Andres Tvauri

ON THE LOCATIONS OF FIELDS AND VILLAGES IN THE PARISH OF TUULOS, SOUTHERN FINLAND

Abstract

This article discusses the history of fields and the locations of village sites in the parish of Tuulos in Häme (Tavastia) with reference to old and present maps and field observations.

The oldest fields in Tuulos, possibly dating back to the Iron Age, are in areas of fine-grained clayey soils. During the Middle Ages and in later centuries, silty soils were first cleared either in areas of medium fine sand or land covering Sphagnum peat. Villages predating land division are on moraine soils amidst arable land adjoining bodies of water. This cleared either in areas of medium fine sand or land covering Sphagnum peat. Villages predating land division are on moraine soils amidst arable land adjoining bodies of water. This supports recent suggestions that Finland's oldest agricultural settlements were in areas with fine-grained soils.

Andres Tvauri, Vaahtokuja 5 D 39, SF-01600 Vantaa, Finland

INTRODUCTION

Recent studies by Finnish archaeologists and historians have discussed the role of soils in the spread of settlement in the Iron Age, Middle Ages, and modern times. This article is an attempt to verify the macro-level observations of these phenomena on what can be called the micro level. Eljas Orrman (1991; see also Taavitsainen 1990, 71-72), in particular, has pointed to the links between Iron Age cultivation and light soils, observing that the heavy clays, which are fertile but difficult to work, could not have come under arable cultivation until the introduction of medieval plough types.

In 1992 this author was engaged in a trial survey of medieval archaeological sites organized by the Department of Monuments and Sites of Finland's National Board of Antiquities. The municipality of Tuulos was selected for field work, because of its suitability for an investigation of the relationship between agricultural settlement and the natural environment. Tuulos was already an administrative unit or parish with its own stone-built church in the Middle Ages, and even today it forms a whole in which all the medieval villages and roads have survived. It is still a predominantly agricultural area, where no major changes in the patterns of land use have occurred.

Tuulos was permanently settled already in the Iron Age. All the Iron Age finds of the parish, both stray finds and material from graves, are from its northern parts, in the region of the villages of Juttila, Sairiala and Toivaala. The oldest stray find of certain date, a spearhead of indefinite type, is from the Migration Period (National Museum 14001)[1]. The oldest finds that have interpreted as cemeteries and consequently as indications of permanent settlement date back to the Merovingian Period (on prehistoric finds from Tuulos, see Keskitalo 1985).

The archaeological record shows that the villages of Juttila, Sairiala and Toivaala formed the central and oldest inhabited part of the parish. However, none of the villages of the parish appear in written documents before the fifteenth century, and mentions of them do not indicate their age. In

[1] Two oval striking stones have also been found in the village of Juttila, but their long period of use (Early Roman Iron Age – Merovingian Period) precludes any precise dating.

1433 the assizes of Hauho and Tuulos were held in the village of Syrjäntaka. Judicial records from 1588 refer to a court ruling of 1434 concerning the boundaries of the villages of Pohjoinen, Syrjäntaka, Sairiala, Toivaala, Lakkola, and Teuro. Juttila first appears in written documents in the 1450s and Sydänmaa in 1458.

The main sources of the present study are seventeenth- and eighteenth-century maps of holdings, and land redivision maps from the 1770s to the early nineteenth century. The reliability of material gathered from archive sources was tested in field work, in which it was found that most of the villages marked in the seventeenth- and eighteenth-century maps could still be observed as distinct features of cultural layer in the terrain.

By comparing the data of old maps with present government survey and soil maps it was possible to determine the locations of villages, the soil types of fields, and the types of soil which first came under cultivation.

FIELDS

As mentioned above, the oldest permanent settlements in Tuulos were in the region of Juttila-Sairila. Soil maps indicate that these settlements were in the largest area of clayey soils in Tuulos, located between lakes Pyhäjärvi, Lehejärvi and Suolijärvi. The soil in this area is the finest in the whole parish (over 30 % representing a granular diameter of less than 0.002 mm). There are no corresponding soils elsewhere in Tuulos. In this region there are also areas of silt (main granular diameter 0.02-0.002 mm) and very fine sand (0.06-0.02 mm). A comparison of the land redivision maps of the villages of Juttila and Sairiala with the present soil map indicates that as late as the period from 1775 to 1799 most of the fields were located in the above soils (MHA H 15 1/1-7). These fine-grained soils were the locations of the fields which were closest to the original site of the village. Since the fields closest to the village are the oldest, we can assume that in Tuulos the oldest fields are in areas of clayey soil, silt and very fine sand. In the land redivision map of the villages of Juttila and Sairiala (1775-1799), the fields farther away from the village lots are in areas mainly consisting of medium fine sand (granular diameter 0.2-0.06 mm). The only exception is the village of Toivaala, where all the fields are mainly in locations with medium fine sand. The reason for this is that Toivaala is much younger than neighbouring Sairiala, as indicated by medieval taxation records (Suvanto 1985, 634). When the village of Toivaala was established, the best lands in the area were already under cultivation by the villagers of Sairiala.

There is no evidence of Iron Age settlement in the southern parts of the parish. The villages of Syrjäntaka, Pohjoinen, Sydänmaa, Lakkola and Teuro were not established until the Middle Ages. In the southern parts of Tuulos the soils of finest granularity are silt (0.02-0.002 mm), and thus coarser than the clayey soils in the area of Juttila-Sairiala. The clusters of settlement in Pohjoinen, Sydänmaa and Teuro are among silty soils.

The villages of Syrjäntaka and Lakkola are exceptions to this pattern. Here, the fields were cleared in medium fine sand. Syrjäntaka probably grew because of its central location at the junction of the road from Hauho and the Hämeenlinna-Viipuri highway (Fi. *Ylinen Viipurintie*). The highway could not have come into use until 1293, when the Viipuri region was joined to Sweden. Taxation records indicate that Syrjäntaka was one of the largest medieval villages in Tuulos, which easily suggests that it was also one of the oldest. The cultivated areas, however, point to the opposite conclusion (i.e. established *post* 1293). As younger settlements, Syrjäntaka and Lakkola had only access to poorer soils for cultivation.

Areas of very fine sand (0.06 – 0.02 mm) are as far from the settlements as the areas of silt. It can be claimed that fields were cleared in very fine sand around the same time that clayey and silty soils came under cultivation.

Also in the southern parts of Tuulos areas of medium fine sand are at longer distances from the villages, as in the region of Juttila-Sairiala. This indicates that also here medium fine sand came under cultivation later than the fine-grained soils.

It was not until land redivision carried out between the 1770s and the 1800s that fields began to be cleared in areas of predominantly medium fine sand, which is explained by the fact that finer soils had already come under cultivation. In the nineteenth and twentieth centuries areas with Sphagnum peat also came into use. This had not become possible before the systematic draining of bogs.

THE LOCATIONS OF THE VILLAGES

The seventeenth- and eighteenth-century maps of holdings also show the sites or lots of the villages. The villages of Tuulos developed without any major changes in land-ownership until the redivision of land (Fi. *isojako*), whereby maps predating re-

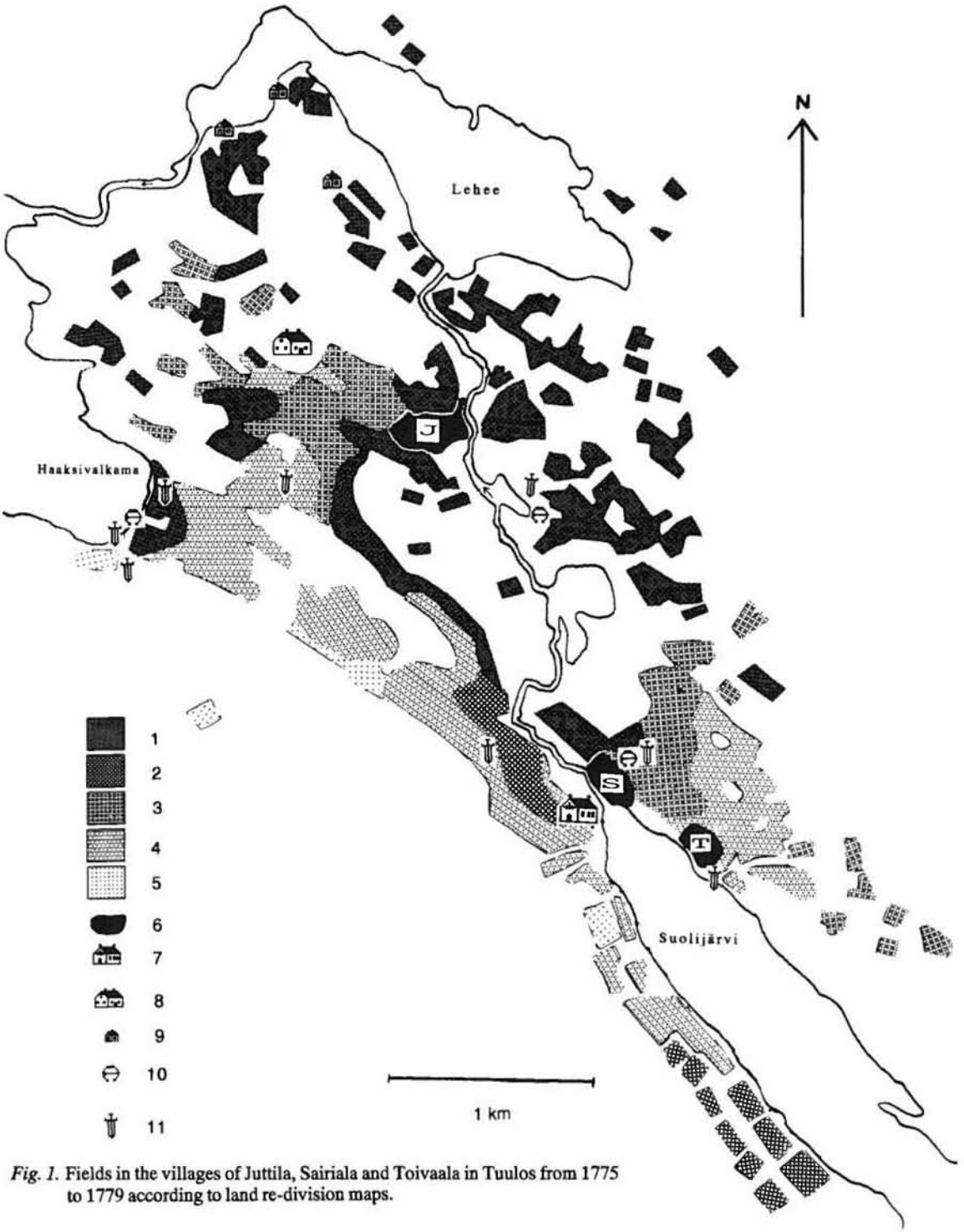

Fig. 1. Fields in the villages of Juttila, Sairiala and Toivaala in Tuulos from 1775 to 1779 according to land re-division maps.

Legend: [1] Clay, granular diameter less than 0.002 mm in over 30% of the soil, [2] Silt, predominant granular diameter 0.02-0.002 mm, [3] Very fine sand, predominant granular diameter 0.06-0.02 mm, [4] Medium fine sand, predominant granular diameter 0.2-0.06 mm, [5] Sand, predominant granular diameter 2.0-0.2 mm, [6] Village sites: J = Juttila, S = Sairiala, T = Toivaala, [7] The medieval church of Tuulos, [8] Juttila manor, [9] Tenant farm, [10] Iron Age cemetery or burial cairn, [11] Iron Age stray find. Iron Age finds according to Jyri Saukkonen (1983).

division show them in their original locations. The spatial patterning of the medieval villages reveals a number of regularities.

Land redivision began in Tuulos in the 1770s. Prior to this, the farmhouses on the village sites had been in compact groups surrounded by fields (as shown in the maps). After redivision, the farmhouses began to be located further apart. Villages and other settlements predating land redivision are hardly ever on arable land. All the villages in Tuulos except Sairiala were established on moraines surrounded by arable land. Sairiala appears to be the exception in Tuulos, being located in the parish's largest and most uniform area of clayey and fine sandy soils. In this part of Tuulos, there are no soils unsuitable for cultivation, and therefore Sairiala is mainly on fine sandy soil. It has an advantageous location at the north end of Lake Suolijärvi on the shores of the lake and its discharge channel amidst fertile arable land. Because of this location, Sairiala, along with Juttila, may be the oldest village in Tuulos.

Availability of water was an important consideration for the locations of settlements. All the villages in Tuulos are on the banks of rivers or streams, and in some cases on lake shores. The only exception is the village of Lakkola, which may have had a spring that later dried. Lakkola is smaller than the neighbouring villages, and its fields are in poorer soils. This suggests that it was younger than the other originally medieval villages, and it may have been established only when wells began to be dug.

CONCLUSIONS

The above information indicates that in Tuulos fine-grained soils were first cleared into fields, and coarser soils then came into use when more arable land was needed. The development of cultivated areas in Tuulos can be summarized in the following model:

1) The oldest, apparently Iron Age, fields are in areas of fine-grained clays, silt and very fine sand in the region of the villages of Juttila and Sairiala. The village of Toivaala was established later in an area of poorer soils.

2) In the Middle Ages settlements expanded into the silty soils and very fine sandy soils in the southern parts of Tuulos, where the villages of Pohjoinen, Sydänmaa and Teuro were established. The youngest villages are Syrjäntaka and Lakkola, whose fields are in areas of medium fine sand. Syrjäntaka was established after the year 1293.

3) Fields cleared after land redivision are mainly in areas of medium fine sand. In the nineteenth and twentieth centuries areas covering Sphagnum peat began to come under cultivation.

The following regularities can be observed in the locations of the oldest villages:

1) Village lots predating land redivision are not on arable land. With the exception of Sairiala, all the village lots in Tuulos were laid out on moraines surrounded by arable land.

2) All the medieval village lots in Tuulos are on the banks or shores of rivers, streams or lakes. The only presently known exception is the village of Lakkola.

The above conclusions may also help outline the relative age of the medieval villages. Prior to land redivision, the pattern was that the younger the village, the coarser the soils of its fields.

The presence of fine-grained soils was one of the prerequisites for the spread of settlement in the inland parts of Finland in the Late Iron Age and the Middle Ages. This conclusion supports earlier views on this subject.

MAPS AND ARCHIVE SOURCES

MHA = Maanmittaushallituksen arkisto (Archives of the National Board of Survey)

Basic survey map (Fi. *peruskartta*) 2134 01 TUULOS (1:20,000)

Basic survey map 2134 02 SAIRIALA (1:20,000)

Soil map 2134 01 TUULOS (1:20,000)

Soil map 2134 02 SAIRIALA (1:20,000)

Map of holdings in the village of Pohjoinen, 1691. MHA H 15 3/1

Map of holdings in the village of Pohjoinen, 1702. MHA H 15 3/3

Map of holdings in the village of Teuro, 1706. MHA H 15 7/1

Land redivision map of the village of Teuro, 1786. MHA H 15 7/4

Map of fields in the village of Sydänmaa, 1773. MHA H 15 5/3

Map of holdings in the village of Sydänmaa, 1706, MHA H 15 5/1

Land redivision map of the villages of Juttila, Sairiala and Toivaala, 1775-1799, MHA H 15 1/1

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