

Uma Saami Native Harvest Data Derived from Royal Swedish Taxation Records 1557-1614

ROBERT P. WHEELERSBURG¹

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ABSTRACT. Royal tax records from 1557 to 1614 provide native harvest data for descriptive and quantitative analysis of the Saami (Lapp) reindeer hunting society in northern Sweden. The Saami made tax payments during the Scandinavian Late Middle Ages to Crown sheriffs in natural harvest products according to standardized equivalents. These natural goods were obtained in three areas of subsistence — hunting/trapping, fishing, and primitive reindeer husbandry, allowing for a graphic depiction of the economic performance of extended Saami families during this period prior to the adoption of modern reindeer herding. The native harvest, combined with ethnohistorical information, provides a model for reconstructing traditional circumpolar economies.

Key words: Saami (Lapps), hunting economy, reindeer, taxation, Sweden, native harvest

RÉSUMÉ. Les registres des redevances royales de 1557 à 1614 fournissent des données de récolte pour des analyses descriptives et quantitatives de la société de chasseurs de rennes Samits (Lapons) dans la Suède septentrionale. Durant la fin du Moyen Âge scandinave, les Samits payaient, aux représentants de la Couronne, des impôts en nature sous forme de produits récoltés, selon des équivalents normalisés. Ces marchandises naturelles provenaient de trois domaines de subsistance - chasse et piégeage, pêche et élevage primitif du renne, ce qui permet d'illustrer la performance économique des familles (au sens élargi) samits au cours de la période précédant la pratique moderne de l'élevage du renne. L'information concernant les prélèvements autochtones, jointe à des renseignements ethnohistoriques, offre un modèle permettant de reconstruire les économies circumpolaires traditionnelles.

Mots clés: Samits (Lapons), économie de la chasse, renne, redevances, Suède, récoltes autochtones

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INTRODUCTION

This paper presents an analysis of Swedish taxation of the Saami (Lapps) in the province of Västerbotten, northern Sweden, collected by Crown sheriffs during the period 1557-1614 (Fig. 1). Tax payments were made by individual Saami from the Uma Saami district in fur, animal skins, dried fish, and reindeer (*Rangifer tarandus*) products. There was a great deal of variation in the types of goods individual Saami used to pay their annual taxes. The freedom to use different goods in standardized equivalents was allowed, perhaps because the Crown recognized that the acquisition of natural resources depended upon individual economic success in various subsistence domains, such as hunting/trapping, fishing, and primitive reindeer husbandry (Almquist, 1923:333). Variations in Saami tax payments were also the result of such natural factors as fluctuations in animal populations and weather, along with historical factors, such as the growth of the European fur and skin trade. Thus, the king's tax agents recorded native harvests that were the result of these natural and social forces, and these records provide data on the subsistence of pre-reindeer-herding Saami.

Historical and ethnographic information about the Saami is available from the period following the adoption of reindeer herding, generally considered by the latest research to be the mid-17th century (Kvist, 1989a:9). While there is an abundance of material available from the late 1600s to the present, there is almost no data prior to the 17th century. This is part of a general lack of data on reindeer hunting societies, and the information that exists is based primarily on analogy with other northern groups, such as the Chuckchi, who adopted large-scale reindeer herding during their incorporation into the Russian Empire (Khazanov, 1984:169-170). On an ethnohistorical level, it is important to provide basic descriptive information on the economy of pre-herding Saami society. This study combines native harvest data and ethnohistorical infor-

mation to allow a better understanding of the nature of Saami hunting economy.

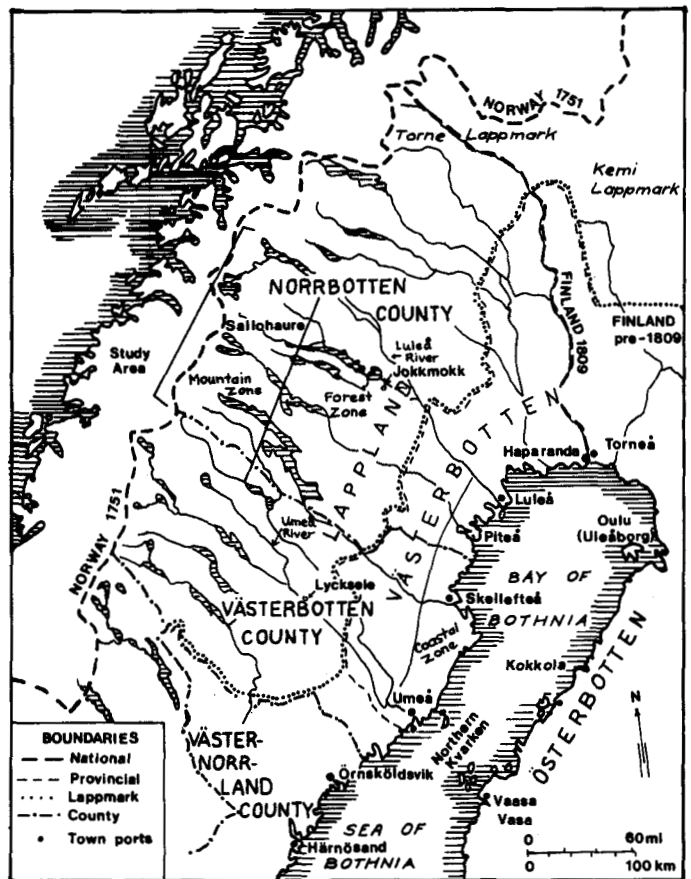


FIG. 1. The study area and its principal boundary changes. (Source: Layton, 1981:9, Fig. 1.1.)

¹Department of Sociology and Anthropology, Elizabethtown College, 1 Alpha Drive, Elizabethtown, Pennsylvania 17022, U.S.A.
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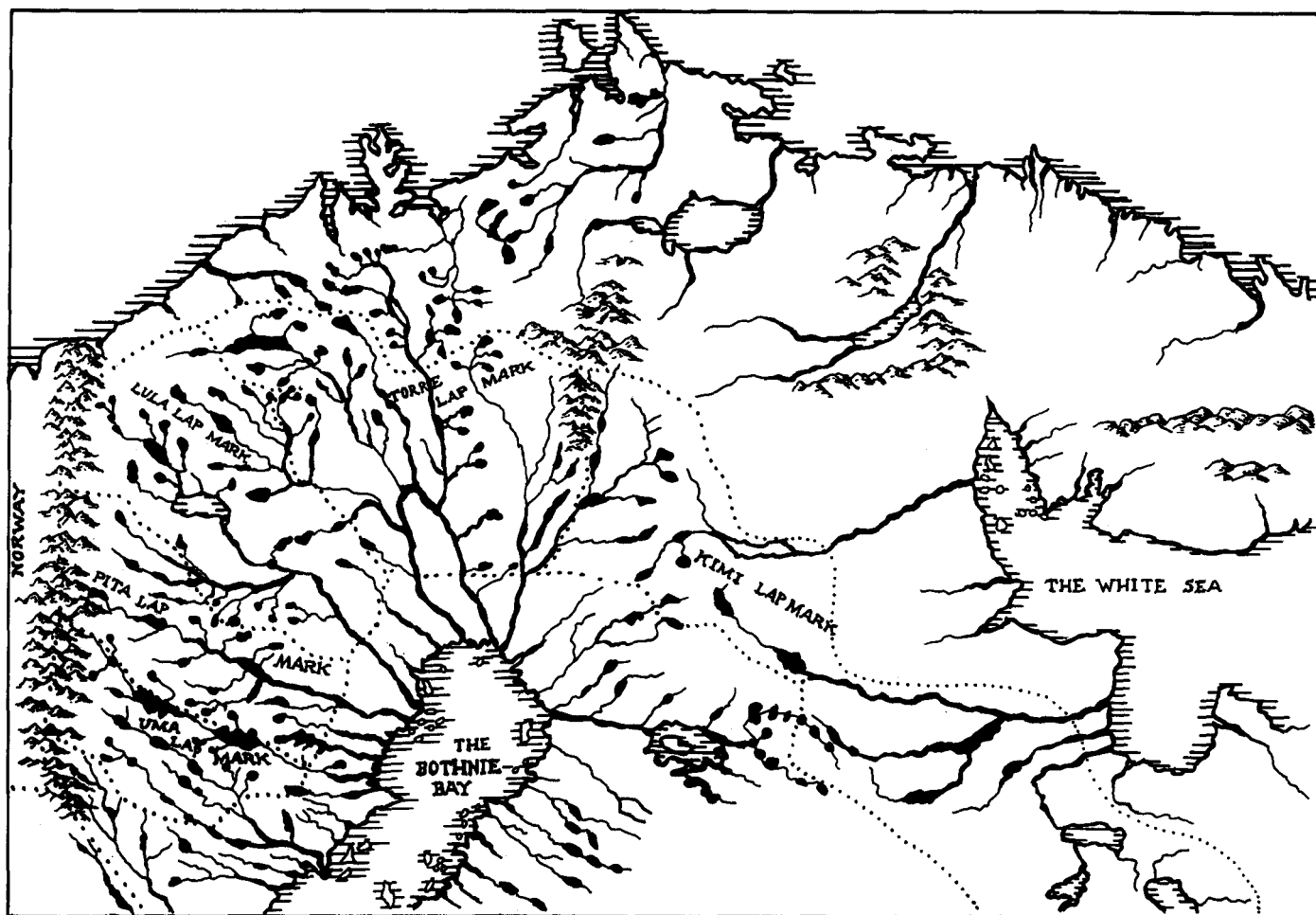


FIG. 2. The five Saami districts (Lappmarks) of Lapland in 1674. (Source: redrawn from Schefferus, 1971:10-11.)

This paper assumes a distinction between a primarily reindeer hunting economy supplemented by primitive reindeer husbandry and a primarily reindeer herding economy. The Saami maintained small herds of tame reindeer by the 1600s as draft animals, as hunting decoys, and for milking (Graan, 1983:55). Decoys were used to hunt wild reindeer and to capture wild reindeer during the rutting season (Schefferus, 1971:131). Reindeer were also used for milk and meat, and both men and women milked reindeer at this time, while only the men slaughtered (Graan, 1983:56). Some Saami were hired as reindeer herders for the Swedish Crown's transport herds (Lundmark, 1982a:103-105). Nevertheless, reindeer husbandry may have played a subordinate role to hunting and fishing as the basis for the hunting economy (Vorren, 1978:145).

This type of primitive reindeer herding, based upon a complex of transport, decoy, and milch pastoralism, supported by hunting and fishing, has also been called an archaic stage of reindeer herding (Arutiunov, 1988:37). Conversely, in a reindeer herding society, "tame reindeer herd[s] made up the basis for the economy and this developed a subsistence whereby families followed their herds the whole year and primarily exploited the reindeer products" (Vorren, 1978:156).

Taxation of the Saami in Västerbotten

Taxation of the Saami in Sweden probably began through middlemen, called Birkarls, who were used as collection

agents for the Crown as early as the 13th century. The Birkarls, thought by some to have derived their name from their home province of Pirkkal in Finland (Danstrud, 1980:594-595), were powerful farmers and merchants living on the Gulf of Bothnia during the Middle Ages. Besides farming, the Birkarls also had Crown charter to trade with and collect taxes from the Saami as early as the 13th century, for which they had to pay a toll, often consisting of skin goods (Lundmark, 1982a:78). This taxation right was an expansion of the Birkarls' trading privileges from the Middle Ages and formed the basis of Sweden's early administrative system in the northern part of the realm (Almquist, 1923:329; Manker, 1947:18; Tegengren, 1952:20; Vahtola, 1987:332).

Sometime after the establishment of the Birkarl trading rights in the Middle Ages, Lapland, which was the interior of northern Sweden administered by the Birkarls, was divided into five Saami districts, or "Lappmarks" (Manker, 1947:18-19; Schefferus, 1971:10-11), named Kimi, Torre, Lula, Pita, and Uma, after the coastal towns in each district in which the Birkarls had their headquarters (Fig. 2). The Lappmark was equivalent to a territory, since each was a bounded geographical area governed by an appointed Crown official. Under the Saami district system, which continues today in a modified form, the Saami were considered residents of a particular district with permanent land use rights in common with other Saami in the district. A Saami district was further divided into a political unit called a Lappby, a Swedish term that literally

meant Saami village, but which actually indicated a large administrative section of the district comprising many residential settlements.

The Saami were further divided into extended families, each of which was assigned a certain allotment of land "not in the nature of a Country farm with us, but of a very great length and breadth, so as to include Rivers, Lakes, Woods, and the like, which all belong to one Clan or family" (Shefferus, 1971:11). At the head of each extended family was a tax-paying Saami, called a Skattelapp (Kvist, 1989b:77) (literally, "Tax Saami"). The tax payments of the Tax Saami were recorded in the Crown's accounts, and these serve as the basis for the natural harvest data presented here.

Sometime during the 16th century the Crown sheriffs in Västerbotten were given the responsibility for tax collection of the Saami, and they also carried on trade with them. The first record of a sheriff collecting taxes in Uma parish, Västerbotten, was in 1526, when the area was administered by Sheriff Ander Persson of Grubbe, who leased taxation rights for the Saami from the Crown for 90 marten skins per year. By 1548, the Crown sheriffs in Västerbotten were responsible not only for the Uma Saami tax collection, but also for Saami living in Pita and Lula Saami districts and for receipt of taxes collected by Birkarls from the Saami in Torre Saami district. During this period, the tax was levied against Saami villages as a whole (Lundmark, 1982b:460).

In 1553, the Saami tax assessment was moved from the village level to the Tax Saami (Lundmark, 1982b:460). At age 15, or when a bow could be drawn completely, an Uma Tax Saami paid one marten (*Martes martes*) skin as the base tax unit. The following year, two martens were paid, and by age 17 each Tax Saami paid three marten skins in tax. This full tax assessment lasted until a Saami male was too old to hunt. From 1557 until 1584, the number of Uma Saami taxed at the full rate averaged 25. During the same period, the average number of Saami taxed at the level of two marten skins was 5, as was the number of Saami who paid one marten skin (LNL, 1557-84).

From 1557 to 1562, taxation was recorded by Sweden's Crown sheriffs according to the total number of marten skins paid by the Uma Saami district. From 1563 to 1584, the Uma Saami district tax was collected in "equivalent tax units". The equivalent to the marten skin became either one bear (*Ursus arctos*), fox (*Vulpes vulpes*), otter (*Lutra lutra*), or wolf (*Canis lupus*) skin, one beaver (*Castor fiber*) pelt, one moose (*Alces alces*) hide, one timmer of (40) squirrel (*Sciurus vulgaris*) skins, or three *lispund* (6.8 kg) of dried pike (Northern pike, *Esox lucius*). The equivalent tax unit provided the basis for trade in Norrland at this time as well, with one tax unit worth one *lispund* of butter, one *spann* (60 L) of meal, one *lod* (13.16 g) of silver, or one *lispund* of hemp in trade (Lundmark, 1982a:119, 190).

In 1602 the tax structure was reorganized (Kvist, 1989b:44) and the Saami were required to pay their taxes in live reindeer and dried fish. One live reindeer became an equivalent tax unit. Sheriff Karl Unesson of Uma Saami district was ordered in 1602 to purchase as much as he could store in butter, grain, meal, and live reindeer. The sheriff divided the reindeer among the Saami in his district for them to tend, for which the Saami would receive every third calf as compensation. The sheriff was also to purchase as much reindeer skin and other skins as possible using 100 *tunnor* (approximately 11 730 L)

of grain that was to be sent from southern Sweden. The sheriff was directed to suspend all other trade with the Saami (Göthe, 1929:46-47).

The Crown used the taxation system, through the administrative structure of the sheriffs, to increase political control over the Saami after 1602. First, the sheriffs were to forbid the Tax Saami from "wandering freely" and each Saami family was to build a home and live on the lake where it fished (Göthe, 1929:48-49). In order to enable the Saami to live a more settled existence at this time, the sheriff was to ensure that each family has the necessary facilities for a reindeer herd large enough to support itself.

In addition, the tax reorganization law of 1602 decreed that there would be two yearly fairs in each of the Saami districts. These fairs became the official tax and trade centers for the Saami. Besides designating the location of the fairs, the Crown's agents also built facilities to aid in the administration of trade and taxation. For example, storage buildings, official scales, and churches, which also had administrative functions, were built at the fairs. In Uma Saami district, these facilities included a Saami church in Lycksele built in 1606. The fair church served as a central meeting place for Saami religious services and as an educational center. When the Saami came to church services in mid-winter they could pay their taxes, trade for necessities, and hear God's word all on the same visit (Göthe, 1929:47, 52-54).

Apparently these winter fairs included a large feast for the Saami given by the king's agents after the tax was paid and trade completed. In 1608, Crown Sheriff Per Eriksson gave a feast at the Saami fair in Lycksele that included 46 *lispund* (312 kg) of bread, 7 *lispund* (98 kg) of beef, 1 reindeer, 3 *lispund* (20 kg) of pike, 4 *lispund* (27 kg) of butter, 1 *lispund* (6.8 kg) of seal blubber, and last but not least, 11 *tunnor* (1409 L) of beer and 6 *kanner* (6 jugs) of *brännvin* (Scandinavian vodka) (LNL, 1560).

While perhaps given over to feasting at times, the Saami fairs served the Crown and helped tighten political and economic control over Lapland. In 1602, through the creation of the fair and restructuring of the taxation system, the Crown created centers in each Saami district that performed administrative, economic, religious, and judicial functions. In addition, fixed territories for the Saami helped solve external border disputes. The kingdom's border in Lapland with Norway was later defined by determining to which crown the Saami residents in the vicinity paid their taxes (Kvist, 1985:510-512). Ultimately, Saami taxation was not only a source of revenue for the Crown, but a way to increase the internal administration and to establish the external borders of Lapland.

There may have been wider relationships between the Saami and Scandinavians beyond taxation through the fairs and feasting. Although there is only scant evidence offered in this study, the royal taxation process was an extension of the general trade and economic relations between Saami and the Swedish Crown (C. Meriot, pers. comm. 1990). The concept of taxation during this time may have differed significantly from today's understanding of the word. From a Saami point of view, tax payments may have been part of a reciprocal gift-giving process common among hunting societies. The Crown may have seen taxation of the Saami prior to 1602 not as a primary source of income, but as the formal recognition by this nomadic people of Swedish sovereignty (R. Kvist, pers. comm. 1990).

Nevertheless, it is upon taxation that I wish to concentrate most in this study, for the effects of it can clearly be seen on the cultural ecology of the reindeer hunting Saami. Aside from the economic aspect, the changing taxation system was a symbol of increasing political control over the Saami by the Crown. Before the influence of the Swedish government began to be felt, the Saami hunting society was probably organized around the household. Once the taxation system was firmly established, the political relations with Swedish agents in Norrland took place first at the provincial level, and second within the Saami settlements (Lundmark, 1982a:67). Thus, the increased integration within the Saami hunting society and the wider relationships to Swedish society were laid through the taxation system, of which gift giving (in the form of feasting) and expanding trade relations were a component.

METHODS

Native harvest data are used in social science research and for administration of natural resources by indigenous circumpolar groups. Harvest data are "counts, or estimates of the quantity of a particular species of fish and wildlife taken in a specific area or by a specific group of people over time. These harvest statistics may thus be presented as totals for either a geographic region or a category of harvesters" (Usher and Wenzel, 1987:145). Anthropologists often use native harvest records to determine adaptive strategies and the evolution of economies over time (Usher and Wenzel, 1987:149). Nevertheless, some researchers believe that there are significant problems with native harvest records, particularly those represented by administrative records. Problems include "the design of the statistical set, including the absence of reporting requirements for some species, lack of species differentiation . . . and in the case of furs the systematic omission of domestically retained or unsaleable pelts from the records" (Usher and Wenzel, 1987:148).

The native harvest data in this study came from administrative records of taxation of the Saami by the Swedish Crown during the Scandinavian Late Middle Ages. The original records are located at the National Archives in Stockholm. For this study, I worked with copies of these records, microfilmed at the Umeå University Library, titled "Landskapshandlingar: Lappmarken 1557-1614 RA" (microfilm CD2087). I analyzed the tax records for Uma Saami settlements, which were part of Norrland within the province of Västerbotten, west of Lapland's borders (i.e., not including the coastal region of Västerbotten).

These native harvest data, along with historical information on trade and other economic activities in the region, allowed an analysis of the economic performance of members of this society in three subsistence domains — hunting/trapping, fishing, and reindeer husbandry — since taxes were paid with the products of these pursuits. The tax records helped establish the economic behavior of an entire Saami settlement for approximately 57 years, 1557-1614.

The tax documents recorded only a fraction of the economic behavior by Saami reindeer hunters during the 16th and 17th centuries. The problem for this study, as with other native harvest studies, was in the nature of the data. The challenge was to design a statistical technique that quantified information on the Saami while at the same time considered the limitations and incompleteness of the data. Although limited in scope, the native harvest data provided an indication of the Saami reindeer hunting econ-

omy in the Late Middle Ages as a record of relative performance of individual Saami families in each of the subsistence areas according to the amounts of tax paid.

The data were utilized according to the three taxation periods listed below. For the period 1557-62, the number of marten skins paid by the Uma Saami was totalled, since taxes were paid only with this good. These data provided general information on the economic performance of the Uma Saami as a group. For 1563-84, when taxes were paid in equivalent units not including reindeer, the number of each species paid during one year by all Uma Saami was totalled, along with occasional trade payments to the Crown sheriff that were noted in the tax records. These data were graphed according to the total number or quantity of each native harvest species recorded each year, which also indicated the general economic behavior of the Uma Saami as a group. Documents from both of these periods were fragmentary, with no records available for the years 1567, 1571, and 1579-83 and a great deal of variation in names from year to year. In addition, the records for 1557-84 contained limited reference to reindeer and represented only natural products from hunting/trapping and fishing.

Beginning in 1601, the next available year in the records, the recording was more complete and there was a continuity of names. With these more comprehensive tax records, the Uma Crown sheriffs documented the economic behavior of 19 Saami families during the critical pre-reindeer herding period 1601-14. To evaluate the performance of these families in each subsistence area, I summed the total number of tax units paid by each family over the period according to whether they were taken as a result of hunting/trapping, fishing, or activities related to reindeer hunting/herding. In addition to the taxes, the Crown sheriff in Uma Saami district took a census of live reindeer in 1605, which was described in the tax records (LNL, 1605). The information on the size of Saami herds in the royal census added to the tax payments provided longitudinal data on the economic performance of individual Saami families in each of the subsistence areas of hunting/trapping, fishing, and reindeer husbandry from 1601 to 1614. The relative economic performance of each Saami family represented by the total number of tax, trade, and reindeer census data was graphically depicted in a stacked bar format.

A further quantitative test allowed a graphic representation of the relative degree of generalized or specialized economic behavior the Saami families exhibited during this period. Using the total number of equivalent tax units paid in each subsistence domain, three values were obtained using the following equations: $x = 100/X/(X+Y+Z)$, $y = 100/Y/(X+Y+Z)$, and $z = 100/Z/(X+Y+Z)$, where: X = total number of reindeer tax units, Y = total number of hunting/trapping tax units, and Z = total number of fishing tax units. Thus, "x" was the percentage of a family's economic performance during the study period involving reindeer husbandry, "y" was the proportion of hunting/trapping performance, and "z" was the relative fishing performance.

Together, these three values provided a basis for a graphic depiction of individual Uma Saami family economies from 1601 to 1614. Since the equation $x+y+z=100$, the vector (xyz) always falls on a single plane. Thus, for graphic purposes only two dimensions needed to be considered. Thus, only two values were required to construct the graph. Since I desired primarily to find out the amount of hunting/trapping and fishing these Saami families engaged in, "y" formed the y-axis and "z" formed the x-axis of the graph. Despite using only these two variables, the graph also revealed the impact of reindeer husbandry activities on the economy due to the nature of the equation used.

The relative economic performance of each Saami family as derived from the native harvest data is represented by a point on this graph. Three significant areas were developed on the graph that indicated potentially specialized economic behavior. First, a zone of fishing dependence was represented by an area on the graph along the x-axis wherein a Saami family's presence resulted from tax payments primarily from fishing. Along the y-axis was a zone of hunting/trapping dependence. Saami families lying in this area showed that tax payments were made primarily with fur/skin and that production in fish and reindeer was very low. In between these two dependence zones, along the convergence of the x and y axis, was a zone of reindeer dependence. Points in this zone represented families whose herds were large enough to have reduced the amounts of fur/skin and fish paid in tax. Finally, the area outside these dependence zones was considered indicative of a generalized pattern of economic behavior, in which points represented balanced tax payments in hunting/trapping, fishing, and reindeer products.

RESULTS

Prior to the study period, the Uma Saami had a set tax payment assigned to the entire district. From 1530 to 1553 this tax totalled 90 marten skins and two *lispund* (approximately 13.6 kg) of dried pike (Lundmark, 1982a:190; 1982b:456, 458). In contrast, the tax collected for the Scandinavian settlers in Uma parish on the coast in 1543 was one *skeppund* (approximately 136 kg) of pike (Göthe, 1929:2). In the later part of the decade tax payments for the whole of Scandinavian Uma parish amounted to 6½ *skeppund* pike per year (Lundmark, 1982b:458).

The amount of equivalent tax units paid by the Uma Saami during the period 1563-1614 is provided in Figures 3 and 4. Marten skin was a relatively important tax good throughout the taxation period. Even when other goods could be paid after 1563, the harvest of marten for tax purposes continued to increase, peaking in 1566, when a total of 81 tax units (animals) in marten skin were paid by the Uma Saami (Fig. 3). Tax payments in marten gradually decreased, until they reached zero in 1608, increasing slightly afterward through 1614. As with other animals used in tax payment, the number of marten harvested each year fluctuated, although in general the fluctuations were less extreme than with other animals harvested.

The minor fur animals harvested for the tax, such as wolf, fox, and lynx, never totalled more than 2 tax units (or two skins) in

any one year, with the exception of 1604, when 10 tax units were paid (Fig. 4). Payments in beaver and otter, although never as significant as those in fish, squirrel, or marten, showed a gradual increase throughout the period, reaching a maximum of 15 tax units in 1578, when a total of 9 full Tax Saami, out of 29, paid one or more tax units in beaver. Payments in beaver and otter fluctuated a great deal from year to year during this period, perhaps reflecting contemporary natural or man-made oscillations in the target animal populations.

Payments in the major tax units of marten, described above, pike, and squirrel also changed between 1563 and 1614. Squirrel payments did not top other tax units except in 1584, when 44 tax units in squirrel pelts (approximately 1760) were paid. Payments in squirrel after this year fluctuated widely, from near zero to as much as 22 tax units per year.

Perhaps the most significant data the Uma Saami tax records contained was the degree that fish assumed in the economy of Norrland, especially in the payments of taxes during the late 16th and 17th centuries. Pike became the largest single tax good as early as 1569, and in 1572, 65 tax units (1333 kg) of dried pike were paid. Tax payments, especially in the early 1600s, were dominated by payments in fish. In 1605, the Uma Saami paid a total of 31 *skeppund* (4220 kg) of fish; in 1606, 38 *skeppund* (5168 kg); and in 1608, 30 *skeppund* (4080 kg). By 1619, the Saami tax in fish reached 66 *skeppund* (8976 kg) of dried fish. Within a 15-year period, the tax payment of fish had doubled, and the tax burden for individual families was significant. Adjusting for the number of Tax Saami paying at full or reduced tax levels, the average tax burden per Saami family in fish in 1605 was 117 kg, which grew to 133 kg in 1607 and to 280 kg per family in 1619 (LNL, 1605-20; Göthe, 1929:57-59). It is no wonder that claims to the Crown from the sheriffs and the Saami themselves were that the tax was excessive and that the Saami were in a state of poverty, barely able to feed themselves (Göthe, 1929:58-59).

Little information on the size of Uma Saami reindeer herds was available prior to the Crown reindeer census of 1605. Nevertheless, if we assume that Saami herds kept for draft, decoy, milch, and breeding stock were similar in size to the Crown's herds kept for similar purposes, that we can infer the size of Saami reindeer herds during the second half of the 16th century.

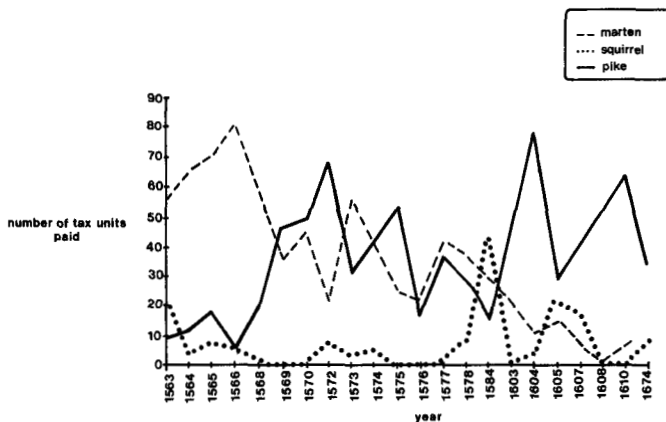


FIG. 3. Uma Saami district tax payments, 1563-1614. (Source: LNL, 1563-1614.)

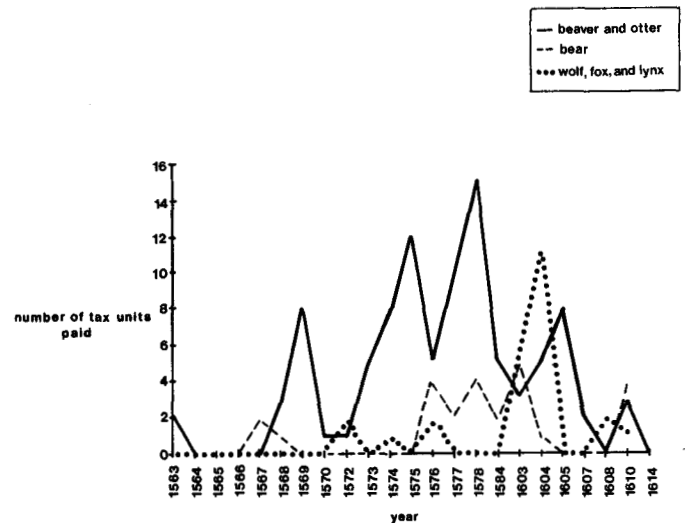


FIG. 4. Uma Saami district tax payments, minor fur species, 1563-1614. (Source: LNL, 1563-1614.)

According to the tax records, the Crown's 1558 herd in Västerbotten contained 36 reindeer (LNL, 1558). In 1560, it consisted of 34 reindeer, 14 of which were "oxen" used for transportation, 19 cows used for breeding stock and milch, and 1 bull for breeding (LNL, 1560). Ten years later in Torre Saami area to the north the Crown owned 227 reindeer and the sheriff was already accepting reindeer in tax payments (LNL, 1570). As late as 1584, the Crown herd in Västerbotten numbered only 11: 8 transport reindeer and 3 cows (LNL, 1584). Yet, as was common practice by this period, much of the Crown's herd was disbursed among the Saami and was used by the sheriff in his duties and for subsistence.

Nineteen Uma Saami were recorded as possessing reindeer in the 1605 reindeer census, out of a total of 34 Saami listed in the tax records (LNL, 1605). The Crown employed 2 Saami as reindeer herders out of the 19 who owned herds, and 1 watched a total of 56 reindeer (including his own, presumably), while the other took care of 51. With the exception of a third Saami, who also worked for the Crown in an unknown capacity and who maintained a herd of 29 reindeer, the remaining 16 herds contained between 5 and 27 reindeer. As an indicator of the relative economic status of these herders, records from 1602 indicated that there were 2 Tax Saami who owned herds of 40 and 35 reindeer, with the former considered the richest then among the Uma Saami and the latter considered the third richest (Göthe, 1929:46-47).

The degree of variation in economic performance between individual Tax Saami from 1601 to 1614 is shown in Figure 5. If we eliminate the two Crown herders on the left of the graph (numbers 1 and 2), we see that the total number of tax units paid by individual Uma Tax Saami was between 25 and 60. Differences in the total amount were the result of some Saami not

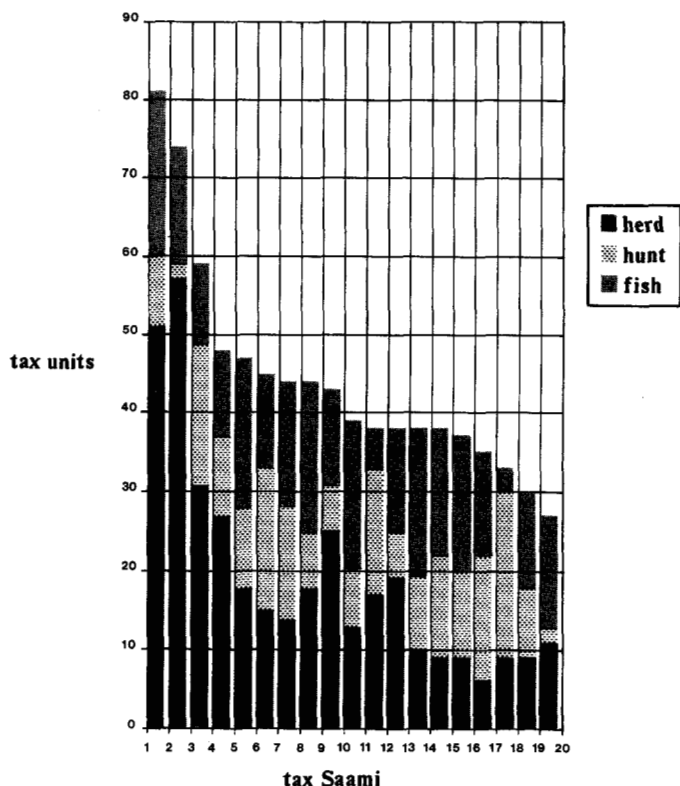


FIG. 5. Individual Uma Saami economic performance, 1601-14. (Source: LNL, 1601-14.)

paying taxes (or at least none were recorded) in some years, and perhaps differences in assessment, reflecting age or poverty. This variation in total payments among individuals is not important for this study, since the number of tax units paid by each Saami equals 100% in the equation used. Therefore, the amount of an individual Tax Saami's economic performance in each subsistence domain is a relative proportion of the total tax units he paid.

Using the data this way, we see that tax units paid from reindeer herding make up more than one-third of the total units paid in the case of 11 (65%) of the Tax Saami. Fishing also made up more than one-third of the total tax payments for 11 families. At the same time, hunting/trapping products constituted more than a third of the total tax payments for only 5 (30%) of the Tax Saami. While there appears to be no direct correlation between the amount of taxes paid in reindeer, hunting/trapping, and fishing, it is apparent that the Uma Saami were engaged in fishing, and perhaps herding, more than hunting/trapping, at least for payment of taxes. While this was predicted from the ethnohistorical information, quantitative information on the economic behavior of individual Tax Saami could not confirm this.

Figure 6 indicates that the Uma Saami had a general economy during the early 1600s. Of the 19 individual Saami plotted, 17 fall into the zone of general economic activities. The trend indicates that if there was a movement away from one subsistence area, it was hunting/trapping. Two individuals appear in the hunting/trapping dependence zone, and one in the zone of reindeer dependence. These were the Crown reindeer herders, who managed herds nearly double the next largest in the Saami district, and consequently the other values were diminished. In most cases, the data indicated that there was a relative uniformity in resource utilization by the Uma Saami, and that in general the Uma Saami participated in all three subsistence domains as late as 1614. In addition, although there was variation among the economic performances of individual Tax Saami, the group as a whole utilized a diverse resource base.

DISCUSSION

The results of this study reveal two interrelated aspects of the Saami economy in northern Sweden during the Late Middle Ages. First, concentrated hunting of select species for nearly half

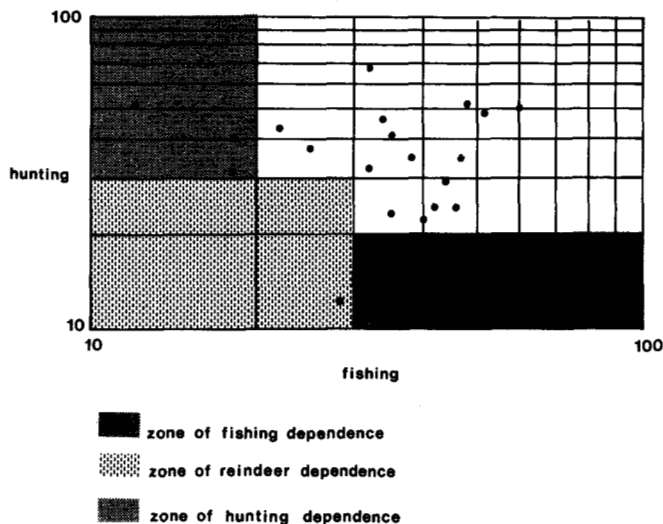


FIG. 6. Plot of Uma Saami economic performance, 1601-14. (Source: LNL, 1601-14.)

a century had a severe effect on certain animal populations, particularly marten and other fur-bearing species. While the declines in the native harvest species observed in the data may be caused by natural population fluctuations, the continued hunting of certain species over time undoubtedly contributed to their decline. The second aspect of Saami activities we can observe from this study is the degree to which national and international market conditions affected the economic behavior of local Saami families.

Norrland and Europe

Before Viking times furs and skins came from Norrland to be used in European exchange networks (Zachrisson, 1976), and the Scandinavian export system reached to ancient Rome, trading furs, ivory, amber, and slaves (Jones, 1968:23). In the 9th century, Norwegian coastal merchants such as Otter collected tribute from the Saami in marten and otter fur, along with reindeer and bear skin, which they traded as far away as England (Jones, 1968:161-162). In Sweden, goods from the north passed through southern Scandinavian merchant towns (Söderberg, 1984:7). Traces of bear, squirrel, beaver, and otter pelts have been found in archaeological studies of merchant towns, showing that by the 9th century furs obtained from Norrland were an important part of Sweden's medieval export economy (Jones, 1968:167-173). Lapland goods brought wealth to the Crown and contributed heavily to the strengthening of the Swedish monarchy during the 9th and 10th centuries. Local, regional, and long-distance trade networks provided the basis for Scandinavian economic utilization of Norrland, especially the interior of Norrland, called Lapland.

The fur trade expanded during the 14th century as clothes and decorations made of fur became the rage in Europe (Olofsson, 1962:168-169). The Hanseatic League established a trading post in middle Norway to increase the revenue of their trading towns in the fur trade. Much of the exported fur went through Stockholm, which during the first half of the 14th century became Sweden's most important trading center. Furs and hides accounted for 16% of the north German export trade in 1368, and 11 000 ermine skins were delivered in 1370 from Norrland to Stockholm (Heckscher, 1954:48-49). While many of the goods originated in Finland, a large number came from Lapland and the Saami.

Besides Scandinavian and German traders, others were trying to capitalize on Norrland's rich furs. Saami trading connections with Russia were also strong, particularly in the northernmost portion of Lapland, which was under the domination of the Novgorod merchant princes in the 12th and 13th centuries, until their fall in 1478 (Meriot, 1984:381-382). During this time, Karelians also taxed the region as far south as northern Sweden, including Swedish Saami villages. This taxation continued until the Peace of 1323, when the border between Russia and Sweden/Finland was fixed in northern Finland.

By the mid 1500s, the beginning point for the Saami tax records used in this study, three major networks had formed in northern Scandinavia that affected Saami economies in the Late Middle Ages. The coastal areas of the North Sea and the Arctic Ocean were under the influence of the "Dano-Norwegian trading system" (a remnant of the Hanseatic League), which involved the exchange of fish for grain in Norwegian ports (Hansen, 1984:52-53). Another trading system was under the control of the Russians, operating in the Arctic Ocean from the Kola Peninsula to the southeast of the White Sea, and into Central Europe.

Southern Norrland, particularly along the Uma River in the study area, and the associated coastal areas on the Gulf of Bothnia, were incorporated into the Swedish trade and taxation system. This system centered on Stockholm and included a number of coastal ports along the Gulf of Bothnia, which participated in the export of fur and other goods to Europe. These three trade networks functioned as an "... internal-external Lapland economic system, with the Saami and Scandinavian settlers as producers on one hand, and Scandinavian and Russian trade and tax agents on the other" (Hansen, 1984:56-57).

Taxation and the Origin of Reindeer Herding

During the Late Middle Ages, the Swedish Crown played a direct role in the settlement of northern Scandinavia (Orrman, 1981:129). With increased Swedish and Finnish colonization of the northernmost part of the realm, the Crown tightened its economic and political control over Norrland, claiming many of the newly settled lands. Sweden's territorial expansion in Norrland brought the Crown into dispute with other interested countries, such as Denmark and Russia. As new territories in Lapland came under its control, Sweden sought to rid them of "foreign" influences through the policy of "absolutism" that sought to eliminate all but Swedish trade and taxation agents in Norrland. The Crown also sought to increase the administrative control and economic exploitation of the Saami and attempted to prevent others from trading with them. According to Lundmark (1982a:37), "... the combination of a maturing Swedish economy and polity, and the ability of the Crown to enforce absolutism, caused Lapland to be drawn into a European economic structure as geographically remote producers in the feudal production system."

Increased internal control of Norrland was also brought about by actions such as the regulation of the Birkarls by Karl IX in 1602 (Hansen, 1984:69). Until 1550, the Birkarls retained their ancient and exclusive trading and taxation rights, and the "Birkarl Tax" was recorded in the Crown's accounts for the first half of the 16th century. In the 1550s, however, King Gustav Vasa took away all of the Birkarl taxation privileges in an effort to increase the power of the Crown, and tax collection was made the responsibility of the Crown sheriffs. The Birkarls were allowed to continue to trade with the Saami, but only after the Crown sheriffs had completed their annual taxation and trade with the Saami (Lundmark, 1982b:456-458).

Besides tightening the political control over a marginal and geographically remote portion of the realm, this increased administration (including taxation) allowed the Swedish Crown to utilize the Saami to exploit the natural wealth of Norrland. Beginning in 1553, taxation was assessed for each Saami family (Kvist, 1989b:44-45). During the winter the Crown sheriffs travelled through the Saami districts to collect the tax in either silver or fur. The sheriff was directed to purchase all the fur and skin possible with the collected silver, which along with tax payments in these goods were sent to Stockholm. This system lasted until 1563, when tax began to be collected only in skin, fur, and dried fish (Lundmark, 1982a:79). Although the tax system continued to change into the present, a final tax change during the study period took place in 1602. Fur, as evidenced by tax payments, was just about eliminated from the taxation as a result of this change. At the same time, both fish and reindeer began to be desired in tax more often.

According to Lundmark (1982a:88-89), the change from a primarily fur tax to one of consumables following the tax reorgani-

zation of 1602 was tied directly to events in Europe, in which the emerging Swedish Empire was involved. King Karl IX was a military innovator, and one of his most important innovations was a long-distance logistics system for his field army. Sweden's campaign of 1601 against Poland had not been successful, perhaps due to a shortage of provisions for the field army. Although the Crown was receiving many riches from its export of Norrland fur, it was a difficult and lengthy process to turn the natural harvest from Norrland into food for the field army in Europe. The skin first had to be collected from the Saami and then shipped through Stockholm to the European trading centers to be sold. With the money received from the skin market, the Crown bought provisions, primarily food, which in turn were delivered to the field army. A transition to a direct collection in foodstuffs, especially transportable foodstuffs such as live reindeer and dried fish, provided a more efficient military logistics system. Whether warfare was directly the reason for the shift, the Swedish skin export decreased significantly at the close of the 1500s (Lundmark, 1982a:89).

The work of Tegengren (1952), Lundmark (1982a,b), and Kvist (1989a,b) asserts that the Saami in parts of Lapland may have adopted reindeer nomadism as an economic strategy sometime around 1620. According to this model, the Saami expanded reindeer herding in response to a combination of increased government control, trade (especially the European export market), land use competition with Scandinavian settlers, and internal social dynamics (Lundmark, 1982a:158; see also Kvist, 1989a:50-56, English summary), which altered the natural population dynamics and production system of the Saami, allowing modern reindeer pastoralism to develop.

The change in the Saami taxation from fur and silver to fish and reindeer after 1602 greatly affected the Saami food sector. Since the Saami wore mostly skins prior to the 17th century, fur was a non-essential element of their subsistence. The fur tax had a marginal effect on the Saami economy, while the later food tax struck at the core of their subsistence. Since the Crown was apparently less interested in acting as a "middleman" in the European fur trade after 1602, the Saami were not able to trade fur for food, such as butter and meal. Before the change to a food tax, the import of food into the Saami economy was more than sufficient to meet the society's needs, and the import of food occurred at the most limiting time of their yearly activities — late winter (Lundmark, 1982a:94-95). Lundmark (1982a:133-134) believes that the caloric intake at this critical time of the year, due to the trade in fur for food during the 16th century, was sufficient to cause a Saami population increase from the late 1500s into the early 1600s. When the Saami began to be taxed for food, and not fur, and lost the ability to trade excess fur for additional food, the increased population was not able to be supported by the traditional reindeer hunting economy.

As part of the change in Sweden's trade and taxation, the Crown saw reindeer as one way to increase the amount of meat in the kingdom's economy. As a result, the Crown herds grew significantly between 1600 and 1620, a growth that vastly outweighed transportation needs the reindeer could supply (Lundmark, 1982a:112-113). Initially, the Saami may have intensified their exploitation of the wild reindeer herds to pay the increased tax in reindeer. Yet, their herds were still too small during the 1605 Uma reindeer census and the 1614 Lule Saami district reindeer census to have provided the major part of the year's food (Lundmark, 1982a:158). The herds may have reached the point by 1614 that much of the subsistence was obtained from reindeer and

that a relatively quick transition to extensive reindeer herding may have occurred within the next two decades. During this period of instability in both the tame and wild reindeer populations, the Saami expanded their herds to the point that meat, and not milk, became a dietary staple. According to Lundmark's thesis, the wild reindeer was able to sustain the increased Saami population for a short time. After years of increased hunting, however, the wild reindeer herds were severely depleted, eventually becoming extinct in southern Norrland.

CONCLUSION

The purpose of this study was to analyze native harvest data from the late 16th and early 17th centuries and to combine this data with ethnohistorical information to establish the nature of the Saami economy in southern Norrland. The analysis revealed that the Uma Saami economy in the Late Middle Ages was diverse. It was based upon primitive reindeer husbandry, hunting/trapping, and fishing, supplemented with trade in foodstuffs and manufactured goods from coresidential and transient agropastoral Scandinavian and Russian groups. From earlier tax records and ethnohistorical data we can infer that the Saami economy of the early 1600s was a continuation of the economy practiced in the 1550s, and perhaps before, despite the increasing amount of government interference in taxation and trade and the changing trends in desired tax and trade goods.

Clearly herd sizes for Uma Saami families in the first decade of the 16th century were not sufficient to indicate extensive pastoralism. The herd size for those not employed by the Crown as herders averaged approximately 14, with the total herd size of the Uma Saami district, including those owned by the Crown, numbering 368. When compared to the approximately 40 000 reindeer owned by a total of 92 active herders in Västerbotten in 1980 (Gillisson, 1985:15, 19), clearly herding was on a different scale in the late 16th and early 17th centuries than it is today. The Uma Saami were not able to meet the majority of their subsistence from reindeer; thus by definition, this was a pre-herding society.

From both the descriptive and statistical examination of the Uma native harvest data we can conclude that there is no apparent relationship between herd size and the degree of hunting/trapping and fishing activity in this Saami district during the study period. The assumption can be made that the variability in the type of natural harvest paid by individuals was related to individual economic performance and to natural factors, such as animal populations.

From 1601 to 1614 approximately one-third of the Uma Saami paid their taxes in reindeer. Those paying in reindeer or maintaining relatively large herds were beginning to specialize in pastoralism during the early 17th century. At the same time, those individuals paying primarily in fish may have been specializing in fishing as an economic pursuit. A third form of specialization was indicated by the tax records as well, that of Saami middleman or village specialists working either for the Crown or for private enterprise (Ritsch, pers. comm. 1990). The tax rolls listed both *renväktare* (reindeer herder) and *länsman* (farm worker) for the Crown, which represented specialized government jobs for Saami.

Towards the end of the second decade in the 1600s the opportunity arose for Saami herding and fishing pursuits to expand, as the hunting/trapping sector of the society had done during the late 1500s. Herding, developed for perhaps a thousand years as a marginal pursuit, expanded and became the primary profession

for less than half of Saami families. These families maintained a nomadic lifestyle and continued to practice the sole exploitation of the desolate and isolated mountain areas. Fishing became the primary activity for some Saami families, as did wage work for others. These economic activities provided not just the opportunity for a higher standard of living, but for the development of a new Saami society.

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