

Farms in a Finnish village (Levanto) 1787-1916

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The paper is a case study on a South-Finnish village as to number and size of holdings from the two-course rotation system in the 18th century to full reallocation in 1916.

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Introduction

The primary unit is an important field of study in many sciences. Just as the cell is one of the central objects of research in biology the agricultural geographer ought to study closely the individual farms, the functional units of the agricultural landscape, in order to fully comprehend inductively the agricultural community, the village, the parish, the region, the country as a whole, the continent, World Agriculture. Reversely only reflections in the opposite direction can lead to the full comprehension of the problems of the small unit. These are the fundamental aspects underlying attempts to investigate the extent to which historical and geographical sources allow a minute analysis of the development of an individual farm.

On this principle a farm unit analysis has been made of a Danish farm (Kampp 1962, 1965, Kampp & Frandsen 1967). During the phase first analysed it was situated in the village being worked according to the open field system of the 1680's with its land divided up into 38 strips within the village boundary. This research was made possible as the Land Register of King Christian V of 1688 contains the results of a survey of every parish in the kingdom, where every piece of tilled land is registered mentioning length and width, quality and soil condition, as well as the names of the fields, owners, and users.

From the end of the 17th century up to the present time the greatest possible number of changes in the farm was registered, changes as regards allocation of land, field structure, drainage, land use, farming methods, yield, animal husbandry, man power, as well as changes

in the site of the buildings and the conditions of the farmer as a tenant under the Crown, from 1774 under a manor and as a freeholder from 1856.

Purpose

The studies mentioned above have given the theme also for this study. Having been granted a Finnish Government Scholarship the Danish author spent September 1969 in Finland with the intention to make Finnish Geographers co-operate in a microgeographical theme to a certain extent corresponding to the above mentioned investigation of a Danish farm. The two authors have equally contributed to this investigation.

The selection of research area and research period were among the main problems of the project. The Danish author chose the village of Levanto as the object of interest simply because it was a small village near Helsinki and it was found that there were some historical maps of this village, which made it possible to follow the development of the village from the late 18th century. Possible future researches on villages of different size and different topographic and geographic background will show to which extent Levanto is a typical South-Finnish village.

The obtainable sources for their part determined the research period. The starting point and main source of the research are two maps, namely 1) the reallocation (Finnish: *isojako*, Swedish: *storskifte*) map of the year 1787 with its explanation (ANBS (Archives of the National Board of Survey, Helsinki) B30 5/1-9) and 2) the map of the completion of unfinished reallocation of the year 1916 (ANBS B30 5/76-102). These maps with their explanations demonstrate the landownership in the village of Levanto. Parcelling documents (ANBS B30 5/10-75; AULM (Archives of the Uudenmaan Lääninhallituksen Maanmittauskonttori, Helsinki) concerning single farms between these dates make it possible to work out the changes during the whole period. The purpose of this study can be expressed in short. The purpose is to determine the changes in the number and ownership of the farms in the village of Levanto in Southern Finland from the reallocation of 1787 to the completion of the unfinished reallocation in 1916. The aim is naturally to link the development of Levanto with other studies in this field made in Finland.

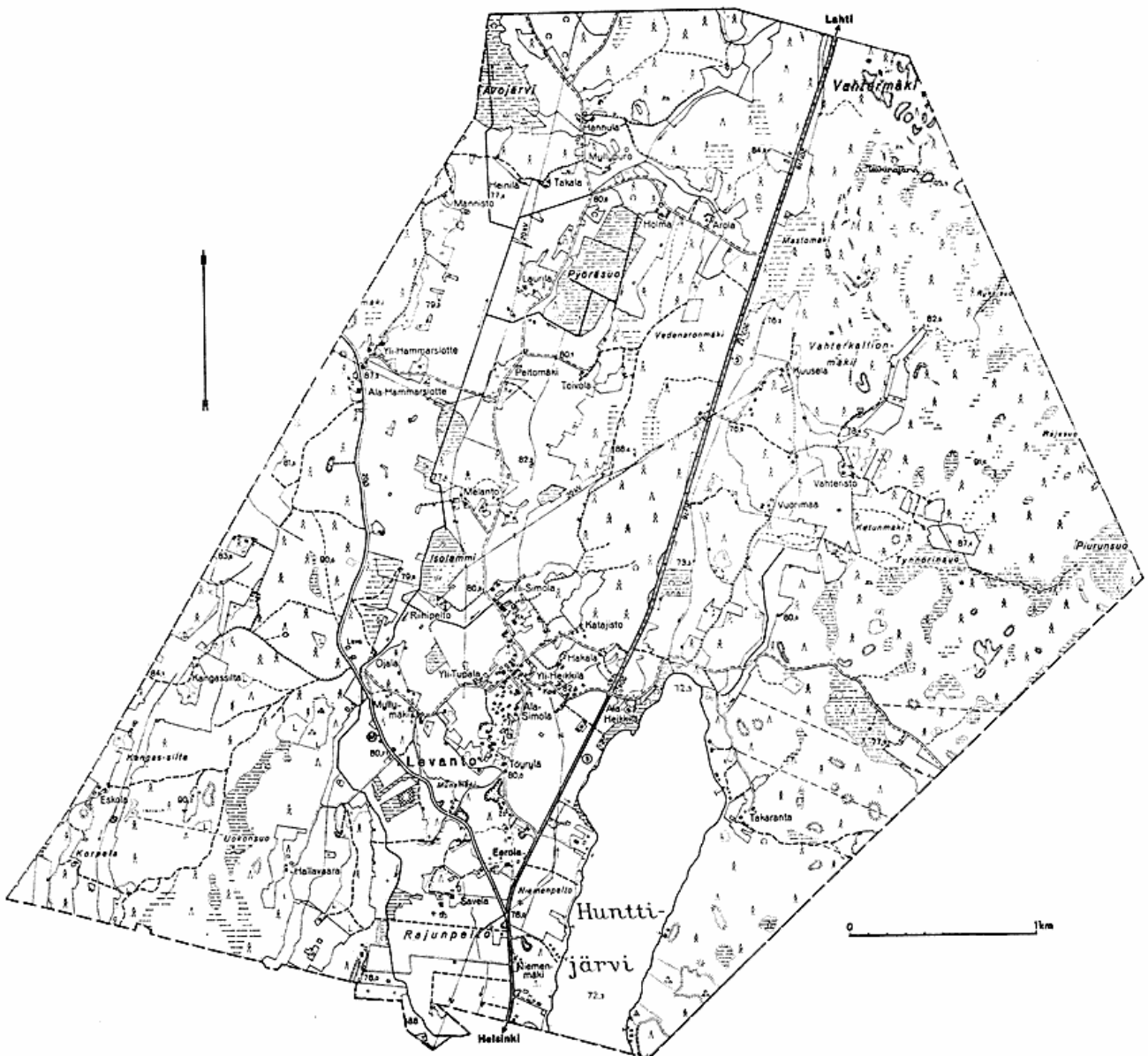


Fig. 1. The village of Levanto (after Basic Maps 2044 12 and 2133 10, National Board of Survey 1956 and 1964).
 Fig. 1. Landsbyen Levanto i Sydfinland.

Thus the comparisons with the development in Denmark and other countries in the summary will have a more reliable basis.

General characteristics of the study area

The village of Levanto is situated in the northern part of the parish Mäntsälä, about 70 km northeast of Helsinki. The main road between Helsinki and Lahti runs through the village. The shape of the village as well as the main forms of the use of land, the roads, and the names as they are today are shown in fig. 1. Some of the structural elements of the village are shown on the maps figs. 2-4.

The landscape of the village is characterized today by

hilly woodland surrounding the fields. In the southern part of the village there is a lake, Hunttijärvi. The most important part of the village is centered around the esker west of Hunttijärvi (Kampp 1971 b).

The maps fig. 1-4 describe Levanto today. Two hundred years ago, which is the starting point of this study, the village was quite different.

The open field system in Finland

Before we begin to inspect the village of Levanto more closely it is reasonable to inspect more generally the conditions before the reallocation.

During the 15th to the 18th centuries the open field system was dominating in a considerable part of Europe

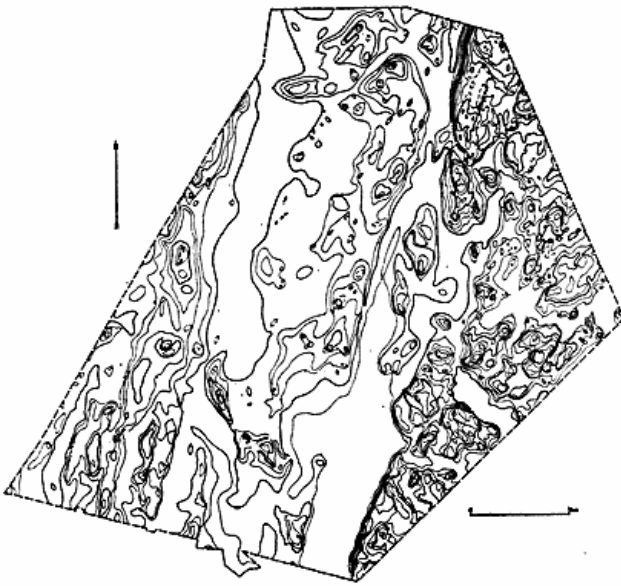


Fig. 2. Relief of the study area. Interval between contour lines 5 m. Sources as in fig. 1.

Fig. 2. Reliefkort over Levanto. Åkvidistance 5 m.

north of the Alps. It is supposed to have its origin in France during the reign of the Carolingians, but the development from the old continuous cultivation, where all the land was tilled every year as long as possible, to the two- or three-field systems was very slow, and they did not become the prevailing systems in Finland till the 14-15th century. It must be emphasized that right until the reallocation other farming systems in many places continued parallel with the systems mentioned above.

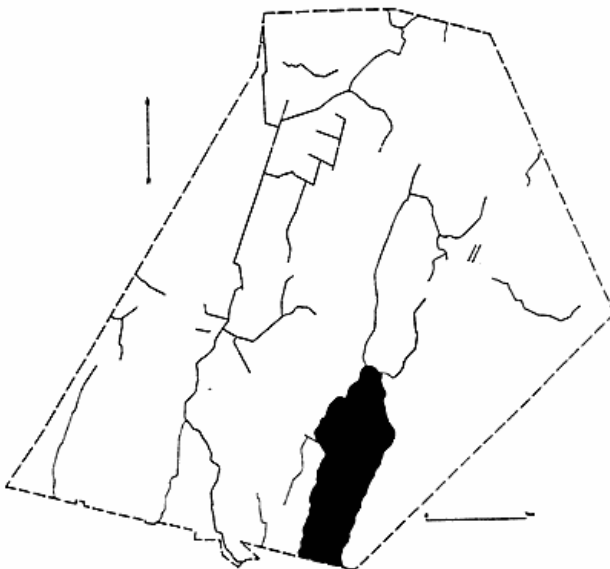


Fig. 3. Hydrography of the study area. Sources as in fig. 1.

Fig. 3. Levantos hydrografi.

The open field system is characterized by joint cultivation (not excluding private ownership) with common rotation and resulting limits to cultivation. The term "open field", however, covers several different systems: all land tilled every year, grassfield system, 2-, 3-, 4-field systems. Even the term three field system is inexact; 4 or 5 enclosed fields are possible, the three year rotation (2 years crops, 1 fallow) being the decisive criterion.

In various places of Europe open field nucleated villages are still to be found to-day, illustrating in an interesting way how the ancestors cultivated the land (Kampp & Frandsen 1967) Thus in Poland considerably large areas are still being worked according to the open field system, especially in the eastern part of the country. The system used here differs from its medieval



Fig. 4. Field patterns in the study area. Sources as in fig. 1.

Fig. 4. Dyrkede arealer i Levanto.

form only as far as potatoes has been introduced as a spring crop (Kostrowicki & Szczesny 1972, 30).

A Danish village exemplifies the decreasing intensity of cultivation towards the margins of the village territory (Kampp 1962, 180), and a similar pattern is to be seen in other countries with an open field system.

The lack of field lanes prevented the peasant from reaching his plots without crossing neighbouring plots; these circumstances contributed to necessitate simultaneous labour.

In Finland the open field system (Finnish: *sarkajako*) dates back to the 14th century and was characterized by hedged-in fields divided up into furlongs (Swedish: *skifte*, Danish: *åse*), in which every farmer had a long narrow almost rectangular strip, a selion (Sw.: *teg*, Dan.: *ager*). The extremely great number of selions, both

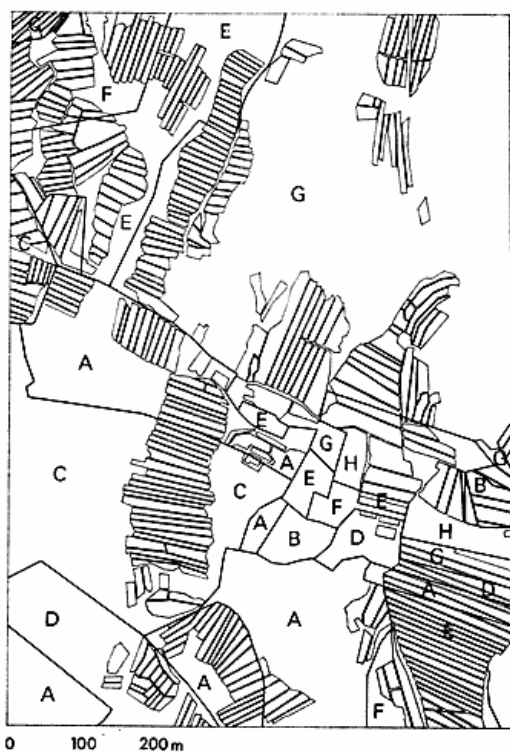


Fig. 5. Central part of the village of Levanto in 1787 (redrawn after realloftment map (ANBS B30 5/4). The letters A-H indicate the ownerships of farms.

Fig. 5. Den centrale del af udskiftningskortet 1787. A-H: de 8 gårde.

arable land and meadow, is the characteristic trait of the *teg*-system, carefully studied by Jutikkala (1952).

The regular open field system was common in South-West and South-Finland. In other parts of Finland the system of irregular parcels (Finnish: *lohkojako*, Swedish: *blockskifte*) was dominating. The areas of the *sarkajako* and the *lohkojako* have not been carefully mapped (Talve 1971, 206). The village of Levanto belongs to the region where the open field system was common (ibid. 220).

As mentioned by Jutikkala (1952) there is a certain disagreement as to the origin of the strips. They can be described in diverse ways as the result of 1) soil conditions, 2) the division going on gradually, 3) the direction of the slopes, 4) the form of the fields, 5) or the ground was first divided up into furlongs, which in turns were split up into strips for the individual farmers, 6) finally there is the possibility mentioned by Jutikkala (1952, 135) "the undeveloped technique of measuring that caused the fields to be split up into hundreds of narrow strips". The strips have been stated to be primary, and secondary are the furlongs (Jutikkala 1958, 302).

The mouldboard plough was not in use, and consequently the furrows between the strips were not so deep,

nor did the strip become a ridge as was the case in Denmark and some Central European countries (Jutikkala 1952, 138-141).

Generally the two-field system was used. One half was sown with rye, while the rest lay fallow. A small area could, however, be fenced in for spring-sown cereals (Jutikkala 1963, 69). Ploughing, sowing, and harvesting had to be done by all the farmers at the same time (Vilkuna 1934, 270, Papunen 1953, 145).

In 1757 a decree was issued according to which realloftment was to take place, if it was the wish of only one single farmer in the village; and even in some cases it was carried through against the wish of all the villagers (Jutikkala 1963, 270-271, Haataja 1949, 58). The strips were exchanged against fields of a reasonable size, so that the farmers might be expected to take the trouble to hedge them in. In order to secure everybody equally valuable land as before an assessment was carried through.

During the same period the woods ceased to be common property. When later the paper industry started using wood as raw material, a farmer owning woodland, the area of which might often be as much as ten times the tilled area, might have the same yield per hectare of wood as per hectare of meadow or poor plough land.

The village 1787

Possible signs of the open field system.

There are no known maps of the village of Levanto from which it was possible to draw conclusions as to land sharing before the year 1787. From the map of the realloftment, which was drawn in the year 1787, (ANBS B30/1-9), however, also some conclusions about the former land sharing system may be formed.

Fig. 5 is a copy of a central part of the realloftment map. The letters A-H indicate eight farms. Thick lines on the map are boundary lines of the properties based on the realloftment. On the map also some thinner double lines can be seen. The fact that they are perpendicular to the contours verifies the assumption that they are ditches. But is it possible to see signs of the open field system?

The furlongs and strips are not clearly to be seen on the map, in contrary to many older maps of some other villages (e.g. Kaasalainen 1906, Appendix X-XVI, Jutikkala 1952, fig. 2, 3, 4). However, it is possible to distinguish some probable furlongs. For instance in fig. 5 there is a probable furlong on the northeastern part of the map, containing 2x8 strips. Jutikkala (1952, 150) has ascertained that in each furlong all the strips of the same holding are of equal or in some cases of proportional width. In addition the width of the strips is relative to the amount of the land tax of each holding so that the wider the plots the bigger the farm and its landtaxes (ibid. 149). On the basis of fig. 5 it can be concluded that the village has had 8 farms, but it is difficult to

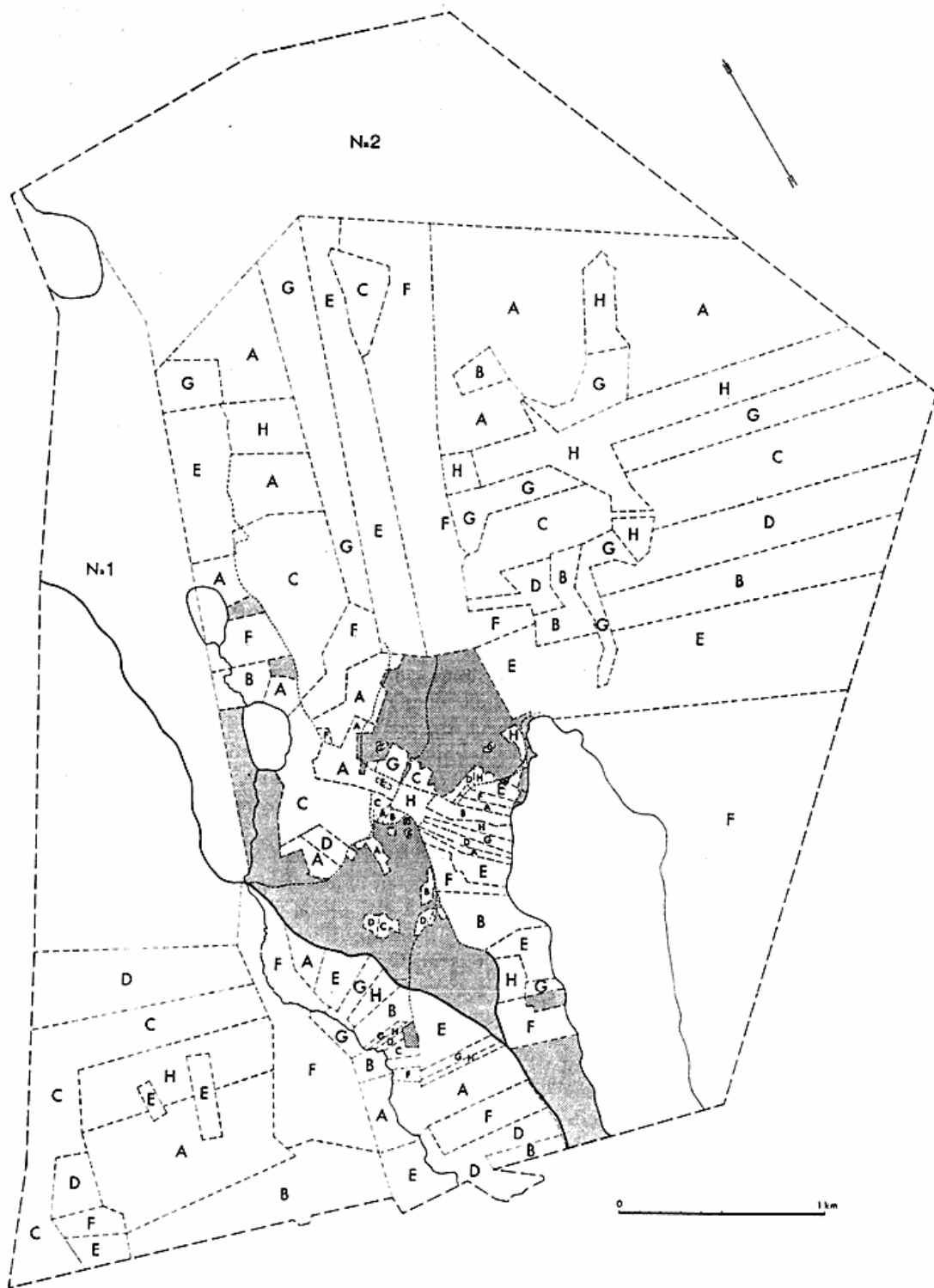
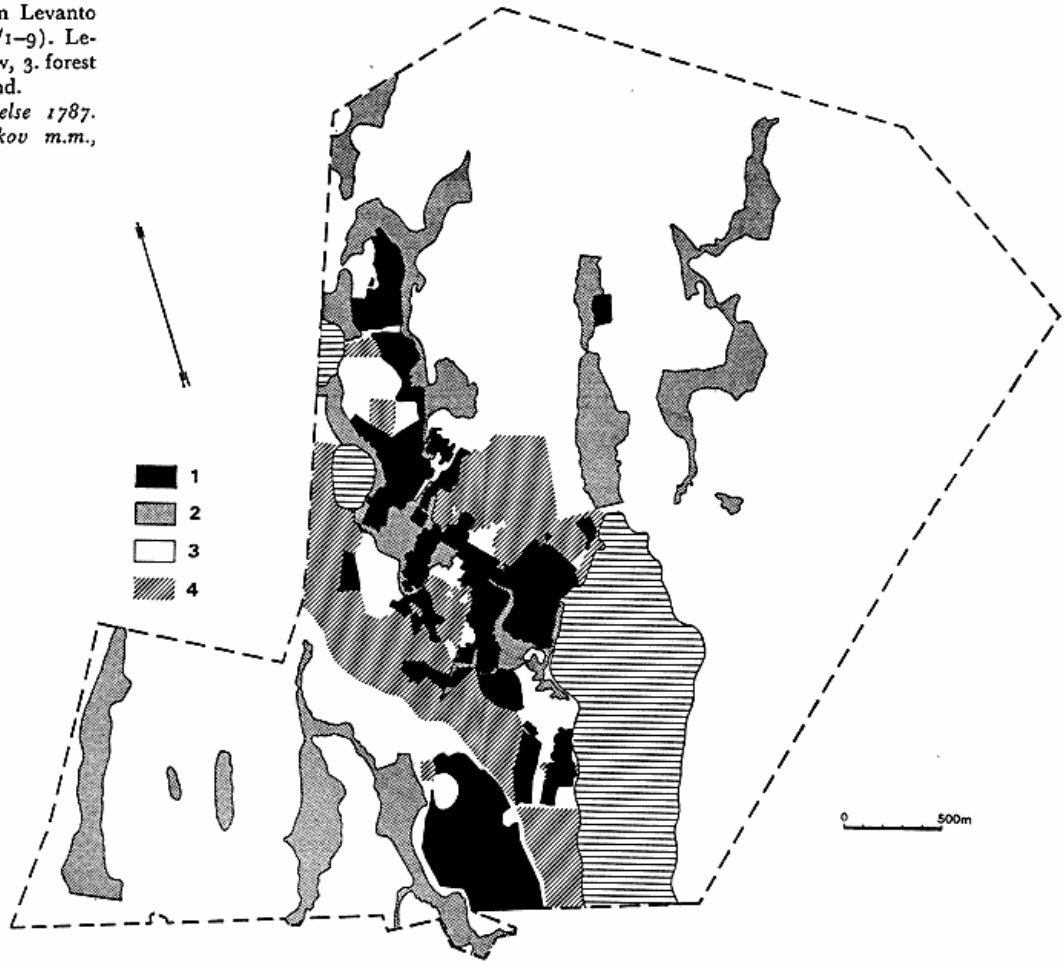


Fig. 6. Landownership in Levanto after reallocation in 1787 (ANBS B30 5/1-9). Eight original farms are marked with letters A-H, new farms with numbers 1 and 2. Shaded areas are common land.

Fig. 6. Ejerforhold i Levanto 1787. A-H: de 8 oprindelige gårde, 1-2: nye gårde.

Fig. 7. The land use in Levanto in 1787 (ANBS B30 5/1-9). Legend: 1. field, 2. meadow, 3. forest etc., and 4. common land.

Fig. 7. Jordens udnyttelse 1787. 1. ager, 2. eng, 3. skov m.m., 4. fælled.



make reliable conclusions as to the open field system. Also after Jutikkala (verbal interview) there is no very typical open field system to be seen in fig. 5.

The reallocation.

The reallocation map and its explanation can be considered the first inventory of ownership of the village of Levanto. Surveyor Timothy Winter started the survey of the village August 1, 1786 in order to distribute the lands of this village at the landowners' request. All of the eight farm owners of the village were then assembled.

The survey also consisted of the definition of the boundaries between Levanto and the neighbouring villages. This was not completed without controversies, but for instances there was some obscurity concerning the boundary between Levanto and Luhtikylä as neither of the parties had any documents to certify their statements but only the knowledge that "it had been so for ever".

Simultaneously the land of the village was surveyed and drawn on the map. When this work was completed, all members and landowners of the village were called

together in order to begin the valuation of the properties. At the same time "the participants were warned not to try to strive for own profit, and even more so, as it very easily could lead to defeat and losses on properties, and in spite of that would always cause quarrel". During the valuation process fields and meadows were classified in five and forests in four classes. Swamps, rocks, stony soil, and gardens were each valued as a different class.

When all properties had been valued in the manner explained in previous paragraphs, those concerned began to negotiate where roads, main ditches, and other services useful to the whole community should be placed.

When discussing the basis of the distribution landowners were unanimous that fields and meadows ought to be distributed according to the old land register taking tax into account.

The last meeting in Levanto was held on May 15, 1787. The main item on this occasion was the consideration of areas which would be most suitable for new farms.

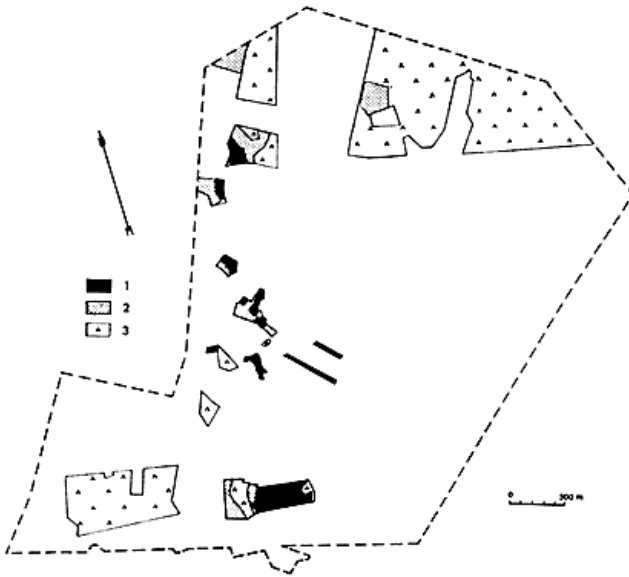


Fig. 8. Possessions of the farm Iso-Jaakkola (A in table 1) in 1787 (ANBS B30 5/1-9). Legend: 1. field, 2. meadow, and 3. forest etc.

Fig. 8. Gården A's lodder 1787. 1. ager, 2. eng, 3. skov m.m.

Ownership and land use.

With the reallotment map and its explanation it is possible to draw a map of ownership (fig. 6). The reallotment land was first distributed to eight farms (A-H) in proportion to their land-tax (*mantal*). Some surplus land was left outside these farms (a rather typical phenomenon for Finnish villages), land to which none of the peasants could lay claim and which accordingly was considered belonging to the Crown (*Jutikkala* 1963, 267-283), and on that land two new farms were established (fig. 6, no. 1 (Hammarlott) and 2 (Hannula)).

When the map of ownership was drawn it was found that fairly large areas in the centre of the village had not been distributed (fig. 6). These still remained as common land. Common land was not distributed between different farms until a generation later in the manner explained later in this paper.

The use of land in the village in 1787 is shown in fig. 7. Common land was not classified in the reallotment. Because of this there is no certain knowledge about the usage of the land either. The map figures in the reallotment map show, however, that areas owned in common probably include fairly much field and meadow.

The usage of the land of the new farms Hammarlott and Hannula has also been excluded from fig. 7. This is due to the fact that there is no comparable material from later periods, especially not from the year 1916. This is why only the area of the eight original farms has been considered, and this is in the paper called the village of Levanto.

The sites of the buildings are not marked on the real-

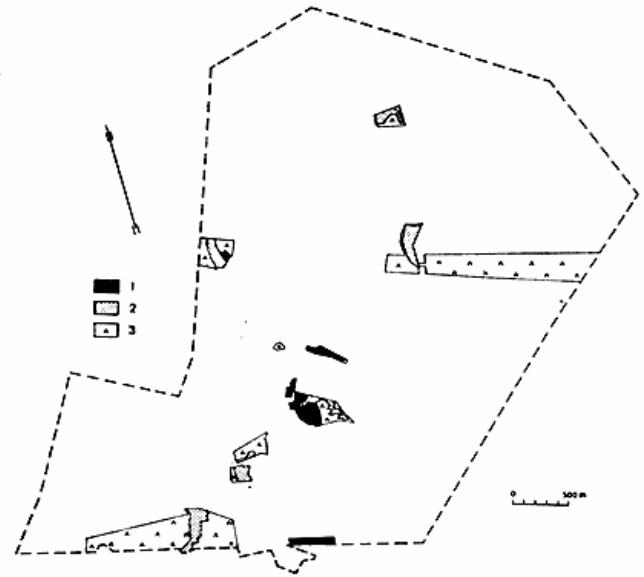


Fig. 9. Possessions of the farm Vähä-Jaakkola (B in table 1) in 1787 (ANBS B30 5/1-9). Legends same as in fig. 8.

Fig. 9. Gården B 1787. Signaturforklaring: se fig. 8.

lotment map. Most of the houses were probably situated as a group in the middle of fig. 5, between the largest two jointly owned areas (fig. 6), i.e. in the same place where the settlement is densest even nowadays (fig. 1). Common land was 1844 called "pig pasture" (*svinvall*) (ANBS B 30 5/12-19). Areas used for pasture of pigs could not be very far from the farmbuildings.

Table 1. Farms in Levanto 1787 (ANBS B30 5/1-9. AULM Land register). Names of the farms are in the same form as they are today.

De 8 gårde i Levanto 1787. Navnene i samme form som nu.

Sign of the farm	Name of the farm	Reg. no.	Size (mantal)	Number of lots
A	Iso-Jaakkola	2 ¹	2/8	14
B	Vähä-Jaakkola	2 ²	1/8	10
C	Iso-Tupala	1 ¹	2/8	8
D	Vähä-Tupala	1 ²	1/8	13
E	Yli-Simola	1 ³	2/8	16
F	Ali-Simola	1 ⁴	2/8	12
G	Ylä-Heikkilä	3 ¹	1/8	12
H	Ala-Heikkilä	3 ²	1/8	11

The names and some data of the eight original farms have been shown in table 1. It can be seen, that one half of the estates consists of 1/4 and the other half of 1/8 *mantal* unit of land. The general effort of the reallotment was to establish big uniform holdings and to dissolve the old dense structure of villages. In fig. 6 and

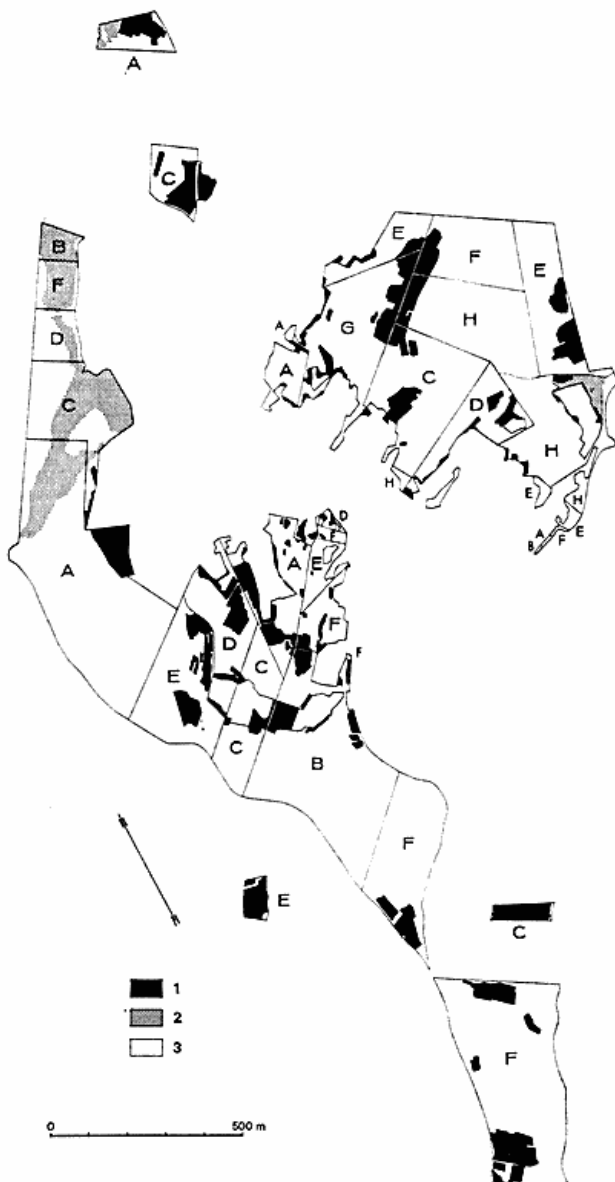


Fig. 10. Division of common land in 1844 (ANBS B30 5/12-19). Legend: 1. field, 2. meadow, 3. forest etc. A-H indicate the ownership of farms (cf table 1).
 Fig. 10. Udskiftning af fælleden 1844. Signaturforklaring: fig. 8 og tabel 1.

table 1 it can be seen that this principle was not followed, but the land of each farm consisted of several (8-16) lots. In addition to the lots of land distributed in the reallocation it must be remembered that each house was left with the right of use of possibly very many lots of common land.

In villages of Orimattila, quite near Levanto, the farms had on an average 2-8 lots. Quite big differences between villages are found (Mannila 1956, 103-104).

A common principle in distributing the land of the village seems to have been that first the village is divided into sections according to the type and value of land. Later each farm received its share according to the size of its assessment unit of land (*mantal*). At that time the fields were concentrated in the core area of the village. In this area small lots were formed. The less valuable the land the bigger the lots. Fig. 8 shows the properties of Iso-Jaakkola (A) and fig. 9 the properties of Vähä Jaakkola (B) as examples. The properties of Iso-Jaakkola have twice the value of Vähä-Jaakkola, because A was twice as big as B according to its assessment unit of land (table 1). The fields of the estates consisted of several small lots of land. Contrary to that the forests consisted of much larger pieces.

Summary

The main purpose of the reallocation was to form uniform holdings and in this way to prevent the drawbacks of the open field system. The statute of the reallocation from the year 1775 ordered that fields were allowed to be distributed in four sections, the meadows also in four sections and the forests in two sections to each holding. This general principle was not achieved in Levanto nor in many other villages in Finland (Jutikkala 1963, 274). The reallocation had a great significance because the forests and in general the areas outside the core of the village were distributed. On the other hand it is significant that in the village of Levanto people were at that time not yet ready to distribute large outlying areas and these remained common land. For some decades the use of land in the common areas remained, in practice, the same as before the reallocation.

Division of common land 1844

Above it has become clear that in the reallocation of 1787 a large part of the land in the core area of the village remained undivided. The minutes of the reallocation mention that the right of use of common land by individual farms was taken into consideration during reallocation but no boundaries were set within that area by the surveyor.

The division of common land (ANBS B30 5/12-19) began September 9, 1844 at which time the surveyor arrived in the village in order to set boundaries which were lacking after the reallocation and to distribute common land. This division was started after a petition of one farmer, Erik Johansson Simola, and by the order of the governor.

The main part of common land was "pig pasture". Besides the division of this land also the landownership of the blacksmith and the soldier of the village and land which was rented with special contract were now considered. All of this land was surveyed during the autumn 1844. This land was also valued by "investigating all the

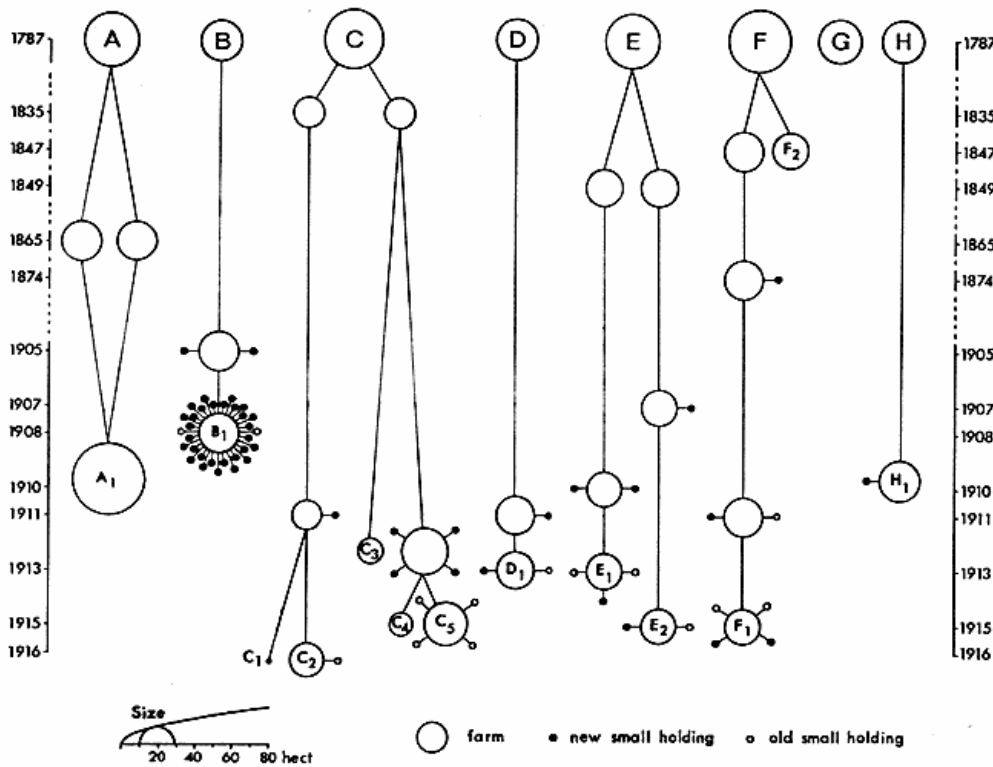


Fig. 11. Development in number and size (fields in hectares) of farms in Levanto 1787-1916 (AULM Land Register). The eight original farms are marked with letters A-H. The symbols A₁-H₁ indicate the farms at the time of the last division. For the explanation of "small holdings", see the text.

Fig. 11. Gårdenes antal og størrelse i ha 1787-1916. A-H de oprindelige gårde, A₁-H₁ etc. er gårdene efter sidste deling. Om »small holdings« se teksten.

pieces of land carefully and comparing them with one another". When this was done the land was divided. The landowners requested that they would be allowed "to separate the pieces of land belonging to them in the only known way". This expression is a clear proof that the use of common land was in practice divided between the farms, at least this holds good concerning the fields, even if boundaries had not been set by the surveyor.

Common land and the division of it has been shown in fig. 10. The distribution of properties is shown with symbols used in table 1 and fig. 6. The minutes of the division mention the general principle that the land given to each farm out of the common land should be sensibly united with the earlier possessions. By comparing fig. 6 and 10 it can be seen that this really was the case, i.e. the land received from the common land was often added directly to land received in the reallocation. In this way the number of parcels of the farms became bigger only in the case of 4 farms.

Fig. 10 also shows the fields and meadows in common land. Characteristic of the core area of the village are numerous small sites of field. Each of these became the undivided property of one farm. Bigger fields on the contrary were often divided between two or more farms.

The division of common land clarified the possessions of all farms. Together with the division of common land the measurements of the reallocation were adjusted.

Then, according to the minutes, obscurities and small disputes occurred. All this shows that the farmers of Levanto have proceeded a long way from the time of their grandfathers, when the main part of the village was common property before reallocation.

Division of the single farms 1787-1916

The legislation of Finland had in the 18th and 19th century regulations which restricted the division and distribution of farms. The general effort was that the possible new farm became so large that it was profitable. Regulations were, however, changed many times. In the year 1747 it was made possible to divide a farm into smaller pieces than 1/4 assessment unit of land with the permission of the court of the district. According to an act from 1852 the pieces had to be so big that they could give the living to a family of at least 5 adults capable of working. For social reasons the right to divide the farm was increased by statutes of 1864 and 1883. They were intended to provide land for the landless. Very remarkably the right to divide was changed by the statute of 1895, after which the principle of profitability had to be discarded. (*Jutikkala 1963, 327-332*).

The above mentioned statute of 1864 included a special form of division in addition to the normal division. It was the division into "small holdings". Small holdings were not intended to be profitable, i.e. a farm on which

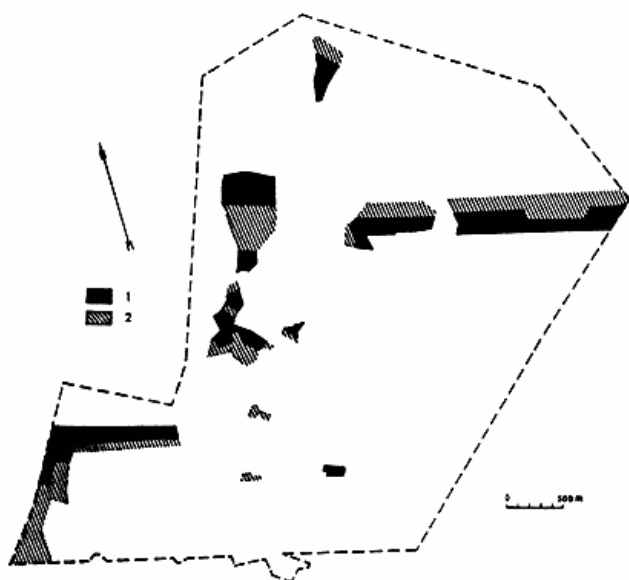


Fig. 12. Division of the farm Iso-Tupala (C) in 1835 (AULM Mäntsälä 5: III - 31 konv. 4). Symbols 1 and 2 indicate ownership of two new farms.

Fig. 12. Deling af gården C i 1835 i 1 og 2.

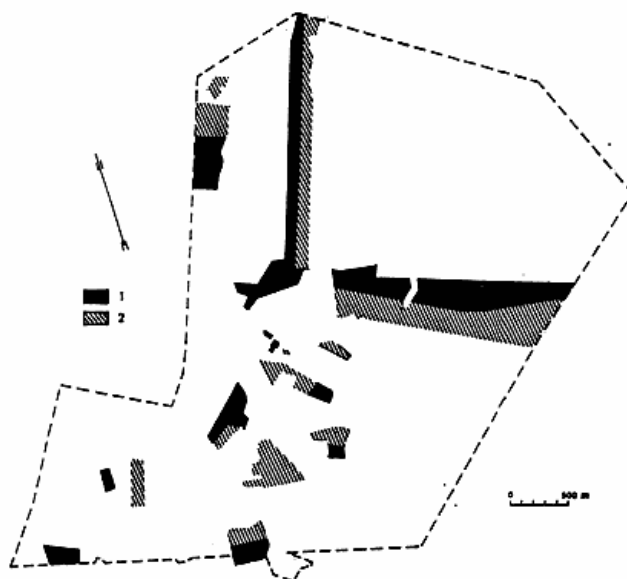


Fig. 13. Division of the farm Ali-Simola (F) in 1847 (ANBS B30 5/20-24).

Fig. 13. Deling af gården F i 1847.

a farmer could earn his living, but in the first place a small lot that could be used as a building site. Small holdings differed from other kinds of holdings because base farms were responsible for taxes in the compensation of which the owner of a small holding paid so-called reward-tax to the base farm. Apart from these a small piece of land (*torp*) belonging to a farm could be tilled by a *torpare*, who in return had to work for the farmer. The small *torp* was a significant feature in the settlement pattern before 1916, but as they were not established as independent till the 1920's they are not dealt with in this paper.

The development in the number of the farms and small holdings in Levanto 1787-1916 has been shown in a diagram, in which the field areas of the farms are shown (fig. 11). The starting point is the 8 farms A-H (table 1) mentioned in the reallocation. The source of the diagram is the landregister.

The first to be divided was the farm of Iso-Tupala (C) in 1835. The farm of $1/4$ assessment unit of land became 2 farms of $1/8$ assessment unit of land. This division occurred already before the division of common land. In the division the principle was that both halves received the same kind of land (fig. 12). The number of plots of Iso-Tupala was eight in 1787. After the division and the division of common land it was divided into 23 pieces (10+13).

After the division of common land the farms F and E were divided. The principle in dividing them was the same as in dividing the farm C (fig. 13-14). Next was

the farm A in 1865 when it was divided into two. Thus the four largest farms measured by the assessment units of land were divided first.

As the regulations of division were eased the division of the farms became more common. This can be seen especially as the formation of small holdings. The farm B had the largest number of small holdings; 29 small holdings were formed at one time in 1908! The other extreme was the farm G which had no small holdings until 1916. In the case of farm C the development led to very small new farms. This development has become common in Finland during the independence, which period, however, is not included in this paper.

From the year 1787 to 1916 the area of fields of the village has increased considerably (cf. fig. 7 and 15). Also fig. 11 shows that the area of fields of some farms has increased because of newly cleared land although some small holdings have been cut out of them.

In the whole the division of the farms of the village of Levanto fits well to the model, which was formed by the legislation. The development of each farm has, however, been unique.

Completion of the reallocation 1914-1916

The aims of the reallocation of Levanto were not achieved as was the case in many other villages in Finland. Because of this some actions generally completing the reallocation were put into practice. For this reason March 9, 1914 the completion of the reallocation was started

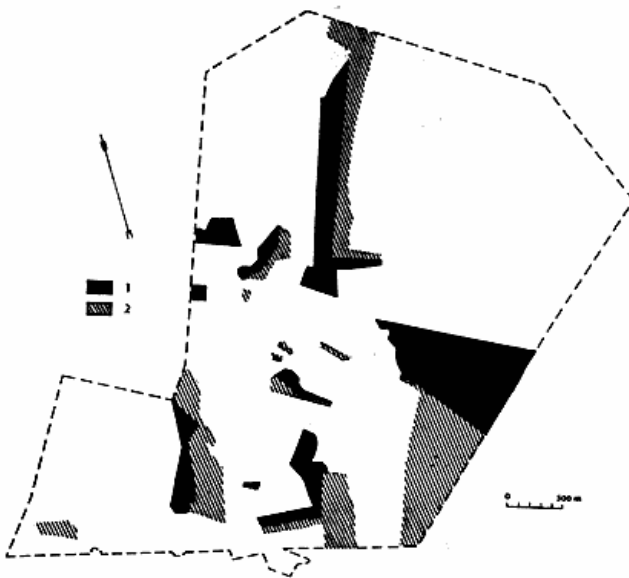


Fig. 14. Division of the farm Yli-Simola (E) in 1849 (ANBS B30 5/25-32).

Fig. 14. Deling af gården E i 1849.

by the vice-surveyor Matti Nisula. In order to measure up the existing situation all maps and documents concerning the ownership of land in the village were gathered. It is stated in the records that the only common land in the village was a small holding for the blacksmith's workshop.

According to the maps and documents and other information the number of plots of the farms varied from one to nine, the average being six. When the surveyor realized that the farms consisted of such small plots he suggested a complete reallocation, because he thought it the best way in which to distribute the land in single plots.

All those concerned, however, unanimously objected to this arrangement and asked permission to have only small alterations in connection with which exchanges of plots could be cut down.

The interesting thing was the farmers' counterproposal. The Finnish Senate, however, turned down the farmers' proposal (decree no. 1197, 20.8.1914) and ordered the completion of the reallocation to be started.

At the meeting of July 15, 1915, it was noted that all sites had been measured. At the meeting on August 12, 1915, the farmers announced that they had agreed on numerous exchanges of sites. On September 29, 1916, the last meeting took place in the village, when it was stated that the entire allotment was finished. Fig. 16 shows the ownership of land and plots annexed to them. After the completion of the reallocation the number of the plots were as follows:

A ₁	Iso-Jaakkola	4	D ₁	Vähätupala	9
B ₁	Vähä-Jaakkola	1	E ₁	Yli-Simola	10
C ₁	Kangassilta	1	E ₂	Ali-Simola	8
C ₂	Juha-Tupala	6	F ₁	Eerola	8
C ₃	Vuorimaa	2	F ₂	Simola	5
C ₄	Eskola	1	G	Ylä-Heikkilä	9
C ₅	Yli-Tupala	5	H ₁	Ala-Heikkilä	6

The letter and number symbols are the same as in fig. 11. In 1916 the farms had 75 plots altogether. This is clearly less than after the reallocation in 1787, when the number was 96 (table 1). However, it should be noted that the figure of 1787 does not include land in common ownership and that of 1916 does not include small holdings. The development has, however, varied in different parts of the village (cf. fig. 6 and 16). The size of landholdings has become larger in the core area but the remote areas are divided into smaller plots.

On the whole, the completion of reallocation did not help to clearly reduce the number of plots. The most significant improvements were made through mutual exchanges between the farms. In practice the farmers thus got through their original idea.

Summary with additional remarks on open field systems and reallocation

The paper "A farm in the Village" (Geografisk Tidskrift 1967) has given the theme for this case study of the development of the village of Levanto about 70 km NE of Helsinki through about 130 years. This village shows of course common Finnish as well as unique features.

Generally two-course rotation was used in Finland. It also persisted in many European areas of light, thin or poor soils or in areas where liability to drought in late summer prejudiced satisfactory yields from spring-sown crops. It predominated in central Sweden, and in England the two-course rotation was most frequent on light soil overlying limestone and sandstone in the midland zone of Jurassic scarplands (Gray 1915, 30). It also existed in the fertile plain west of Copenhagen, though not because of summer drought, since it was a barley-fallow system.

In Scania and Denmark the heavy plough was normal, and the two- or three-course rotation fairly common; in central Sweden and in Finland the light plough continued to be used, and although there were some areas in which the three-course rotation held sway, a two-course rotation of crop fallow was more frequent.

Levanto is situated in a region where the two-course rotation system was dominating in the 18th century.

In Denmark the land gradually came into the possession of the nobility or the Crown, and in the middle of the 17th century the greater part of the farmers had become tenants. But this was not the case in Norway and

Fig. 15. The land use in Levanto 1844 (ANBS B30 5/12-19). Legend: 1. field, 2. meadow, and 3. forest etc.

Fig. 15. Jordens anvendelse i Levanto 1844. Signaturforklaring: se fig. 8.



partly not in Sweden and particularly in Finland, where most part of the peasants continued as freehold farmers.

It must be stressed that the method of cultivation was not altered even if the Danish peasants were tenants. The greater part of the land of the village continued to be tilled by peasants who paid copyhold rent. In this respect Norden differed very much from Germany (especially east of the Elb) and Poland, where numerous villages were abolished and the land tilled directly from the manors. Only from the last decades of the 17th century and onwards this tendency began to develop in Denmark and Sweden (in Norway not at all).

In Denmark the peasant had the right of use of his land, for which he had to pay copyhold rent (*landgilde*) and do villein service on the manor. The open field system of cultivation implied submission to joint decisions; any individual initiative was impossible. About 1750 many Danish villages were reorganized to *kobbelbrug*: the land was tilled with grain for some years, then used for hay and grazing, and after a fallow period the same rotation began.

In 1757 a reallocation decree was issued in Sweden-

Finland, in some places the reallocation was carried through accordingly, sometimes even against the wish of all peasants in the village.

There are no known maps of Levanto from the time of open field system, but the reallocation map from 1787 shows some possible signs of two-course rotation furlongs (fig. 5). The map mentioned furthermore shows that the reallocation comprised 8 farms, but it does not show where the buildings were situated. Some surplus land was left outside these farms, and two new farms were established here (1-2).

In Denmark the dissolution of the open field system resulted in a change of the cultivated land, the compact holdings were enclosed by numerous fences, and the (later on) privately owned fields were much better cared for (*Kampp & Frandsen 1967*). In Denmark and Sweden there is in general much less survival of the open field system in the landscape than in the countries mentioned above, since the reallocation movement radically revolutionized the appearance of the agrarian landscape and the distribution of rural settlement (*Kampp 1971 a*).

It was laid down in the Danish enclosure act of 1781



Fig. 16. Landownership in Levanto after completion of reallocation in 1916 (ANBS B30 5/76-102). Farms are marked with letters A₁-H₁ and "small holdings" with letters a₁-h₁. For example e₂ is a small holding of the farm E₂ (cf. fig. 11).

Fig. 16. Ejendomsforholdene i Levanto efter fuldført udskiftning i 1916. A₁-H₁: se fig. 11, a₁-h₁ de tilsvarende (tilhørende) småbrug (cf. fig. 11).

that every holder had the right to have his cultivated land, the meadows, commons, and moors exchanged for a compact holding even if the rest of the inhabitants of the village were against reallocation. The expenditure of surveying and mapping had to be shared and the map to be approved by all peasants of the village.

A peasant was to have the same amount of assessed value of land after the reallocation as before. The outline

of a property had to be as appropriate as possible; if the length was more than 4 times the width or if the buildings were more than 155 *alen* (=about 900 m) from the farthest end of the land, an outlying farm was to be established (with economic support for erecting new buildings).

An act of 1794 concerning fences and the right not to have the fields trespassed upon made every farmer

responsible of the cultivation of his land, thus enabling him to introduce new crops and to develop better livestock breeds which was impossible as long as the stock was in free grazing in the common. Better agricultural implements, drainage and marling created quite other conditions for the crops. Series of technological agricultural improvements in the following decades coincided with operational changes. Concurrently with this development the old village pattern gradually changed.

In Sweden the reallocation was more gradually carried out. Before the final dissolution of the open field system the first reorganization came under the laws of 1749, 1757 and later (*storskifte*), in which the number of strips was reduced, but the village organization on the plains was left undisturbed. In 1803 the second redistribution of land began; it was largely based on the British model and was initiated by landowners. The idea was that the farmsteads, then grouped together in the villages, should have their land in one piece (*enskifte*). The farmsteads were to be placed in their own fields, but the aim was to move as few farmsteads as possible out of the village. This redistribution of land was carried out only in Scania and in parts of the plain south of lake Vänern, and was replaced in 1827 by a law of redistribution, whereby a more complete disruption of the village community was envisaged (*lagaskifte*). The old villages with their clusters of farmsteads were split up and the farms were dispersed. Thus this redistribution of land since the 18th century has now been carried out practically over the whole country (*Somme* 1960, 300).

In Finland instead of the small strips a few larger lots were given to each holding in Levanto, so that hedging in was easier, but each farm received its share according to its assessment unit of land, the fields and meadows being classified into 5 groups. Contemporarily the woods ceased to be owned in common and were classified into 4 groups.

Fairly central, but outside the reallocated district, lay until 1844 relatively large till then unclassified common areas (fig. 6 and 10); it may have been meadow as well as fields; partly it may have been used for pigs, since the name was *svinvall* in 1844. The land of the reallocated holdings was not very well rounded off, though the act of 1775 claimed that a holding could only possess 4 fields, 4 meadow plots and 2 forest plots. In Levanto, however, each farm got 8–16 lots (table 1), to which were added probably many common lots. Conditions most likely have been similar in many Finnish villages.

The fields were gradually concentrated in the core of the village, where the land was divided reversed proportionally to the soil fertility (fig. 6).

The common plots were in 1844, if possible, given to bordering holdings, thus the number of plots per farm was only increased in 4 holdings.

Finnish legislation in 18th and 19th century intended to limit the division of agricultural holdings. But for social aims the right of division of farms increased by new laws 1864 and 1883 and in 1895 the idea that an agricultural holding should be large enough to support the living of a family was given up. The 1864 act included a permission to create a special Finnish kind of small holdings where base farms were responsible for taxes in compensation of which the owner of a small holding paid so-called reward-tax to the base farm. The following development of Levanto from that time is shown in fig. 11, where it is seen that there were in 1916 in the village 63 holdings differing very much in size. The field areas are seen to have increased 1787–1916.

In Levanto the reallocation was not completed till 1914–16, when a reduction in the number of lots per holding was carried through in spite of resistance from the farmers (see table on page 14 and fig. 16), while in many other Finnish villages the reallocation was finished long time ago.

As a result of favourable trade conditions for Danish agricultural goods there was a shortage of labour in the 1890's; an act was therefore passed making available Government loans for setting up farm workers' cottages with small parcels of land; but as a result the labour market of the large estates rapidly reached the saturation point, and with renewal of the act every 5th year the limit of the allowed size of the farms was steadily extended. The aim quickly became an independent farm large enough to keep a family (*Kampp* 1971 a). From the year 1909 the till then established small holdings were granted loans from the state to buy additional allotments. The small holder movement was the manifestation of the need of an economic and social independence and demanded larger holdings because it was supposed that a holding giving full employment could be worked most intensively.

RESUME

Landejendomme i den sydfinske landsby Levanto

Afhandlingen »En gård i landsbyen« i Geografisk Tidsskrift 1967 gav ideen til nærværende historisk-geografiske case study over en finsk landsby ca. 70 km NØ for Helsingfors gennem 230 år. Adskillige træk er alment finske, medens andre naturligtvis er specielle for denne landsby.

Den ligger i en egn, hvor tovangsbruget var almindeligt i 1700-tallet, bønderne havde, som i Danmark fælles arbejdstid for pløjning, såning og høst af ensartede afgrøder.

I 1757 vedtoges en lov om udskiftning, som i nogle landsbyer blev gennemført endog mod alle bøndernes ønske. Det er ikke lykkedes at fremskaffe noget kort ældre end udskiftningskortet fra 1787, hvorpå dog ses nogle sandsynlige tovangsåse (fig. 5). Kortet viser desuden, at udskiftningen omfattede 8

gårde, hvis bygningers beliggenhed er ukendt; i udkanten af området etableredes 2 nye gårde, som er ladt ude af betragting her.

De små agerstrimler blev udskiftet til mere samlede marker, som det var lettere at indhegne. For at sikre mod, at nogen fik ringere jordværdi end før, blev en jordklassificering i 5 bonitetsgrupper gennemført. Skovene ophørte samtidig at være fælleseje og blev boniteret i 4 klasser.

Ret centralt, men uden for det udskiftede landområde, henlå indtil 1844 relativt store arealer som indtil da uklassificeret fælleseje (fig. 6 og 10), og deres brug kendes ikke, men det har formentlig været både eng og ager; en del blev sikkert anvendt til græsning for svin, idet det i 1844 kaldtes *svinvall*.

Arronderingen af de udskiftede ejendomme var ikke særlig ideel sammenlignet med danske forhold; ganske vist krævede loven af 1757, at en landejendom kun måtte have 4 agerområder, 4 englodder og 2 skovarealer, men hver gård fik her 8–16 lodder (tabel 1), hvortil kom retten til udnyttelse af rimeligvis mange fælleslodder. Forholdene har antagelig været lignende i mange finske landsbyer.

Markerne blev efterhånden koncentreret i landsbyens kerneområde, hvor jorden blev delt i lodder med størrelse omvendt proportional med boniteten (fig. 6).

Fællesområderne blev i 1844 så vidt muligt lagt til gårde, der grænsede op til dem, således at antallet af parceller kun blev forøget på 4 af landejendommene.

Finsk lovgivning i 18. og 19. århundrede tilsigtede at begrænse delingen af ejendommene. Men med sociale formål øgedes retten til deling i 1864 og 1883. 1895 opgav man at forlange, at en familie skulle kunne ernæres alene på en landejendom. 1864-loven inkluderede ret til oprettelse af en speciel finsk form for småbrug, hvor »basisgårde« var ansvarlige for »sin(e)« småbruger(e)s skat, idet husmanden skulle betale »reward-tax« til »basisfarmeren«. Den udvikling, der derefter fulgte for Levantos vedkommende, er vist i fig. 11; i 1916 var der således ialt 63 større og mindre landejendomme i landsbyen. Som det fremgår af figuren er agerarealet vokset i perioden 1787–1916.

I mange finske landsbyer var udskiftningen tidligt fuldført, i Levanto skete først 1914–16 under stærk modstand fra bøndernes side en nedskæring i antallet af lodder pr. gård (se tabellen side 14 samt fig. 16).

LITERATURE

- ANBS = Archives of the National Board of Survey. Helsinki.
AULM = Archives of the Uudenmaan Lääninhallituksen Maanmittauskonttori. Helsinki.
- Gray, H. L. (1915): English Field Systems. Cambr. Mass.
Haataja, Kyösti (1949): Maanjaot ja talojärjestelmä. Helsinki.
Jutikkala Eino (1952): How the open field came to be divided into numerous selions. Proceedings of the Finnish Academy of Science and Letters.
Jutikkala, Eino (1958): Uusista skandinaavisista ja englantilaisista sarkajakotutkimuksista. Historiallinen Aikakauskirja.
Jutikkala, Eino (1963): Bonden i Finland genom tiderna. Stockholm.
Kaasalainen, Antti (1906): Kylämuodosta ja vainiojärjestyksestä Lounais-Suomessa 16- ja 17- sataluvulla. Helsinki.
Kampp, Aa. H. (1962): Agricultural Geography of Mön. Erdkunde.
Kampp, Aa. H. (1965): Det rurale landskab. – In Kampp & Aagesen: Det danske kulturlandskab. København.
Kampp, Aa. H. & Frandsen, K. E. (1967): A Farm in the Village. Geografisk Tidsskrift.
Kampp, Aa. H. (1971a): Changing patterns of agricultural settlements in Denmark. I.G.U., Hungary.
Kampp, Aa. H. (1971b): Et Syd finsk område. – In Hedemann: Norden. København.
Kostrowicki, J. & Szczesny, R. (1972): Polish Agriculture. Budapest.
Mannila, Olavi (1956): Isonjaon vaikutus kyläyhteisön hajomiseen Orimattilan pitäjässä. Kotiseutu.
Papunen Pentti (1953): Vuoroviljelystä ja aitaamisesta sarkajakoisissa satakuntalaiskyllissä. Kotiseutu.
Somme, A. (1960): The Geography of Norden.
Talve, Ilmar (1971): Suomen kulttuurirajoista ja -alueista. Suomalainen Tiedeakatemia, Esitelmät ja Pöytäkirjat.
Vilkuna, Kustaa (1934): Talonpojan maa- ja kotitalous. In: Suomen Kulttuurihistoria II. Jyväskylä.

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Jutikkala Eino (1952): How the open field came to be divided into numerous selions. Proceedings of the Finnish Academy of Science and Letters.
Jutikkala, Eino (1958): Uusista skandinaavisista ja englantilaisista sarkajakotutkimuksista. Historiallinen Aikakauskirja.
Jutikkala, Eino (1963): Bonden i Finland genom tiderna. Stockholm.
Kaasalainen, Antti (1906): Kylämuodosta ja vainiojärjestyksestä Lounais-Suomessa 16- ja 17- sataluvulla. Helsinki.
Kampp, Aa. H. (1962): Agricultural Geography of Mön. Erdkunde.
Kampp, Aa. H. (1965): Det rurale landskab. – In *Kampp & Aagesen*: Det danske kulturlandskab. København.
Kampp, Aa. H. & Frandsen, K. E. (1967): A Farm in the Village. Geografisk Tidsskrift.
Kampp, Aa. H. (1971a): Changing patterns of agricultural settlements in Denmark. I.G.U., Hungary.
Kampp, Aa. H. (1971b): Et Syd finsk område. – In *Hedemann*: Norden. København.
Kostrowicki, J. & Szczesny, R. (1972): Polish Agriculture. Budapest.
Mannila, Olavi (1956): Isonjaon vaikutus kyläyhteisön hajomiseen Orimattilan pitäjässä. Kotiseutu.
Papunen Pentti (1953): Vuoroviljelystä ja aitaamisesta sarkajakoisissa satakuntalaiskyllissä. Kotiseutu.
Somme, A. (1960): The Geography of Norden.
Talve, Ilmar (1971): Suomen kulttuurirajoista ja -alueista. Suomalainen Tiedeakatemia, Esitelmät ja Pöytäkirjat.
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