 (Mulk 1994:143), but these dates are subject to major errors and are not statistically valid (Liedgren et al. 2007). During the period 2000–2006 a number of *stállo* foundations were excavated as part of an interdisciplinary research project on social and economic changes among the Sami in northern Sweden between A.D. 1 and A.D. 1600. Comprehensive AMS radiocarbon dating narrows the use of *stállo* dwellings to cal. 640 A.D.–1178 A.D. with a significant cluster in the period between 800 A.D. and 1050 A.D. (Liedgren et al. 2007).

The spatial arrangement of these dwellings is a characteristic feature of sites with *stállo* foundations. Examining the data from 127 registered sites in Sweden and Norway shows that foundations generally occur in groups of two to five, although there are a few sites with as many as six to eight foundations. Singular *stállo* foundations or groups of two or three foundations are the most frequent, representing 66% of all registered sites (Fig. 3). At most sites having three or more foundations, the dwellings are arranged in rows. This striking regularity in outline has certainly invited interpretations regarding social structure, and several researchers have suggested that the size of *stállo* sites corresponds to that of the local Sami band, the *sijdda* (Manker 1960:306; Mulk 1994), however without further discussion on the subject.

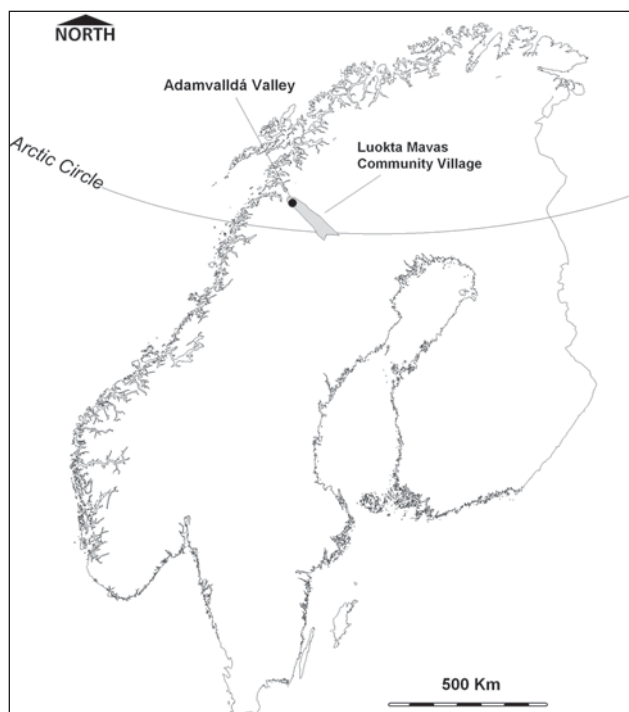


Figure 1. Map showing Scandinavia including the area of investigation, Adamvalldá.



Figure 2. Excavated *stállo* foundation Adamvalldá, Arjeplog.

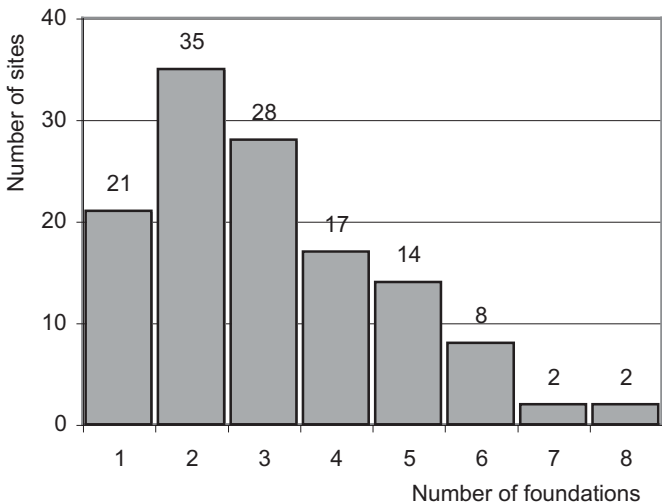


Figure 3. Diagram showing the number of *stállo* foundations per site.

The Adamvalldá Sites

The Adamvalldá valley is situated 60 km north of the Arctic Circle in the high mountains, close to the border between Norway and Sweden, at an altitude of 625–800 m a.s.l., above the present forest limit of mountain birch (*Betula pubescens* Ehrh. spp. *czerepanovii*). The valley stretches nearly 3 km to the southeast and narrows to the north. Numerous small streams run down the valley sides and drain into the River Varvekjokk. The valley is characterized by sediment terraces and montane heath with mires. An archaeological survey covering an area of ca. 7 km² revealed nearly five hundred ancient monuments, mostly hearths. Thirty-one *stállo* foundations were recorded at 12 different sites, each including from one to five foundations (Table 1). Most sites cluster to the southeast of the River Varvekjokk within a radius of a few hundred meters. They appear to be located with some regularity in relation to each other, at a mean distance of ca. 200 m (Fig. 4). Three sites are situated west of the river at a dis-

Table 1. Sites with *stállo* foundations in the Adamvalldá area, Arjeplog, Sweden.

Site number	Foundations
51	3
65	2
66	3
67	2
68	2
69	1
103	4
147	1
161	2
168	4
175	5
212	2
n=12	31

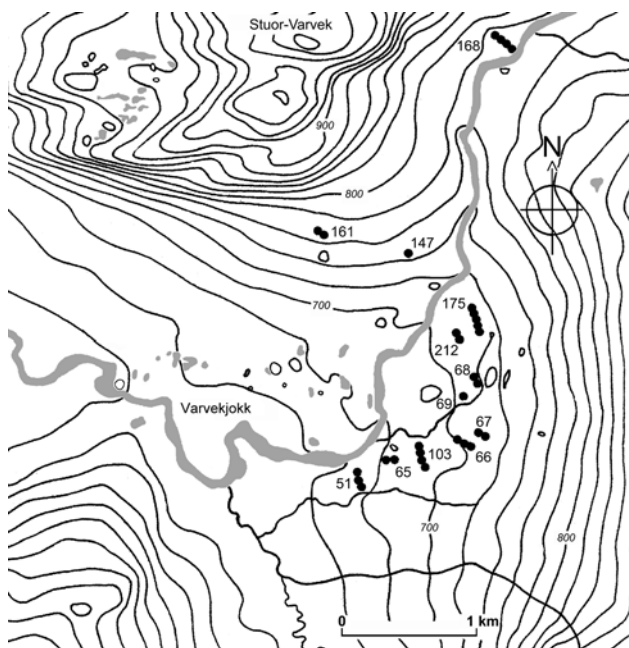


Figure 4. Distribution of sites with *stállo* hut foundations, Adamvalldá, Sweden.

tance of 1–2 km from the cluster. The chronology of 22 *stállo* foundations has been established by three or more AMS radiocarbon dates from each feature (charcoal samples from hearths) confirming that the majority of sites and dwellings are contemporaneous (a detailed discussion of radiocarbon dates is presented in Liedgren et al. 2007). The spatial and temporal coherence of the Adamvalldá *stállo* foundations allows for a new interpretative framework in terms of social structure and settlement patterns.

Kinship Structure and Social Organization

Clergymen active in Swedish and Finnish Sami areas during the seventeenth century observed that the Sami kept track, in detail, of their kinship and lines of descent (Tornæus 1900 [from manuscripts written in 1653]:45). Indeed, Sami kinship terminology is extensive, including terms for consanguinal and affinal relationships (Bergsland 1942; Falkenberg 1953; Pherson 1964). Falkenberg (1953:76) concluded that the Sami kinship system emphasized social rather than biological affinity, with the main objective of the terminology being to establish the social status of individuals. Although terminologies may have varied somewhat between different Sami groups, especially with respect to affinal terminology, the structural features were the same (cf. Bergsland 1942; Falkenberg 1953; Pherson 1964). The emphasis on age classes reflecting generations forms a distinctive and common trait (cf. Bergsland 1942), however age *per se* was of subordinate importance: it was the generational relationship to others that mattered. The Sami kinship system was bilateral with a structure based around generations (Gjessing 1960a:6, 1960b:76; Ingold 1978; Paine 1964:256; Whitaker 1960). There was a specific set of kinship terms for each generation. The distinctions between elder and younger brother, and elder and younger sister, were of particular importance, as was the distinction between mother- and father-in-law in relation to their respective son- or -daughter-in-law (Bergsland 1942:164; Falkenberg 1953:77–78; Pherson 1964:25). These distinctions were related to matrimonial prohibitions and duties, and it is documented that levirate and sororate were practiced among the Sami (Bergsland 1942; Ruong 1969:45–52). Marriages were monogamous (Pherson 1964:44). Cross-cousin marriages were common and there were no restrictions on marriage between first cousins (Gjessing 1960a:14–15; Wiklund 1908:86 ff; Whitaker 1960; see also Odner 1992:79–81 for a critical view). Marriage involved not only the conjugal couple, but also implied the merging of affinal and cognatic relatives and a social regrouping with regard to rights and duties (Falkenberg 1953:79; Paine 1964:257). Although sibling groups formed the basic corporate units, sibling solidarity could be extended to include cousins and other affinal relatives of the same generation (Gjessing 1960a:6; Paine 1964:256–257; Pherson 1956:107; Whitaker 1955:50). It seems that there were no specific prescriptions for post-marital residence, although virilocality predominated (Paine 1964:249). There are notes on grooms having to complete one year of service for their father-in-law (Graan [1672] 1899: 32; Paine

1964:254; Rheen [1671] 1897:13). However, the universality of this practice has not been confirmed (Djupedal 1987:95; Pherson 1964:16).

Corporate groups were based on conjugal and sibling solidarity and formed the basic social units within Sami society. They are generally referred to as *sijdda* units (Gjessing 1960a: 4–9, Ingold 1980:268), corresponding to local bands (Pherson 1964). It should be noted that the *sijdda* concept sometimes refers to a village community, however in this paper the term is used in its most common application (for a discussion on the *sijdda* concept see Manker 1953:13–17; Mulk 1994:10–14; Odner 1992:82–83), referring in general, to a group of households numbering from one to four (Graan 1899 [from earlier manuscript, 1672]:45), but sometimes including five or six (Ingold 1978:151; Manker 1953:17) all working and residing together. The composition of *sijdda* units could vary from year to year, and members could split and join even within a single year. At a higher level, several *sijda* (pl.) combined in a *vuobme* or *tjiellde*—a village community with a well defined territory (Ruong 1969:45). According to Gjessing (1960a:4–5, 1960b:76) the *sijda* had a marked tendency towards local exogamy while the *vuome* (pl.) were characterized by local endogamy.

The long-standing Sami kinship system is very similar to kinship systems among other arctic and sub-arctic peoples, where a bilateral structure with traces of levirate and sororate is common (Bergsland 1942:173; Gjessing 1960a:10–12, 1960b; Harva 1947; Ingold 1978). Bilateral kinship structures are more flexible than unilineal systems and more adaptable to changing conditions (Gjessing 1960a:6–7, 1975:326). This may explain why the old kinship system remained among reindeer herders: private ownership of reindeer would otherwise have promoted a unilineal system (Gjessing 1960a: 6–7). The similarity between the kinship system as documented during the early twentieth century among Sami reindeer herders and that of circumpolar peoples with a hunter-gatherer economy corroborates the great age of Sami kinship structure. Thus, the demographic composition of eighteenth and nineteenth century *sijda* forms a valid interpretative framework for the analysis of eleventh century *stállo* sites.

Kinship and the Demography of the *Sijda*

During the eighteenth and nineteenth centuries the parish clerk visited reindeer herding families at their summer settlements in the mountains in connection with parish catechetical meetings, keeping a record of their reading ability and knowledge of scripture. In addition, he made notes

on their names, date of birth, marriage and death, their social and kinship status, e.g., wife, sister, brother, daughter, son-in-law, nephew, widow, stepson, illegitimate child, henchman, etc. Records were kept for each of the Sami village communities, i.e., each *vuobme* or *tjiellde*, and all members of a single *sijdda* (i.e., local band) were registered on the same folio, however without any details of household composition in relation to dwellings. These surveys from Arjeplog parish date to the period 1739–1826. Based on the information given in the records, it is possible to reconstruct the size and kinship structure of each *sijdda* at certain points in time.

In the eighteenth and nineteenth centuries Mahasvuome village (corresponding to today's Luokta Mavas community) was the most northerly of three Sami village communities in the Arjeplog mountain area; the Mahasvuome territory includes the Adamvalldá valley (Fig. 1). The geographical context and historical continuity makes Mahasvuome a suitable subject for studying residence patterns and kinship systems among the eleventh century Sami in Adamvalldá. The clerical surveys of Mahasvuome comprise 20 folios from the period 1739–1772 and 60 folios from the period 1772–1826. Six *sijdda* groups traceable for several generations and lasting throughout most of the period (1739–1826) were selected. The composition of each *sijdda* was estimated at 10-year intervals, starting in 1740 and covering a total of 42 surveys (Fig. 5, Table 2). It is assumed that one *sijdda* corresponds to one settlement site. A household is defined as a conjugal couple, a conjugal couple with children, a single parent (widow or widower) with children, or an association of grown-up unmarried siblings or cousins. The estimated number of households per *sijdda* at each point in time varies from one to four (Fig. 5). *Sijda* including two households are the most frequent (43%) followed by *sijda* with one or three households (26% and 28.5%, respectively). There was only one *sijdda* with possibly four households. The number of servants in each *sijdda* was not consistently recorded by the clerks (Djupedal 1987:91–93) and thus there is a risk that the numbers of *sijdda* members and households may have been slightly underestimated. The number of members per household ranges from two to eight, with a mean of 4.9, corresponding to the mean number of household members in Mahasvuome community as a whole (Djupedal 1987:103). These figures are consistent with estimates of family composition among other circumpolar hunter-gatherer and pastoral bands (Mulk 1994:189–190). The number of *sijdda* members at each point in time ranges from four to 19, with a mean of 9.6, including young children. However, the amount of labor in each *sijdda* would have been the most critical factor affect-

Year AD	Nils Andersson Tjånk	Number of persons	Number of households	Olof Andersson Nåd	Number of persons	Number of households	Nils Paggesson	Number of persons	Number of households
1740		10	2		5	1		10	2
1750		9	2		11	2		11	2
1760		13	3		8	1		12	3
1770		14	3		10	2		5	1
1780		8	1		14	4		4	1
1790		11	3					5	1
1800		9	2					6	1
1810		10	3						
1820		8	2				<p> Conjugal couple Non present male Deceased Present male Non present female Present female </p>		

Figure 5. Kinship and social relations among local bands (*sijdda*) in the Mahasvuome community village, Arjeplog, Sweden. Reconstructions of *sijdda* households are based on clerical surveys from the period 1739–1826.





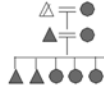

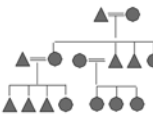



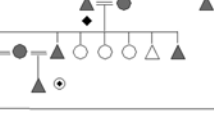
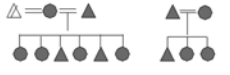
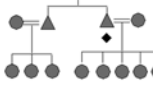


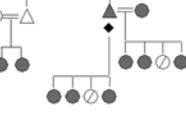





Year AD	Lars JonssonTarwon	Number of persons	Number of households	Påhel Andersson Rika	Number of persons	Number of households	Pär Larsson Semmi	Number of persons	Number of households
1740					7	1		6	2
1750		11	3		8	1		10	2
1760		19	3		15	3		12	2
1770		19	3		9	2		7	2
1780		13	2		12	2		6	1
1790		11	3		11	2		6	1
1800		4	2					10	3
1810		9	3					7	2
1820									

Figure 5. (continued).

Table 2. Number of households per *stállo* site estimated on the basis of clerical surveys of the Mahasvuome community village (number of individuals per site within brackets) including the families Tjånk, Nåd, Paggesson, Tarwon, Rika, and Semmi.

Year	Tjånk	Nåd	Paggesson	Tarwon	Rika	Semmi	Total
1740	2 (10)	1 (5)	2 (10)		1 (7)	2 (6)	8 (38)
1750	2 (9)	2 (11)	2 (11)	3 (11)	1 (8)	2 (10)	12 (60)
1760	3 (13)	1 (8)	3 (12)	3 (19)	3 (15)	2 (12)	15 (79)
1770	3 (14)	2 (10)	1 (5)	3 (19)	2 (9)	2 (7)	13 (64)
1780	1 (8)	4 (14)	1 (4)	2 (13)	2 (12)	1 (6)	11 (57)
1790	3 (11)	-	1 (5)	3 (11)	2 (11)	1 (6)	10 (44)
1800	2 (9)	-	1 (6)	2 (4)	-	3 (10)	8 (29)
1810	3 (10)	-	-	3 (9)	-	2 (7)	8 (26)
1820	2 (8)	-	-	-	-	-	2 (8)
Total							87 (405)

ing its stability. Children, both boys and girls, actively participated in the reindeer herding from the age of ten (Graan [1672] 1899: 25). If only individuals of ten years or more are considered, the mean number of laborers amounts to 7.4 per *sijdda* with slightly more female members (55%) than male. The smallest *sijda* comprised a single conjugal couple with young children. It seems that such small *sijda* formed when a larger *sijdda* split and a young couple left with their reindeer to start up on their own (Graan [1672] 1899:32; Rheen [1671] 1897:13). Thus, the *sijda* were far from static and over time the size and composition of each *sijdda* could change significantly. They were characterized by “organizational fluidity” (Ingold 1978:147) rather than stability. They were, however, always organized on the basis of kinship and nuclear families formed the smallest social and economic unit.

In summary, analysis of eighteenth and nineteenth century *sijdda* groups of the Mahasvuome village community shows that the number of *sijdda* and household members was similar to that of local bands among other circumpolar hunter-gatherers and pastoralists. The analysis also verifies that *sijdda* composition was based on close kinship relations (see Ingold 1980:270). The close correspondence between the number of reconstructed *sijdda* households and the number of dwellings at *stállo* sites suggests a similar basic structure with respect to social organization.

Households and Dwellings

In general, *stállo* foundations are well defined, making it possible to calculate their floor spaces. In the Arjeplog area, the smallest *stállo* foundation measures 2.4×1.9 m and the largest 5.45×3.8 (Liedgren and Bergman, forthcoming). Reconstructions of *stállo* huts suggest that the length of the longitudinal axis determined the size of the hut (Liedgren and Bergman, forthcoming). Accordingly,

stállo foundations were grouped into three size classes based on the length of the longitudinal axis: small (S) 2.4–3.39 m, medium (M) 3.4–4.39 m, and large (L) 4.4–5.45 m long. Medium sized foundations are by far the most frequent, accounting for 57.7% of all documented *stállo* sites in the Arjeplog area, and 74.2% of the Adamvalldá foundations (Table 3).

In connection with archaeological surveys in the Mahasvuome community area, a number of hut remains dating to 1920–1940 have been recorded, and Sami informants have provided detailed information on household size. The size range of twentieth century dwellings corresponds to that of *stállo* dwellings. The largest hut measured 6.5 m in length and housed more than 10 people, while the smallest hut measured 3.2 m in length and was occupied by an elderly couple. Again, medium sized foundations were the most frequent, housing two to five people. A similar (rough) correlation between household size and dwelling size probably existed throughout the period A.D.1000–1900. By comparing the size of *stállo* floors to the floor area of recent traditional Sami huts it is possible to estimate the size of *stállo* households. Not sur-

Table 3. Size of *stállo* dwellings in the Arjeplog area and Adamvalldá valley. Dwellings are grouped into three size classes based on length of the longitudinal axes: small (S) measuring 2.4–3.39 m, medium (M) measuring 3.4–4.39 m, and large dwellings (L) measuring 4.4–5.45 m.

Dwelling size	Arjeplog Dwellings	Adamvalldá Dwellings
S	6 (8, 5%)	1 (3, 2%)
M	41 (57, 7%)	23 (74, 2%)
L	24 (33, 8%)	7 (22, 6%)
n=	71 (100%)	31 (100%)

prisingly, *stállo* households generally would have included two to five people, based on the size of the huts. This corresponds to the size of a nuclear family and is in accordance with the figures for the reconstructed eighteenth and nineteenth century *sijda* (Fig. 5). The estimated number of people living together at the *stállo* sites in Adamvalldá probably ranged from two to 25, corresponding to the usual size of historical *sijda*. The total population in the Adamvalldá valley, as suggested by the number and size of *stállo* foundations, would have been 100 to 150. This figure is consistent with the size of the eighteenth century Mahasvuome village community.

It should be noted, however, that there is no definite and absolute correlation between dwelling size and the size of households. During the lifespan of a traditional turf hut, household composition could vary quite significantly. A seventeenth century source mentions that a young man and his wife living with her parents could move back to his parents, or start off on their own, or remain at her parents, whilst building a hut of their own (Graan [1672] 1899:32). This implies that the young couple initially lived together with the woman's parents, in the same dwelling. At one time this dwelling could have housed several adults and possibly some children, but at another time it could have been occupied by a significantly smaller group of people.

Settlements and Seasons

To date, scholars have interpreted *stállo* sites as seasonal camps inhabited during the summer (cf. Baudou 1981, 1988; Mulk 1994; Storli 1993, 1994). The nomadism of the nineteenth and twentieth century mountain Sami population has dominated as a frame of reference. Reindeer herders moved with their reindeer between the mountain area, the foot-hills, and the boreal forest on a seasonal basis. Summer camps were located in the high mountains, while winter was spent in the boreal forests of the interior and sometimes even in coastal areas. Autumn and spring camps were generally located in the sub-alpine areas (Ruong 1969). More or less explicitly, it has been assumed that reindeer herding cannot have been practiced in the high mountains during the winter. It has been argued that conditions were too hostile during winter and there were limited sources of fuel (cf. Mulk 1994:30). Ethnographic accounts of winter settlements in the mountains (cf. Manker 1945:3; Tomasson 1988:52, 56; Wiklund 1908:109; Wiklund and Qvigstad 1909:346) have been consistently disregarded, as have the Sami designations of different reindeer herding groups. There are, however, Sami terms that clearly differentiate between groups with reference to their main areas of settle-

ment. For instance, the term *kåråga* refers to Sami groups living mainly in the mountain areas, even during winter (Campbell 1948:38). As late as the 1920s to the 1940s there were *kåråga* in Arjeplog, who remained in the mountains with their reindeer throughout the whole year. Sources of fuel were certainly sufficient in the mountain valleys and although most *stállo* sites are located above the present tree line, birch forests reached higher altitudes at the time of occupation in the tenth and eleventh centuries (Karlsson et al. 2007). Analyses of charcoal from *stállo* hearths show that birch trees were used for fuel (Hellberg et al. 2004.)

In addition, there are written records contemporary with the *stállo* settlements that mention Sami living in the mountains during winter. The Norse sagas, written down in the early Medieval period, but referring to conditions dating back to the ninth century, explicitly mention chieftains gathering their men during winter to travel to the mountains and trade with the Sami and collect taxes (Hætta 1980). Despite the evidence of habitation in the mountains, scholars have focused almost exclusively on winter settlements in the boreal forest area, with reference to the dominant migration pattern in recent times and to settlements called *dalvadis* (cf. Mulk 1983, 1994; Storli 1994): regular winter villages in the boreal forest mentioned in historical sources where several *sijdda* groups joined together during the sixteenth and seventeenth centuries (Hultblad 1968, Mulk 1983). Considering the radiocarbon dates showing that most *stállo* sites in the Adamvalldá area were inhabited simultaneously, and suggesting that a population of about 100 to 150 people lived in the valley, we argue that the Adamvalldá settlements represent a village community [*tjiellde/vuobme*] and that *stállo* sites correspond to the winter villages [*dalvadis*] in the boreal forest area.

Kinship and Space

Many *stállo* sites are situated in areas with glaciofluvial sediments that form flat terraces where there are no topographic formations or boundaries. This flat site allowed the huts to be arranged in rows. *Stállo* rows sometimes occur parallel to features such as streams, but just as often they are orientated at right angles, or even at some distance from watercourses. Thus, topographic features can be ruled out as controlling factors in the spatial arrangement of *stállo* huts. Instead, social considerations seem to have determined the very strict arrangement of huts. The correlation between social structure and layout of settlements has been recognized by social anthropologists (Chang 1962). Levy-Strauss (1953:533–534) concluded that in some societies “spatial configuration seems to be

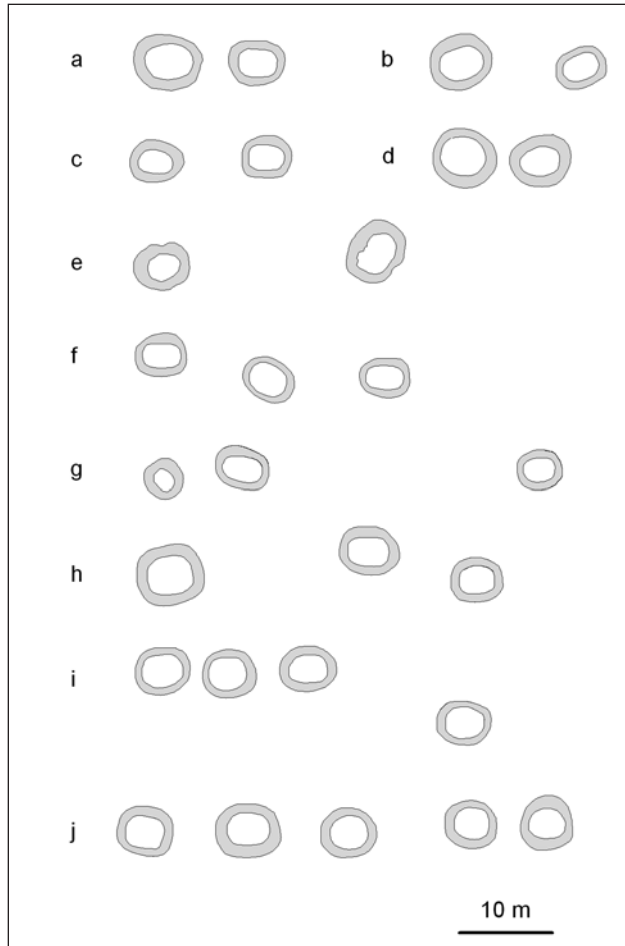


Figure 6. Sites with *stállo* foundations arranged in rows, Adamvalldá, Sweden.

almost a projective representation of social structure.” In this respect, however, historical *sijdda* sites do not provide valid analogies. Dwellings in eighteenth and nineteenth century settlement sites are irregularly scattered rather than strictly arranged in rows. In fact, the regularity in outline of *stállo* sites is unfamiliar to Sami informants (Bergman 2007:156; Manker 1960:306). Furthermore, the historical sites are located on hilly terrain rather than flat terraces and dwellings were built on top of small hills. Although the basic structure of social organization has prevailed throughout the past millennium, the spatial norms have changed.

In common with the general appearance of *stállo* sites, the Adamvalldá foundations are arranged close to each other and in rows (Fig. 6). The overall regularity in outline implies that dwellings are contemporaneous, and this is confirmed by radiocarbon dates (Liedgren et al. 2007). Sites comprising two or more foundations are remarkably consistent in layout. At each site the longitudinal axes of dwellings are oriented in the same direction and so are the hearths within

the foundations. Hearths are generally rectangular or oval in shape, exceeding 1 m in length. If the layout corresponded to the historical Sami huts, the entrances would have been located at either side of the short ends of the hearths. However, there are no depressions in the embankments surrounding the floor areas to suggest the position of the entrances, nor is there any other evidence to indicate the possible orientation of door openings. Very likely, the entrances were oriented towards a common courtyard. It is impossible to determine whether all huts were established at the same time, or if settlements expanded successively. Storli (1994:121) argues that each row of foundations represents a temporal succession of dwellings, in which old dwellings were abandoned and replaced by new ones. It may well be that a site started with one or two dwellings and subsequently expanded over a short period of time, but it is impossible to determine which one of the huts was the first to be established. Dwellings were contemporary in the sense that they were inhabited at the same time as verified by radiocarbon dates (Liedgren et al. 2007).

The spatial outline of sites with three or more foundations exhibits an interesting feature in that the smallest huts tend to be located at the end of rows. Also, rows including three or more foundations show a tendency for the foundations to be clustered into sub-groups, e.g., two foundations may be located close to each other but the third may be some distance from the others (Fig. 6). This clustering may be interpreted in terms of several *sijda* groups coming together at the same site, e.g., on a seasonal basis. The groups placed themselves at some distance from each other, but still close. The small foundations located at the ends of rows may be interpreted as dwellings of either an old conjugal couple, who perhaps began the settlement, or of a young couple, marking the end of the settlement process.

The spatial configuration of alpine *stállo* dwellings has contemporary equivalents in the boreal forest area where hearths arranged in rows are found frequently (Fig. 7). These occur within

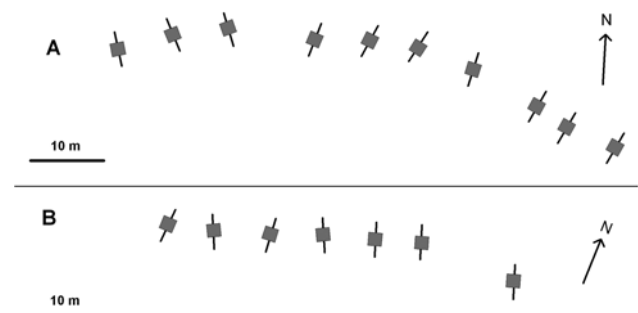


Figure 7. Hearths arranged in rows, Arjeplog, Sweden.

most of the Sami settlement area in interior north Fennoscandia (Bergman 1991, 1995; Hansen and Olsen 2004:101–102; Hedman 2003) and just like the *stállo* sites, hearth rows mainly originated from the period A.D. 800–1200 (Olsen 2000:38). There are no traces of superstructures. The number of hearths in a group generally varies from two to five, but larger rows comprising as many as 11 to 13 hearths are known (cf. Bergman 1988, 1990, 1991, 1995; Hedman 2003). Like *stállo* foundations, hearths show a tendency to cluster in sub-groups.

As a projection of social structure, the spatial outline of *stállo* sites appears distinct and clear. Dwellings are arranged in rows. The most obvious connection between social and spatial structure in the form of lines is that of lineage. We propose that rows of *stállo* foundations and hearths are the physical expressions of kinship relations. Kinship was perceived in terms of proximity to and distance from kin. Close kinship relations correspond to proximity in space. Kinship formed a decisive and structuring factor, not only in the organization of social relations and subsistence activities, but also in the organization of space. Taking the interpretation one step further, the spatial arrangements may be seen not only as a reflection of kinship relations but as a statement. Dwelling rows signify the notion of *us*, each row stating “this is us” and possibly even claiming “this is ours.”

The formal similarities between *stállo* sites and hearth rows cover the entire Sami settlement area. The Sami name for the Sami nation is Sápmi, and crosscuts the borders of four countries: Norway, Sweden, Finland, and Russia. Sápmi, exhibit a uniform spatial articulation of an identical social structure. This very particular form of expression occurred during a limited time span and contrasts sharply to settlements before and after. The striking temporal and spatial conformity suggests that a single catalyzing factor acted over a vast area, raising the interesting question: what what made societies all over Sápmi feel the need to articulate kinship by formalizing the spatial arrangement of sites and building their dwellings in rows?

Discussion

The explicit articulation of kinship suggests a society under great stress. Although external factors cannot be ruled out, the emphasis on consolidating the core level of social organization, i.e., household and *sijdda* units, suggests that internal factors were the prime agents. Considering the heterogeneous economic contexts of Sami societies in Sápmi and the differences in political interfaces with neighboring societies, the homogeneous manifestation in the form of formalized settlements also points towards tensions of an internal rather than external nature.

The prehistoric social structure of Eastern

Sami hunter-gatherer societies has been described in terms of egalitarianism, reciprocity, and collectivism (cf. Ingold 1980; Mulk 1994). Although it has been proposed that the socio-economic organization of the Eastern Sami societies is traditional and of ancient origin (cf. Tanner (1929) and Tegen-gren (1952), however, this opinion is now being questioned and most scholars recognize a Russian influence (Hansen and Olsen 2004:183–184). The basic opposition between the cooperation of hunter-gatherers and the individualism of pastoralists remains. Ingold (1980:122, 161) concludes that hunting economies are based on a principle of collective, undivided access to the live animal resources and, equally, to the sharing of prey, sometimes referred to as “generalized reciprocity.” In pastoralist economies, on the other hand, the autonomy of households and their exclusive ownership of live, as well as dead, animals is emphasized (Ingold 1980). The central issue, according to Ingold (1980), is the change in the economic significance of reindeer. To the hunter, wild reindeer have value only when killed, to be used for food. Domesticated reindeer, on the other hand, represent an investment of time and labor, thereby commanding a value not only as a potential food source, but as living capital and property. As such, reindeer entered into social relations between community members (Hansen 1996:318; Ingold 1980). The potential for accumulating capital in the form of domesticated reindeer posed a threat to a community based on the collective sharing of prey and challenged the very fundamentals of internal solidarity. In their capacity as property, reindeer formed the subjects of inheritance, and the devolution of property called for formalized rules (Ingold 1980:198–199). Consequently, the transition from hunting subsistence to pastoral herding included a fundamental social reorganization. This radical process would have raised the need to underline the security of the core social unit, the *sijdda*. In this context the formalization of *stállo* dwellings in rows, stating explicitly the kinship ties between *sijdda* households, is entirely logical.

From a regional perspective, the close correspondence in time between *stállo* sites and hearth rows over vast areas in Sápmi is best explained as a chain reaction. Once a community changed from hunting subsistence to pastoralism, claiming ownership of reindeer, it posed a severe threat to neighboring communities, thereby catalyzing an irreversible and rapid chain reaction.

The underlying causes behind the transition to reindeer pastoralism have been the subject of intense debate. Although this question is beyond the scope of the present paper, we suggest, in opposition to Ingold (1980:90, 121–122) that external trade may indeed have had a decisive effect. Sami products were valuable to Norse chieftains

in their external trade (Hansen 1990: 173–176) and the Sami were integrated into the Norwegian chiefdom economies (Odner 1983:85–87). Changes in demand would have had an immediate effect on Sami economy.

We argue that *stállo* sites were built during a period of dramatic and substantial change among Sami communities and that their layout reflects this. These sites represent the decisive moment of transition from hunting to reindeer herding subsistence, shaking the very foundations of Sami communities. In that situation, the consolidation of the *sijdda*, as expressed by the spatial structuring of settlement sites, may have been a means of addressing the internal tensions. The *stállo* sites represent a stage in which the village solidarity still remained as a uniting structure against the internal tensions, however the forces leading to the autonomy of the *sijdda* had probably already been set in motion. The disappearance of *stállo* settlements from the archaeological record suggests that the coherence of the village structure had been overwhelmed by disruptive forces eventually leading to the dissolution of self sufficient *sijdda* units.

By combining a variety of sources including archaeological and ethnographical records, written documents, and kinship studies within the field of social anthropology, this study offers a new perspective on the transition to reindeer pastoralism among the Sami around A.D. 1000. However, many questions remain to be answered, especially concerning settlement patterns and the structural layout of sites during succeeding periods.

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Endnotes

1. Sami terms are given in the Lule Sami dialect according to current orthography and are written in italics.

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