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FINSKA FORNMINNESFÖRENINGENS TIDSKRIFT
82:3

LUISTARI III

A Burial-Ground Reflecting

The Finnish Viking Age Society

by

PIRKKO-LIISA LEHTOSALO-HILANDER

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ERRATA AND SOME NOTES:

P. 8, General map
experimental excavations should be trial excavations

P. 9, Map 1
Two graves marked with the number 30; the northernmost one should be 28.

P. 11, Map 3
Grave 129 should be 125.

Pp. 14—15
According to Professor C. F. Meinander two more works, Kustaa Vilkuna, Kihlakunta ja häävuode, Helsinki 1964, and A. M. Tallgren, Hiisi ja Moisio, Virittäjä 1933, Helsinki, should have been mentioned.

P. 37, right, 20—23
The translation of the original Finnish text should have been: Also from Arabian sources we learn that a marten skin cost a dirham, and on the other hand it is known that a male slave at the place of delivery could cost about 100 dirhams.

P. 37, right, 34
520 grams should be 750 grams.

P. 37, right, 46—50
After the coin reform of Charlemagne in 793/4 there were, according to the Lex Saxonum, two different solidi, a light one of two tremisses and a heavy one of three tremisses. The value of coins was given in animals of different age and species (cf. e.g. Elisabeth Nau, Numismatik und Geldgeschichte 1947—1968, Blätter für deutsche Landesgeschichte 105, 1969, pp. 327—328). The values here are in heavy solidi of three tremisses.

P. 38
Mr. P. Sarvas, lic. phil., has kindly informed that in 1559 the mark contained no more c. 8 grams of silver, but only about 6 grams, so that 75—100 marks would have been c. 450—600 g of silver and 24 marks 145 g of silver. *This does not affect the ratio*, but his observation is right; in 1540 Gustaf Vasa let marks be coined with reduced silver content. However, he complained still in 1558 that moneyers used too much silver and gave detailed instructions (cf. J. W. Ruuth, Åbo stads historia under medeltiden och 1500-talet, III, Helsingfors 1909, p. 163 and note 1). It seems also that the mark preserved its value long among the Lapps: in 1555

40 squirrel pelts could be valued at about $\frac{2}{3}$ troy ozs. ($1\frac{1}{2}$ lod = about 20 grams) of silver (Itkonen 1943 p. 27), although in 1558—1559 the same amount cost 1—2 marks. In 1553 80 squirrel pelts were as much as a wolfskin and a wolfskin was as much as 12 ells of woollen cloth, so the value of the latter could have been more than 3 grams of silver per ell; in 1559 4 ells cost 1 mark. Apparently only at the beginning of the next decade the mark fell in value in the Lappland trade, because a marten skin, valued at one mark both in 1523 and 1558—1559, was valued at $1\frac{1}{2}$ —2 marks in 1564. Also the price of both blackfox and wolf skins had gone up by a half, and a bearskin was in 1564 worth $2\frac{1}{2}$ times its price in 1559 (cf. Itkonen 1943 pp. 13 and 25). The Lappland barter with its fluctuating prices gives in my opinion some idea of the conditions during prehistoric times.

P. 48, right, 7—8
According to Professor Meinander: Many lines of ancient verses should be Many lines of Finnish folkpoetry.

P. 51, right, 26
abcence should be absence

P. 53, right, 23
experimental excavations should be trial excavations

Pp. 54—57
Professor Meinander is of the opinion that »a landlord» is not a suitable term in this connection; he suggests a yeoman. According to Professor Jutikala »a house» is not a correct translation either; perhaps a farm or a household is better.

P. 55, right, 38
plaque should be plague

P. 56, map fig. 7
womans graves should be women's graves

P. 59, right, 36
36 graves should be 35 graves

P. 64, map fig. 9
excavations reports should be excavation reports

P. 73
Maps in figs. 17 and 18 have changed place.

P. 80, left, 35
1891 should be 1871

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FOREWORD

The material for this study began to accumulate in spring 1969, when I eagerly seized the opportunity to excavate the newly discovered burial-ground at Luistari, Eura. The title was found a couple of years later, when Dr Aarni Erä-Esko wished to give information about studies under preparation concerning the Viking Age at the Kiel Viking Exhibition. The study of the excavation and material of the Luistari burial-ground has lasted out until a second Viking exhibition, for the British Museum Exhibition is at present taking the world by storm. I shall probably still be studying Luistari and questions concerning it when a third Viking exhibition is held, but this work marks the ending of one phase.

My present dissertation, however, gained its final form within a very short period, chiefly during autumn 1980. I am grateful to the examiners of my work, Professors C. F. Meinander and Unto Salo, for helping me through my discussions with them to see what it was I wished to say. Professor Meinander's interest in the Iron Age society especially has been a spur to my efforts. And no doubt my former teacher Academician Eino Jutikkala will observe that although I have abandoned his field of study I have not disregarded his teaching.

I am very grateful to the Research Council for the Humanities of the Academy of Finland that by accepting me as one of their younger fellows they made it possible to deal with the vast material of Luistari. The fact that I managed to collect this material is primarily thanks to the A. Ahlström Osakeyhtiö company and the Eura local authorities, who over the years have financed my excavations.

The Emil Aaltonen Foundation, the Letterstedtska Society and the Society of Kalevala Women have also supported my work. The Finnish Culture Foundation made me a grant with the help of which the work could be translated into English. On behalf of Helsinki University the language was checked by Professor Saara Nevanlinna. To all those mentioned, together with the staff of the National Board of Antiquities and the Department of Archaeology in the University of Helsinki, I wish to express my warm thanks for all the help I have been given. Also to the Archaeological Society of Finland for the publishing of this work, and to Professor Lars Pettersson for his help in this connection.

For the final form of this work thanks are due in particular to two people, Mr Philip Binham M.A., who by translating (chapters 3, 4.1., 4.2., 5 and 6) and correcting the text has helped me enormously, and to my husband Rauno Hilander, who has done the final drawings of the many maps and ensured that I have been allowed to get on with my writing in peace. The many colleagues, both in Finland and abroad, who have helped me, are mentioned in the foreword of the earlier parts of the Luistari series.

I dedicate this work to my parents, Kaarle and Bertha Lehtosalo, thanks to whom my interest in the past is largely due. The family tales my mother told me made me familiar with the living past of tradition, my father's activity on the Lahti Municipal Museum Council gave me the idea already as a child that antiquity also lives in artefacts. They were interested in the development of society too, so that this work is a suitable monument to them.

Helsinki, June 1981.

Pirkko-Liisa Lehtosalo-Hilander

1. OBJECT OF THE STUDY

The object of the study at hand is to throw light upon the suitability of the Luistari cemetery as a reflector of the social structure of the community using it. It is based on material presented in Luistari I and Luistari II. In the first of these publications, graves from the cemetery were described, and the preliminary cemetery chronology of Luistari, based on the structure of the burial-ground and on the coin finds, was presented. In Luistari II this chronology was improved by traditional artefact analysis. A division of the Viking period in this cemetery into four different phases, making a total of 250–270 years, was thus obtained. Phases V I and V II correspond to the earlier Viking period in the Scandinavian chronology, Phases V III and V IV, to the later Viking Age. The division between earlier and later phases is based in the first place on changes in weapons. During the first two phases the E-type spearhead and its variations dominate the armament, during the later phases there appear spearheads of types K, M and G with their variations, and the spearhead with accentuated junction, characterized as a late eastern Scandinavian variant of the E-type spearhead. The more detailed division is principally based on dress details and the growth of the cemetery.

Two Merovingian period phases precede the Viking period in this cemetery. The first of these is incompletely represented in the excavated material, whereas the phase corresponding to Cleve's Phase III and directly preceding the Viking period is represented rather well. To avoid misunderstanding, in this study these phases are marked according to Cleve M I–II, standing for the earlier Merovingian period phase at Luistari, and M III, designating the later one.

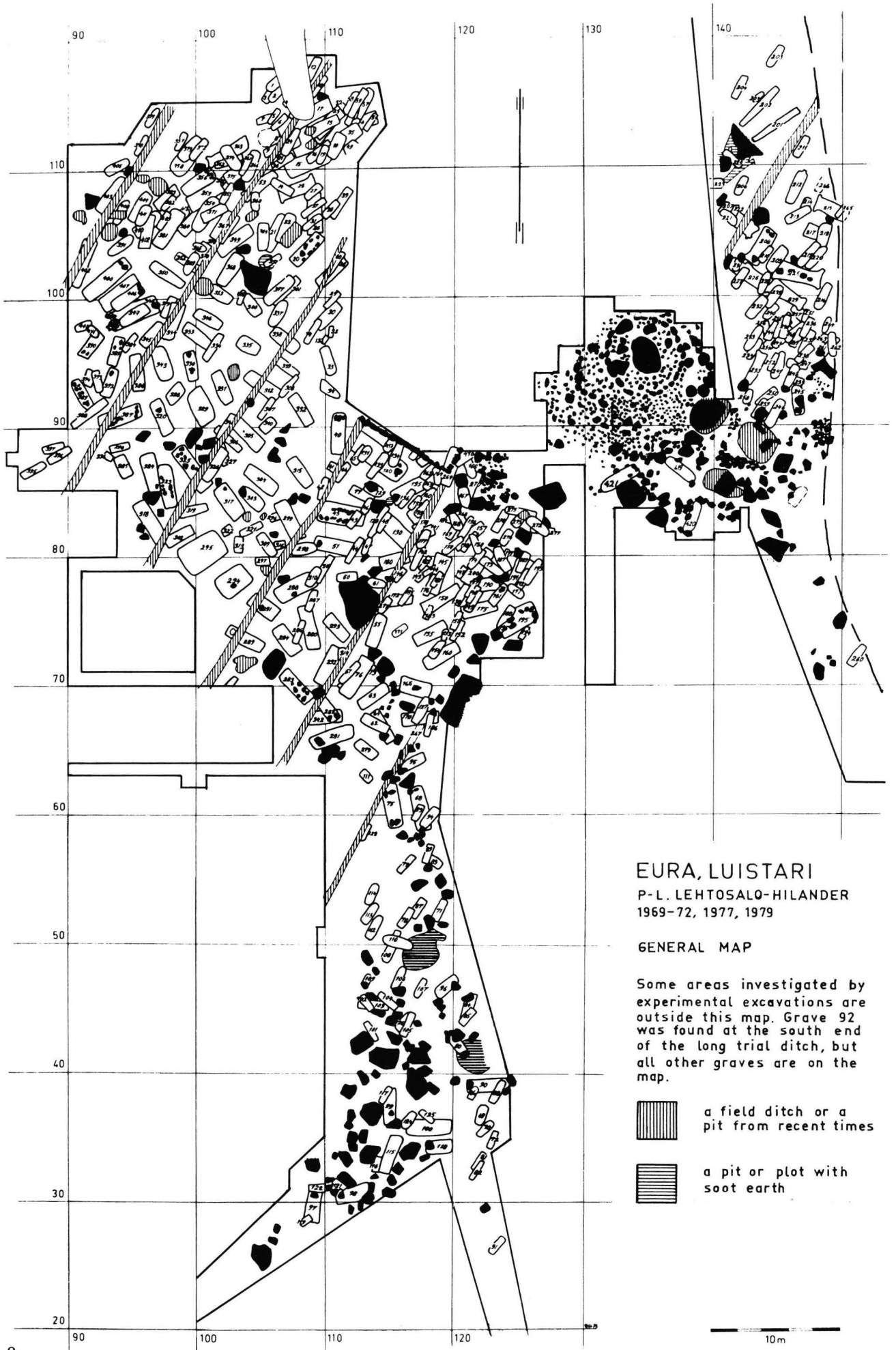
Also a group of graves later than the Viking period (FP = Final period) is separated from the material partly on the basis of artefacts, partly on the basis of the fact that these graves were on top of the earlier graves. The boundary line between these and the last phase of the Viking period is a sliding one; e.g. grave 381 would derive from the last phase of the Viking period on the basis of its structure and furnishing, but its location on top of grave 413 and its coin date testify that it was made rather late. On the other hand, the armament of a battle-axe and a spear connects grave 385 with the Viking period, although in size this grave corresponds to the later graves. In a cemetery where burials were carried on from phase to phase, graves

with intermediary features are natural. At Luistari a decisive significance has been given to the location; grave 385 is one of the last graves dug in unused soil, grave 381 belongs to the third phase of use of the northernmost cemetery area; so it is placed with the later group, although its late date must be considered when speaking of the duration of the Viking period burial traditions at Luistari.

The material is most complete from Phases M III and V I and V II. Graves deriving from each phase are marked on maps 1–6. It is however quite apparent that no gaps exist between burials from Phases M III, V I and V II; these burials form a continued chain, so that the latest grave of an older phase may well be contemporaneous with the earliest grave of a younger phase, perhaps even later than the latter. It is quite possible that if somebody outlived his contemporaries, his grave might contain artefacts from his youth, and so according to the artefacts it would belong to an older phase than graves made about the same time or a little earlier. So the fact that male graves are in the majority during Phases M III and V II, and female graves during Phase V I, is without importance. The material from the other phases is incomplete, because the cemetery is not totally excavated, and therefore the distinction between them is sharper.

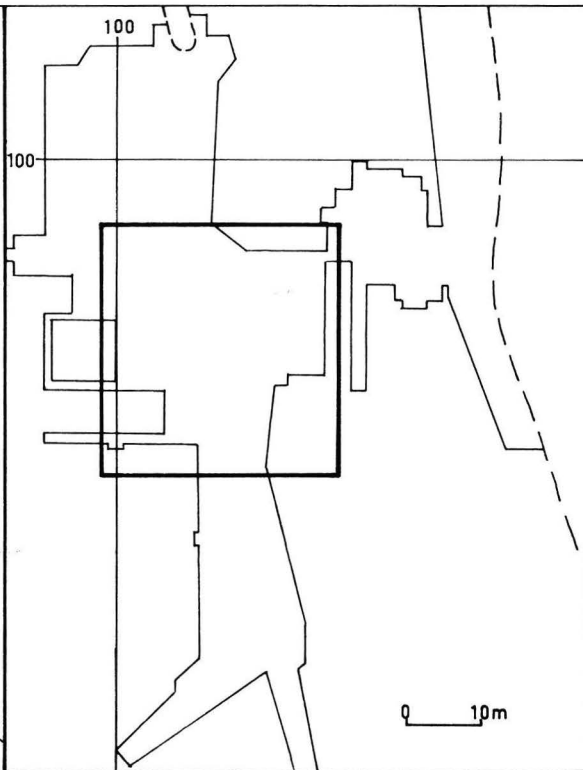
Because the bulk of the material from the earlier Viking period seems to be the most representative at Luistari, it is natural that this period will be emphasized in this study. However, as far as possible, the later Viking period society has been taken into consideration by adding to the material with finds from the other Eura cemeteries.

This study is not written in order to solve the question of the administrative circumstances in Finland on the eve of the Swedish conquest; for that purpose this material is not suitable. Instead, the object is to discover the community of men behind the artefacts and the construction of graves to which the two preceding volumes of this study were devoted. My aim is to test whether the Luistari cemetery can reveal something of the social differentiation, circumstances, population and nature of the community which used it. Also relations of this community with the area surrounding it will be discussed. The first-mentioned questions will, however, be given the main consideration, because it is necessary to know the composition and resources of a community before making statements about its role in the surrounding world.



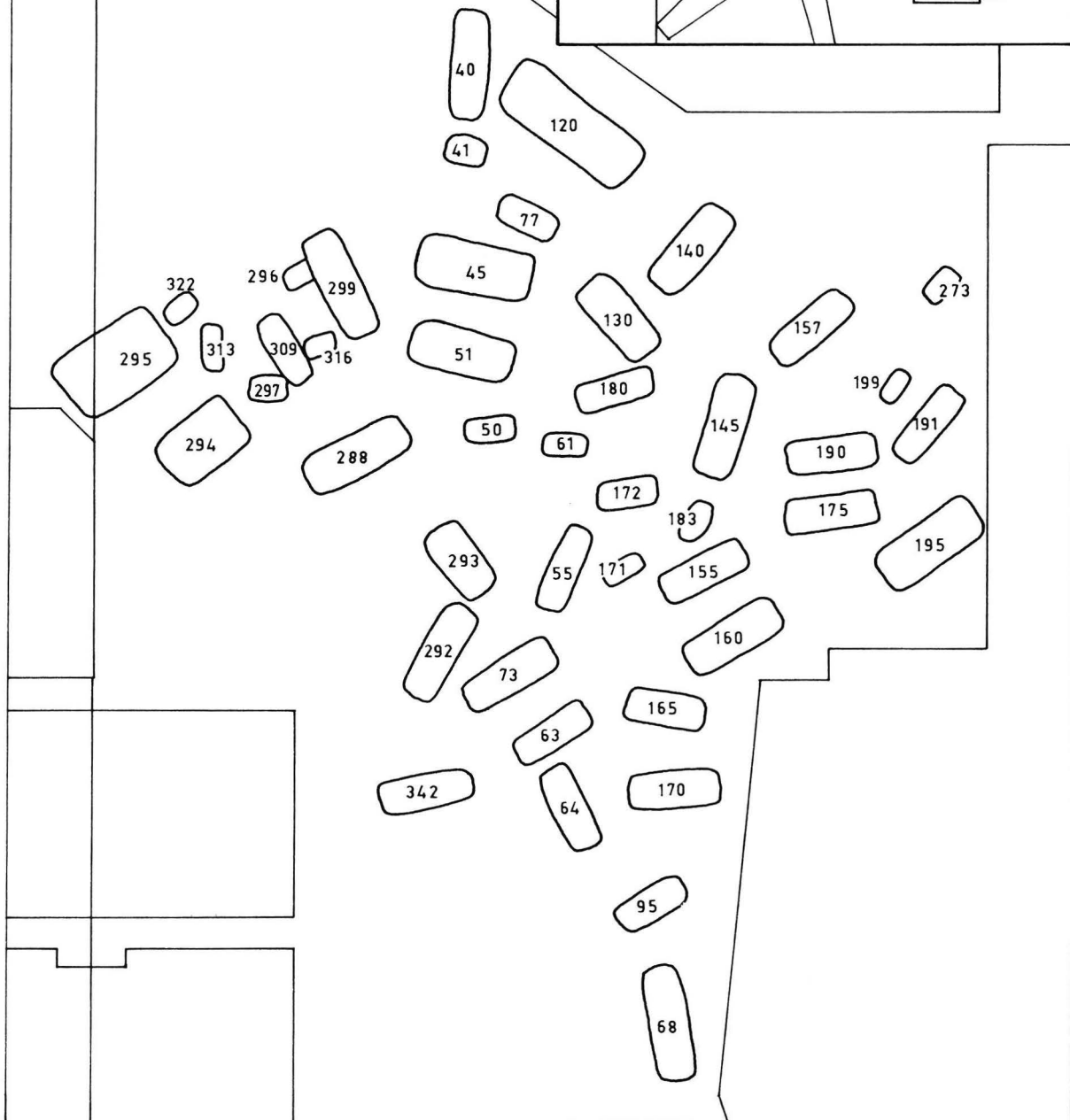
LUISTARI Phase VI

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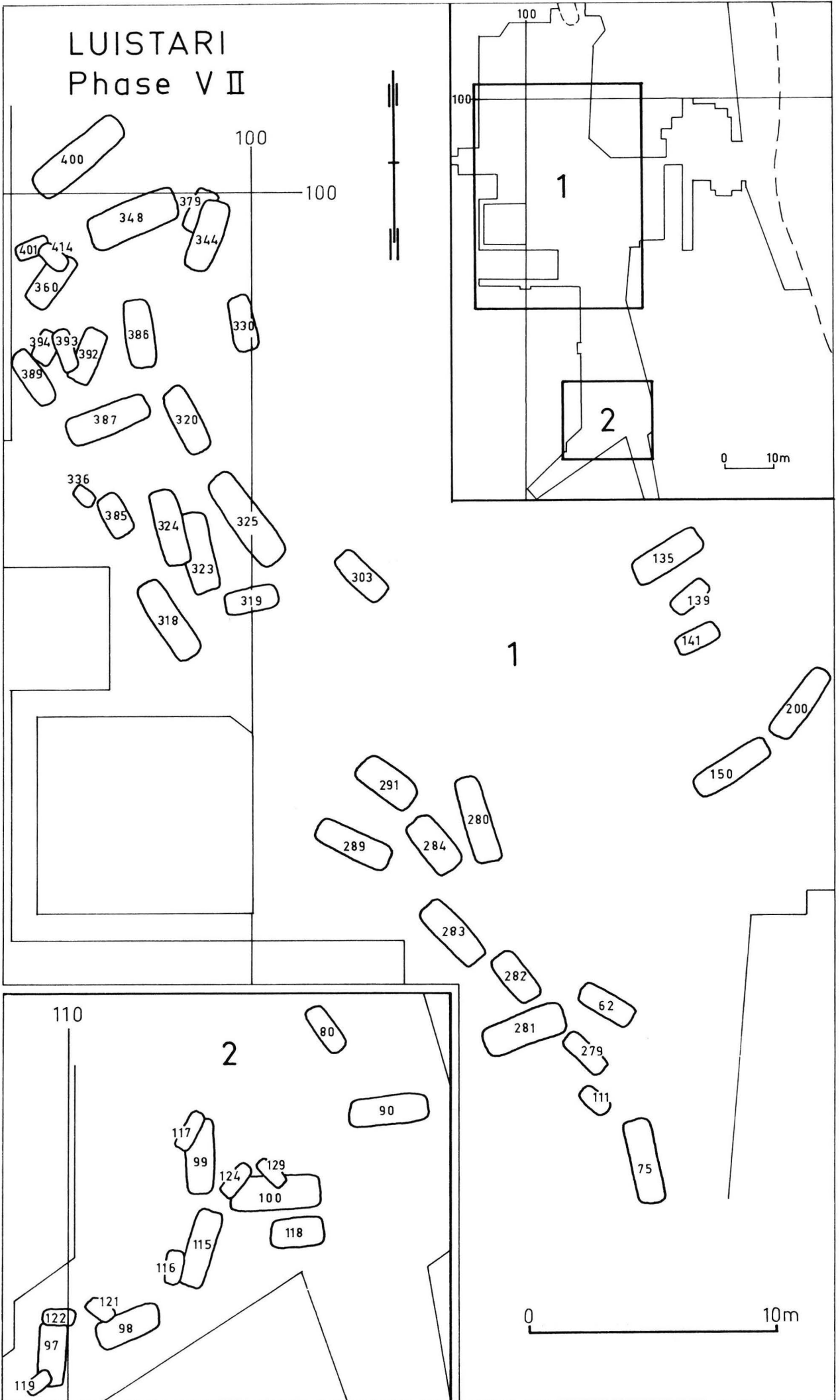


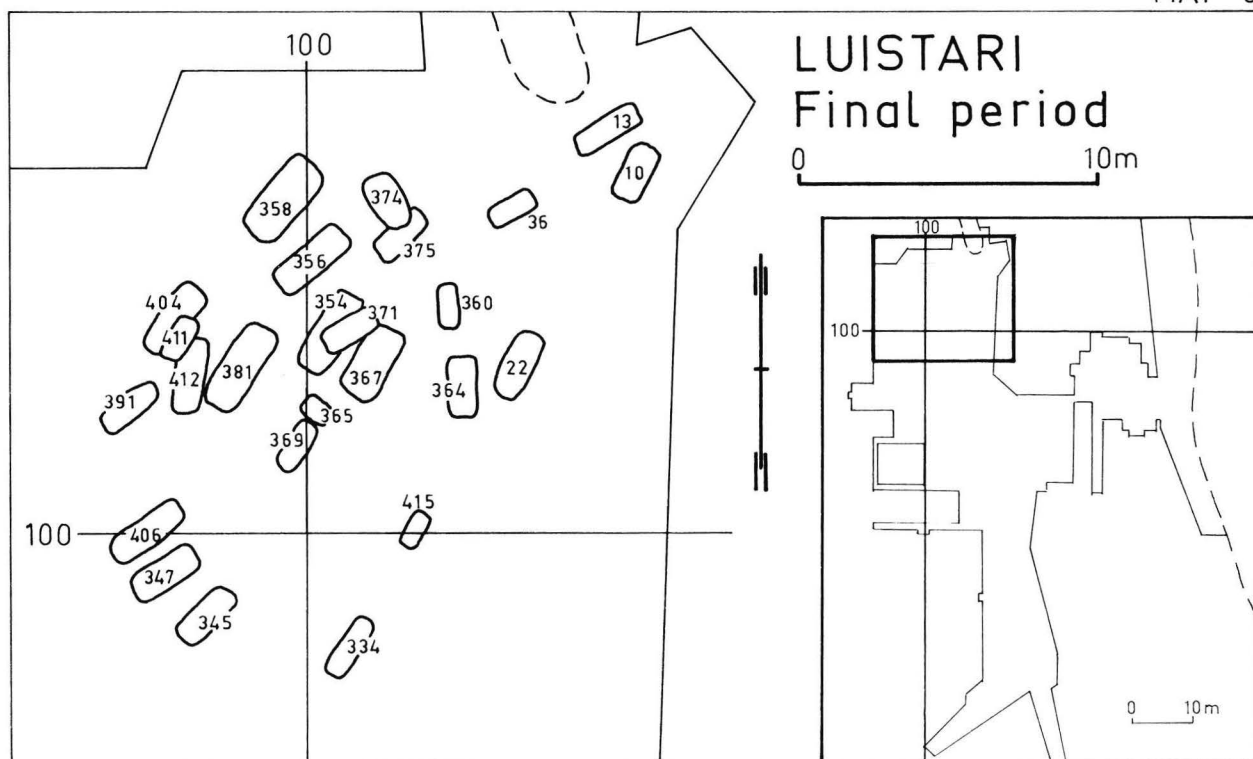
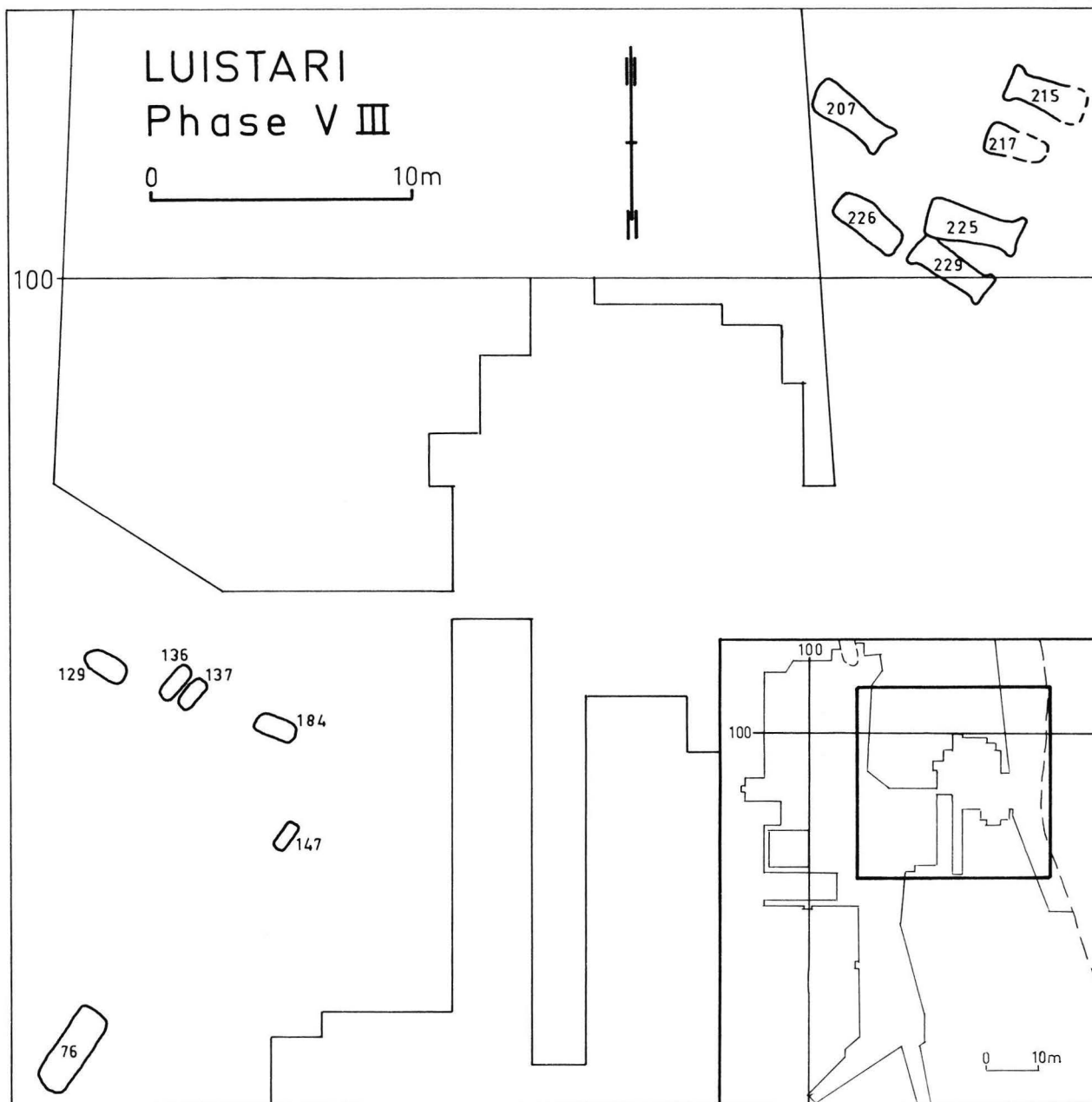
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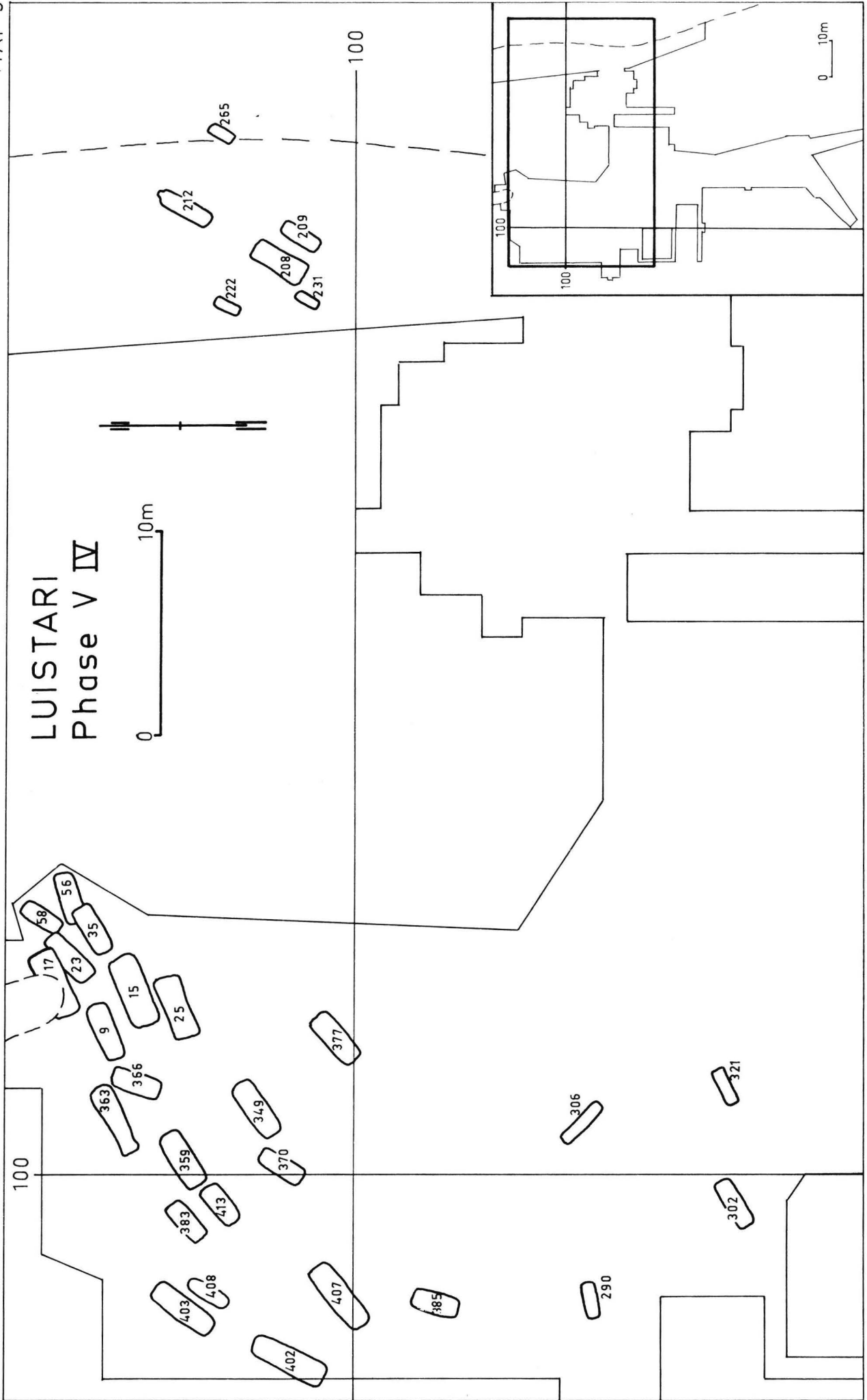
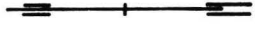


LUISTARI Phase V II





LUISTARI Phase V IV



2. PICTURE CREATED OF THE LATE IRON AGE SOCIETY IN FINLAND

The main features of the little which has been said about the late Iron Age society in Finland appeared as early as 1885 in J. R. Aspelin's work »Suomen asukkaat pakanuuden aikana». Although this work must be considered as »pro-scientific», it has without doubt influenced later opinions. Aspelin combined without hesitation archaeological material, still very sparse in his time, with knowledge collected from ancient poetry and historical sources, and composed a colourful picture of the ancient Finnish society. According to him there were administrative provinces in Western Finland, and within them smaller local administration districts (*kihlakunnat*), which were divided into villages. There were also kings, although Aspelin recalled that in ancient poetry »a king» might only mean a hero more powerful than the average man. Class distinction prevailed in Finland, so that apart from the king there were gentry (»*kuhnut*») and peasantry and slaves. Matters of mutual interest were discussed at assizes, common idolatry was practised in sacrificial groves, and common warlike expeditions raised boats with a hundred oarsmen. Only foreign war-prisoners were used for human sacrifice at feasts, where however horses were the most common sacrificial animals. Cultivation was practised with felling and burning, but trade flourished, and so the Finns managed better in ancient times than in the times of Aspelin. He mentions as trade articles furs, skins, feathers, honey, salmon and other fish for people observing fasts, tallow, pine resin and tar, girls and other slaves, who were obtained principally by robbery and warfare, although parents could also sell their daughters. The importance of trade was accentuated further when Aspelin mentioned several cities or trading places such as Rikala in Halikko, Old Turku or, according to Idrisi, Abrasa (interpreted by Aspelin as Aurassa = by the river Aura), Kuningas-Kalmar i Mynämäki, Teljä and Hahlo in Kokemäki, and Dagvada of the Tavastians, the location of which was not established according to him (1885 pp. 63–69, 78–85, 89–95; cf. Huurre 1979 pp. 194–195, 215–218).

Later compilers of general surveys have taken a more cautious attitude towards tradition and name material, and believed less in the flourishing of Finnish trade. However, some trade articles not mentioned by Aspelin have been traced, such as corn, butter, products of seal hunting, iron and

shipbuilding timber and perhaps wooden vessels from Vakka-Suomi. In addition to Aspelin's list the mouth of the Männäinen river in Kalanti and Kurkela in Nousiainen have been proposed as possible trading places. It has also been suggested that labour could have been an export article; artisans, workers and servants are thought to have immigrated to Birka in Sweden (Kivikoski 1939 pp. 243, 249, 1961 p. 210, 1969 p. 58; Salo 1980 pp. 138–139). Especially Kivikoski (1937 pp. 247–250, 1939 p. 242, 1949 p. 69) has stressed the importance of Birka's trade dominance during the earlier Viking period, and most scholars have been unanimous concerning the commercial power of Gotland during the 11th century and later (Nordman 1942 pp. 291–293; Kivikoski 1939 pp. 244–245; Cleve 1944 pp. 65–66, 1978 p. 205). Salmo (1952 pp. 429–431) has however considered Scandinavian influence in Finland exaggerated.

Nils Cleve, the only scholar who, strictly speaking, has explicitly paid attention to the Viking period evolution, has seen the beginning phase of the Viking period as flourishing but strongly coloured by Scandinavians, either as a result of Swedish invasion or in consequence of Birka's trade activity. According to him the Finnish culture during the following, 10th century was declining and depended on old forms; it could not produce anything new in the field of material culture. He has explained this by supposing that metal work was concentrated in a few centres like Kalanti, Kokemäki and the Aura river valley, and that Finland was out of the way of greater events. According to Cleve a new advance began at the end of the 10th century, and was caused by the reanimation of the East Baltic contacts and by the Gotlanders' trade (1944 pp. 61–66, 1978 pp. 204–205). Thus foreign contacts wholly dominate the picture created by Cleve. Also when dealing with the material from the Köyliö C-cemetery he has not discussed the structure of the society. He has considered C-cemetery as a common village burial-ground used by the inhabitants of the Polsu village (1978 p. 208), although some of these graves are the most abundantly furnished in the whole of Finland. However, in an earlier connection (1929 pp. 5, 12, 17) he has strongly stressed the non-egalitarian character of the Finnish Viking Age society.

The Finnish society during the Iron Age has in

general been described as a peasant society. Ailio (1917 p. 13) and later Voionmaa (1947 pp. 29–32, 245–253) have however stressed the importance of hunting and fishing in the procuring of everyday living. Voionmaa has considered fur hunting only a part, although the most splendid, of the exploitation of the wilds. While for most people the backwoods provided food and material for clothes and for houses, tools and various implements, the class of merchants and aristocrats collecting furs used the wilds for gain and to get rich. So the fur trade made the birth of an upper class consisting of merchants and big farmers possible. The wilds, however, provided for a long while a sufficient living for some of the people who did not own land but were completely free.

Tallgren (1931 pp. 245–248), following Y. S. Yrjö-Koskinen, has considered it possible that private ownership was more limited than today, and that the means of production were in part commonly held; he did not believe in the existence of an aristocracy or foreign conquerors. Also Meinander (1980 p. 10) has considered at least the Viking Age society as rather egalitarian. Some other archaeologists, although giving the leading role to the independent peasant class, have supposed that both chieftains and slaves, the rich and the common people, existed; all free men carried weapons, but

a special military class was non-existent (Hackman 1938 p. 180; Kivikoski 1939 p. 250, 1961 p. 292). Of the younger students of this question Taavitsainen (1976 pp. 50–59) has without hesitation used expressions as »aristocrat», »upper class», »mounted warrior» and »common warrior», in the last two following Salmo (1938 pp. 310–311). In descriptions of the ancient Finnish society women and children have been almost totally forgotten, although some finds, considered to be unusual (see e.g. Keskitalo 1969), have attracted attention.

The most inglorious picture of the ancient Finnish society has been painted by Helmer Salmo (1952 pp. 458–460, 464), who claims that only big farmers who also carried trade or some other profitable business could perhaps rise to the standard of living of the present peasant class. The life of an average hunter-peasant was hard and simple. Every river valley led a separate life and no administrative power connecting these valleys existed. In this respect Salmo's opinion differs clearly from that presented by Kivikoski (1939 pp. 252–254), who supposes that there was co-operation between different river valleys. Salo (1979 pp. 119–130), on the other hand, has claimed that the provincial institution existed as early as the late Iron Age, although Finland was not a political unity.

3. BURIAL-GROUND AS A REFLECTOR OF SOCIETY

3.1. ARTEFACTS AS A BASIS FOR DETERMINING THE SEX OF THE DECEASED

During the past few decades osteological analyses have considerably enriched our picture of ancient times. On the one hand, information has been obtained on the illnesses and injuries that people have suffered, on the other hand, surprising evidence of how short-lived people were in the past and what a large number of child deaths occurred has been revealed (cf. A-S. Gräslund 1973 pp. 161–164 with notes; Gejvall 1960 p. 41; Persson 1976 pp. 171–174). The methods developed to study burnt bones have helped archaeologists to solve questions concerning the number of people in graves and their sex. In Finland few studies of this kind have been performed, and there is a natural explanation for this: unburnt bone is only preserved in the Finnish calcium-free soil very exceptionally, and thus both bone artefacts and the bones of those buried are not available for examination (Carpelan 1978 pp. 109–110). Thus it is not possible to tell what kind of person the deceased was in the Luistari burial-ground from the poor evidence afforded by bone; other ways of distinguishing between men, women and children must be developed. It is unlikely that this can be done with one hundred per cent certainty, but this is hardly possible by osteological analysis either, so that the results are probably comparable.

The determining of sex at Luistari and generally in the area of the inhumation burial-grounds is made considerably easier by the fact that men are usually buried with their weapons. Thus the analysis of artefacts showed that over 30 % of the Viking period graves at Luistari were furnished with weapons, and since weapons have extremely seldom been found together with typically feminine ornaments such as beads, bracelets and shoulder brooches, these graves can be taken to be men's when they contain nothing else to give cause for reconsideration.

Another group of artefacts which seem to occur only in men's graves are metal parts of belts. Belts furnished with metal fittings do not appear in Finland in connection with women, although in Estonia on the other side of the Gulf of Finland women have also worn belts with mounts (Selirand 1974 pp. 129–132). When Anja Sarvas produced her pro-

gradu paper in 1967, she catalogued 55 belt finds, five of which she claimed were certainly from women's graves (pp. 108–111). Of the graves she lists, however, Eura Pappilanmäki grave III contained no artefact clearly referring to a woman, and in grave V from the same burial-ground there were, according to the excavator, parts of another, destroyed grave, including the mounts mentioned by Sarvas (cf. Salmo's excavation report in 1939). Köyliö grave CE was not excavated by a professional (see Cleve 1978 pp. 12–15), so that artefacts from somewhere else may have been connected with it, and in Masku Humikkala grave 37 belt parts (NM 8656:37:5–7) were found in a clod of earth from the foot of the grave. The Räisälä Hovinsaari Tontinmäki grave 5 is a double grave (Schvindt 1893 p. 65), and the two belt buckles found there may well have been from a man's belt and baldric; grave 1 in the Kekomäki cemetery was also a mass grave (Schvindt 1893 pp. 123–124). Thus not one of these graves can be considered as evidence that women had metal parts in their belts, nor do I know of any others. At Luistari there were few belt buckles and mounts in Viking Age graves, and in no case was there any reason to doubt that they belonged to the dress of a male.

Ringed pins and certain types of brooch seem also to have belonged particularly to men. Although penannular brooches of light construction appear in women's graves also already in the early Viking Age, the massive, heavy bronze and iron brooches seem to be fastenings for men's cloaks. Large penannular brooches with pegs and those with funnel ends have not been found with women's ornaments, but are in connection with weapon graves, and thus at least those of large size indicate a male grave. Grave 150 is in this connection puzzling, because, on the one hand, two large penannular brooches with pegs, on the other hand, very small beads were found there, but the beads may have got into the filling earth from child grave 183 underneath. And in Gotland several men's graves are known from which two penannular brooches have been found (e.g. Stenberger 1961 figs. 32, 34, 37, p. 42), so that the appearance of two brooches does not necessarily cast doubt on whether the grave in question is a man's. This is also suggested by the dog and to some extent by the small shears which are common in men's graves of the particular period to which this grave belongs. The

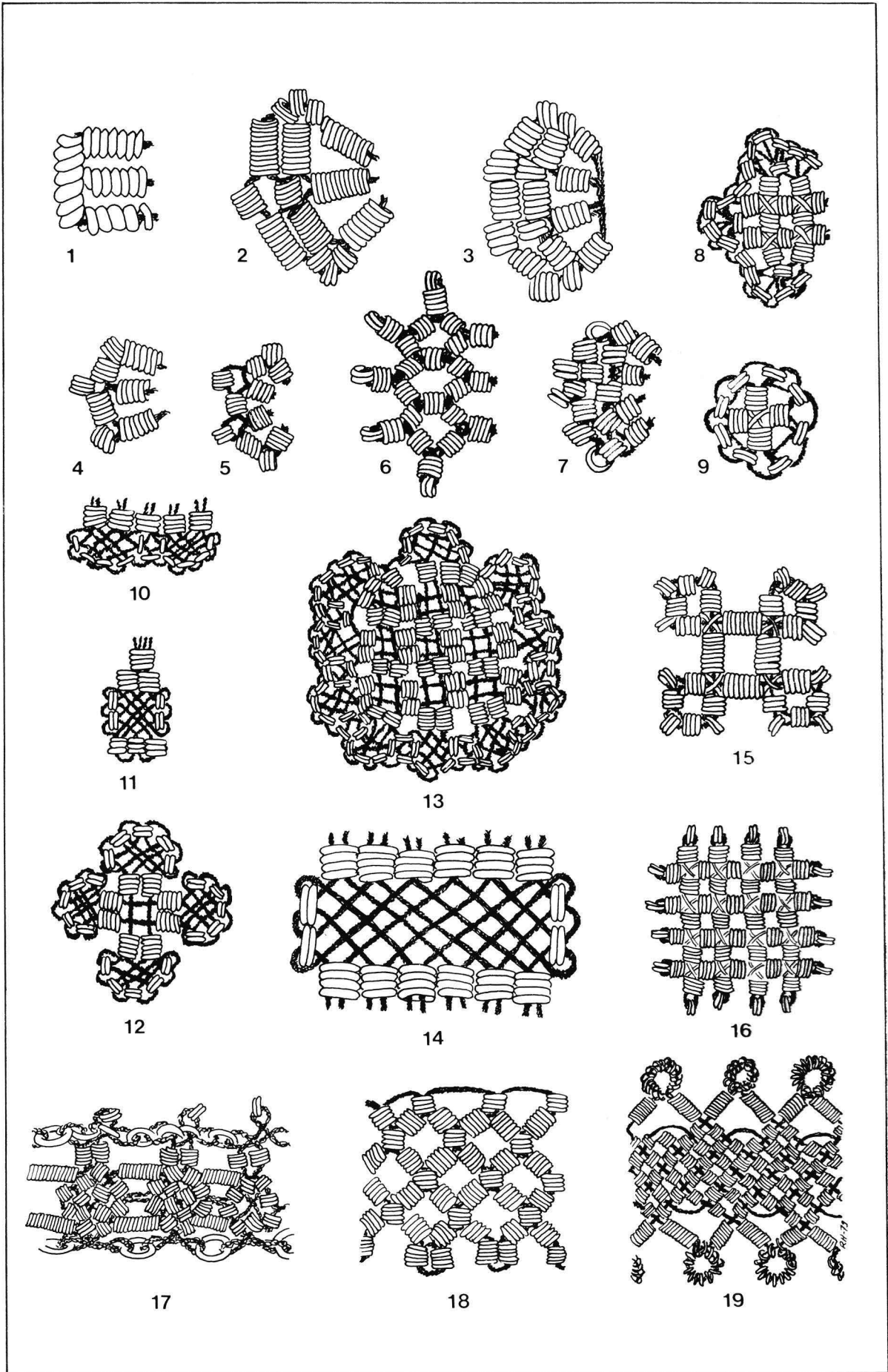


Fig. 1. Spiral ornaments of the later Iron Age. 1-5, 7-16 from Luistari, 6 from Eura, Yli-Nuoranne, 17 from Eura, Osmanmäki, 18 from Mikkeli, Tuukkala, 19 from Kaukola, Kekomäki. 1/1.

spiral ornaments found in the grave are also similar to those in men's graves of the same period. The fact that the grave has probably been robbed suggests that originally it contained weapons too.

The spiral ornaments designed for clothing also seem to be different in men's and women's graves. Whereas the typical spiral ornament for women's clothing is a fan-shaped corner adornment for an apron (fig. 1:1–7), various kinds of spiral roundels (fig. 1:10–11) seem to be most common in men's graves. Appliqued ornaments also differ from one another. The ornaments for men's cloaks are star-like or are crosses with roundel ends (fig. 1:12–13), whereas those from women's graves, which are invariably later, are ornaments made from crosswise spirals (fig. 1:15–16), on the one hand, and oval or round appliqued ornaments (fig. 1:9), on the other. There are only a few exceptions to this rule: a small round ornament was found from men's graves 76 and 318, while graves 23 and 75, the former of which is most probably a woman's and the latter clearly a man's grave, contained a couple of ornaments of the same kind with four roundels. In grave 75 these probably belonged to a cloak, and it is of course possible that the dead woman in grave 23 was for some reason wrapped in a man's cloak when she was buried. The same kind of explanation comes to mind for the child graves (141, 330, 371?, 401) where corner ornaments or other parts of a woman's apron have been found. They are so frequent that the most probable explanation seems to be that the dead child was wrapped in its mother's apron. The fact that only one ornament was obtained from each grave does not preclude this possibility, since, as has been previously explained (Luistari II, 6.7.1.), only some of the spiral ornaments have been preserved. The Luistari soil is not favourable for preserving bronze, and thus only a green lump has often been left to suggest that there were spirals in the grave. Sometimes only the thread was left of the ornament – all the bronze spirals had oxidized.

As regards tools, scythes only appear in men's graves (Luistari II, 2.3.). The difference in size of knives in Viking Age men's and women's graves was clear, and thus the appearance of a large knife generally indicates a man's grave (Luistari II, 2.1.2.). An axe, however, does not necessarily indicate a man; other details must be found, for an axe was discovered in grave 35 which is clearly a woman's. A firesteel is also usually to be connected only with a man's grave, but in grave 359 at Luistari one was found at a woman's waist. This grave was exceptional in many other respects which I shall return to in another connection (p. 50). Weights and purses also generally appear only in men's graves, but

they too were in the woman's grave mentioned. The money discovered in most men's graves was in purses, but in women's graves coins were usually found as neck-band pendants (Luistari II, 4.5.2. and 6.5.9.3.).

Beads and other parts of neck-bands were the most common finds in women's graves apart from the apron with spiral ornamentation. But the little boy in grave 290 had both a bead and a pendant at his neck, so that ornaments indicate the almost sexless status of the child, although weapons, tools and requisites were intended to indicate the male child's manliness. The same feature appeared in grave 333 from the Merovingian period, where a child furnished with weapons had a bracelet – an ornament that does not appear in any male grave at Luistari (Luistari II, 6.4.2.2.).

Beads were found in a few men's graves also (33, 135, 208, 318, 345, 348), but always in such a place that it could be assumed they were in a purse, if they were not found in filling earth. This suggests they were used as a means of payment, and there are references to this custom elsewhere (Lewicki 1953 p. 131). No beads or pendants were found near the neck in any of the adult graves containing weapons, and thus the appearance of neckbands at Luistari is clearly connected with women's graves.

Except for the child mentioned above, bracelets also only appeared together with women. Of the brooches, equal-armed brooches and Finnish convex round brooches were clearly connected with women's graves, and if the convex round brooch in the Tampere Vilusenharju burial-ground really originally came from a man's grave (cf. Nalinmaa-Luoto 1978 p. 80), this has certainly been exceptional. In this connection I would like to point out that if grave 76 at Luistari had not been excavated extremely carefully, it could very easily have been claimed that the convex round brooch found there belonged to it, and grave 73 beneath it would have remained undiscovered. In addition to the above, small penannular brooches with flower-shaped ends seem to have belonged to women, but other small penannular brooches appear in connection with both men and women. Thus just at the period when there are no longer weapons in graves, the distinguishing of the sexes by means of details in ornament becomes more difficult. The Luistari finds, moreover, prove that paying sole attention to brooch pair combinations leads the investigator astray, for if women's graves at Luistari were distinguished by this criterion, there would only be eleven specimens altogether in the whole burial-ground (10, 26?, 35, 56, 62, 95, 150(!), 294, 346, 352, 404), and only six of these from the Viking period corresponding to over forty graves contain-

ing arms. Although both convex round brooches and penannular brooches were certainly used in pairs on the shoulders in Eura, the dressing of a female corpse in another kind of dress when she was buried has been much more general, and this clothing may have included one brooch, or it may have been entirely without this kind of fastening. Two brooches may apparently also appear in a male grave (150?), so that a pair of brooches is not sufficient alone to determine a grave as a woman's.

The size of finger-rings has sometimes been put forward as a criterion in determining the sex of the deceased. Up to a certain size this works, so that a ring of 16–17 mm inner diameter may be considered a woman's. But larger rings than this are not necessarily men's, since there have always been large, fat women and men with slim fingers, so that a man's ring may be smaller than a woman's. Since in addition it is not always known on which finger the ring was worn, rings are not valid evidence in determining sex; a man's little finger may be considerably more slender than a woman's thumb. That rings were worn on different fingers is witnessed in graves where there are several near the same hand (cf. e.g. Köyliö C28, Cleve 1978 p. 43), and when it is further taken into account that bronze rings have quite obviously been used as clothing ornaments (Luistari II, 6.7.6.), it is clear that they must be approached cautiously.

Chain arrangements, chain holders and pendants do not appear in men's graves, but separate pieces of chain are not evidence of a woman's grave, as tools were connected to men's belts by chains (e.g. Luistari grave 90). Various kinds of rings, hooks and rodlike links appear in the graves of both sexes. The last-mentioned are most commonly from women's chain arrangements, but they may also have been connected to men's belts (e.g. grave 348 at Luistari).

Tools and requisites that can be connected with women's work are rare at Luistari. The most common are sickles, but as has been earlier pointed out (Luistari II, 2.3.), the line between sickles and scythes is not fixed, and in two male graves at Luistari tools that might best be described as sickles were found. Spinning wheel is another artefact generally connected with women (see however Lamm 1973 p. 33), but at Luistari they only appeared in one grave (35) which otherwise could be clearly catalogued as a woman's. As was shown in the general section on artefacts, shears appeared in the graves of both sexes, although perhaps the combination of them being placed beside a clay vessel (graves 23, 35, 97, 324) suggests a woman (Luistari II 2.4.).

On the basis of the above the following criteria

are obtained for distinguishing between men's and women's graves:

In men's graves

weapons
belt fittings
certain pins and brooches
certain spiral ornaments
purses
scythes
big knives
other tools
firesteels (generally)

In women's graves

neck-bands
bracelets
certain brooch types
chain arrangements
certain spiral ornaments
sickles (generally)
short-bladed knives
bronze-plated sheaths
spinning-whorls

In the graves of both sexes

certain small penannular brooches
finger-rings
short chains, rings and links
shears, axes
clay vessels

Children's graves can naturally first be distinguished by their size, but this is not always so. Artefacts that seem to be especially typical of children's graves are sleigh bells, bell charms, rings and toe rings, the size of which give some indications for estimating the child's age. In addition it seems to have been the custom at Luistari to give at least male children when they were buried weapons and requisites of miniature size, though these may also have been of normal size. In grave 290, for example, a knife and an axe are rather small, but a firesteel is of quite normal size; in grave 63 the firesteel is quite small. In graves 273 and 330 there are small spearheads, but in graves 41 and 363 there are arrow-heads perhaps to replace the former – in other words a small sized object has been used to replace a larger one of the same appearance. Small bracelets, only one or a few beads, may also indicate a child's grave, as also a small-sized clay vessel. But quite frequently children have been buried without artefacts, and then only the small size of the grave bears witness to the early age of the deceased. In such cases it is difficult to catalogue the grave correctly, and therefore all estimates of the number of children's graves for different periods have been given with reservations.

3.2. LEVEL OF GRAVE FURNISHINGS AS A MEASURE OF SOCIAL STATUS

Ideas of how the deceased should be provided for in the grave have varied considerably in different periods and cultures. In ancient Mesopotamia both the high and the low were buried naked, while in Egypt the bodies of wealthy and powerful persons

were swathed in great cloths and their graves were furnished with extravagant gifts. In Scandinavia and Finland during the younger Bronze Age it was thought that a miniature symbolizing the objects was sufficient, and very often not even this was provided. During the pre-Roman Iron Age graves are sometimes quite without furnishings, in contrast to the mighty burial mounds of the Migration period and the boat-graves of chiefs in the Vendel period. In Finland during the Iron Age the burying of men with their weapons was so common that it is surprising to find that this custom was not always followed in the neighbouring and related country of Estonia. In some places the placing of tools and utensils in the grave has been quite natural, in others very exceptional. Thus when the furnishing of graves is used to try to measure the social status of the deceased, it is important to connect the graves with the particular milieu in which they appear.

When an attempt has been made to distinguish by their artefacts those graves that belonged to some kind of upper class, examination has been made on the one hand of the grave structures, such as the giant barrows of the Bronze Age, and the big mounds, ship and boat graves and chamber-graves of the Iron Age, on the other hand the quality and number of grave gifts and the splendour of dress of the deceased. The different way in which organic substances have been preserved in different cemeteries naturally makes it difficult to employ all these means of distinction. For example a grave containing a silk garment without any doubt indicates the wealthiest class, but the chances that such a garment has been preserved are extremely small. It is probable, however, that one or two significant details have been preserved, and thus there is something to show the original quality of the grave. This assumption has been approved in earlier studies (e.g. Lamm 1973 pp. 28–32, where robbed chamber-graves were imagined to have been uncommonly rich; Roesdahl 1977 pp. 148–150), and it has to be accepted also at Luistari, where it is necessary to take into account the varying state of preservation of different materials and different graves.

Unfurnished graves found in burial-grounds containing graves with artefacts are always a problem, and also to some extent those graves that have few artefacts are difficult to place in time and to interpret. It is true that a large number of graves without artefacts at Luistari can be dismissed from consideration because they were made on top of other graves and are thus clearly later, and some of these later graves can also be eliminated because the colour of the earth is different, but a few are

still left which in spite of their lack of artefacts certainly belong to the same period as furnished graves. Some of them belong to grave rows, and then it is natural to place them temporally along with the nearest furnished graves, but others are oriented differently, and then it is difficult to fix their period. But it seems that many of them are small graves on top of or beside women's or sometimes men's graves, and then it seems most likely that they contained children buried as close as possible to relatives that died earlier. This seems the most natural explanation for e.g. grave groups 97 & 119 & 122, 98 & 121, 115 & 116, 99 & 117 and 100 & 124 & 125.

When the significance of unfurnished graves appearing among those with artefacts has been considered, they have usually been put down as the resting place of members of a poor or insignificant clan, or of Christians (Pälsi 1938 p. 30; Cleve 1952 p. 167; Kivikoski 1955 p. 28, 1971 pp. 97–100). This latter explanation probably fits later graves at Luistari, but the classifying of the few others as the graves of slaves or servants does not seem quite appropriate. If in fact there were slaves, and if they were buried in this same cemetery, one would have thought there would have been more of these empty graves. The possibility must also be taken into account that all the furnishings may have been of organic substances, bone pins and beads, wooden vessels, so that they have all disappeared. Grave 279, which was lined with wood, but in whose preserved part no furnishings were found, may be of this kind, although in its destroyed end there may have been some metal object. Grave robbing, although according to research it was not common in Scandinavia during the Viking Age (Capelle 1978 p. 210), may also have distorted the picture we obtain from an excavated grave. For example Luistari graves 45, 150, 195, 295, 299 and 320 were almost certainly more splendidly furnished originally than when they were excavated. The same is certainly true of grave 120, though it has perhaps been destroyed during the digging of later graves, and not by robbery. All the graves that have possibly been robbed are similar in structure to graves containing weapons, and a spear-shaft ring has been found in most of them, so that perhaps the purpose of the robbers has been to acquire weapons. The tip of spears has been broken off and swords have been taken, which would explain why there is a complete lack of swords in the oldest Viking period graves. Perhaps this explains why the sword in grave 299 is in pieces; the hilt was either so ornamented that it was all the robbers wanted to take, or perhaps they threw it away. The fact that these signs of robbery only appear in the large men's

graves of the earliest Viking period suggests that the robberies took place around 900 A.D. If grave 299 is the oldest of these, as I believe, its sword was perhaps already then so damaged that it could not stand rough snatching but fell to pieces.

Especially richly furnished graves cannot be simply explained either. Rich provision for the deceased is not only a pagan custom, as is evidenced by the rich grave finds of churches (cf. A.-S. Gräs-lund 1980 p. 84). When bishops were buried in their brocade robes, with mitre and staff (e.g. King 1971 Pls. XLVII–LXV; Brandt 1977 pp. 34–76), it was not at least acknowledged that this was done in the hope that they would rise at the last trump in all their splendour. One quite obvious reason for fine clothing or the fact that war chieftains were buried with their sword (see e.g. Svante Nilsson's grave from the 16th century, Mannerstråle 1959 pp. 6–7, fig. 2; Seitz 1959 pp. 20–22; Ekberg 1957 pp. 11–12) was that it was desired to present the deceased to those who remained in the most impressive garb for the last time. The deceased is not dressed in ceremonial garments so that he will always appear thus in the life beyond the grave, but so that the funeral guests will see how splendidly the relatives are able to furnish the grave. Thus it is natural that in the case of a really mighty clan or member of the community, the furnishing is in keeping. When one looks at the furnishings of a rich Eura grave one can well imagine some sort of »lit de parade», with the funeral guests in festal garb proceeding past it.

On the other hand, it may be thought that the deceased himself while still living arranged for the furnishing of his grave, as did the ancient Egyptians. The threat that if I do not get my neck-band with me I shall come from the grave to fetch it was perhaps not unknown to the ancient Finns. This would explain the existence of graves where special measures have been taken to prevent the return of the deceased (Pälsi 1938 pp. 32–35; Keskitalo 1950 p. 46). Since after all there are relatively few of these graves, the kinsfolk have perhaps only taken such measures when they have not wished to fulfil all the deceased's desires. There is only one such grave in the Luistari cemetery, number 95, where a knife has been placed at the deceased's throat. Thus it can be thought to be there to prevent this finely furnished dead person from rising to fetch what she still wanted, but for some reason had not been given.

On the other hand it may be that it was fear of the dead person that guaranteed him an abundantly furnished grave; those left behind provided the grave with all possible things so that the deceased would certainly be comfortable there and would

not return. The idea that the dead person dwells in the grave is connected with this, and the appearance of tools and utensils in the graves has been explained by this, and also the fact that the dead have had food provided with them. The idea is not that the deceased only sleeps in his hollow or hummock, to come back when needed to help his kin, but of a life beyond the grave where needs are the same as in this world. It would then be natural that the grave of a person whose return was most undesirable should be furnished as well as possible (cf. Cleve 1978 pp. 85–88; Lamm 1973 pp. 64–65). The same result, however, may have followed from the idea that there would be no shortage in the home of those things that the deceased was given; there is information of the preserving of this belief right into this century (Varjola 1980 p. 122).

Thus the deceased may have been given a rich grave if he was especially honoured, or wealthy and skilful in extracting promises, or particularly feared. The grave furnishings may have been part of the deceased's property, to which it was felt he had a right, but this or part of it may also have been a sacrifice to the deceased by his kin. If there are plenty of well-furnished graves, this may only be because the community was relatively prosperous, and that there was competition within it as to who could afford to conceal the best gifts in the bosom of the earth, in which case not even the most richly furnished grave need have belonged to a specially important person; it may have contained someone with boastful and ostentatious kinsfolk. Moreover, in a period as late as the Viking Age, many things may have been done without conscious purpose merely because this was what had been done before.

In evaluating the social status of those buried it is thus extremely important to know the community of which the deceased had been a member. A rich grave and a poor grave are relative concepts, and they are only significant if the totality to which they belonged is known (Lehtosalo-Hilander 1974 pp. 292–294).

Consequently, assessing the former status of the deceased on the basis of a cemetery which has only partly been excavated is venturesome, but I intend to do it for Luistari, well realizing the limits that the so-far unknown graves set. I consider, however, that this is a test to show how great an error is caused by relying on incomplete material, and as such it is justified. If all my conclusions prove wrong when the whole cemetery has been excavated, I shall have proved that incomplete excavations should not be performed, and thus even in this case I shall have done something useful.

4. DEPENDENCE OF THE CONSTRUCTION AND FURNISHING OF LUISTARI GRAVES ON THE SEX AND SOCIAL STATUS OF THE DECEASED

4.1. STONE-SETTINGS

To evaluate the social level of the burial given to the dead at Luistari in the Viking Age, the construction of the graves must be examined, and also the grave gifts. As is evident from the catalogue of graves, they were commonly marked with a stone or stone slabs, and it is probable that those graves with no stones on them have been marked in some other way, for instance by mounds or wooden stakes (cf. Nørlund 1948 p. 107; Roesdahl 1977 p. 145 & note 7; Stenberger 1961 pp. 27–28). This would explain the fact that it has been possible to place the Viking Age graves amongst older ones, but that later (stakes having fallen or rotted?) graves without stones in particular have been badly damaged when new graves were made. But it is possible that the biggest gravestones of the Viking Age were erected for the graves of the most important people, and therefore I have taken this detail as the first object of examination.

An examination of Phase V I shows that nine of the men's graves were furnished with stones, and only three were without; all these three (140, 145, 299) are so damaged that they could very well initially have had for example one headstone that was removed when later graves were made. Of the men's graves, however, 75 % were certainly provided with stones, usually a row or group of stones at the head of the grave (graves 40, 51, 68, 120 and 195), and only in one case (grave 292) have the stones been lower in the filling earth. Thus it can be stated that in the earlier Viking Age the people of Luistari were generally in the habit of marking the grave of a male with stones. On the other hand graves with no stones on them are not furnished less well than others; in grave 299 there seems to have been a sword originally, in grave 145 a bit and two spearheads, and in grave 140 two spearheads also. It is just possible that these three graves are older than the others.

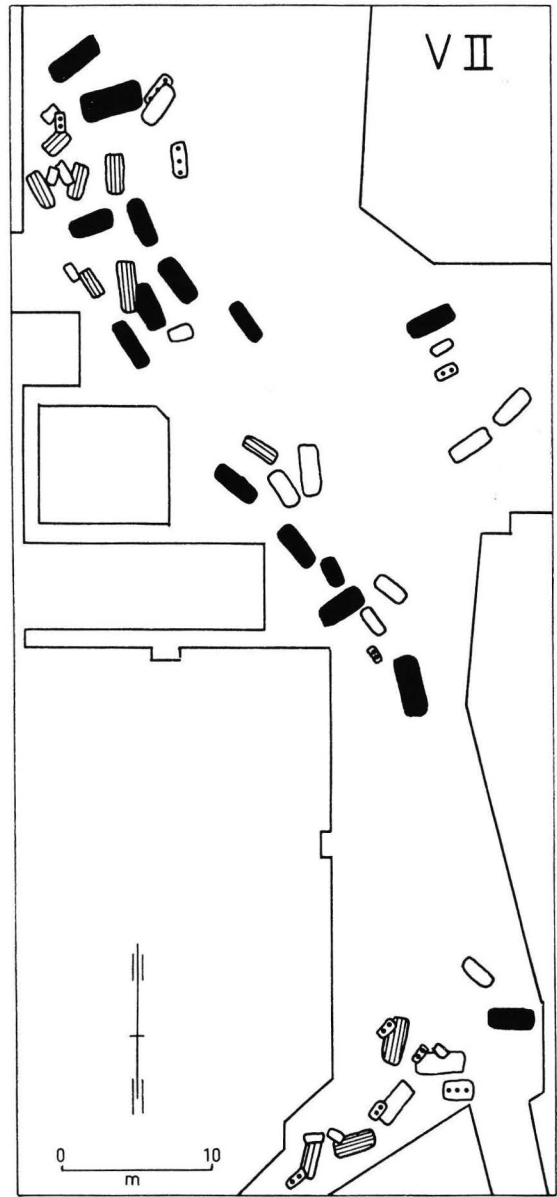
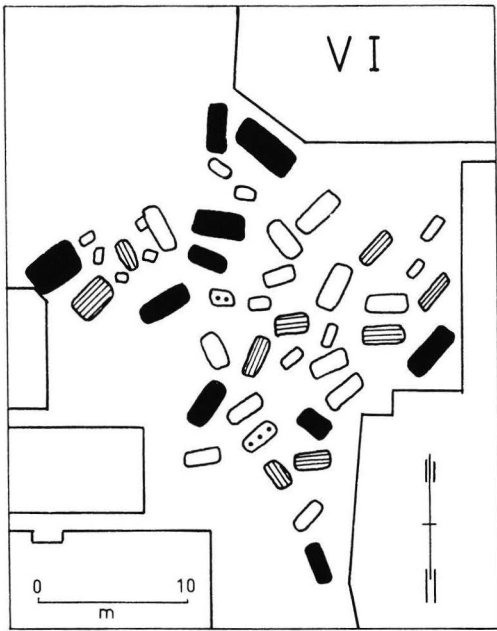
Traces of stones were found above eight women's graves, while nine were without. These did not, however, have fine rows of stones like those at the head of men's graves, but the head was marked with a good-sized stone or group of stones (graves 157, 170, 191, 309), or then the stones were in the middle of the grave (55 and 293). In graves 64 and 190 the stone-settings were so damaged that it was

not possible to ascertain their original quality. The stones were not on the most abundantly furnished graves; inter alia the richest grave of the whole group (95) was without stones.

Only two of the child graves had stones. At the head of the boy's grave 63 there was a row of stones as with the men's graves, while at the east end of the unfurnished grave 50 there was a group of stones. The mass grave 295, in which a man was probably also buried, had a row of stones at the head end, and there were also stones in the middle. Grave 294, in which there were women and children, only had a group of stones in the middle. Thus it seems that the stone-settings and their type did not correlate with the graves' level of furnishing, but were linked with the sex of the deceased, so that a man's grave could be distinguished from the rest by the impressive gravestone. Children's graves were only marked exceptionally.

If the graves of Phase V II are now examined, it will be observed that stones are distinctly more common. Over 80 % of men's graves are furnished with stones, and almost 70 % of women's. The change is greatest for children's graves, for 60 % of them are now marked with stones. Of the four mass graves of the period, only one is without stones. The change is also clear in that now all graves are most commonly marked with one large stone or several stones forming a group at one end of the grave. A couple of graves (283, 323) have rows of stones running lengthwise; one (389) is almost entirely covered by stones, and in several (111, 285, 291) the stone or stones are in the middle, but as a whole the stone arrangements are similar. Although in this group a couple of great blocks of stone indicate men's graves 90 and 281, there are also conspicuous stones for women's and even children's graves (see graves 97, 99, 118, 141). Though the finest stone-settings are above the richest graves (90, 118, 281, 283, 348), three graves (100, 139, 344) in which silver money was found were without stones. Thus stones are especially characteristic of this period, and most of the dead were honoured with them, even though perhaps most care has been given to marking men's graves. But the difference is not clear as in Phase V I.

The situation as regards Phase V III is not clear, since the graves are few, and the stones were scattered. But the clearly distinguishable end stones



STONE-SETTINGS AT LUISTARI

- a man's grave
- a woman's grave (or undef.)
- a child's grave

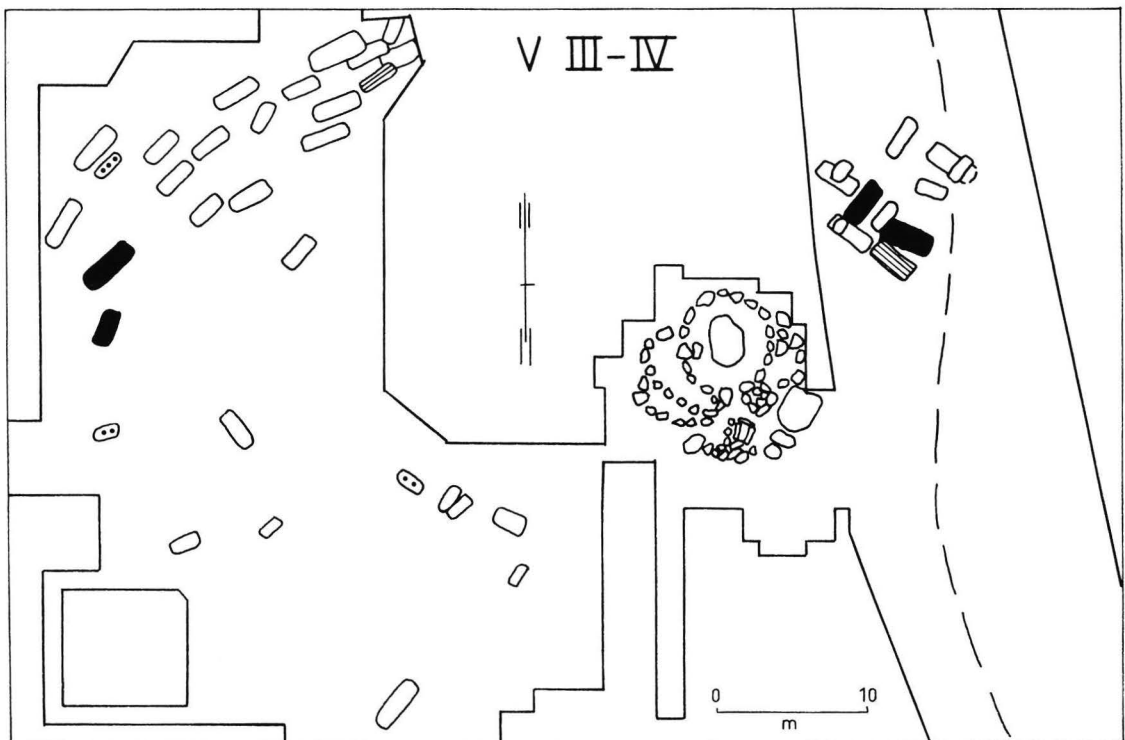
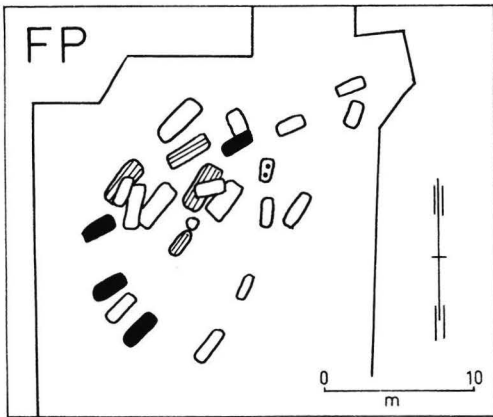


Fig. 2. Stone-settings.

of the earlier periods seem to be lacking here, and there are relatively more graves without stones than for the previous period. In Phase V IV there are also definitely fewer graves with stones than in Phases V I and V II. Only three men's graves (208, 385, 407), all reasonably well-furnished, are marked with groups of stones at one or both ends, but two graves containing swords, 15 and 17, and grave 349 containing silver-ornamented spears, may have been without stones. In the last-mentioned there were perhaps wooden stakes at one end. Of the women's graves, only No. 35 had a group of stones at the end. On the other hand two children's graves were marked; grave 290 had a large stone at one end, and grave 408 at each end – one of them upright. It is quite obvious that marking graves with a stone or group of stones was no longer a general custom, but it is still most clearly reflected in men's graves; grave 290 was probably that of a little boy.

After all this it is thus surprising that in the Final period this custom still lives on with comparative vigour (see graves 345, 375, 391, 406, 354, 356, 360?, 369?, 404). It seems to have continued to a diminished degree until the period of unfurnished graves. If it could be linked without reservation to men's graves, it would have been one way of distinguishing these among the unfurnished graves, but as is evident from the above, the honour of having grave stones was not granted only to men, nor is it connected only with those graves furnished more plentifully with articles that have been preserved. The two earlier periods of the Viking Age, which have yielded the most complete material, differ clearly from each other as regards stones, however, and men's graves of the earliest period of the Viking Age have clearly had a special feature for their own.

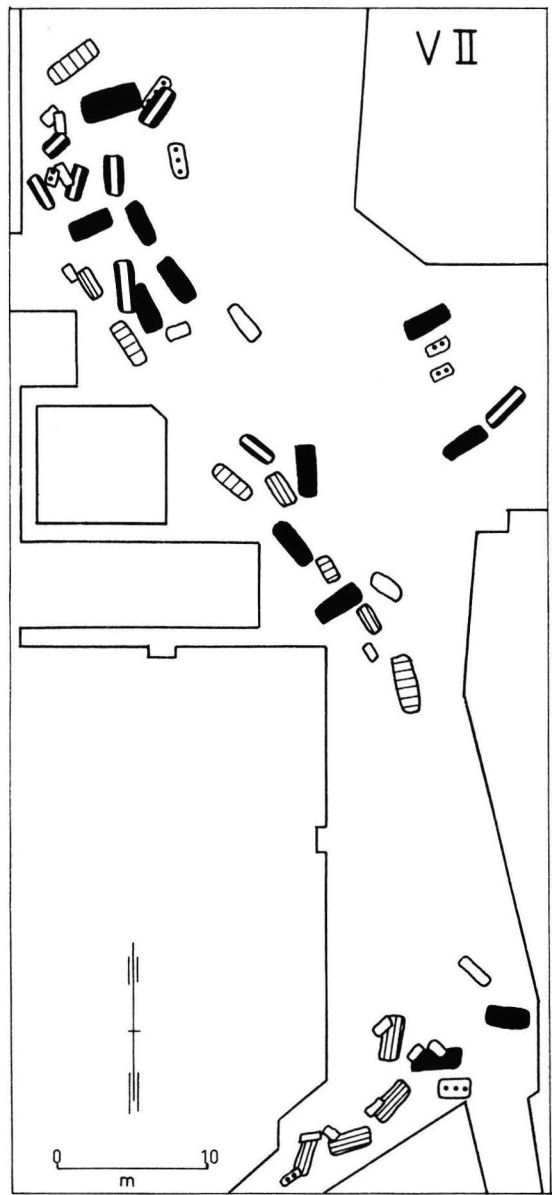
4.2. INTERNAL CONSTRUCTION OF GRAVES

The question of chamber-graves and their significance is closely connected with the Scandinavian Viking Age, and a stand must also be taken in connection with the Luistari burial-ground. The chamber-graves at Birka have on the one hand been connected with northwest or south and central German wooden burial chambers, on the other hand with the old Scandinavian tradition; they have been supposed to contain the burials of rich merchants or those belonging to the Christian military caste. On the one hand they have been seen as reflections of Christian belief, on the other they have been used to conjure up pictures of Scandinavian paganism. Situated in burial-grounds where other

kinds of burial occur, they have naturally offered fertile soil for various theories concerning the social status of the deceased. The large number of chamber-graves at Birka has meant that comparisons with Birka have often been made concerning other burial chambers of the Viking Age, and chamber-graves have even been considered to contain the burials of the Swedish ruling military class from the Ukraine to Hedeby (cf. e.g. Arne 1931 pp. 285–301; Arbman 1937 pp. 243–247 with notes; Aner 1952 pp. 107–115; Lebedev 1977 pp. 141–158; Steuer 1969 pp. 212–218 with notes. Criticism by A.-S. Gräslund 1980 pp. 77–82).

Jan Peder Lamm (1973 pp. 64–75) has recently studied the appearance of wooden burial chambers in Europe back in the early Iron Age with considerable thoroughness, and has launched the idea that the chambers were made only so that an ample grave furnishing could be provided, and that the custom could have originated without external influences or any new ideology: »Eftersom gravgodset var så omfattande och bränningen inte kom i fråga räckte det inte med en portabel kista utan en rymligare konstruktion måste till» (pp. 67–68). But here we must ask: Why did grave furnishings become plentiful? Why was cremation no longer practised? Are coffins that can be carried known in general from the early Iron Age? In my opinion when the custom first appeared in Scandinavia it must have contained some new idea, but when the chambers were built during the Viking Age this may well have meant the generalizing and exaggerating of a custom seldom followed, as Brøndsted (1936 p. 217) has indeed suggested. Anne-Sofie Gräslund (1980 pp. 45–46, 86) seems however to be of the opinion that chamber-graves at Birka are connected with influences from the Frisian area and the custom of building chambers came to Birka with foreign merchants.

The so-called wooden chamber-graves, moreover, include a number of constructions of very different size. The largest have been big enough for several corpses, the remains of horses and other animals. But graves with only one corpse with relatively few furnishings have been mentioned as chamber-graves. T. J. Arne (1931 pp. 286, 294, 301, fig. 64) considered typical chambers to be those with corner-posts and walls supported by them. Brøndsted (1936 pp. 216–217) mentioned as a chamber-grave only the structure within the Jellinge mound, where the walls were made of upright planks, and he has spoken of a coffin in connection with a wooden structure with a length of 370 cm. Lamm (1973 p. 67), on the other hand, suggests that one can speak of a chamber-grave when the wooden structures found are clearly larger than a large



INTERNAL CONSTRUCTION

- | | | | |
|----------|---------|------------------|---------|
| Chambers | | Other structures | |
| | a man | | a man |
| | a woman | | a woman |
| | | | a child |

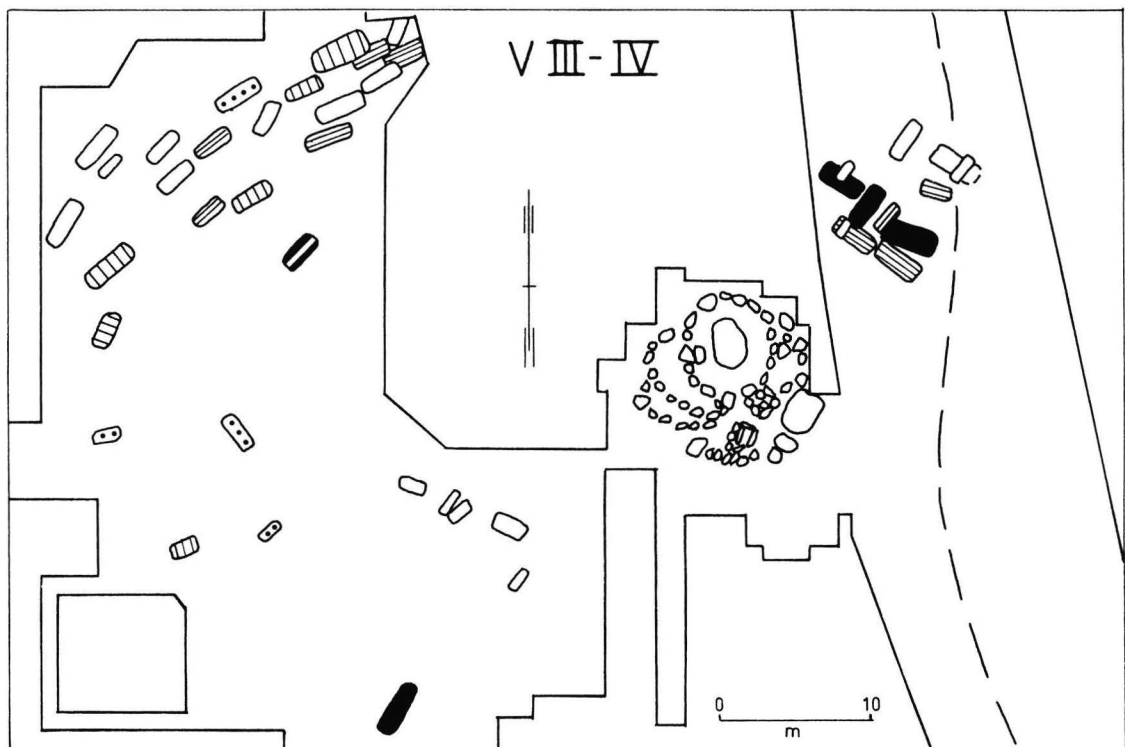
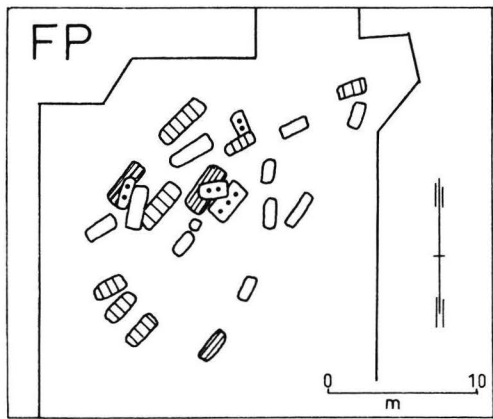


Fig. 3. Constructions.

modern coffin, length 200 cm, breadth 70 cm and height not more than 60 cm.

Anne-Sofie Gräslund (1980 pp. 7–12, 27, 38) has defined the chamber-graves at Birka as graves showing traces of a fixed wooden structure and/or being at least 1.14 m wide, usually more than 1.2 m, and never less than 0.9 m. She has considered the narrowest ones as chamber-graves on the basis of traces of timber walls along the sides of the pit, the presence of a horse platform or grave goods typical of chamber-graves, e.g. several weapons or a large box. She has also ascertained that the ratio between length and width for the chamber-graves is close to the golden section, i.e. the width is about 2/3 of the length, and that the corpses were very often in a seated position.

The corner-posts at Luistari are not generally connected with the chambers, nor (with the possible exception of grave 335) could walls with upright planks be detected. But there are very many grave pits at Luistari big enough for a larger wooden structure than Lamm suggests, and the number of graves wider than 120 cm is close to 50. There are, however, considerably fewer graves where the wooden structures clearly go round the edges and where remains have also been found of bottom and roof. Remains of the latter have generally only been preserved along with bronze or iron artefacts or when charred, and therefore least of all is known about covering boards. No linings above 40 cm from the bottom have been observed at Luistari either, but since the degree of preservation of wood varies so much – so that one wall of a structure, which was charred, reached to a height of 20–30 cm, whereas the other had decayed to almost nothing – it is not possible to take height into consideration. All the same I do not believe that any of the »chambers» at Luistari were so high that it would have been possible, for example, to sit in them (cf. Gräslund 1980 pp. 37–38); the deceased were buried in various lying positions. The ratio between length and width was also somewhat different at Luistari from that at Birka; only in graves 294 and 295 is it close to the golden section, and grave 294 did not contain a chamber; there were boards only on the bottom. Consequently, when in what follows I speak of chamber-graves, I mean extremely large graves lined with wood, as opposed to graves where there has been something that could be carried, a coffin or stretcher. The reservation must be made that in some graves there may have been a wooden frame without a bottom and lid, but because of the poor preservation of the wood it is not possible to distinguish them from others.

According to the above definition, 38 of the

gravés of the Viking period so far excavated can be called chamber-graves. In addition there is a large number of graves where traces of wood have been found either from coffins, stretchers or some other structure; in the following I have dealt with them all under the name of »other wooden constructions».

Of the graves of Phase V I, 13 can be classified as chamber-graves. In six of these (40, 51, 120, 145, 195, 292) a man has most probably been buried, and among these with one exception are the graves above the end of which have been found a clear row or group of stones. One of these (the badly damaged grave 145) was without stones, and in grave 292 there was only an indeterminate stone-setting in the filling earth. Of the six women's graves (64, 130, 155, 170, 175, 180) where an extensive wooden structure was found, only two (64, 170) had had stones on them. The mass grave 295 was also probably a chamber-grave, although the wood remains there were very poor. The grave had been so badly ransacked that a part of the wall may have collapsed also. This grave was also one of those with a row of stones at the end.

In comparing these chamber-graves with other graves of the period it can be observed that if no really big treasures have been stolen from graves 120, 145 and 195, these graves do not differ as to furnishings from other graves of the period. The furnishings of graves 40, 51 and 292, which are more or less undamaged, are more or less the same level as those of other graves in the group, so that the burial chambers here have not been built to house especially rich furnishings (cf. Lamm 1973 pp. 67–68). The same is true of the women's graves, if we do not imagine that these graves were full of wooden artefacts of which no trace has been left. Little more has been found in the graves than details of dress; in a couple of graves there was a sickle, in a few clay vessels. But these objects would not have required chambers almost two and a half metres long and a metre wide. The smallest of these was in grave 64, where the wooden walls covered an area of 240 × 85 cm (the pit 290 × 95 cm). Of the men's chambers the smallest (in grave 51) was 270 × 105 cm, but two were over three metres long and considerably more than a metre wide (140 cm in grave 120, 135 cm in grave 195). The mass grave 295 was big enough for a structure measuring 350 × 200 cm; very few artefacts were obtained from it, however, but as has been mentioned before it had very probably been robbed.

There is a good number of chambers and other wooden structures in graves of this period (fig. 3), but there are also many adult graves where no trace of wooden structures has been found, and

this is true of the undoubted majority of children's graves. All the children's graves containing wooden structures (63, 77, 183, 273, 316) were furnished. However, the richest woman's grave (95) of the period is without wooden constructions. Attention is also aroused by grave row 140–157–199–191, where there are no wooden structures either. These may be older graves of the period, where the tradition of burial without a coffin from the Merovingian period still survives.

A glance at the map of the following period strengthens the assumption that the use of wooden structures in graves had increased considerably. Very few of the Phase V II graves are without wooden constructions, and the number of burial chambers has increased. Of the men's graves, only one is without wooden structures, and of the women's graves only two. As many as seven of the children's graves have had a frame or box made of wood. There are 20 chamber-graves in all, with at least 13 men and 9 women buried in them. All the graves containing swords (90, 281, 283, 348) are chamber-graves, as are the women's graves containing silver coins (344) and a silver ring (324), but grave 62, on the other hand, containing three brooches, a neckband and a bracelet is quite without wooden constructions. Thus there is again an exception to the rule. Among the children's graves No. 119 was unfurnished but was clearly provided with a coffin or frame. Four or five of the chamber-graves (100, 150, 200?, 280, 344) were without stone-settings.

Because of the small number of graves, Phase V III is not comparable. But some kind of suggestion of the development is perhaps given by the fact that of four men's graves one (215) is quite without wooden constructions, but the other three

(76, 207, 225) are chamber-graves. Graves 217, 226 and 229, possibly women's, contain wooden structures, but 184 is without; no suggestion of wooden constructions has been found in any of the children's graves. The unlined man's grave 215 contained two very fine spearheads, and the unlined woman's grave 184 has to all appearances been furnished better than the wood-lined graves.

There are only two graves containing chambers from Phase V IV, the man's grave 208 with a pouch and the richly furnished woman's grave 377. On the other hand, there is a good number of graves containing a frame or coffin, so that wooden structures could be established in 57 % of the graves. But the sword grave 15 and the very richly furnished woman's grave 35, along with graves 58, 366, 383 and 402 which contained silver coins, were without constructions. Thus the quality of the furnishings in this phase also does not tally with the grave structure. The man's grave 208 containing a chamber was marked with stones, but the woman's grave 377 was not.

During the Final period there are no burial chambers at all, but there are more graves furnished with wooden structures than unlined graves. As many as 75 % of the men's graves contained a coffin or other wooden construction, but only 29 % of the women's graves. Of the children's graves there were as many lined as unlined. Of the graves where no wooden structures were found, four contained silver, but the most richly furnished grave of the period, 404, contained a coffin.

In table form the result appears as follows (Phases V III and V IV have been combined, since the material from them is clearly incomplete, and the phases from the Merovingian period have been included for the sake of comparison):

| Period | Chambers | | | Other wooden constructions | | | Total of wooden constructions | No constructions | | | Total number of graves |
|----------|-----------------|-------------------|-------------------|----------------------------|-------------------|--------------------|-------------------------------|------------------|-------------------|---------------|------------------------|
| | In men's graves | In women's graves | In all graves | In men's graves | In women's graves | In all graves | | In men's graves | In women's graves | In all graves | |
| M (I–)II | – | – | – | 3 30% | 5 50% | 8 35% ¹ | 8 35% | 7 70% | 5 50% | 15 65% | 23 |
| M III | – | 1 20% | 2 9% ² | 3 30% | 1 20% | 7 30% | 9 39% | 7 70% | 3 60% | 14 61% | 23 |
| V I | 6 50% | 6 35% | 13 29% | 2 17% | 4 24% | 12 27% | 25 56% | 4 33% | 7 41% | 20 44% | 45 |
| V II | 10 63% | 7 44% | 20 37% | 5 31% | 7 44% | 19 35% | 39 72% | 1 6% | 2 12% | 15 28% | 54 |
| V III–IV | 4 27% | 1 6% | 5 12% | 6 40% | 9 56% | 19 44% | 24 56% | 5 33% | 6 38% | 19 44% | 43 |
| FP | – | – | – | 6 75% | 2 29% | 14 56% | 14 56% | 2 25% | 5 71% | 11 44% | 25 |
| Total | 20 28% | 15 21% | 40 19% | 25 35% | 28 39,5% | 79 37% | 119 56% | 26 37% | 28 39,5% | 94 44% | 213 |

¹ Four of these with wooden posts

² Graves 335 and 343 are placed here with reservations

When the percentages are compared, one notices that burial chambers are clearly most common in Phase V II, and that almost every adult was then given a grave lined in some way or other. Only 6 % of men's graves and 12 % of the women's were quite without constructions, and for all graves together the percentage is also the lowest. But during the other phases later than the Merovingian period the odd fact appears that the relation between lined and unlined graves seems to be fixed – lined 56 %, unlined 44 %; in other words a little more than a half of those buried at Luistari both at the beginning of the Viking Age and at the end of pagan times were buried with a coffin or some other wooden structure. This may of course imply a certain social class, but since the result does not seem to tally with other observations, it is most likely one of those coincidences that lead to mistaken conclusions if one relies too much on statistics alone.

Large burial chambers are a phenomenon of the Viking Age at Luistari, and they were most commonly built at the beginning and in the middle phase of the Viking period. But there are still quite a few graves with wooden structures or coffins during the Final period too, and then they were clearly most frequently granted to men. But there is no question of exclusive right, so that no clear difference between the sexes can be urged even for this phase.

There also appears to be quite a large number of children's graves furnished with wooden constructions. These are not, however, built as real chambers, unless we give that name to the structure in grave 330 which is only 204 × 65 cm, but has huge corner-posts. Built for a child about 130 cm in height it does indeed correspond to the adult graves described above.

Although all the statistics concerning children's graves must be treated with reserve, it seems clear that almost half the children's graves were furnished with wooden constructions, apparently a coffin most frequently, which was easy to handle since the corpses were small. It is difficult to decide

whether burial in a coffin was more common for boys than for girls, partly because the majority of children's graves are without furnishings, partly because such furnishings as they have do not indicate sex so clearly as in adult graves; those graves that contained only a ring might have belonged equally well to girls or boys. The table throws light on the situation in this respect: during some phases there seem to be more girls' than boys' graves with coffins, but uncertain cases make all conclusions worthless.

The large number of graves classified as children's graves without furnishings for Phase V II is explained by the fact that as many as seven of these are from the extreme south of the excavated area, where the adult graves also with a couple of exceptions were poorly furnished. The small graves (116, 117, 119, 121, 122, 124, 125) were in the immediate vicinity of the large ones, some of them on top of these, but unlike other locations the colour of their filling earth did not clearly differ from that of the large graves. Thus they cannot be classified as being much later; a possible explanation is that they belong to children who were buried near their relations. It is also noteworthy that not one of the unlined graves is deeper than the large graves, but when they were dug care was taken that the older graves were not destroyed. The lined grave 119 again is linked by its structure so clearly with the large graves in the area that it seems probable that it belongs to the same phase as the latter.

An interesting question is at what age a child was considered to deserve a proper burial. In the Viking Age part of the Luistari burial-ground the answer is apparently: at birth. Some of the graves are so small, for example grave 199 65 × 35 cm, grave 296 55 × 45 cm and grave 121 75 × 40 cm, that they would scarcely have contained anything larger than a newborn child. One of these is the furnished grave 273, where the length of the deceased from head to toe was only about 65 cm. This grave was lined with wood and contained a brooch and a miniature knife and spearhead, so that a very

| Constructions in children's graves | V I | | | | | V II | | | | | V III–IV | | | | | FP | | | | |
|------------------------------------|-----|------|---|-------------|-------|------|------|---|-------------|-------|----------|------|---|-------------|-------|-----|------|---|-------------|-------|
| | Boy | Girl | ? | Unfurnished | Total | Boy | Girl | ? | Unfurnished | Total | Boy | Girl | ? | Unfurnished | Total | Boy | Girl | ? | Unfurnished | Total |
| Wooden constructions | 3 | 2 | | | 9 | 1 | 3 | 2 | 1 | 7 | 3 | | 1 | | 4 | 1 | 2 | 1 | | 4 |
| No constr. | 1 | 1 | 2 | 5 | 9 | | | 1 | 10 | 11 | | 1 | 7 | 1 | 9 | | 1 | | 3 | 4 |
| | 4 | 3 | 2 | 5 | 14 | 1 | 3 | 3 | 11 | 18 | 3 | 1 | 8 | 1 | 13 | 1 | 3 | 1 | 3 | 8 |

little child, in this case apparently a boy, could be given a very careful burial.

Among the graves of children a little bigger there are several (118, 139, 183, 316, 394) with wooden structures, and about half of those, where the deceased were 110–140 cm in height, were furnished with coffin or frame. In the light of the material excavated so far it seems that the graves of really small children furnished with wooden structures only appear in the first two phases of the Viking period; later coffins appear to be for bigger children only. But only the excavation of the whole burial-ground will reveal whether there is a real difference, or a mistaken conclusion due to incomplete material. Since the children's graves quite clearly occur in the burial-ground in patches (in one place there may be 2 children's graves in an area of a hundred square metres, in another 6–7), only complete excavation would be sufficient to give a real picture of their number and distribution over different periods and age groups.

4.3. THE FURNISHING OF THE LUISTARI GRAVES AS A SOCIAL INDICATOR

Archaeologists have in general been more interested in the quality and quantity of grave-goods than in the standard of grave constructions when they have estimated the social position and the previous milieu of the deceased. Particularly weapons have been used as a measure of social position (e.g. Werner 1950; Stein 1967; Steuer 1969, 1970; Last & Steuer 1969; Paulsen 1967), but also horse equipments (e.g. Jaskanis 1966 pp. 56–58; Stein 1967 p. 153; Taavitsainen 1976 pp. 54–56), unusual or imported vessels and textiles, implements for toilet and amusements (Stein 1967 pp. 154, 208–209; Steuer 1969 pp. 215–216) and naturally precious metals have been connected with a high so-

cial position. Furthermore even coffin nails have been presented as a proof of the wealth of the buried (Roesdahl 1977 p. 149). In this connection horses and other animals in graves have also been discussed (Paulsen 1967 pp. 143–157; Busch 1966 pp. 58–59; Steuer 1970 pp. 363–365; Jaskanis 1966 pp. 55–65), and it has been claimed (Last & Steuer 1969 pp. 57–58, 73) that it is not possible to solve the question of the social position of the buried persons only by counting weapons and ornaments. Reference to the fact that a trained falcon was as valuable as a stallion and more expensive than a shield, a spear and a sword together does indeed give cause for thought.

4.3.1. Animal remains and provisions of the dead

Animal bones had been hardly noticed earlier in Finland, but in the 1970's their systematic study began, and among other material, that from Luistari has been analysed. Some interesting features have appeared in this connection, for the bones could be divided into at least two different groups.

In the first place there were hounds or dogs which could be characterized as followers of the dead persons. When bones were rather well preserved, it was always possible to ascertain that the dog had been whole, but mostly the remains were badly disintegrated; there is however no proof either of kynophagy, of which some Scandinavian finds bear witness (Öhman pp. 48–49).

Dogs were most often found in men's chamber-graves, but some other graves with wooden constructions also contained them. They were in general buried together with the dead persons inside the constructions; only once was the dog outside the chamber at the head end of the grave. The dog's place was usually near the feet of its master.

As shown by the table below, nine of about 13 dogs (one case is uncertain) have been found from

| Animal bones in different graves of adults | Chamber graves (total 38) | | | | Other constructions (34 graves) | | | | No constructions (26 graves) | | | | Total (98) |
|--------------------------------------------|---------------------------|------------|---------------------|----------------|---------------------------------|----------------|---------------------|------------|------------------------------|------------|---------------------|------------|-----------------|
| | Man (20) | Woman (14) | Multiple burial (4) | Total (38) | Man (13) | Woman (20) | Multiple burial (1) | Total (34) | Man (10) | Woman (15) | Multiple burial (1) | Total (26) | |
| Dog | 7 ¹ | | 2 | 9 ¹ | 2 | 1 | | 3 | | 1 | | 1 | 13 ¹ |
| Cattle | 8 | | | 8 | 5 | ? ² | | 5 | 2 | 2 | | 4 | 17 |
| Cattle, goat or sheep | | 1 | | 1 | | 1 | | 1 | | | | | 2 |
| Goat or sheep | | 1 | 1 | 2 | | 4 | | 4 | | 3 | | 3 | 9 |
| Undefined | 1 | 1 | | 2 | 1 | | | 1 | | | | | 3 |
| | 16x | 3x | 3x | 22x | 8x | 6x | | 14x | 2x | 6x | | 8x | 44x |

¹ One of these, from grave 348, uncertain. Grave 345 from the Final period is not in the table.

² The skull from grave 227 could have belonged originally to grave 226.

chamber-graves, three from graves with other wooden constructions and only one from a grave without constructions. In almost every fourth chamber-grave there was a dog, but only in one of fifteen others.

Horses are very often found in Scandinavian chamber-graves (A.-S. Gräslund 1980 pp. 39–43), but in Luistari all horse remains originate from graves without furniture, all of which seem to be later than the Viking period (Luistari I, 3.2.4.). Therefore it is not possible to connect them to the Viking period practices. Also bits and other kind of horse equipment were unusual at Luistari; bits were found only from four Viking period graves (56, 145, 280, 400), two of which (145, 280) were chamber-graves. Three graves (25, 209, 403) contained bridle mounts and/or sleigh bells, and they were all from Phase V IV. Accordingly no more than about 5 % of the Viking period graves contained artefacts connected with horses, and although the richest grave of the cemetery (56) is among them, all of them were not especially well equipped. In respect of horses also the Luistari chamber-graves differ clearly from Scandinavian graves. It is however possible that horses have had a greater role in Finland among those who burnt their dead, because the analysed material from the Laitila-Kylämäki cemetery, dated to the eight century and the beginning of the Viking period (cf. Kivikoski 1969 p. 45; the bulk of the finds is from Cleve's Phase III), contained a good number of horse teeth.

Remains of meat-producing animals are perhaps best interpreted as provisions for the dead, although the fact that most often teeth and cranium parts were preserved gives reason to suppose that perhaps a skull was given as a substitute for a whole animal. Since for example in grave 400, and also in the Merovingian period grave 329, bits and remains of a cattle skull were found side by side at the foot end of the grave, it seems possible that these were meant to represent both a draught ox and a horse. On the other hand most often only teeth were sufficiently well preserved for the analysis; so the picture obtained can be one-sided. It is still possible that the funeral guests had eaten the meats and the head was the share of the dead (cf. Vierck 1970–71 p. 193). Bones and teeth were almost always found at the bottom of the Viking period graves and usually at the foot end; only in graves 115, 283 and 325 were they at the head end and in graves 140, 282 and 330 near the chest. In the undisturbed part of the cemetery they were always in the graves and not on top of them, and so they could not be connected to later memorial meals (cf. Cleve 1978 p. 88, who supposes that these

had been eaten in Köyliö; Schvindt 1893 p. 151).

Cattle or goat or sheep remains – Viking period graves contained no bones of pig – were found from 13 chamber-graves, i.e. from every third one, from almost every third grave with other wooden constructions and also from more than every fourth unlined grave. Meat as provision for the dead or a remainder of the funeral feast is thus only slightly more usual in chamber-graves than in others. As shown in the table above, cattle remains verified with certainty were especially found from men's graves; all graves with wooden constructions containing them belonged to men. Two women's graves (58, 413?) which contained cattle remains were without linings and were dated to Phase V IV. There are considerably fewer animal remains in female than in male burials during the earlier phases (ratio 8–16), and probably all of them are from goats or sheep.

The difference between the sexes appears at least in the fact that the animals butchered for the women's funerals seem to have been smaller than those in men's burials, and that at least during the beginning and the middle of the Viking period only male dead were buried with their dog. There are dogs in men's graves from all periods, although most of them (9) are from the first two phases of the Viking period, six from Phase V II. There are plenty of remains of other animals also from this phase as well as from Phase V III. From almost every second grave bones of cattle, goat or sheep were found, whereas no more than every fourth grave from Phases V I and V IV contained them. Phase V II is also the only one from which there are animal remains in children's graves (141, 330, 393). It seems that during it the furnishing of graves was richest also in this respect, and it is possible that still during Phase V III, as yet poorly known, the same traditions were observed.

The animal bones in Viking period graves at Luistari were consequently from dogs, cattle, goats or sheep, and dog and cattle remains were clearly more often related to men's burials, whereas goat and sheep bones were usual in women's graves. For the sake of comparison it could be mentioned that in some western Swedish late Iron Age cemeteries bones of horses and dogs and then of sheep were the most usual, and it is claimed that the sex of the buried persons had been of no importance at all in connection with animals given to them (Andrén 1978 pp. 63–64). Cattle bones have not even been mentioned. From Denmark, where provisions in graves are not usual, a couple of cases are known where parts of cattle have been found along with other bones. One of them is clearly a man's grave (Stengade 3, Brøndsted 87), the other

(Næstved) perhaps a woman's; both are from the 10th century (Brøndsted 1936 pp. 213, 224).

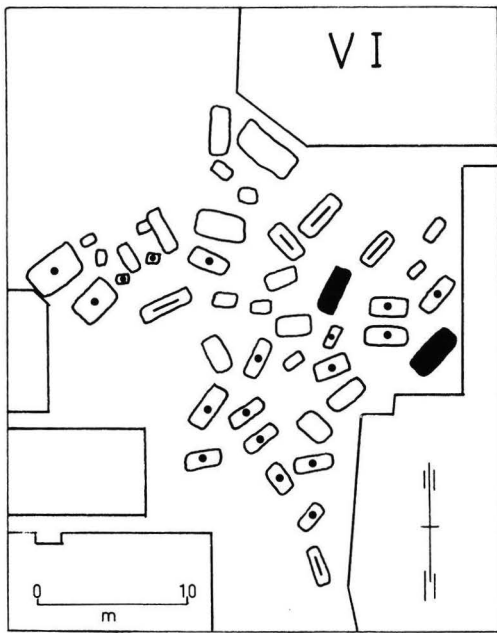
Central Swedish boat-graves, which are mostly male burials, have contained plenty of animal bones. In the Valsfärde grave 6 two horses, a cow and two or three dogs were found, and in addition there were parts of a heifer or a bull calf, of four pigs, four goats and two sheep, besides parts of a falcon, a goose, a black grouse and a pike (Arwidsson 1942 pp. 109–113). Six Vendel-graves contained remains of cattle among other animal bones (Stolpe–Arne 1912 pp. 18, 24, 32, 40, 51, 58). On the other hand according to Gräslund (1980 p. 60) inhumation burials at Birka did not contain other animal remains than those of horses in twenty chamber-graves and »a leg of beef» in some other burials. However, in cremation burials at Birka a considerable number of animal bones was found, mostly those of dogs and birds, but also bones of cats, horses, pigs, sheep and cattle appeared. Especially bones of elk in grave 55 and remains of a beaver in grave 56 are worth noticing (Stolpe–Hallström 1913 pp. 28–84), but it is not possible to connect different kinds of animal bones to different sexes, at least until all the bones have been analysed (cf. Gräslund 1980 pp. 54, 60, 82). It seems however that cattle bones were not concentrated in male graves (e.g. grave 39 with burnt cattle bones is probably a woman's grave, Stolpe–Hallström 1913 pp. 44–45).

It is probable that clay vessels also contained some kind of food, perhaps drink or soup. They divide in a certain manner on the one hand according to date, on the other hand between graves with different constructions. Of all the pottery found, 34 vessels derive from chamber-graves, 32 from graves with other wooden constructions and only 9 ones from graves without linings. If these numbers are proportioned to the numbers of differently constructed graves (38 chamber-graves, 50 graves with other wooden constructions, 54 unlined graves), the result obtained is that clay vessels are only a little more usual in chamber-graves than in graves with other wooden structures, but more than five times commoner in them than in unlined graves. When children's graves are excluded, the ratio is only 1:3 for the chamber-graves, for the adults' graves without constructions contained vessels more often than corresponding children's graves. In all, two-thirds of the chamber-graves, every second grave with other wooden constructions, but only every fourth grave without linings contained pottery.

Glass ware or other imported vessels were not found in the Luistari chamber-graves, but the question arises whether the clay vessels in them are different from the ones in other graves. As ascertained before (Luistari II, 5.2.), most of the Luistari pottery is of rather good quality, but there is also simple household ware among it (groups II:1b and

| Clay vessels in different graves | Chamber graves (38) | | | | Other constructions (50) | | | | | No constructions (54) | | | | | Total (142) |
|----------------------------------|---------------------|------------|----------------|-------|--------------------------|------------|----------------|------------|-------|-----------------------|------------|----------------|----------------|-------|-------------|
| | Man (20) | Woman (14) | Mult. bur. (4) | Total | Man (13) | Woman (20) | Mult. bur. (1) | Child (16) | Total | Man (10) | Woman (15) | Mult. bur. (1) | Child (28) | Total | |
| V I (45 graves) | 5 | 5 | 2 | 12 | | 3 | 2 | 3 | 8 | | 3 | | 1 | 4 | 24 |
| V II (54 graves) | 7 | 7 | 1 | 15 | 2 | 4 | | 6 | 12 | | | | 1 | 1 | 28 |
| V III (12 graves) | 4 | | | 4 | | 2 | | | 2 | | | | | | 6 |
| V IV (31 graves) | 1 | 2 | | 3 | 2 | 8 | | | 10 | 2 | 2 | | ? ¹ | 4 | 17 |
| Total | 17 | 14 | 3 | 34 | 4 | 17 | 2 | 9 | 32 | 2 | 5 | | 2 | 9 | 75 |
| Number of graves with vessels | | | | | | | | | | | | | | | |
| V I | 4 | 4 | 1 | 9 | | 3 | 1 | 3 | 7 | | 3 | | 1 | 4 | 20 |
| V II | 5 | 6 | 1 | 12 | 2 | 4 | | 4 | 10 | | | | 1 | 1 | 23 |
| V III | 3 | | | 3 | | 1 | | | 1 | | | | | | 4 |
| V IV | 1 | 1 | | 2 | 2 | 5 | | | 7 | 1 | 2 | | ? ¹ | 3 | 12 |
| Total | 13 | 11 | 2 | 26 | 4 | 13 | 1 | 7 | 25 | 1 | 5 | | 2 | 8 | 59 |

¹ Vessel in grave 408 uncertain.



PROVISIONS IN THE LUISTARI GRAVES

- | | | | |
|--|-------------------------|--|------------------|
| | meat | | birchbark vessel |
| | clay vessel | | bronze vessel |
| | both meat and vessel(s) | | |

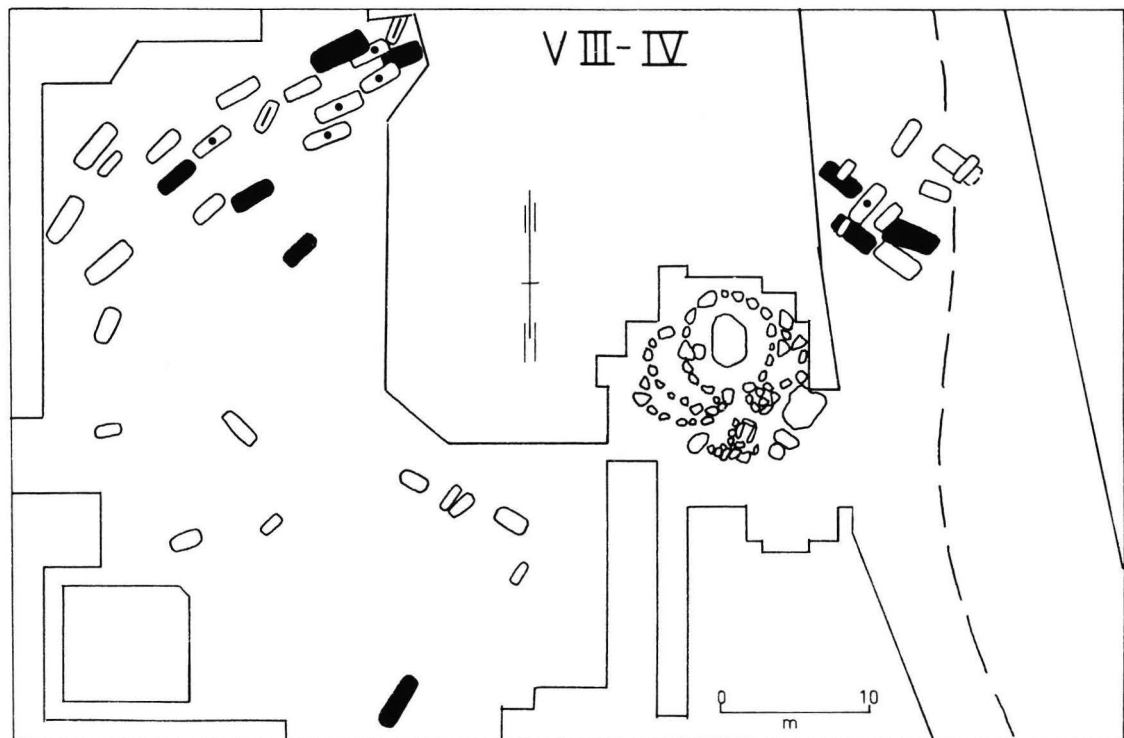
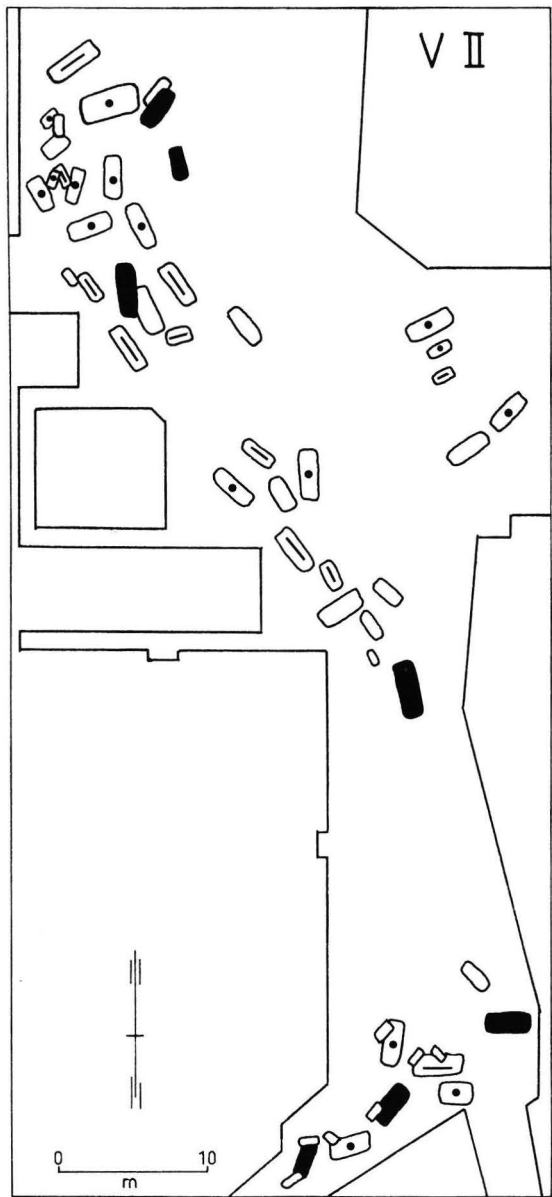
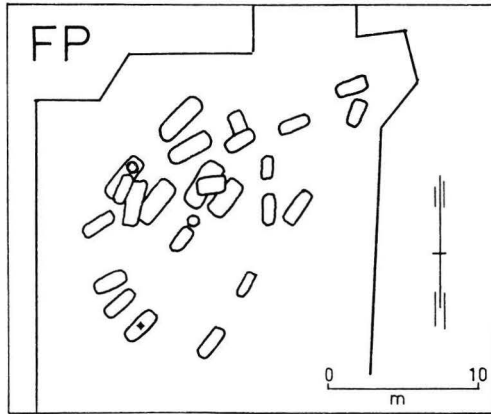


Fig. 4. Distribution of cattle bones and vessels in the Luistari graves.

II:2b). In the table below the pottery is divided within the grave groups only into ornamented and unornamented ware:

Clay vessels alone were found in chamber-graves considerably more often than in other adults' graves, but there were few graves with only meat

| Period | Chamber graves | | Other constructions | | No constructions | | Total |
|--------|----------------|---------|---------------------|---------|------------------|---------|-------|
| | Ornaments | No orn. | Ornaments | No orn. | Ornaments | No orn. | |
| V I | 10 | 2 | 3 | 5 | 3 | 1 | 24 |
| V II | 11 | 4 | 5 | 7 | | 1 | 28 |
| V III | 3 | 1 | 1 | 1 | | | 6 |
| V IV | 2 | 1 | 6 | 4 | 1 | 3 | 17 |
| Total | 26 76% | 8 24% | 15 47% | 17 53% | 4 44% | 5 56% | 75 |

As shown by the table, the share of ornamented pottery is bigger in chamber-graves than in others; where the whole material contains 60 per cent ornamented pottery, the corresponding figure in these is 76 per cent. The share of unornamented household pottery is 18 % in chamber-graves (90, 155, 225, 280, 377, 389), 25 % in graves with other wooden constructions (17, 75, 226, 330, 342, 349, 359, 370) and 22 % in unlined graves (35, 413); the rest of the undecorated pottery consists of small beakers and bowls, especially common in children's graves. Whereas almost no chamber-graves were constructed during Phase V IV, the share of ornamented pottery seems to have increased in graves with other wooden constructions.

When the distribution of animal remains is compared with that of clay vessels, in other words when an attempt is made to ascertain the difference in provisions in different graves, the following result is obtained:

among these. Graves with both remains of meat producing animals and clay vessels were equally common in both grave groups with wooden constructions, but there was only one unlined grave with this combination. This grave, 413, was badly disturbed and therefore not a certain case either. Six men's chamber-graves contained both clay vessels and meat, but only two women's graves had this provision. However, among other graves there are five women's but only three men's graves with clay vessels and animal bones, so that ample provisions have been given almost equally often to women as to men. There was however the difference in the quality of the animals butchered, as mentioned before (p. 30). From Phase V II there is even a child's grave (330) with both cattle remains and two clay vessels.

The map on which both animal remains and clay vessels are marked reveals how very common provisions were during the Viking period and how

| Period | Chamber graves | | | Other constructions | | | No constructions | | |
|----------------|----------------|------|------|---------------------|------|------|------------------|------|------|
| | Vessel | Meat | Both | Vessel | Meat | Both | Vessel | Meat | Both |
| V I | M | 2 | | 2 | 1 | | | 2 | |
| | W | 4 | 1 | | 3 | | 3 | 1 | |
| | D | 1 | | | 1 | | | | |
| V II | M | 4 | 3 | 1 | 1 | 3 | 1 | | |
| | W | 4 | | 2 | 2 | 1 | 2 | 1 | |
| | D | 1 | 1 | | | | | | |
| V III | M | | | 3 | | | | | |
| | W | | | | | 1 | | | |
| V IV | M | 1 | | | | 2 | 1 | | |
| | W | 1 | | | 4 | 1 | 1 | 2 | 1 |
| Total | 18 | 5 | 8 | 11 | 5 | 7 | 5 | 6 | 1 |
| In % of graves | 47% 13% 21% | | | 32% 15% 21% | | | 19% 23% 4% | | |
| | 82% | | | 68% | | | 46% | | |

M = a man's grave W = a woman's grave D = double or multiple burial

clearly this custom ended during the last phase of the same. If there have also been provisions in the bronze kettle from grave 345 and in the birch bark vessel from grave 404, this lays stress on the extraordinary character of these late graves; there was a dog in the former, while in the latter the remains of a second corpse, crammed into a bundle, were found.

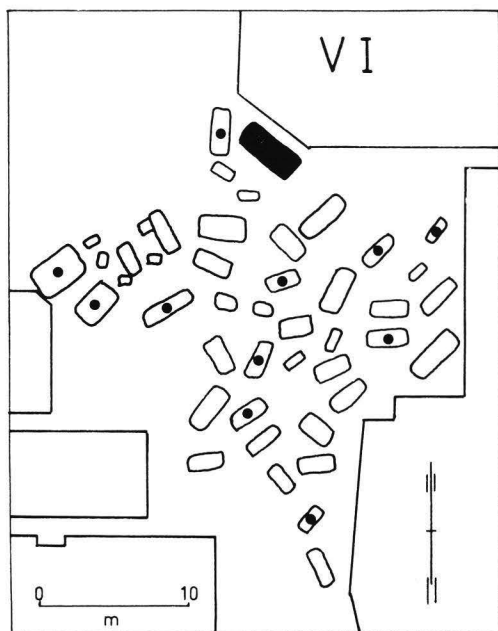
4.3.2. Weapons, tools and dress details

The following table shows the extent to which the composition of furniture is dissimilar in separate grave groups. The graves have been divided on the one hand according to sex, on the other hand ac-

ording to periods, but so that Phases V I and V II have been joined together, likewise Phases V III and V IV. Of graves with multiple burials, numbers 280, 281, 295 and 303 have been joined to men's graves, since there is mostly material attaching to men in these. The furnishing in graves 291 and 294 clearly indicates women, so they are joined to the female graves. The first group consists of 32 men's and 35 women's graves, the second one of 15 male and 16 female graves; so the latter group is not statistically as representative as the former. The percentage indicates how great a number of graves in each grave group has contained each kind of artefact.

In the column of the earlier Viking period there

| Furnishing in different grave groups | Warfare | | | | | | Farming | | Trade | | Dressing | | | | Comb |
|-------------------------------------------------------------------|---------|------|-------|-----|--------|-----------------|---------|------------------|-------------------|--------|------------------|--------|--------|----------------------|--------|
| | Sword | Seax | Spear | Axe | Shield | Horse equipment | Shears | Scythe or sickle | Scales or weights | Silver | Spiral ornaments | Brooch | Beads | Neckring or bracelet | |
| V I–II Chamber graves Total 33 19 M 14 W | 4 | 3 | 15 | | | 2 | 6 1 | 6 5 | 2 | 6 2 | 14 9 | 9 4 | 1 9 | | 3 1 |
| Total | 4 | 3 | 15 | | | 2 | 7 | 11 | 2 | 8 | 23 | 13 | 10 | | 4 |
| % | 12% | 9% | 45% | | | 6% | 21% | 33% | 6% | 24% | 70% | 39% | 30% | | 12% |
| Graves with other wooden constructions Total 19 7 M 12 W | 1 | | 7 | | | 1 | 2 | 1 | 1 | 1 | 5 6 | 5 2 | 1 5 | | |
| Total | 1 | | 7 | | | 1 | 2 | 1 | 1 | 1 | 11 | 7 | 6 | | |
| % | 5% | | 37% | | | 5% | 11% | 5% | 5% | 5% | 59% | 37% | 32% | | |
| Graves without constructions Total 15 6 M 9 W | | | 5 | | | | | 1 | | | 1 3 | 2 4 | 8 | 3 | |
| Total | | | 5 | | | | | 1 | | | 4 | 6 | 8 | 3 | |
| % | | | 33% | | | | | 7% | | | 27% | 40% | 53% | 20% | |
| V III–IV Chamber graves Total 5 4 M 1 W | 1 | | 3 | | | | 2 1 | 1 | 2 | 2 1 | 3 1 | 2 | 1 1 | | |
| Total | 1 | | 3 | | | | 3 | 1 | 2 | 3 | 4 | 2 | 2 | | |
| % | 20% | | 60% | | | | 60% | 20% | 40% | 60% | 80% | 40% | 40% | | |
| Graves with other wooden constructions Total 15 6 M 9 W | 1 | 1 | 3 | 2 | 1 | 3 | 1 3 | 1 2 | 3 1 | 3 4 | 7 | 4 5 | 5 | 4 | |
| Total | 1 | 1 | 3 | 2 | 1 | 3 | 4 | 3 | 4 | 7 | 7 | 9 | 5 | 4 | |
| % | 7% | 7% | 20% | 13% | 7% | 20% | 27% | 20% | 27% | 47% | 47% | 60% | 33% | 27% | |
| Graves without constructions Total 11 5 M 6 W | 1 | | 2 | | | 1 | 1 1 | 1 3 | | 2 5 | 5 | 2 1 | 5 | 1 | |
| Total | 1 | | 2 | | | 1 | 2 | 4 | | 7 | 5 | 3 | 5 | 1 | |
| % | 9% | | 18% | | | 9% | 18% | 36% | | 64% | 45% | 27% | 45% | 9% | |



SILVER IN THE LUISTARI GRAVES

- silver in one shape or other
- bronze brooch(es) but no silver

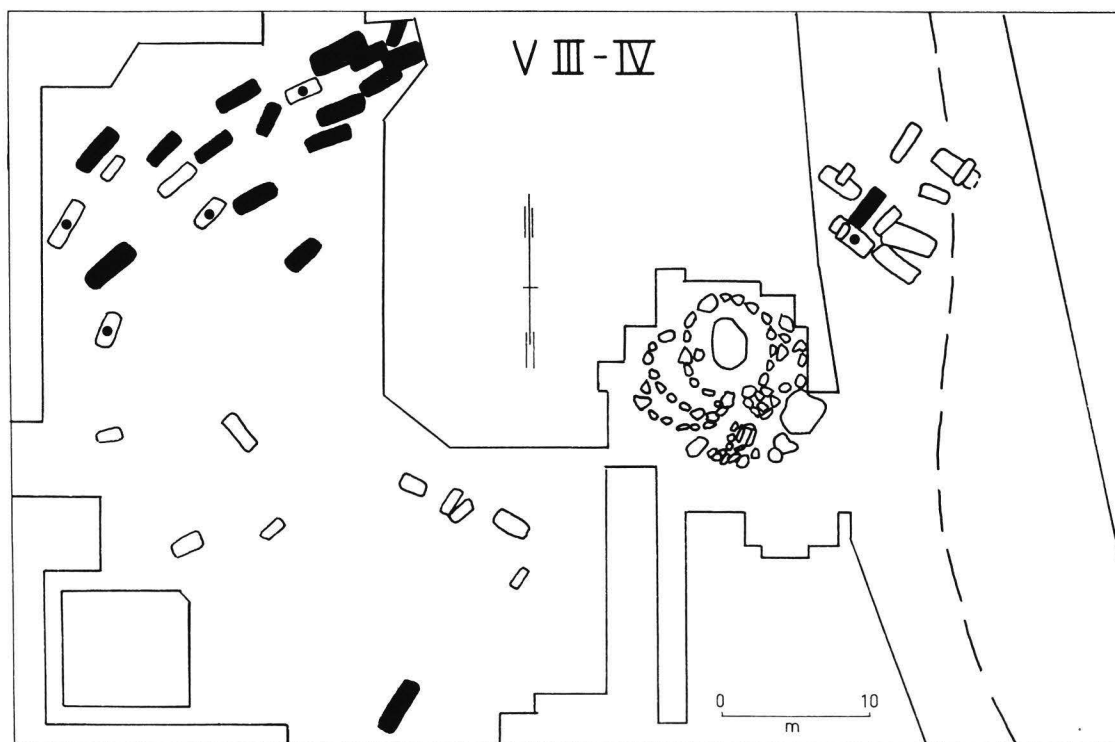
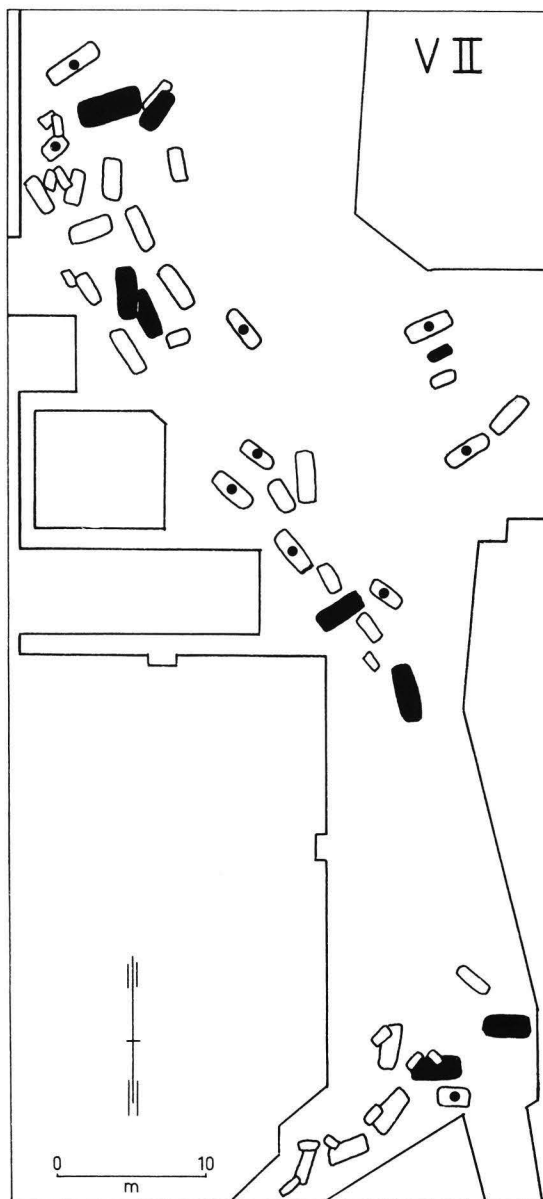
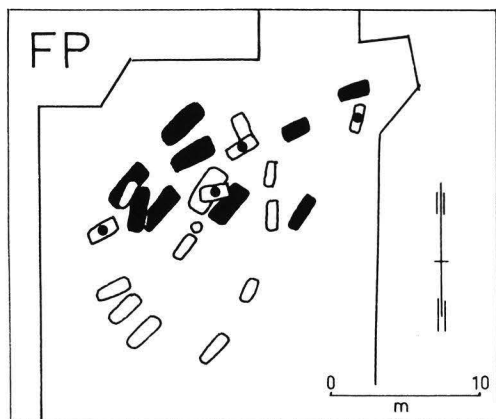


Fig. 5. Distribution of coins, silver artefacts and artefacts ornamented with silver at Luistari.

are two artefacts, seax and comb, which appear only in chamber-graves. Because combs are unusual in the mainland Finnish graves during the Viking period (Kivikoski 1963 p. 114), and the seaxes again have been connected in Birka, where they have been found in nine graves, to the leading people of the society (Steuer 1969 p. 215, 1970 p. 377), their appearance in the Luistari graves is probably not without importance. Also other weapons, tools, silver in one shape or other and garments with spiral ornaments were found more often in chamber-graves, but not only in them. Men's graves with other wooden constructions contained almost equally ample furniture, likewise the similar women's graves, even if there was no silver in them.

In the columns displaying furniture connected with warfare, agriculture and trade, a clear difference is apparent between the graves with wooden constructions and graves without them, but in dress there is a difference to the credit of the wood-lined graves only in the men's column; the female graves without wooden constructions display the most abundant jewelry. Stone settings also appeared almost as often on them as on the chamber-graves; so the absence of wooden structures in women's graves does not seem to be connected with poorer burials.

Weapons, tools, weights, silver and spiral ornamented garments seem to be characteristic of the men's chamber-graves also during the later Viking period, but there are weights and silver also in every second grave with other wooden construc-

tions and coins were found from graves without linings too. Female graves of this period are especially well furnished, and particularly the fact that they contain furniture pointing to horses is conspicuous. These graves also contained remains of dogs and cattle, which were not found from the female burials of the earlier phases. It is also striking that there are ornaments and silver in abundance in those graves in which no constructions were found, and there seems to be no difference in the furnishing between these and graves with wooden structures; it is worth noticing that one of the sword graves (15) is also without a coffin or a chamber.

The result of this study is that the men's chamber-graves differ in furniture from other male graves during the earlier Viking period, but the female graves display no similar difference; silver appears however only in two female chamber-graves. During the later Viking period the difference between the chamber-graves and the others became vaguer. The men's chamber-graves differ from other male graves only in the matter of spiral ornaments. Silver is found in all grave groups of this period and in both male and female graves; there was silver in one shape or other in more than every other adult's grave of this period, while only every eight of the graves from the earlier Viking period contain it. This seems to suggest that during the same time as the society prospered the social differences diminished – quite contrary to the belief generally prevailing.

5. WEALTH DISPLAYED IN THE LUISTARI GRAVES

5.1. METHOD OF CALCULATION OF THE VALUE OF FURNISHING

So far I have given attention to the quality of furnishing and not the quantity, but to reveal the real differences in the status of graves a method must be found to estimate the amount of property surrendered in connection with the burial ceremony.

In his studies of Scandinavian bead finds and in his attempt to trace through them graves portraying wealth and high social status, Johan Callmer (1977 pp. 105–106) interprets personal ornaments, garments and vessels as the legal property of the dead, which is in direct relation to their individual status. He gives various kinds of points to artefacts appearing in graves, for example two points for a sword, but only one for a spearhead or a shield, and half a point for an axe. Spurs and stirrups are both given the same value as a sword, brooches are worth one point when bronze, but four points when silver, and the same for bracelets. A silver ring and a silver bead are given half a point, 1–3 pendants one point when bronze, four when silver, and 10–19 beads one point, and the same for an imported bronze vessel. Other artefacts have not been taken into account.

Using this system of Callmer's, men's graves Nos. 90, 281, 348 and 349 at Luistari would be placed among the really rich graves, while 16 women's graves would be classified as extremely rich, among them No. 160, where virtually only a string of beads was found. The highest value of all would be given to grave 56, with double the points of grave 25 and almost five times as many as grave 35, not to mention the fact that it would be almost six times as rich as grave 348 with its sword, two purses and silk shirt. It is obvious that some other scale of value must be applied to the Luistari material, to keep a realistic relationship between men's and women's graves.

According to Arabian sources one glass bead cost a dirham on the Volga, in other words the value of a silver coin and a glass bead was the same in the tenth century (Lewicki 1953 p. 131). Since however silver ornaments could be split for weighing together with coins, their value could be compared with their weight in silver, though there is reason to believe that the artistic work in some ornaments was given great value. Thus Callmer's awarding of 4 points for 1–3 silver pendants and

one point for 19 beads seems to constitute a considerable error when set against the reality of ancient times, not to mention the fact that a sword could certainly not have been bought for the price of half a pendant or even one and a half pendants. Callmer's intention has evidently only been to divide graves containing similar material into groups of different levels, and not to compare graves containing entirely different types of artefacts. For this reason his system will not serve even as a starting point in the present connection.

Although no knowledge exists of the prices of various articles in prehistoric Finland, and only scattered information concerning the Middle Ages, some sort of result may be obtained perhaps by studying information from various sources concerning the comparative prices of various trading articles. It has already been mentioned that the value of the dirham and a glass bead was more or less the same. From the same Arabian sources we learn that a marten skin cost a dirham and a male slave at the place of delivery about 100 dirhams (Lewicki 1953 p. 132). In Hedeby Rimbert bought a nun's freedom with a horse (Jankuhn 1972 p. 236), so the price of a horse and a slave were roughly the same, about 200–300 g of silver, though of course prices for both horses and slaves varied. In the kingdom of Charlemagne for example a stallion might cost 12 solidi and a mare only 3 (Last & Steuer 1969 p. 73). We know from the Byzantine Empire that horses suitable for the Emperor's military campaigns, which were certainly of the best quality, cost 12 nomismae, i.e. about 520 grams of silver (Andréadès 1924 p. 108; 1 fr. = 4,17 g of silver).

We also know from Byzantium that a yoke of oxen cost 6 nomismae, about half the price of a good horse, and perhaps about the same as an inferior horse (Andréadès 1924 p. 107). According to Lex Ribuarica (7th century) an ordinary horse and a sword with scabbard were both valued at 7 solidi, but apparently this meant a very elaborate scabbard, as a sword alone was worth three solidi. A spear and shield together were valued at two solidi. At the same time the price of a cow was 1–3 solidi, of an ox 2; at the beginning of the ninth century a cow cost 2 solidi, an ox 2¹/₂, a sheep with lambs or a bullock two thirds of a solidus (Lex Saxonum 802 A.D., Last & Steuer 1969 pp. 73–74). Some East European scholars have collected data concerning

Slavic regions also and estimated the prices for various domestic animals and types of equipment (see Herrman 1968 p. 131):

| | | |
|-------------|------------|-----------|
| sword | 126.4 g | of silver |
| spear | 51 g | » |
| bits | 10.2 g | » |
| stirrups | 126.4 g | » |
| spurs | 20 g | » |
| belt buckle | 5 g | » |
| knife | 2.8 g | » |
| horse | 150–300 g | of silver |
| ox | 50–125 g | » |
| cow | 80–100 g | » |
| pig | 10–30 g | » |
| sheep | 10–15 g | » |
| hen | 0.3–0.35 g | » |

What is vital from the standpoint of this study are the ratios obtained between different domestic animals and furnishings. As the table below shows, they do not vary much in different regions:

| | Byzan- tium | Frankish area | Slavic area |
|---------------------|----------------|------------------|----------------|
| horse – ox | 1:4 | 1:3.5 | 1:2.4–1:3 |
| horse – cow | – | 1:2.3–1:7 | 1:1.9–1:3 |
| cow – sheep | – | 1:4.5 | 1:6.6–1:8 |
| horse – sword | – | 1:2.3 | 1:1.2–1:2.4 |
| sword – spear | – | 1:3 | 1:2.5 |
| spear – bits | – | – | 1:5 |
| spear – belt buckle | – | – | 1:10 |
| spear – knife | – | – | 1:18 |

The biggest difference is in the ratio between the price of a cow and a sheep, but there is evidence from medieval Finland that the average price of a cow was about eight times that of a sheep (Ruuth 1908–1909 pp. 12–13). Possibly the ratio earlier was about the same, and thus would correspond to the situation in Slavic regions. In the sixteenth century horses were sold in Finland for 600–800 ells of linen (Voionmaa 1936 p. 69), which in Lapland trade cost 1 mark per eight ells (Itkonen 1943 p. 13). Thus the price of a horse would be 75–100 marks, i.e. about 600–800 grams of silver, but it is quite possible that the price of linen in Lapland was considerably higher than it was farther south.

However, it has been established that the prices of horses varied very much in medieval Finland. In Viipuri a warhorse (with equipment?) is mentioned as costing 60 marks in 1363, whereas the letter of privilege granted to the Karelians by Magnus Ericsson in 1347 reveals that an average horse was valued at 4 marks. Since the value of a cow was apparently 12 äyri at the same time (Ruuth 1908–1909 pp. 12–13), the ratio between the price of a horse and a cow was 1 horse = 2.7 cows, which corresponds more or less to the average of the

ratios already presented.

Naturally the prices of cows varied too, and their value was in proportion to their rareness and importance. For instance we know that in Iceland in the period after 1100 a cow cost 90–96 ells of woollen cloth. There is evidence from the 10th century in turn that 6 ells of woollen cloth cost 24–25 grams of silver there, so that if the price of woollen cloth was still the same, the price of a cow was high – almost 400 grams of silver (Jankuhn 1972 p. 236). In Lapland trade in 1559 one ell of homespun cloth cost 1/4 mark (Itkonen 1943 p. 28), so that if the ratio was the same as in 12th century Iceland, a cow might cost 24 marks (almost 200 g of silver), which was high indeed. It is interesting, however, that if we compare the price of a horse at the same time calculated on the basis of linen, the ratio of the price of the horse and a cow is 1:3 or 1:4 – again a ratio that tallies with what has been stated above. Thus it seems that at the time when a barter economy prevailed a certain relationship existed between the value of domestic animals and everyday products, and that although their value in silver varied, these relationships remained more or less constant.

Concerning Lapland trade we also know that in 1550 three pairs of knives, one pair of shears and one axe each corresponded to one *lispund* (about twenty pounds) of dried pike (Itkonen 1943 p. 29). From this we get a ratio of 1:6 between an axe and a knife, and 1:1 between an axe and shears. These ratios seem quite possible for the Viking period also, though the axes in question are certainly working axes, and a battleaxe should rather be considered as having the same value as a spear.

Although prices in Finland during the Viking Age may have differed considerably from those listed above, and undoubtedly varied a great deal according to supply and demand, we shall get closer to the truth through these ratios than by setting purely arbitrary values. I have also tested the method of calculating described in what follows by means of the frequency of appearance of the most common objects, and both methods give a more or less similar final result.

The price of a horse seemed to me the most suitable basic unit for calculating the values of other articles. Since the price of a horse corresponded roughly to that of a slave, about 100 dirhams at the place of purchase, a horse can be marked as 100 units. From this a sword (without a fine scabbard) is worth 40 units, a spear, a battleaxe or shield 15 units each, a horse's bit 3, a knife 1, a belt buckle 1½ and a bead 1 unit. It is true that colourful enamel beads were probably more and small glass beads less valuable (Lewicki 1953 p.

131), but since these appear in graves of different phases and the comparison takes place within the same phase, these differences are of no real significance. Cows or other cattle generally are worth 35 units each, a sheep 5 units. The determining of the value of a dog is difficult because a good hunting dog has always been much more valuable than an ordinary watch dog, nor is it possible to say what kind of dogs those found in graves were. For the sake of comparison, we may mention that in trade between Lapps a shepherd dog might be worth as much as three reindeer stags (Itkonen 1943 p. 122). A dog was probably cheaper than a horse and perhaps even a cow, although we learn from later times that a good squirrel dog was worth more than a cow (Voionmaa 1947 p. 282). A dog's value as an indicator of social consequence was evidently considerable in connection with burials (cf. Öhman 1976 p. 51), but it has been given only 20 units here to avoid overvaluation.

Estimating the price of ornaments is difficult, because we have no knowledge of the ratio between the price of the material and the work as a whole, and thus it is not possible to estimate with regard to ornaments made of different materials how much the material affects the overall price. The price of rare ornaments depended no doubt largely on the need to sell of the maker or trader, and the buyer's ability and desire to pay. But it is also probable that the prices of articles in general use were fixed; smiths had to earn their living. Although there is clear evidence that silver ornaments were split for use as bullion, this undoubtedly did not happen until the ornaments were no longer contemporary (cf. Roesdahl 1977 p. 170). The price of an undamaged, fashionable silver ornament must have been greater than the value of the same weight of silver, and the value of the work in bronze ornaments must have been roughly the same as in silver ornaments, though the material was cheaper. From this it is perhaps possible to work out a system to put ornaments in order of value.

If we assume that the proportion of the work in silver ornaments was about one sixth of the overall price – this would naturally vary for different ornaments – and that the ratio between the value of silver and bronze was 1:30 (bronze may well have been much more valuable, for it too had to be imported), a bronze ornament would have cost about one fifth of the price of a silver ornament of equal weight. If we take this ratio as a starting point, bronze ornaments will at least not be over-valued, and the following values are obtained (the objects weighed were completely preserved specimens from the collections of the Finnish National Museum):

Large silver brooch from Luistari grave 25 (NM 18000:1342). Weight 35.44 g, equivalent to about 12 dirhams in silver, plus 2.4 dirhams for the work. Rounded upwards this is worth about 15 units – the same as for a spear, which seems quite possible.

A-type convex round brooches, bronze. Weight c. 40 g, equivalent to about 1.3 g of silver, value of work 8 g, result 3 units (the unit basis, the dirham weighed 2.97 g on average. When this is rounded to three, we get the equation $\frac{w:30+w:5}{3} = x$).

B-type convex round brooches, bronze. Weight c. 70 g, equivalent to about 2.3 g of silver, value of work 14 g, result 5.5 units.

C-type convex round brooches, bronze. Weight c. 75 g, equivalent to about 2.5 g of silver, value of work 15 g, result 6 units.

D-type convex round brooches, bronze. Weight (75–)90 g, equivalent to about 3 g of silver, value of work 18 g, result 7 units.

Two-animal convex round brooches, bronze. Weight 40–75 g, 3–6 units (see above).

Viking Age equal-armed brooches, bronze. Weight c. 35 g, equivalent to 1.2 g of silver, value of work 7 g, result 3 units.

Viking Age massive bracelets, bronze. Weight 65–235 g, equivalent to 2.2–7.8 g of silver, value of work 13–47 g, result 5–18.5 units.

Spiral bracelets, bronze. Weight c. 80 g, equivalent to 2.7 g of silver, value of work 16 g, result 6 units.

Chain arrangement from Luistari grave 35 (NM 18000:1446), bronze. Weight 350 g, equivalent to 12 g of silver, value of work 70 g, result 28 units.

Apron bronze spirals from Luistari grave 56 (spirals made for reconstruction work were used in weighing because the originals were only partly preserved and were mostly attached to the fabric). Weight 500 g, equivalent to 16.66 g of silver, value of work 100 g, result 39 units.

Finger rings, silver. Weight 2.5–10 g, value of work 0.5–2 g, result 1–4 units.

Finger rings, bronze. Weight 3–10 g, equivalent to 0.10–0.33 g of silver, value of work 0.6–2 g, result 0.4–2 units.

Pendants, silver. Weight 2.5–6.5 g, value of work 0.5–1.5 g, result 1–2.7 units.

Pendants, bronze. Weight 2–25 g, equivalent to 0.07–0.83 g of silver, value of work 0.4–5 g, result 0.16–2 units.

Chain holders, bronze. Weight 15–30 g, equivalent to 0.5–1 g of silver, value of work 3–6 g, result 1.2–2.3 units.

Belt buckles, bronze. Weight c. 10 g, equivalent to 0.33 g of silver, value of work 2 g, result 0.8 units.

As can be seen, the belt buckle would get a lower value than Jan Zak has suggested (see Herrman 1968 p. 131), so that these estimates are probably not too high.

In the smaller and lighter articles the work value must be relatively greater, and therefore the values in such cases have been rounded upwards in the following. It is also clear that if there are two bracelets ornamented in the same way and one weighs 65 g and the other 235 g, the amount of work in each of them cannot be in the same proportion. In the study of the mutual level of furnishing in the graves that follows, only one value for each group of article has been selected for the sake of simplicity. This naturally leads to errors (children's ring ornaments for example are much lighter than adults'), but does not in my opinion invalidate a comparison between the graves. Convex round brooches and big Viking Age penannular brooches, ornamental pins and equal-armed brooches have been awarded 5 units, iron brooches and small bronze brooches 2, silver brooches 15. Silver pendants and bracteates have been given 3 units, coins and parts of coins one unit, hacksilver according to weight. The Arabian coins of neckbands have perhaps meant much more to their owners than their value in silver, since they have probably been associated with magic beliefs, but this has not been taken into account. The treating of bracteates, often found in the same graves, as pendants, perhaps makes up for this weakness. In general one point is the smallest unit used, but in the case of bronze beads and spirals and bone beads five have been required to make up one unit. It is quite possible that several bone beads could be obtained for the price of one bronze bead, and perhaps 10–20 for one glass bead, but when the high percentage of bone beads that have been destroyed is considered, we must think that one bone bead represents many that no longer exist.

As can be seen from the above list, a complete bronze chain arrangement was quite heavy, and in the following it has been given 30 units; for an iron chain or an incomplete bronze one I have given 10 units. There was probably a good deal of bronze in a richly ornamented apron too, and it has thus been a sign of considerable wealth. In the table it has also been given 30 units, although the calculation above suggests more, but other aprons of this type were evidently not as heavy as that in grave 56. Clothes were real capital in Finland in the Middle Ages and even well into modern times, especially if they were made from fabrics from abroad. Thus for example it is hardly

an exaggeration to value the silk garment or garment decorated with silk in grave 348 at the price of a sword. But it must be remembered all the time that even in graves where no remains of garments were found, there were originally such fairly certainly, and if the price of woollen cloth in Finland corresponded to the level in Iceland in the 10th century, the fabric alone in a complete Finnish woman's outfit may have been worth 60–70 grams of silver, i.e. 20–24 units by the method of calculating used here. Since with the exception of the spiral ornaments, garments, fabrics and leather used in the interior of the graves have been ignored completely in this connection, this means that the values given for the property put into the graves are too low rather than too high.

There is no doubt that among the cloaks and mantles with spiral ornaments some should be given more than the 10 units awarded here, but the number of units given mainly corresponds to the proportion of spirals. The amount of them varies from grave to grave, as does the number of spirals used for a man's belt. Since these belts are quite clearly connected with the richest graves, their appearance must be considered an indicator of wealth. The column where other garments ornamented with spirals are recorded, includes garters, aprons ornamented with fewer spirals, head-dresses, and ornaments whose original connection is not clear.

A bronze-coated knife sheath has been given the high value of 20 units because the chasing on it represents a considerable amount of work. Besides, as was mentioned in connection with swords above, a scabbard may have been considerably more valuable property than a sword. A knife sheath is not of course as valuable as a sword scabbard, but the finest ones may have cost more than a silver brooch.

Keys, combs and locks are given 2 units because of their rarity and symbolic value; for the same reason scales and boxes are given 10 units. A bronze-handled firesteel should in fact rate higher points than other firesteels, but the graves (90, 348) where these were found stand out from others, even if the merited additional units are not taken into account. Belt buckles, end-fittings and strap-dividers are given one unit each; in cases where studs riveted to straps have been preserved (graves 349, 407), one unit has been added regardless of their number. In fact there are few studs at Luistari, so that this is not significant, but generally speaking 3–5 studs might be worth one unit, so that a studded belt would correspond to a belt with spirals. In the last column, units are recorded for objects that do not fit into the main groups but

UNITS AT LUISTARI

| GRAVE | sword | seax, axe, shield | spear | knife, arrow | bronze sheath | scythe, sickle, adze | shears | other iron tool | horse equipment | spindle, whetstone | firesteel | key, comb, lock | scales, box | coin, weight | clay vessel | iron or small bronze brooch | bronze brooch | silver brooch | silver pendant | other pendant | chain arrangement | neckring or bracelet | finger-ring | bead | buckle, strap-tag | apron w. applied spirals | cloak, belt w. spirals | other garment w. spirals | cattle | goat or sheep | dog | miscellany | TOTAL OF UNITS | |
|--------|-------|-------------------|-------|--------------|---------------|----------------------|--------|-----------------|-----------------|--------------------|-----------|-----------------|-------------|--------------|-------------|-----------------------------|---------------|---------------|----------------|---------------|-------------------|----------------------|-------------|------|-------------------|--------------------------|------------------------|--------------------------|--------|---------------|-----|------------|----------------|----|
| | 40 | 15 | 15 | 1 | 20 | 6 | 6 | 2 | 3 | 1 | 1 | 2 | 10 | 1 | 1 | 2 | 5 | 15 | 3 | 1 | 30 | 10 | 4 | 1 | 1 | 30 | 10 | 5 | 35 | 5 | 20 | | | |
| V I Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M 40 | | | 15 | 1 | | | | | | | | | | | | | 5 | | | | | | 3 | | | | 10 | 5 | | | | | | 39 |
| 51 | | | 30 | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | | 20 | | 52 | |
| 120 | | | 15 | 2 | | | | | | | | | | 1 | | | | | | | | | 2 | | | 10 | | | | | | | 30 | |
| 145 | | | 30 | | | 12 | | 8 | 3 | 1 | | | | | | | | | | | | | 1 | | 1 | | 35 | | 20 | | | | 113 | |
| 195 | | | | 1 | | | | | | | | | | | | | | | | | | | 2 | | 2 | | 35 | | 20 | | | | 61 | |
| 292 | | | 15 | 1 | | | | | | | | | | | | | | | | | | | 2 | | | 10 | | | | | | | 29 | |
| W 64 | | | | | | 6 | | | | | | | | | | | | | 3 | | | 2 | 54 | | | | | | | | | | 66 | |
| 130 | | | | | | | | | | | | | | | | | | | | | | 2 | 30 | | | | 5 | | 5 | | | | 142 | |
| 155 | | | | | | 6 | | | | | | | | | | | | | | | | | 3 | 57 | | | 5 | | | | | | 72 | |
| 170 | | | | | | | | | | | | | | | 2 | | | | | | | | 1 | | | | | | | | | | 3 | |
| 175 | | | | 1 | | | | | | | | | | | | | 5 | | | | | | | 7 | | | | | | | | | 14 | |
| 180 | | | | | | 6 | | | | | | | | | | | 5 | | | | | | | 14 | | | | | | | | | 26 | |
| D 295 | | | 15 | 2 | | | | | | | | 2 | | | 2 | 2 | | | | | | | 3 | | | | 5 | | | | | | 31 | |
| V I OC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M 288 | | | 30 | 1 | | 6 | | | | | | | | | | | 5 | | | | | | 1 | | | | | 35 | | | 1 | | 79 | |
| 299 | 40 | | 15 | | | | | | | 1 | | | | | | | | | | | | | 2 | | | | | | | | | | 68 | |
| W 55 | | | | 1 | | 6 | | | | | | | | | 1 | 5 | | | 2 | | | 4 | 2 | | | | 5 | | | | | | 26 | |
| 190 | | | | | | | | | | | | | | | 1 | | | | | | | | | 20 | | | 5 | | | | | | 26 | |
| 293 | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | | | | | | 5 | |
| 342 | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | | | | | | 2 | |
| B 63 | | | | | | | | | | 1 | | | | | | | | | | | | | 1? | | | | 5 | | | | | | 7 | |
| 77 | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| 183 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9? | |
| 273 | | | 15 | 1 | | | | | | | | | | | | | 5 | | | | | | 1 | | | | | | | | | | 22 | |
| 316 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| D 294 | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 8 | | | 5 | | | | | | 29 | |
| V I NC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M 45 | | | 15 | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | 17 | |
| 68 | | | 45 | 1 | | 6 | | | | | | | | | | | | | | | | | 1 | | | | 35 | | | 1 | | | 90 | |
| 140 | | | 30 | 1 | | | | | | | | | | | | 2 | | | | | | | 1 | | | | 35 | | | | | | 69 | |
| 165 | | | 15 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | 16 | |
| W 73 | | | | | | 6 | | | | | | | | | | 1 | 5 | | | | | 10 | 1 | 11 | | | 5 | | | | | | 39 | |
| 95 | | | | 2 | | | | | | | | | | | | 1 | 15 | | | | | 40 | 2 | 45 | | | 5 | | | | | | 115 | |
| 157 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 10 | |
| 160 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 88 |
| 172 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 14 |
| 191 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 27 |
| 309 | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | 5 | | | | | | | 36 |
| B 41 | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 61 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 297 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 313 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | | | | | | 5 |

Ch = chamber-graves OC = other constructions NC = no constructions
M = a man W = a woman B = a child D = double or multiple burial

| GRAVE | | | | | | | | | | | | | | | | | | | | TOTAL OF UNITS | | | | | | | | | | | | | |
|---------|----|----|----|---|----|---|---|---|---|---|---|----|----|---|---|----|----|----|---|----------------|---|----|----|----|----|----|----|----|---|----|-----|-----|-----|
| | 40 | 15 | 15 | 1 | 20 | 6 | 6 | 2 | 3 | 1 | 1 | 2 | 10 | 1 | 1 | 2 | 5 | 15 | 3 | | 1 | 30 | 10 | 4 | 1 | 1 | 30 | 10 | 5 | 35 | 5 | 20 | |
| 40 | 15 | 30 | 1 | | 6 | 6 | | | 1 | 1 | 3 | 1 | 1 | 1 | 2 | 5 | 5 | | | | | 2 | 2 | 20 | 20 | 35 | 5 | 35 | 5 | | | | 167 |
| M 90 | | 15 | 1 | | | | | | | | | | | | | 5 | 5 | | | | | 2 | 2 | 20 | 20 | 35 | 5 | 35 | 5 | | | 91 | |
| 100 | | 30 | 1 | | 6 | 6 | | | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 5 | 10 | | | | | 1 | 1 | 10 | 10 | 5 | | 5 | | | 61 | | |
| 135 | | | | | | | | | | | | | | | | 10 | | | | | | | | 3 | 3 | 10 | 10 | | | | 49 | | |
| 150 | | | | | | | | | | | | | | | | 5 | | | | | | | | 2 | 2 | 10 | 35 | | | | 121 | | |
| 283 | 40 | 15 | 1 | | 6 | 6 | | | 1 | 1 | 1 | 1 | 1 | 1 | 5 | | | | | | | | 2 | 2 | 20 | 20 | 35 | | | | 19 | | |
| 320 | | 15 | | | | | | | | | | | | | | | | | | | | | 2 | 2 | 10 | 35 | | | | | 18 | | |
| 323 | | 15 | 1 | | | | | | | | | | | | | | | | | | | | 1 | 1 | 10 | 35 | | | | | 18 | | |
| 325 | | 30 | | | 6 | 6 | | | 1 | 1 | 1 | 1 | 1 | 1 | 5 | | | | | | | | 2 | 2 | 20 | 20 | 35 | | | | 99 | | |
| 348 | 40 | 15 | 30 | 2 | 6 | 6 | | | 1 | 1 | 2 | 15 | 2 | 2 | 5 | | | | | | | | 3 | 3 | 1 | 20 | 20 | 35 | | ? | 40 | 194 | |
| 387 | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1 | 5 | | | | | 8 | | |
| W 200 | | | | | 6 | 6 | | | | | | | | | | | | | | | | | 1 | 1 | 1 | 5 | | | | | 50 | | |
| 324 | | | | | | | 2 | | | | 2 | 10 | | | | | | | | | | | 1 | 1 | 37 | 5 | | | | | 37 | | |
| 344 | | | | | | | | | | | | 4 | 1 | 1 | | | | | | | | | 5 | 5 | 9 | 5 | | | | | 25 | | |
| 386 | | | | | 6 | | | | | | | 1 | 1 | 1 | | | | | | | | | 2 | 2 | 1 | 5 | | | | | 14 | | |
| 389 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| 390 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 72 | |
| 392 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 | |
| D 280 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 46 | |
| 281 | 40 | 15 | 45 | 2 | 6 | 6 | | | 1 | 1 | 3 | 1 | 1 | 1 | 5 | | | | | | | | 4 | 5 | 1 | 20 | 20 | 5 | | 20 | 164 | | |
| 291 | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 55 | |
| V II OC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M 75 | | 15 | | | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | 70 | |
| 282 | | 15 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 54 | |
| 289 | | 15 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 42 | |
| 318 | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 89 | |
| 400 | | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 93 | |
| W 97 | | | | | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 | |
| 98 | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| 99 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 10 | |
| 115 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 19 | |
| 284 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | |
| 285 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 30 | |
| B 118 | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 96 | |
| 139 | | | | | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | 48 | |
| 141 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 23 | |
| 330 | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 57 | |
| 379 | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | |
| 394 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| V II NC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M 80 | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 16 | |
| W 62 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 113 | |
| 319 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 17 | |
| B 393 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | |
| 401 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 | |
| D 303 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 17 |

deserve attention, such as the silk garment in grave 348 and the crampon in grave 68.

5.2. VALUE OF PROPERTY IN DIFFERENT TYPES OF GRAVES

When the average value of possessions put in different types of graves is calculated according to the above table, the following result is obtained:

| Period | Chamber graves | | Other constructions | | No constructions | | In all graves |
|--------|----------------|----------|---------------------|----------|------------------|----------|---------------|
| | Man | Woman | Man | Woman | Man | Woman | |
| V I | 54 units | 54 units | 73 units | 15 units | 48 units | 47 units | 46 units |
| V II | 82 » | 30 » | 70 » | 11 » | 16 » | 65 » | 54 » |
| V III | 67 » | — | — | 8 » | 30 » | 10 » | 33 » |
| V IV | 102 » | 113 » | 46 » | 86 » | 24 » | 75 » | 64 » |
| Total | 73 » | 46 » | 59 » | 36 » | 33 » | 56 » | 50 » |

If we examine in the first place the number of units for different types of graves, we shall observe that the clearly highest number of units for men's graves occurs in chamber-graves, although among them as has already been seen there are many robbed graves (the comparatively low number of units for Phase V I depends on this). An average of well over ten units less is obtained for other graves with wooden constructions, and over 25 less for unlined graves. For men's graves it can thus be said that the burial chambers were made for the wealthiest individuals.

For women's graves also the relationship between burial chambers and other wooden structures is similar, but unlined graves turn out to be statistically surprisingly rich, nor does this only depend on a few especially well-furnished graves from the beginning of the 11th century. It may thus be assumed that the burials of the different sexes were not regulated by the same social patterns. A wealthy woman could be buried without structures in the grave pit, whereas the burial chamber for men was connected with the wealth of the individual or the family. At this stage it remains a mystery how we should interpret women's chamber-graves with only a few units. They may well have contained valuable organic materials such as fabrics or furs which have disappeared, thus giving a false picture of the graves' original nature.

As the table shows, according to the method of calculation used here grave 56 definitely gets the largest number of units; the amount of articles placed there would be equivalent to the price of six cattle. It is very closely followed by men's graves 348, 90 and 281, in the last-mentioned of

which there were however two corpses. There were so many articles in these graves that the property given to the deceased and used in the funeral rites could be estimated as equivalent to the price of about five cattle, in grave 348 as much as five and a half. The value of three cows at least was spent in furnishing several graves (V I graves 95, 130, 145, 283; V II grave 62; V IV graves 17, 25, 35, 58, 208, 359, 377), and the number of graves where more

than the price of two cows was spent is about 29 % of all adult graves.

It is worth noticing in this connection that graves 62, 325 and 400, all with the corpses on their stomach, have rather high numbers of units, 113, 99 and 93 respectively. Accordingly it is not possible to connect this position of the deceased at Luistari to a low social status as has been done in connection with some Scandinavian finds (Hemmendorf 1979 p. 15). At Luistari those buried on their stomach were certainly not slaves, and the rich had not been interred in a seated position.

5.3. CHILDREN'S STATUS IN THE LIGHT OF PROPERTY IN GRAVES

Some children's graves were also furnished surprisingly richly, especially in Phase V II. Although there are relatively more unfurnished children's graves in this phase than in others, the amount of property put into children's graves is the highest of all (as has already been pointed out, these figures for children's graves are not directly comparable with those for adults' graves, since many articles are of miniature size):

| Period | Unfurnished graves | Furnished graves | | All graves | |
|--------|--------------------|------------------|-----------------|------------------|-----------------|
| | | Number of graves | Units per grave | Number of graves | Units per grave |
| V I | 9 | 9 | 7 | 18 | 3.6 |
| V II | 12 | 8 | 30 | 20 | 12.5 |
| V III | 1 | 3 | 1.3 | 4 | 1 |
| V IV | | 8 | 7 | 8 | 7 |

In a few of these graves the deceased have been of relatively large size. Thus for example the occupant of grave 330 which had a spearhead was to judge from the remains of bones about 130 cm tall, and thus perhaps ten years old. But the child in grave 118 with the largest amount of property in grave goods was only 90 cm tall and thus three years old at most. In addition to small ring ornaments and brooch perhaps made for the child itself, there were two sleigh bells, presumably toys, and a neck-band which is more complete than any in the women's graves of the same phase. Provisions were placed in the grave in two clay vessels, and the corpse was in a wooden coffin. This can only have been the much-loved child of a very wealthy family, and judging from the ornaments this was a girl. The very similar grave 139 contained two silver coins attached to the neck-band and a bronze breast-chain, a clear indication of the female sex of the corpse, only about 70 cm in length.

It is interesting to see whether the best furnished children's graves tell us anything about the sex of the deceased. If we include graves with more than five units (the price of a sheep), their number is 21:

- M III **Grave 333** (47 units). Two spears, knife, ornamental pin, bracelet, finger-ring. A boy.
- V I **Grave 63** (7 units). Fire-steel, clay vessel, spiral ornamented garment. A boy?
- Grave 183** (9 units, supposing that the beads found from the filling of grave 150 belong to this). Beads, clay vessel. A girl?
- Grave 273** (22 units). Spear, knife, brooch, finger-ring. A boy.
- Grave 41** (8 units). Arrow, knife, clay vessel, spiral ornamented garment.
- Grave 297** (8 units). Beads, finger-ring, clay vessel. A girl?
- Grave 313** (5 units). Spiral ornamented garment. ?
- V II **Grave 118** (96 units). Brooch, 2 sleigh-bells, 2 bracelets, 6 finger- and toe-rings, 63 beads, knife, 2 clay vessels. A girl.
- Grave 139** (48 units). Chain arrangement, iron pins?, beads, bell pendant, 2 Arabian coins, 2 bracelets, 5 finger- and toe-rings, clay vessel. A girl.
- Grave 141** (23 units). Sickle, bell pendant, beads?, 4 finger- or toe-rings, spiral ornamented garment, remains of a sheep or a goat. A girl.
- Grave 330** (57 units). Spear, spiral orna-

mented garment, 2 clay vessels, remains of cattle. A boy.

Grave 379 (5 units). Spiral ornamented garment. ?

Grave 393 (5 units). Remains of a sheep or a goat. ?

Grave 401 (7 units). Big knife, clay vessel, spiral ornamented garment. A boy?

V IV **Grave 290** (21 units). Axe, knife, fire-steel, bead, pendant, finger-ring, belt. A boy.

Grave 306 (16 units). Spear, knife. A boy.

Grave 363 (12 units). Arrow, knife, fire-steel, key, coins, weights, brooch, finger-ring, belt. A boy.

FP **Grave 367** (15 units). Shears, purse, pendant, finger-ring, spiral ornamented garment. A boy?

Grave 371 (34 units). Brooch, 2 finger-rings, apron with applied spiral ornaments. A girl.

Grave 374 (16 units). Chain, finger-ring, spiral ornamented garment. A girl?

Grave 10 (6 units). Three small brooches. A girl.

Three graves (313, 379, 393) with only spiral ornamented garments or remains of animals can be dismissed at once. We are left with 18 graves, one from the Merovingian period and four from the Final period; thus 13 are from the Viking Age.

Of the graves from Phase V I, three perhaps belonged to boys, two to girls; from Phase V II three were girls' and perhaps two boys' graves; from Phase V IV the graves were probably all boys'. Thus there are slightly more boys' graves, but among those in the Final period there are three girls' graves and one boy's grave, so that the difference as a whole is not great; of the best-furnished graves 10 are boys' and 8 are girls'. The richly furnished graves of little girls from Phase V II make the result, however, that the average number of units for girls is 30, but for boys only 21. It can thus be stated that although male children were given a well-furnished burial slightly more often, when girls were given such a burial, more was spent on them. A psychologist might develop theories from this about the weakness of fathers for their daughters, but perhaps the result is only due to those few girls' graves belonging to a period when the Luistari community was at its peak. The sacrificing of one neck-band was hardly felt at all, although it represented possessions obtained from the sale of 60–70 marten skins or one to three

thousand squirrel pelts. The fact that so far no high units can be awarded to an adult woman's grave from the corresponding period does make one wonder a little; one would have thought that a man would rather see his property in the shape of a neck-band round the throat of a living wife than that of a dead child.

If we examine the position on the maps of the children's graves with more than 5 units, we notice that they are located, especially in Phase V II, near the well-furnished graves of men. Thus grave 118 is beside grave 100 and near grave 90, the second richest man's grave at Luistari. Around the richest man's grave in the burial ground, No. 348, we find graves 330, 379, 393 and 401. This group also includes the woman's grave 390 with the highest number of units for the phase, and grave 344 which contained four Arabian coins, and also man's grave 400 which gained high points. Graves 139 and 141 are connected with the man's grave 135, and grave 63 is part of the group round grave 281 – it is even in the same direction, although it is on the map of another phase. Of the Phase V I children's graves, 297 and 313 seem to be connected with grave 299 containing a sword, No. 41 with burial chambers 40 and 120, and grave 183 with chamber-grave 145. For other phases the situation is less clear.

5.4. DISTRIBUTION OF PROPERTY BETWEEN GRAVES OF DIFFERENT SEXES

Finally we should consider how the number of units for adult graves is distributed temporally and between the sexes. Since right up to the end of the last century the cow has had a special significance in connection with burials (see Vilkuna 1958 pp. 5–15), I have already used it above as a measure of value for adult burials, and in the following graves have been divided according to whether articles have been found in them of less value than a cow (up to 35 units), of more value than one cow but less than two (35–69 units) or of more value than two cows (70 units upward). The first table shows the percentages of graves from the Viking Age phases, the last the average value of furnishings in

units, and graves of the Merovingian period and the Final period have been included for the sake of comparison.

The percentages obtained show how the amount of property sacrificed on burials increased during the Viking Age so that by about the year 1000 almost two-fifths of adults were given burials equivalent to the price of more than two cows, whereas the corresponding figure for the ninth century was less than one quarter. The proportion of women among these was greater during periods III–IV (in calculating percentages periods have been combined, for reasons already mentioned, see p. 27), but in Phase V II there is a considerably larger proportion of men – as many as half the men's graves are furnished in such grand style. The relatively low result for Phase V I is evidently affected by the robbing of men's graves, but the women's graves of Phase IV are so much richer than men's graves that this must have some real significance; women's graves average 84 units, men's graves only 43 (table II).

The quality and quantity of ornaments alone could not be significant in this connection, because it is known that for example among the Finno-Ugrian people of Central Russia ornaments, often of considerable value, were considered as women's property, which they went with them to the grave, although the status of the women was very low (Lehtinen 1979 pp. 25, 135, 152, 177). However, at Luistari remains suggesting dogs and cattle appear in women's graves at the same time as the rich ornamentation, and grave 359 contains scales and a purse. Besides, there is every reason to suppose that conditions during the Viking Age in Western Finland were more like those in Scandinavia than in Central Russia in later times after all the Tartar influences. So we are forced to assume a rise in women's social status, which has been suggested earlier on the basis of some other finds (see Keski-talo 1969 p. 98; Taavitsainen 1976 pp. 55–56).

Since, however, the partial excavation of the burial-ground presents a considerable factor of uncertainty, the question of how representative the graves from different periods are must be considered once more before coming to any final conclusion (cf. 7).

I

| Period | Men's graves | | | Women's graves | | | All adult's graves | | |
|----------|--------------|-------|------|----------------|-------|------|--------------------|-------|------|
| | –35 | 35–69 | 70– | –35 | 35–69 | 70– | –35 | 35–69 | 70– |
| V I | 33 % | 42 % | 25 % | 59 % | 18 % | 23 % | 52 % | 27 % | 24 % |
| V II | 25 % | 25 % | 50 % | 74 % | 13 % | 13 % | 47 % | 22 % | 31 % |
| V III–IV | 47 % | 20 % | 33 % | 44 % | 19 % | 37 % | 45 % | 19 % | 36 % |

| Period | Men's graves | Women's graves | All adult's graves |
|--------------------|--------------|----------------|--------------------|
| Merovingian period | 42 units | 9 units | 28 units |
| V I | 52 » | 42 » | 45 » |
| V II | 75 » | 28 » | 54 » |
| V III | 58 » | 9 » | 33 » |
| V IV | 43 » | 84 » | 64 » |
| Final period | 16 » | 12 » | 20 » ¹⁾ |

¹⁾ Multiple burials included.

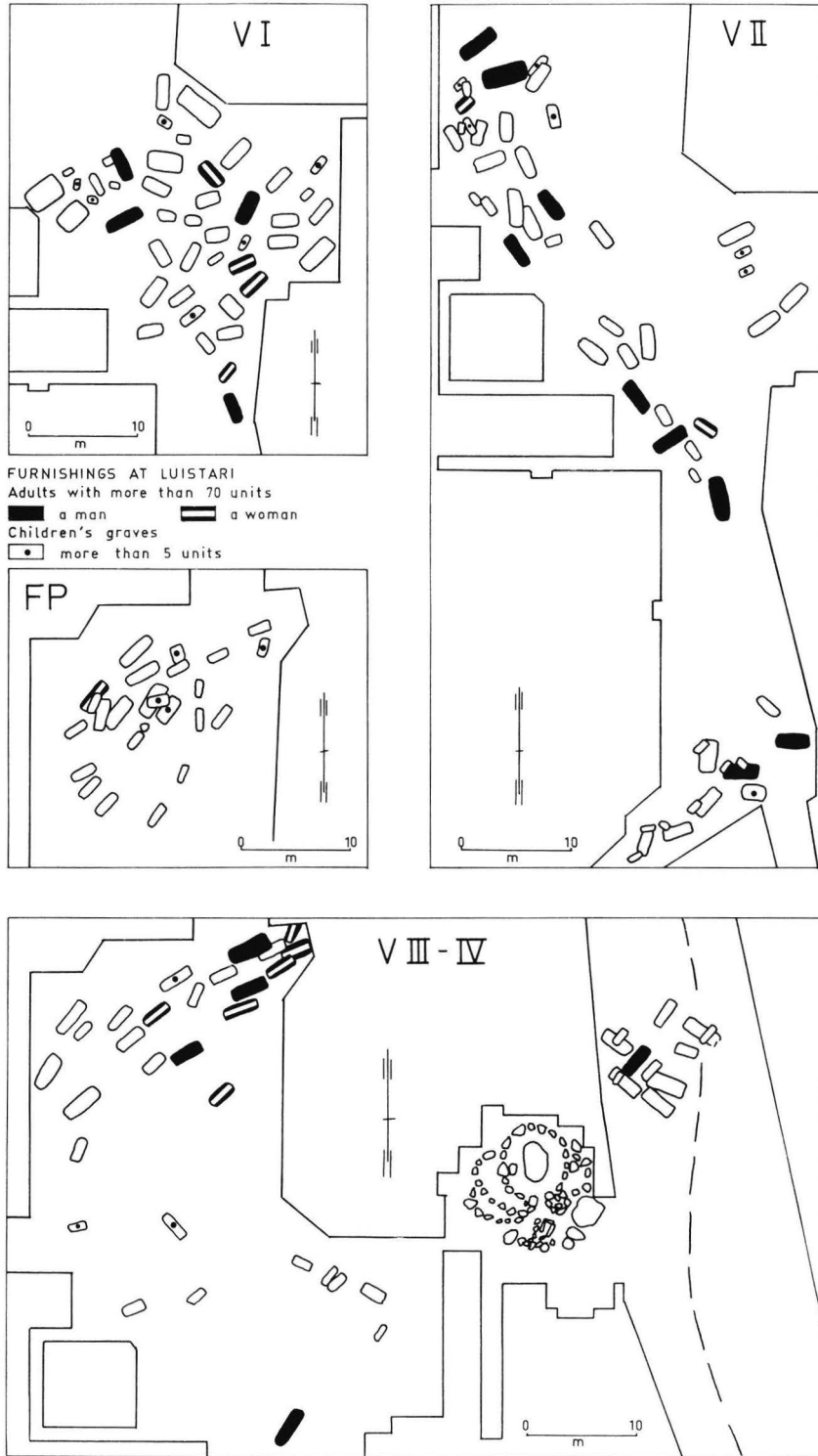


Fig. 6. Distribution of richly furnished graves at Luistari.

6. STATUS SYMBOLS VERSUS WEALTH

The society of ancient times has often been seen as an enormous army with various ranks according to the artefacts appearing in the grave furnishings. The highest rank in this hierarchy is that of the swordsman, especially if he has full equipment complete with shield and spear, and possibly a war-horse or furnishings suggesting one as well. The sword has been taken as the weapon of the aristocrat, the chief or the head of the family, though it is known to have been used by common folk too in the Middle Ages and later (Wirilander 1971 pp. 61–62). In connection with the swords of Pappilanmäki, Eura, Salmo (1952 pp. 459–460) uses the appellation »yeoman king».

There has also been a tendency to give the shield significance as a sign of social status, and especially when there have been several; they have been considered to indicate the leadership of several warriors (Steuer 1970 p. 378). The appearance of seaxes in the rich chamber-graves of Birka have caused them to be associated with high social standing also (Steuer 1969 p. 216).

There is very conflicting information regarding the significance of the spear as a mark of social status. In continental Europe there have even been attempts to brand the spearsman as semi-free, though this has aroused criticism (Redlich 1967 p. 10). Paulsen (1967 p. 156) considers the spear the most dignified weapon after the sword. In Scandinavian sagas the spearsman may have been called poor (Falk 1914 p. 8), but on the other hand the

spear is mentioned as Odin's weapon and the symbol of royal might. The appearance of silver and gold ornamentation on the sockets of the spear-heads has been taken as evidence that such weapons belonged to upper-class warriors. Besides, spears were given their own names, as were swords (Ellehaug 1948 pp. 8–9, 18). Many lines of ancient verses tell of the importance of the spear to the Finns (e.g. Leppäaho 1950 pp. 81–84). Since it could be used both in hunting and in battle, the spear was of more use to those who lived near the wilds than was the sword, and thus its prevalence in graves of the Finnish Iron Age is natural. Unfortunately the preoccupation of scholars with military matters has meant that the suitability of prehistoric spears for hunting has not been systematically studied. The use of spears in hunting with nets (Dahlman 1932 pp. 44–45) and in connection with the exhaustion of wolves by skiing after them is known from historical times long after the introduction of fire-arms (Forsblom 1913 p. 186).

Salmo (1938 p. 316) has suggested that the Finnish warrior did not consider the bow to be the weapon of a man of honour, and that for this reason arrow-heads appear extremely rarely in burial grounds. In Scandinavia, however, arrow-heads appear even in richly furnished graves, and in the sagas the bow plays a considerable part (Steuer 1970 pp. 373, 370 note 135). The importance of the bow as a hunting weapon cannot be overestimated, and it is unlikely that even in the Merovingian

| Weapon combinations | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|-------------------------------|-----------------------|--------------|---------------|------------------------|---------------------|----------------|-------------|------|------------------|------------------------|--------------------------|---------------|--------------|-------|--------|------------|------------|--------------|-------|----------------|-------|
| Phase | sword, seax, 2 spears, shield | sword, seax, 2 spears | sword, spear | sword, shield | seax, 2 spears, shield | seax, spear, shield | seax, 2 spears | seax, spear | seax | 2 spears, shield | (2) spear(s), arrow(s) | 2 or more spears (knife) | spear, shield | spear, knife | spear | 2 axes | axe, spear | axe, knife | arrow, knife | arrow | knife (knives) | total |
| M I–III | 1 | | | | 1 | 1 | 1 | 1 | 2 | 1 | | | | | | | | | | | 1 | 20 |
| V I–II | | 3 | 2 | | | | | | | | 2 | 7 | 1 | 8 | 5 | | | | 1 | | 5 | 33 |
| V III–IV | | | 2 | 1 | | | 1 | | | | | 3 | | 1 | 1 | | 1 | 2 | 1 | | 5 | 18 |
| FP | | | | | | | | | | | | | | | 1 | | | | 1 | | 5 | 8 |
| Total | 1 | 3 | 4 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 12 | 1 | 12 | 12 | 1 | 1 | 2 | 2 | 1 | 16 | 79 |

period warriors existed in Finland so great that they never needed to take up the bow in order to supply the larder with game. Trapping devices have not generally been included in the articles buried with the deceased; quite obviously they have not been considered personal to the deceased in the same way as the sword and spear (see Luistari II. 1.4.).

When we examine the Luistari weapon graves we notice that the combinations are extremely heterogeneous. A single spear has been found in 24 graves, in 12 of these with a knife; 12 graves contained two or more spears; in four there were a sword and a spear; in three a sword, seax and two spears; there are always one or two examples each of other combinations. It is not possible to speak of any uniform armament.

The three graves 90, 281 and 348, containing a sword, seax and two spearheads, differ clearly from the others, as does grave 52, which in addition to these weapons contained a shield. This grave is from the Merovingian period, the others from Viking times, and all things considered from more or less the same period. They all have a spiral-ornamented mantle and tasselled belt, and graves 90 and 348 also both have a firesteel with a bronze handle designed as two horsemen; both of these also contain a purse (two in grave 348) and weights. They undoubtedly belong to wealthy persons, and the remains of a silk garment found in grave 348 give it a quite special status in the Finnish material. But these graves also contain a scythe, so they are connected with farming too. In spite of the fact that they contain both a sword and a seax, they cannot be considered the graves of aristocrats or upper-class folk. If they are the graves of leaders, they have been farmer-chieftains, but the fact that the graves are probably contemporary leads one to suspect that the explanation of their similar furnishings is rather a similar fashion than elevated social status.

In other sword graves the sword has been accompanied by only one spear or in one case a shield. Grave 17, where the sword of Petersen type S is ornamented with silver, is undoubtedly that of a wealthy man, but since it was damaged before excavation it is not possible to obtain a clear picture of it. In addition to the sword and a bronze-mounted shield there may have been other weapons and details of a garment which would have elucidated the status of the deceased. This grave contained no scythe, but it did contain shears.

Apart from the one described above, all the swords were of the kind (Petersen types X and Y) that Arbman (1937 p. 227) considers were used by the great mass of warriors, and which have been

called the swords of the common man by Nordman (1943 p. 53). They are not luxury articles, but efficient weapons for use. Although graves 15, 208, 283 and 299 contain bronze brooches and/or spiral ornaments, and grave 208 and perhaps grave 15 a purse, they do not give the impression of any special luxury. This can be seen clearly in that, if the units for swords and seaxes are deducted from the number of units for Viking period sword graves, the average result is 75 units, while among men's graves without swords there are as many as nine with more units than this. In fact only graves 90 and 348 are, setting aside their weapons, clearly better furnished than others. Thus it can be stated that although the sword in itself implies a certain degree of wealth, it is not necessarily linked with a clearly higher standard of living. Nor do such Finnish burial-grounds as Rikala, Halikko (17 men – 10 swords) and Köyliö C (20 men – 11 swords), where a sword was found in more than every second male grave, support the idea that swords belonged only to chiefs. Cleve (1978 p. 208) is undoubtedly right in supposing that farmers armed themselves according to wealth and opportunity, and I would like especially to emphasize the latter point: swords were purchased when they were available, but it was possible to manage without them. On the other hand, everyone needed a spear and a knife (cf. Cleve 1943 pp. 184–185), but nevertheless a knife is not found in all the graves.

Articles connected with horses have also been linked with a high social status (see Taavitsainen 1976 pp. 45–56 with notes). At Luistari they are few, and only include horses' bits and perhaps parts of bridles; with very great reservation a possible saddle in grave 288 may be mentioned. If we compare their occurrence with the number of units for graves, we obtain the result that 62 % of these graves belong to the wealthiest folk, to those for whose burial more than the price of two cows was given up, but in 31 % of the graves the articles are not even worth the price of one cow. In the graves of the Merovingian period, which are all male, the average value of furnishings is 60.5 units, which is clearly higher than the average of 42 units for all men's graves for the same period. Here the bits are linked with the wealthiest graves (an exception is grave 53), as in Phase V I, where the average for two graves is 96 units, but in Phase V II the number of units (46) for one of the graves with bits is below the average for all men's graves – 75.

In Phase V IV there are items of horses' harnessing in both men's and women's graves, and among them two women's graves (25, 56) with high numbers of units, but two are clearly poor. What strikes the eye most is that articles connected with

| Graves with horses' harnessing | Grave | Phase | Number of units | Sex |
|--------------------------------|-------|--------|-----------------|-------|
| Bits | 20 | M I–II | 72 | M |
| | 52 | M I–II | 89 | M |
| | 53 | M I–II | 6 | M |
| | 329 | M III | 75 | M |
| | 145 | V I | 113 | M |
| | 280 | V II | 46 | M+? |
| | 400 | V II | 93 | M |
| | 56 | V IV | 208 | W |
| Saddle? | 288 | V I | 79(+3?) | M |
| Bridle mounts | 25 | V IV | 103 | W |
| | 209 | V IV | 8 | W |
| | 403 | V IV | 8 | M |
| | 358 | FP | 23 | M+W+? |

horses do not appear in a single Viking period sword grave. Judging from the Luistari finds horses' harness during the Merovingian period is linked with the graves of the wealthiest male members of the society, and at the end of the Viking period with the wealthiest women; they have no significance in male graves of the Viking period.

Only one of the Luistari graves with bits is representative of the combination that Salmo (1938 pp. 310–311) considered typical of a mounted warrior. In grave 20 there were only a spear and a shield, but in both graves 52 and 329 there were two spears. In all the graves containing horses' harness of the earlier Viking period, two spears were found. If I believed in the existence of cavalry during the Iron Age in Finland, I might assert on the basis of the Luistari finds that the arms of a mounted warrior included two spears in five cases out of six. But it is very probable that horses were only used to get from one place to another, as Cleve (1943 pp. 187–188) has pointed out. For the Merovingian period it might be possible to link graves with bits to leading persons (see Cleve 1943 p. 187 note 2), but during Phase V II this is quite impossible, and it seems that furnishings connected with horses cannot be taken as any clear indicator of social status, at least in the Eura area.

Of the graves with bits, No. 145 may have contained the most varied furnishings found at Luistari. Besides the bits connected with horses, at the foot there were the remains of a dog, the skull of a cow, a scythe, two spearheads and woodworking tools which had perhaps been in a bag. The head of the grave was damaged by several later graves, but apparently there had been two clay vessels and possibly scales, as a balance tongue was found in the fill earth of grave 176 on top of it. We may say that this grave combined features of the farmer and

cattle-breeder, the hunter (the dog), the warrior, the craftsman and perhaps the merchant; it can hardly be considered the grave of an aristocrat in spite of the bits and the high number of units. The most striking feature is the tool-bag, and undoubtedly this and the tool combination found earlier in the Köyliö A burial ground (Cleve 1943 pp. 146–149) bear witness to the value given in the district to woodworking, and its connection with the deceased's earlier life. If there were really scales in the grave, they are apparently older than any others so far discovered in Finland.

Scales and weights are generally associated with trade. In connection with the Birka graves, Anne-Sofie Gräslund (1980 pp. 79–80) has pointed out that parts of only four scales have been found there, so that they cannot indicate all the merchants' graves. If merchants' graves were sought at Luistari on the basis of scales, we might say that trade in Eura was carried on by craftsmen and women, since in addition to the grave mentioned above, scales (+ weights) were only found in the woman's grave 359. This grave is otherwise unusual as it is the only one where a firesteel and purse were hanging from a woman's belt as well as a knife and keys. Otherwise the grave contains quite typical artefacts for a woman's grave: a sickle, two clay vessels, a spiral-ornamented apron, a bead necklace with coin pendants, several rings, and a head-dress decorated with bronze rings. But the deceased also had a dog with her, a feature by no means common in women's graves, and thus it seems fairly clear that it was desired at her burial to emphasize her exceptional activity during her life.

Weights and purses can also be associated with merchants, and contrary to the case at Birka, except for the grave described above, these only appear in men's graves at Luistari. But all these

graves have also been furnished with weapons, and most of them also with agricultural implements, so that they can hardly have belonged to people who earned their livelihood from trading alone. In those days even a merchant could hardly manage without weapons, so that their occurrence in graves with scales and weights does not mean that the deceased could not have been a professional merchant (cf. Gräslund 1980 p. 80). But a merchant would scarcely have needed a scythe, though shears might be explained as required to cut cloth. Hence it is probable that trade was a supplementary form of livelihood for many of those buried at Luistari, and nobody's main profession, and though the exceptional contents of grave 348, with its full set of arms, two purses and silken garment may set the imagination racing, this too merges with its scythe into the group of amateur traders.

Ursula Koch (1974 p. 499) has put forward the idea that brooches belonged only to the dress of adult women, but that beads were worn by young girls, who collected more of them as the years went by. Anders Andrén (1978 pp. 66–67), in turn, supposes that brooches appeared on the dresses of leading ladies. If we look at the Luistari material with this in mind, we note at once that the first assumption does not apply to Viking period Eura, for the area would no longer have been inhabited if so many young girls had died as graves at Luistari only containing beads indicate. Brooches may it is true have been for leading women, but since the graves containing brooches divide up according to the table below, not all ladies could have had their brooches with them.

Taken as a whole, there is one brooch grave for each generation, but this does not correspond at all to the picture obtained from the men's graves (see pp. 54–55), so that a brooch alone cannot be taken as a criterion. Besides, brooches were found in the graves of two little girls (10, 118), and grave 377, which did not have a brooch, contained chains and a key, interpreted generally as the signs of a

woman of consequence. But a chain arrangement alone is apparently not sufficient indication of high status either, as one was found in the grave 139 of a little girl.

A veil has been explained as the sign of a married woman. At Luistari there were remains of a veil with bows at least in graves 25, 35, 56 and 359, all of which belong to the category of richly furnished graves, and thus the veil with bows can be considered the headdress of a woman of considerable consequence. Its use was confined, however, to a brief period, and Tyyni Vahter (1952 p. 158) has moreover supposed that sometimes it might be placed in the grave of an unmarried woman.

Significance may perhaps be given during the Viking period to another spiral-ornamented garment in this attempt to identify the graves of women of consequence – the spiral-ornamented apron. There are examples from all periods, so that comparisons are possible. The average number of units for graves containing aprons for each phase is higher than that for all women's graves, but for phase V II the difference is negligible, and grave 62 (113 units) with three brooches was without an apron, so that there are evidently exceptions. The absence of an apron in this grave may be connected with the fact that the deceased was on her stomach, but it should be noted that in grave 294 also the deceased, who had brooches beside her, was without an apron, though another woman in the same grave had one.

It seems evident that no group of articles alone clearly expresses the social status of the deceased, but that in each individual case consideration must be given not only to the grave as a whole but also the period and the cultural surroundings in which the grave was found. Thus formulae obtained from the study of one area cannot be directly applied to the material from another area, and the rules for the furnishing of graves from different periods, even in the same burial-ground, are not uniform. The material from the Luistari burial-ground,

| Phase | Total of women's graves | Graves with brooches | Graves with beads | Graves with chains | Graves with aprons | Graves with veils |
|----------|-------------------------|----------------------|-------------------|--------------------|--------------------|-------------------|
| M I–II | 9 | 5 | – | 1 | – | – |
| M III | 6 | 3 | 1 | – | – | – |
| V I | 20 | 6 | 9(+3) | 1? | 6 | – |
| V II | 18 | 3(+1) | 5(+2) | 1(+1) | 8 | – |
| V III–IV | 16 | 6 | 5 | 3 | 11 | 4 |
| FP | 8 | 2(+1) | 3 | – | 2 | 2? |
| Total | 77 | 25 | 22 | 6 | 27 | 6 |

Children's graves in parentheses.

| Women's graves with brooches | Grave | Phase | Number of brooches | Number of units |
|------------------------------------------------|-------|--------|--------------------|-----------------|
| Average number of units in women's graves 9 | 21 | M I-II | 1 | 19 |
| | 26 | M I-II | 2? | 11 |
| | 28 | M I-II | 1 | 13 |
| | 368 | M I-II | 1 | 2 |
| | 421 | M I-II | 1 | 8 |
| 7.5 | 327 | M III | 1 | 7 |
| | 346 | M III | 2 | 11 |
| | 352 | M III | 2 | 10 |
| 42 | 55 | V I | 1 | 26 |
| | 73 | V I | 1 | 39 |
| | 95 | V I | 3 | 115 |
| | 157? | V I | 1? | 10 |
| | 175 | V I | 1 | 14 |
| | 180 | V I | 1 | 26 |
| 28 | 62 | V II | 3 | 113 |
| | 291 | V II | 1 | 55 |
| | 390 | V II | 1 | 72 |
| 9 | 226 | V III | 1? | 16 |
| 84 | 25 | V IV | 2? | 103 |
| | 35 | V IV | 2 | 137 |
| | 56 | V IV | 3 | 208 |
| | 359 | V IV | 1 | 105 |
| | 370 | V IV | 1 | 33 |
| 12 | 36 | FP | 1 | 23 |
| | 404 | FP | 3 | 99 |

where the continuity from one period to another is clear, shows that one must advance very cautiously in making generalizations; what seems very clear with regard to 11th century graves, such as brooches belonging to the dress of the richest women, proves extremely dubious for the early Viking Age. And horses's harnessing, which undoubtedly indicates high social status in the Mero-

vingian period, does not play the same role in the Viking Age. The diversity of weapon combinations is also surprising. Although this conclusion seems to lead to ever-increasing uncertainty in the interpreting of finds from collective cremation burial-grounds, it also shows that new methods and perspectives must be sought when classifying the importance of various artefacts in cemeteries.

7. POPULATION OF THE LUISTARI COMMUNITY AND ITS INCREASE DURING THE PERIOD OF USE OF THE CEMETERY

Graves classified as Viking period ones and dated from about the year 800 to 1070 A.D. number 142, and there are perhaps 152–153 burials in them. The badly disturbed grave 8 is probably also from this period, and perhaps one more grave which did not even get a number, but which in all probability had been destroyed when the pit for grave 15 was dug. An additional skull was found from the filling of grave 15, and bones of lower limbs came to light near the south side of this grave; the spearpoint fragments 18000:1376 and 1045 can also originate from this completely destroyed grave, which was in the same direction as the grave on top of it. Grave 8 on the other hand was oriented like graves 207 and 225, from NW to SE. Judging by the location and orientation of these graves they could be from Phase V III. The unfurnished children's graves 194 and 196, situated beside and on top of grave 195, could also be from the Viking period, but several quite late unfurnished graves were located near them, so it is not possible to be certain of their connection with the Viking period burials. Furthermore, grave 196 is later than the pit dug on top of grave 195 (see grave description). Accordingly burials deriving from that period of 250–270 years amount to at least 154 and they divide into the following groups:

| Period | Adults | Children | Total |
|--------|---------|----------|----------|
| V I | 33 65% | 18 35% | 51 |
| V II | 38 65% | 20 35% | 58 |
| V III | 10 72% | 4 28% | 14 |
| V IV | 23 74% | 8 26% | 31 |
| Total | 104 68% | 50 32% | 154 100% |

If the death rate is counted at 40 ‰, the figure generally used in calculations respecting prehistoric times (Gejvall 1960 p. 43; Ambrosiani 1964 p. 204; Modin 1973 p. 89), the result is obtained that these graves represent a community of 14–15 individuals. Ambrosiani (1973 p. 128) has however reminded us that a mortality of 40 ‰ presumes 60 per cent children's graves. There are at Luistari »only» 32 % of these, so it is quite possible that the mortality has been lower there. Furthermore G. I. Lindström (1850 p. 138, table p. 134) has obtained from his calculations the result, although grounded on much later material, that the average life span in Eura has been considerably higher than

in the rest of Finland. It is also possible to reckon from the tables for the years 1749–1849 published by him, that although 52 % of the deceased have been children younger than 10 years of age, the mortality per thousand is under 30 (according to tables published by Jutikkala, 1945 pp. 96–99, the case is the same during the period 1722–1749). This is due to the fact that in age classes 10–40 the mortality was small, and the highest mortality, excepting small children, appears not earlier than in age classes 60–80. Apparently those who escaped alive from children's ailments reached a rather advanced age. It appears from the table of the age structure (Lindström 1850 p. 143) that in 1749 there were in Eura 34 % persons under 15 years, 46 % of the population were 15–50 years old and there were 20 % still older people; almost 3 % were older than 70 years. Accordingly the mortality per thousand is not only dependent on the death rate of new-borns.

Now it is also quite apparent that the Luistari cemetery is not totally excavated. On the basis of experimental excavations the area with furnished graves, still unexcavated, covers probably 1400–1500 m², perhaps more. There were in the excavated area 10–17 furnished graves per 100 m², 13 on an average, and so about 180 furnished graves could still be found. The hypothetical 30 Merovingian period graves excluded (see Luistari II, the chronology), we have about 150 graves, of which perhaps only a few are from the very end of the furnished burial practice. Accordingly the number of the Viking period graves can go up to 250–300. This number would represent a community of 23–30 persons, if the mortality is counted at 40 ‰, but for one with 31–37 individuals with a mortality of 30 ‰.

The estimation of the population total could also be based on other facts. About 50 burials seem to originate from Phase V I, which lasted perhaps 80 years, 58 graves are from Phase V II, estimated at 70 years, but perhaps only of 50 years duration, while 45 graves are from Phases V III and V IV, the duration of which together has been estimated at at least 100, if not 120 years. Consequently it is probable that most of the graves from Phase V II have been excavated, while there are still plenty of graves from the other phases in the unexcavated part of the cemetery. The location of the graves

points also in that direction, although there could still be some unexcavated graves from Phase V II in the southernmost area. If the 58 graves of Phase V II are divided between 70 years, this results in a community of $21 \left(\frac{1000 \times 58}{70 \times 40} = 20.71 \right)$ or $28 \left(\frac{1000 \times 58}{70 \times 30} = 27.62 \right)$ persons. If on the other hand they are divided between 50 years, a community having a population of $29 \left(\frac{1000 \times 58}{50 \times 40} = 29 \right)$ or $39 \left(\frac{1000 \times 58}{50 \times 30} = 38.66 \right)$ people is obtained. So it is possible also in this way to arrive at almost the same figures as in estimating the total number of graves.

More than two hundred unfurnished graves which are with certainty late have been excavated up to the present. Supposing that these divide over 200 years – there are hardly burials at Luistari from the end of the 14th century – they would derive from a population of 26 persons with a death rate of 40 ‰. If they originate only from a period of 150 years, the population would have been 34, and if from a hundred years, 51 persons. Furthermore there are still many unfurnished graves which are unexcavated, for the area containing these extends more widely than the area with furnished graves (excavation report by P-L. Lehtosalo-Hilander in 1979). The population which used Luistari as a burial-ground at the beginning of the Middle Ages must have consisted of at least 40–50 persons.

The village of Kauttua, situated close to the Luistari cemetery, is one of the old villages of the so-called Finnish law (= a village with a special taxation system). The supposition of Koivisto (1966 p. 32) that it might be some sort of a »middle-aged» village is hardly grounded, for the oldest Iron Age finds are at least at the present moment from the near vicinity of the Kauttua village. The permanent settlement in this area is as old as in the neighbourhood of the Eura church, if not older. The age of the village itself would be revealed only by an extensive excavation on the site. It is however most probable that the Luistari cemetery connects with the Kauttua village or with a settlement situated on its site. It is interesting to test whether the material available at present can solve the question of the nature of this settlement.

According to the land register of the year 1540 the Kauttua village consisted of 15 houses (Koivisto 1966 p. 98); during the 1560's there seem to have been 18 houses (Suomen asutus 1560-luvulla, kyläluettelot p. 91) and in 1589 19 houses. In the last-mentioned year there were 38 persons in Kauttua, two per house, who paid the personal tax called »nokkavero». The population of the Eura parish has been estimated at the same time at 600–700

persons, of whom 444 paid the tax mentioned above. If the population in Kauttua was in the same proportion as the number of persons specially taxed to the inhabitants of the whole parish, there would have been 50–60 people in the village. Probably the number of inhabitants was higher in the middle of the 16th century, as the population of the whole parish is supposed to have been at that time about 1000 persons (Koivisto 1966 pp. 142–143). If the rate was the same, about 85 persons lived by then in the 15 houses of the Kauttua village. This is about the same number per house as different historians have proposed for the surrounding regions (5.75 persons per house in the Rauma area, Papunen 1959 p. 209; 5.65 persons per house in Laitila, Koivisto 1969 p. 217; cf. Renvall 1949 pp. 100–106). If a similar relation had prevailed 500–600 years earlier, the number of the Luistari graves represents a village of at least 5–6 houses at the beginning of the 10th century.

There is also another way to test the number of houses which belonged to the Luistari community. The funeral cow or ox has been connected through the centuries to the landlords and ladies of the house (Vilkuna 1958 pp. 30, 46, 74) and since graves with cattle remains were found from the Luistari cemetery, there is reason to examine whether these could tell something about the number of landlords and their wives. The graves from Phase V II offer the completest material, and there are indeed among them eight men's graves with cattle remains (75, 90, 100, 282, 283, 318, 325 and 400). The average of units in these graves is 98, so they could with good reason be classified as landlords' burials. Two graves with swords, 348 and 281 (194 and 162 units; the latter is a double burial, in which the share of the second dead is perhaps 17 units), remain outside this group, and also grave 135 could have belonged to a person of some importance (ornamental pin, cloak with spiral ornaments, damascened spearhead, 61 units). A scythe and a cloak with spiral ornaments were found from each of these graves, and these are details which connect them to the graves with cattle remains; grave 282 alone of the latter did not contain the objects mentioned. In addition to the graves mentioned above only graves 150 and 280 contained remains of spiral ornamented cloaks, and there was also a dog in both of them; so perhaps they must be included in the group. Besides, there was a child's grave, 330, with a rather imposing wooden construction and remains of cattle. It could be imagined that in this a person was lying who inherited an estate as a child and died before reaching lawful age. The result is 13–14 landlords. If they are divided between two generations, at least six houses must

be supposed to have existed in Kauttua; if the period in question lasted three generations, there were four or five houses in the village. The seven male corpses, which would remain without houses in this connection, have been given a considerably humbler funeral than the above-mentioned landlords; the average furnishing amounts to 19 units. There is however one grave (289) among them with a dog buried with its master.

The other part of the cemetery, which perhaps contained all the graves of a certain period, was that dated to Phase M III. In this area 21 graves belonging to grave rows were revealed, and they contained 23 burials. However, only three children were among them, and it is possible that small unfurnished graves 328 and 340, possible also graves 32 and 132 on the boundary line of this area, had contained corpses of children from this period, although they were differently orientated. So there would be 27 corpses from about 50 years, which amounts to a community of 13–14 persons. If it is supposed that the death rate of children had been the same as during the Viking period, there must have been 10 children's graves and a total of 30 graves, which gives a population of 15 persons with a mortality of 40 ‰. If this result is compared with the situation about 150 years later, when the population according to the same mode of calculation was 21 or 29 persons (see above), it could be seen that the population would have amounted to the former number, if the increase had been 30 % in 100 years, and to the latter, if it had been 60 % during the same time. (Later on during the periods of rapid growth the population could treble in 100 years, see Lindström 1850 table p. 143; Jutikkala 1945 p. 68.) If the former percentage is correct, the size of the community would have been in the middle of the 9th century 17 persons. This would presume 54 burials from Phase V I, if it had been of 80 years duration, and 68 burials with a duration of 100 years. For the present 50–51 interments from that phase have been excavated, so that a few could still be found. When the same mode of calculation is observed, the population in the middle of the 11th century could be estimated at 27–28 persons, and the number of graves datable to the period 950–1070 should amount to about 130. Among the material so far excavated there are only 45 graves from this period, so that this phase needs considerably supplementing.

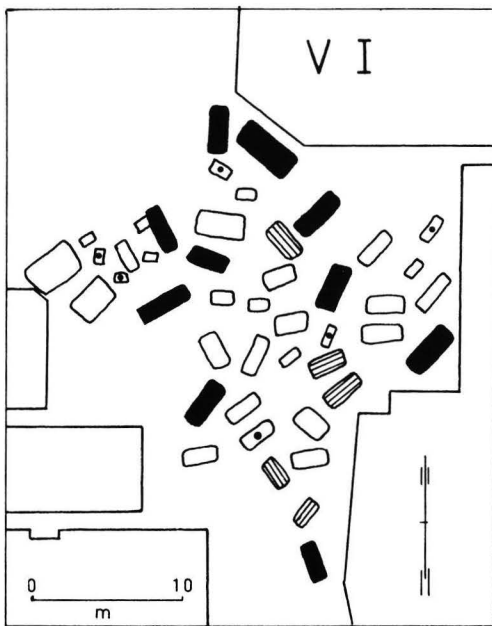
About the year 1150 the size of the Luistari community would have been 35 persons, if the progress of evolution had continued similarly. The burials, furnished or similar to these, later than the year 1070 are only 27–28 in number, and these would cover no more than a little over 20 years, if the

death rate is counted at 40 ‰ as before. If several graves of this period also are not to be found in the unexcavated area, it may be supposed that the transition to the burial practice without furniture had begun already about the year 1100 A.D. The unfurnished graves excavated so far would cover about 128 years, supposing that the population of the village had increased to 40 persons by the year 1200 A.D.

For the sake of comparison it can be useful to look at the result, if the death rate were 30 ‰ and the increase of population 40 % in 100 years. There would have been 18–20 persons in the village at the end of the Merovingian period, 22–24 in the middle of the 9th century, and a population of 31–34 persons about a hundred years later, in which case there should be 58–59 graves from Phase V II, if it lasted 70 years, but only 40–42, if it lasted 50 years; the burials so far excavated amount to 58. During the following century the population would have increased to about 45 persons, and there should be about 140 graves from the period 950–1070 A.D.; 95 graves are lacking. Even if the burial practice with furniture ended already about 1125 A.D., still 50 graves from the Final period should be found. Supposing that only five graves are lacking from Phase V I, also in this way the result is obtained that there should be still about 150 furnished burials unexcavated apart from the ones from the Merovingian period.

In following the first mode of calculation (with the death rate of 40 ‰), the population of the Kauttua village in 1550 could be estimated at 101, whereas in the second manner the result would be over 200 persons. The former number would suit a statistician better (cf. p. 54), but when it is known that those intervening centuries contain a foreign conquest, taxes and servitudes, plaque and ordeals, it is possible to suppose that the result obtained by the second calculation is correct for the Viking period; judging by all we know, the community buried at Luistari was prosperous. Furthermore it is possible to test these theories. The Luistari cemetery as well as the site of the Kauttua village are preserved, and when they have been totally excavated we shall possibly know how near to or how far from the truth these calculations have led.

The map with the »landlords' graves» from Phase V II reveals that seven of these were laid in a W-E or SW-NE direction, while six of them have a NW-SE orientation. It would be possible to interpret this phenomenon by the explanation that those buried at Luistari had come from two different regions. The men in W-E or SW-NE oriented graves were merchants from Birka, where this orientation prevailed and where ringed pins as in graves 135



FAMILIES AT LUISTARI

- supposed "landlord's graves"
- ▨ womans graves with more than average units
- children with more than 5 units

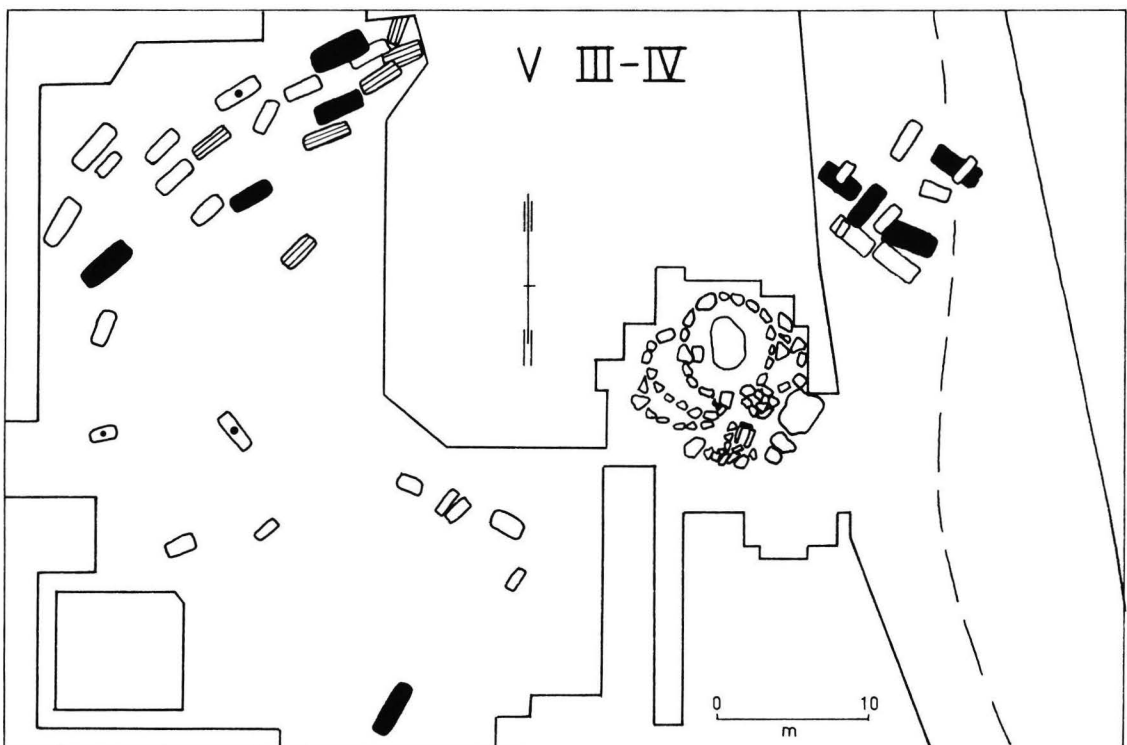
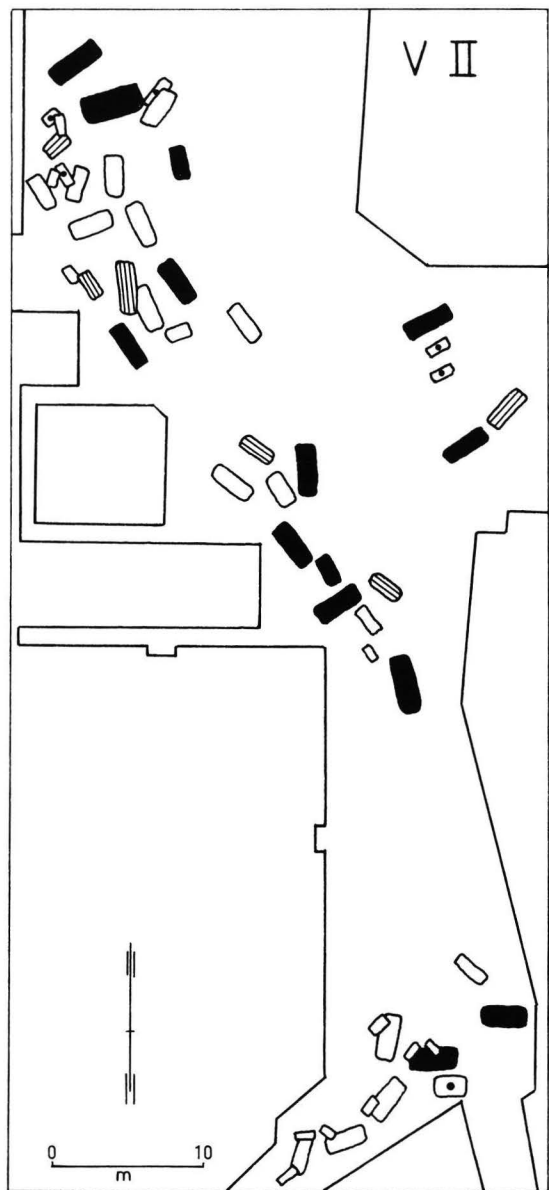
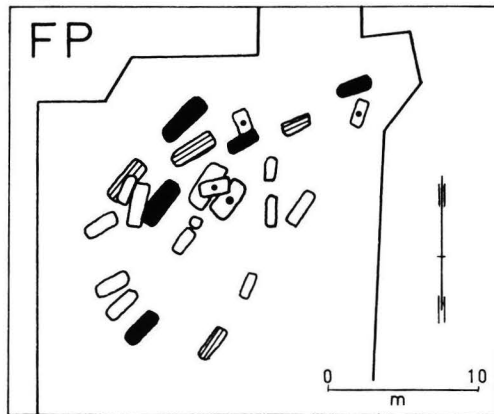


Fig. 7. Possible landlord's graves and corresponding women's and children's graves.

and 348 were popular (see Gräslund 1980 pp. 26, 39, figs. 20, 21, 27; Arbman 1940 Pls. 42–43). Those in graves oriented NW-SE, on the other hand, had come from Gotland, where this orientation was common and dogs have been found near the feet of their masters as at Luistari; in Gotland penannular brooches with faceted and funnel-shaped ends were also used (Stenberger 1961 pp. 18, 28, 41–45. – Grave 281 at Luistari with a brooch like this is however in a WSW-ENE direction).

However, burial customs at Luistari derive from the Merovingian period, and these differently oriented graves could indicate burials of two different families, both adhering strenuously to the grave orientation formerly adopted. One family has buried its dead in the same direction prevailing during the end phase of the Merovingian period, the other followed either a new fashion or traditions from the earlier Merovingian period, during

which the graves were however more in a SSW-NNE direction. The graves divide into five separate groups, only one of which contains »landlords' graves» in two different directions; double grave 281 is dissimilar to those surrounding it also in regard to orientation. On the basis of furniture it could be claimed that the family with »landlords» in graves 90, 100, 135, 150, 281, 348 and 400 was more prosperous than the family which furnished the graves 75, 280, 282, 283, 318 and 325. In the former burials the average of units is 115, in the latter 80. Also the furnished children's graves, with the exception of grave 330, attach to the former group. However, the furnishing is richer, 41 units, in the NW-SE oriented female graves than in women's graves with an average of 27 units which it is possible to connect with the family of prosperous landlords.

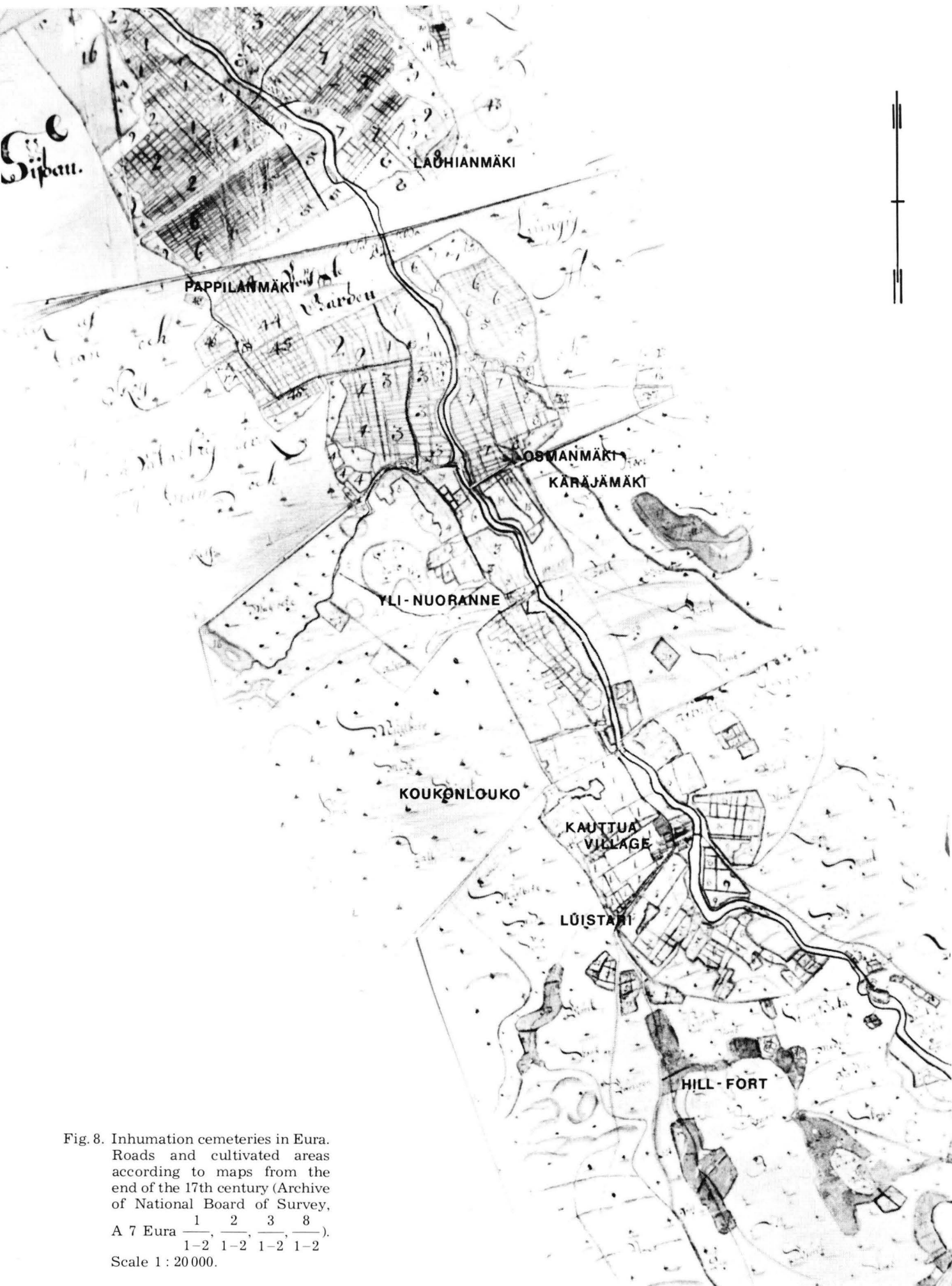


Fig. 8. Inhumation cemeteries in Eura. Roads and cultivated areas according to maps from the end of the 17th century (Archive of National Board of Survey, A 7 Eura $\frac{1}{1-2}$, $\frac{2}{1-2}$, $\frac{3}{1-2}$, $\frac{8}{1-2}$). Scale 1 : 20 000.

8. OTHER CEMETERIES IN EURA AND THEIR CORRESPONDENCE TO LUISTARI

For a real understanding of the Luistari community it is necessary to obtain some knowledge of the other cemeteries in Eura (Salmo 1952 pp. 21–48; inventory report by A-L. Hirviluoto). Luistari is the southernmost inhumation burial-place and is most closely situated to Pyhäjärvi and the Kauttua hill-fort, which is rather small (only c. 40 × 30 m, on top of a hill which rises about 15 m above the surrounding area), but the other cemeteries are not located very far off. Only about one and a half kilometres separate Luistari from Yli-Nuoranne, the distance to Käräjämäki-Osmanmäki is slightly more than 2 km and to Pappilanmäki and Lauhianmäki just over 3 km. A rather large volume of material has been found from these burial-grounds, but the excavations have been uncomplete, occasioned by gravel digging and drainage works, and these were partly made as early as the end of the previous century; so the reports are often anything but satisfactory. I have however tried to classify the graves found in these investigations according to the Luistari model, with the primary purpose of ascertaining the correspondence to the Luistari graves.

The Lauhianmäki cemetery is located on the east side of the Eurajoki river. It was destroyed at the end of the previous century, when a graveyard was made on the site. It is said that before this the graves appeared as shallow depressions on the surface and that the number of these was about 200. Only seven graves were investigated and two of these contained no finds. Five graves oriented E-W could be dated to the Viking period, and there were in these about 26 units on average (three graves were badly damaged). Several artefacts have been found as stray finds and they correspond to at least 11 Viking period graves (table p. 60). Burial in this cemetery was begun perhaps as early as the Roman period (Salmo 1952 p. 158 note 52; Salo 1968 p. 88); Viking period finds belong to Phases V I and V II. Excavations by Th. Schvindt 1890.

Pappilanmäki is on the western shore of the river, and the cemetery on its slopes is badly disturbed in different connections. On top of the hill, which rises about 5–6 m above the surrounding ground, the main building of the vicarage is located, on the western and north-western slopes some annexes have been built and the south-eastern end of the hill has been removed by digging for gravel.

Most of the finds have come to light in making drains and cellars. Excavations were carried out in the north-western part of the hill in 1934 and 1939, and in these about 25 Viking period graves oriented SW-NE were found, many of them earlier disturbed. The number of units in Viking period burials is on average 37. Stray finds correspond to about 26 graves (table p. 60). The oldest finds are from the 7th century, Viking period graves represent Phases V II–V IV. Excavations by S. Pälssi 1934 and H. Salmo 1939. Map fig. 10.

The Käräjämäki-Osmanmäki area is a ridge about 400 m long on the east side of the river; the southern end is called Käräjämäki, the northern one Osmanmäki. Käräjämäki (the Assizes hill) is owned by the Government and it is one of the most renowned monuments from prehistoric times in Finland (see Cleve 1943a; Huurre 1970). The famous judge's ring of Eura, a stone circle with two burials inside, is located on top of it, likewise a couple of mounds, and especially on the surface of the western slope inhumation burials are visible as shallow depressions, 169 in number (the larger pits are graves excavated and not filled again). It is however quite apparent that not all the graves are to be seen on the surface. Most of the graves excavated so far are from the Merovingian period, 13 Viking period graves from the southernmost end of the ridge oriented NE-SW have been excavated, and these have yielded 17 units on the average. In Osmanmäki about 40 Viking period inhumation graves, some of them rather dubious, have been excavated, and these have 34 units on average. Orientation was mostly SW-NE, but also N-S and NW-SE. Stray finds from these cemeteries correspond to about 36 graves (tables pp. 60–61). The burial was begun during the Migration period, the Viking period graves represent Phases V I–IV. Excavations by K. E. F. Ignatius 1870; J. R. Aspelin 1879; Th. Schvindt 1890; Hj. Appelgren 1889, 1902, 1905; A. Hackman 1894, 1909; J. Ailio 1912; N. Cleve 1927, 1942; C. F. Meinander 1947; P-L. Lehtosalo 1965–66. Map fig. 9.

The Yli-Nuoranne cemetery is situated on the western side of the river, lying opposite to the Käräjämäki cemetery. It is covered by the garden, the courtyard and the main building of the Yli-Nuoranne manor. The cemetery area continues north-westwards to the other lots, and it extends over

| Cemetery and grave | 40 | 15 | 15 | 1 | 20 | 6 | 6 | 2 | 3 | 1 | 1 | 2 | 10 | 1 | 1 | 2 | 5 | 15 | 3 | 1 | 30 | 10 | 4 | 1 | 1 | 1 | 30 | 10 | 5 | 35 | 5 | 20 | misc. | Total |
|---------------------------|-----|-----|-----|----|----|----|----|---|---|---|---|----|----|----|----|----|----|----|---|---|----|-----|----|-----|----|----|----|----|---|----|----|------|-------|-------|
| Osmanmäki 1890 | | | 30 | | | 6 | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | | | | | 38 |
| 2 | | | 30 | | | 6? | | | | | | | | | 1 | | | | | | | | 3 | | | | | | 5 | | | | | 45 |
| 3 | | 15 | | 1 | | 6 | | | | | | | | 1 | | | | | | | | | | | | 1 | | | | | | 1 | 25 | |
| 4 | | | | 1 | 20 | | | | | | | | 2 | | | | 5 | | | | 30 | 20 | | 3 | | | 30 | | | | | | | 111 |
| 1901 | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | 31 | | | | | 5 | | | | | 38 |
| 1902 | | | | 15 | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | 16 |
| 24 | 40 | 15 | 15 | | | | | | 3 | | | 2 | | | 1 | | | | | | | | | | | | | | | | | | | 77 |
| 3 | | | | 1 | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 26 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | 1 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | 10 | | 1 | | | | | 11 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | 1 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | | | | 5 | | | | | 7 |
| 9 | | | | 1 | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | 4 |
| 1905 | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | 1 | | 6 | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 3 | | | | | | | | | | | | | | | | | | | | | | 10 | | 4 | | | | 5 | | | | 1 | 20 | |
| 4 | | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 |
| 6 | | 15 | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 16 |
| 7 | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 |
| 9 | | | | | | | | | 1 | | | | | | | | | | | | | 10 | 2 | 1 | | | | | | | | | | 14 |
| 10 | 40 | | | | | 6 | 6 | | | | | | | 1 | | | | | | | | | 1 | | | | 10 | 5 | | | | | 69 | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | | | 5 | | | | | 7 | |
| 13 | | | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 32 |
| 14 | | | | | | 6 | 6 | | | | | | | 1 | | 5 | | | | | 30 | 60 | | 38 | | | | 5 | | | 10 | | 161 | |
| 15 | | | | 1 | 20 | | | | | | | | | | | 2 | | | | | | | | | | | 10 | 5 | | | | | 38 | |
| 16 | | | | | | 6 | | | | | | | | | 1 | | | | | | 1 | | | 6 | | | | 5 | | | | | 19 | |
| 17 | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | 5 | | | | | 10 | |
| 18 | | | | 1 | | 6 | | | | | | | | | 2 | | 15 | | | | | 10 | 3 | 125 | | | | 5 | | | | | 167 | |
| 19 | | | | 1 | | 6 | | | 1 | | | 10 | 8 | | | | | | | | | | 2 | | 10 | | | | | 7 | | | 45 | |
| 20 | 40 | 15 | 15 | | | | | | | | | | | 1 | | 5 | | | | | | | 2 | | 4 | | | | | | | | 82 | |
| 21 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | | | | | 5 | |
| 22 | | | | | | 6 | | | | | | | | | | | | | | | | | | | | | | 5 | | | | | 11 | |
| 1909 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 2 | | | | 1 | | | | | | | | | | 1 | | | | | | | | | 1 | | 1 | | 10 | | | | | | 14 | |
| 1912 | | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 16 |
| 2 | | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | 20 | | | | 35 |
| 3 | | | | | | 6 | | | | | | | | | | | | | | | | | | 2 | | | | 5 | | | | | | 15 |
| 5 | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | 5 | | | | | | 9 |
| 6 | | | 15 | 1 | | | | | | | | | | | | | | | | | | | | | | 7 | | 5 | | | 1 | | 29 | |
| 7 | 40 | 15 | 30 | | | | | | | | | | | 2 | | 5 | | | | | | | 4 | 1 | | | | 5 | | | | | 102 | |
| Total | 160 | 105 | 210 | 13 | 60 | 48 | 30 | | 3 | 2 | | 4 | 10 | 11 | 23 | 2 | 35 | | | 1 | 60 | 120 | 35 | 224 | 18 | 30 | 30 | 85 | | | 20 | 20 | 1359 | |
| Stray finds ¹⁾ | 160 | 30 | 270 | 3 | 40 | 42 | 30 | 2 | 6 | 2 | 2 | | | 3 | 9 | 4 | 60 | 15 | | 1 | 60 | 120 | 22 | 14 | 4 | 30 | 30 | 40 | | | 42 | 1041 | | |
| Yli-Nuoranne | | | 30 | | | 6 | 6 | | | | | | | | 1 | | | | | | | | 1 | | | | 10 | 35 | | | | | 89 | |
| 3 | | | | 1 | | 6 | | 3 | | | | | | | 1 | | | | | | | | 2 | | | | 5 | | | 5 | | | 23 | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | 35 | | | | | | 36 | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | 2 | 4 | | | 5 | | | | | | 11 | |
| 10 | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | |
| 11 | | | | 1 | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | 2 | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 5 | | | | | 11 | |
| 13 | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | 2 | |
| 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Total | | | 30 | 2 | | 6 | 12 | | 3 | | | | | 6 | | | | | | | | | 6 | 5 | 1 | 10 | 15 | 70 | 5 | | 5 | | 176 | |
| Stray finds | 80 | 15 | 135 | 1 | | 18 | 12 | | | 2 | | | | 2 | | 15 | | | | | | | 1 | | 2 | 30 | 20 | 5 | | | | | 338 | |

¹⁾ Kärjämäki and Osmanmäki

an area 400 m long on both sides of the road between the Eura church and Kauttua. At least 9 of the excavated graves are from the Viking period, and the number of units in these is 20 on average. Stray finds correspond to 17 graves (table p. 61). The oldest finds are from about the year 700 A.D., the Viking Age finds represent Phases V II and V III. Excavations by P-L. Lehtosalo(-Hilander) 1965–66, 1970. (Sakari Päläsi's report from the year 1934 is based on accounts of unqualified persons and not on excavations. For example the orientation SE-NW of graves in his sketch seems in the light of later investigations less probable. Furthermore the finds contain no artefacts connected to female burials, as claimed. Salmo's supposition, 1952 pp. 45–46, that the orientation was SW-NE does not seem credible either; in the excavated Yli-Nuoranne graves, in which material corresponds to the finds in 1934, the heads were to the south and the graves were oriented from almost S to N. This is also the orientation mentioned by Päläsi; seemingly the emplacement of buildings in his sketch is not at all accurate.) Map fig. 11.

As shown by the figures below, finds deriving from these other burial places correspond at least to the same number of graves excavated at Luistari:

| Cemetery | Number of graves | Units from graves | Units per grave on average | Units from stray finds | Total of graves |
|--------------|------------------|-------------------|----------------------------|-----------------------------|-----------------|
| Lauhianmäki | 5 | 131 | 26 | 288=11 graves | 16 |
| Pappilanmäki | 25 | 919 | 37 | 958=26 graves | 51 |
| Osmanmäki | 40 | 1359 | 34 | 1041=35 graves | 75 |
| Käräjämäki | 13 | 219 | 17 | | 13 |
| Yli-Nuoranne | 9 | 176 | 20 | 338=17 graves ²⁾ | 26 |
| Total | 92 | 2804 | 30 | 2625=88 graves | 180–181 |

¹⁾ It is not always clear from which of these two cemeteries stray finds were found.

²⁾ The number of graves noticed is smaller than this calculated according to units.

If the total of units, 5429, is divided by the average number of units in all Luistari Viking period graves, 35, the result is 155 graves, about just the same as at Luistari.

The variety in grave orientation in these other cemeteries is similar to the Viking period parts of Luistari, and the furnishing differs only in details. Especially in Pappilanmäki the average number of units in the furnished graves is high, and also several swords have been found from this cemetery. The high unit yields of some female graves from about the year 1000 A.D. is also a feature worth noticing in Pappilanmäki (graves 5 and 14/1939) and Osmanmäki (grave 4/1890), and if for com-

parison the Köyliö C-cemetery is included in this investigation, the impression obtained from the Luistari graves that female graves are richer than the male ones during this period, gains considerably strength. In the Köyliö grave C 39 the furnishing corresponded to the price of eight cows.

Finds from Osmanmäki and Pappilanmäki complete the material from Luistari in one respect; these have contained graves from the second half of the 10th century, and witness that female graves could be abundantly furnished also during Phases V II and V III (cf. Osmanmäki graves 14/1905 and 18/1905; Pappilanmäki graves 5/1939 and 20/1939). There is reason to mention in this connection also the graves of little girls, which were found from Pappilanmäki (grave 21/1939, Salmo 1952 p. 44; finds NM 8811:6–14 and 11063:158, 174?). These bear a great resemblance to the corresponding graves at Luistari. Small weapons on the other hand, indicating boys, have not been found so far from these other cemeteries (cf. however the axe NM 4633:4).

The quality and quantity of furnishing in men's graves seem to be fairly similar in all Eura cemeteries. A sword, one or two spears, sometimes a seax and/or a scythe and shears, a brooch and a ring is a combination which appears several times

(Osmanmäki graves 2(+4)/1902, 20/1905, 7/1912; Pappilanmäki 1/1934, 4/1939; possibly Yli-Nuoranne finds NM 9854:2–5 and 20541:1–5,9). Spears are much more common than swords, just as at Luistari, but relatively more swords have been found from these other cemeteries, which points to the fact that in occasional material large artefacts prevail. Several small artefacts could have escaped notice (cf. the small number of beads!), and so the number of destroyed graves could have been larger than the calculation of units shows. On the other hand the robbing of some Luistari graves can account for this difference in the number of swords.

In regard to artefacts Eura graves give a rather

uniform impression, but from the excavation reports of earlier years no large chamber-graves could be found; they appear only in Salmo's report and in reports in 1965–66 and 1970 by the present author. Probably they were not noticed earlier. Reports are also in other respects inadequate, because often only furnished graves have been mentioned. Therefore it is not possible to estimate how large communities these cemeteries represent. It seems however probable that at least Käräjämäki-Osmanmäki was a village cemetery.

Because of two extremely splendid swords from Pappilanmäki, this cemetery has been connected to a chieftain's family (cf. Aberg 1953 pp. 158–159; Cleve 1943 p. 224; Salmo 1952 p. 459), but the furnishing of its Viking period graves is not of such excellent quality to differentiate this cemetery from the others in Eura. In seeking for Viking period chieftains it is best to turn to Luistari, where grave 348 certainly contains a chief of expeditions, and grave 17 has yielded the finest Viking period sword from Eura. But even these graves have hardly belonged to kings, and it seems that the society in Eura has been rather egalitarian, almost like that Meinander (1980 p. 10) has pictured in speaking of Finland Proper, although I should not say that Luistari graves are »indifferent».

Of the thralls supposed by Meinander there are no traces in Eura, if the pillage of graves at Luistari about the year 900 is not connected with a slave uprising. The persons who went to a cemetery to

obtain weapons were hardly other than slaves or vagabonds desperate to arm themselves.

If it were possible to find multiple burials from other Eura cemeteries datable to the same periods as the corresponding Luistari graves (Luistari I,3.1.), it would confirm the supposition that these were made during periods of epidemic. The so-called double burials in some Eura graves are however so dubious, based on the belief that men's garments contained no spirals, that no conclusions can be drawn from these.

The most striking fact in connection with these Eura cemeteries is that they are situated in an area less than three square kilometres in size, and that more viking Age attacking weapons were found from them than from the Birka cemeteries; the number of swords is about the same, but there is much more than double the number of spearheads (53 from Birka, about 140 from Eura, at least 120 of them from Birka time). Although so far no Western European glass ware or bronze vessels have been found from Eura, and it cannot compete with Birka in many other respects, in the light of purely archaeological evidence it must be considered as one of the most important Viking Age centres in Finland and one not without consequence in the world around the Baltic. In spite of the mass of weapons it was not a garrison – the hill-fort of Kauttua is very small and was certainly not continually inhabited – but a gathering of peasant villages and farms, and as such an extremely interesting one.

| Some groups of Viking period and later artefacts at Luistari and in other cemeteries in Eura | Swords | Spearheads | Brooches | Beads | Coins | Weights | Scythes/sickles | Shears |
|----------------------------------------------------------------------------------------------|---------------------|------------|----------|-------|-------|---------|-----------------|--------|
| Luistari | 8 | 54 | 52 | 990 | 111 | 39 | 24 | 19 |
| Other Eura cemeteries | 24(+2) ¹ | 84 | 44 | 455 | 14 | 15 | 38 | 25 |
| From outside known cemeteries | 7 | 3 | 3 | | | | | |
| Total | 39 | 141 | 99 | 1435 | 125 | 54 | 62 | 44 |

¹) Ignatius (1871 pp. 95–96) mentioned three swords found from Pappilanmäki in 1843 and 1848. Only one of these, NM 65, can be found from collections now.

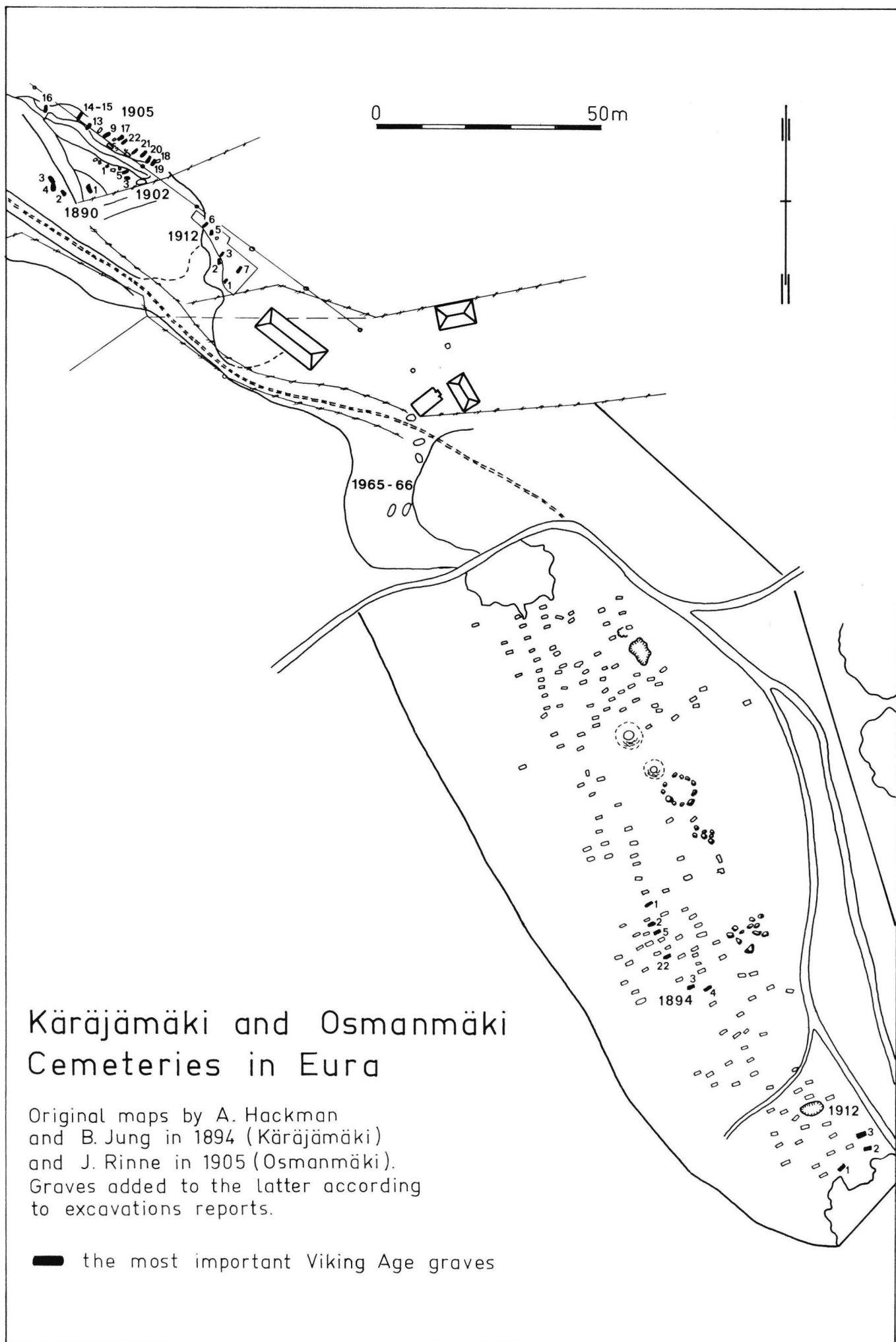
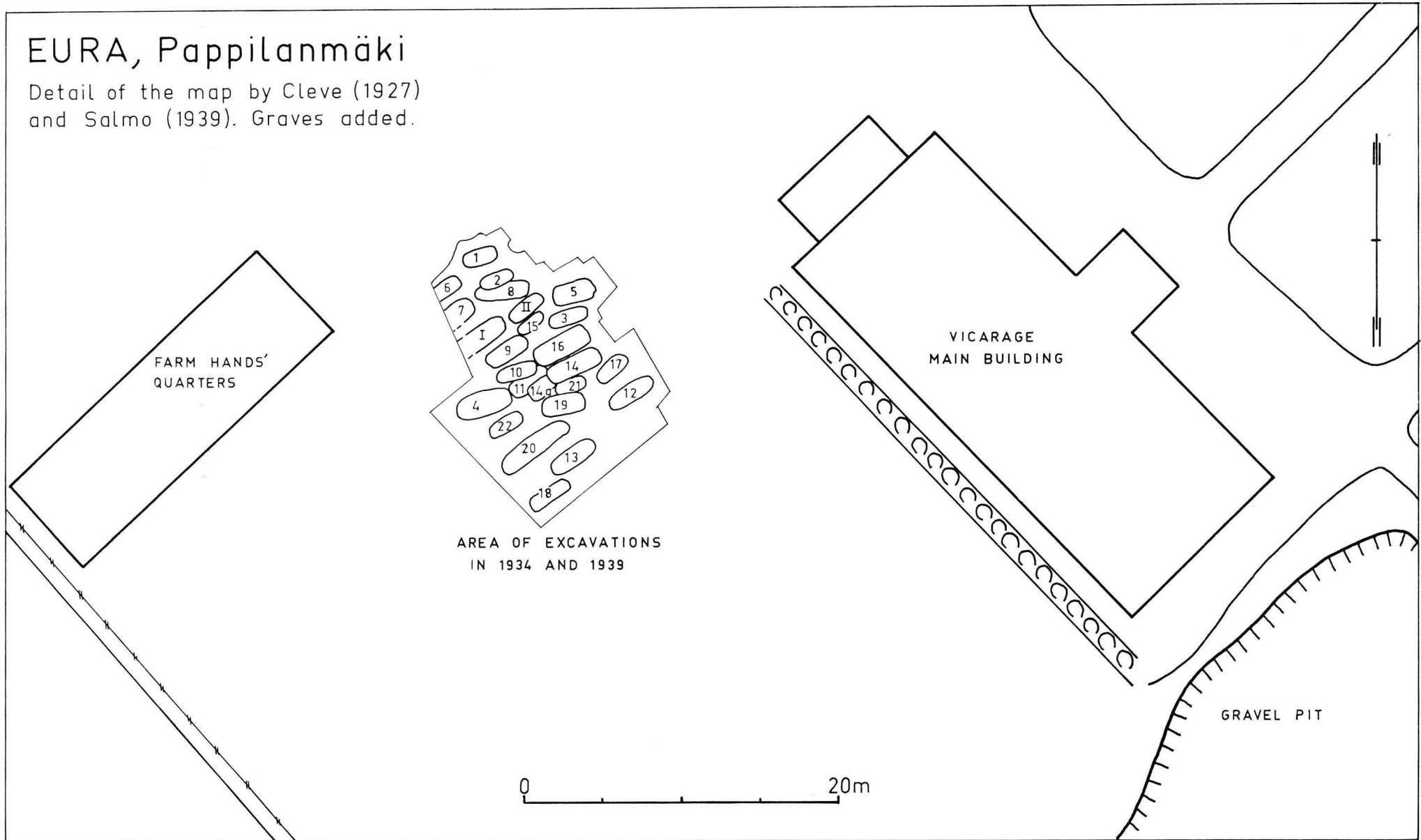


Fig. 9. Map of the Käräjämäki and Osmanmäki cemeteries in Eura.

EURA, Pappilanmäki

Detail of the map by Cleve (1927) and Salmo (1939). Graves added.



65 Fig. 10. Map of the Pappilanmäki cemetery in Eura.

EURA, Yli-Nuoranne

P-L. Lehtosalo 1965-66

0 10m



20541
x

AREA SKETCHED
BY PÄLSI

9854:10-12
x x
9854:8-9
x x
9854:3,4
x x
9854:5
x
9854:1
x
9854:13
x
9854:2
x

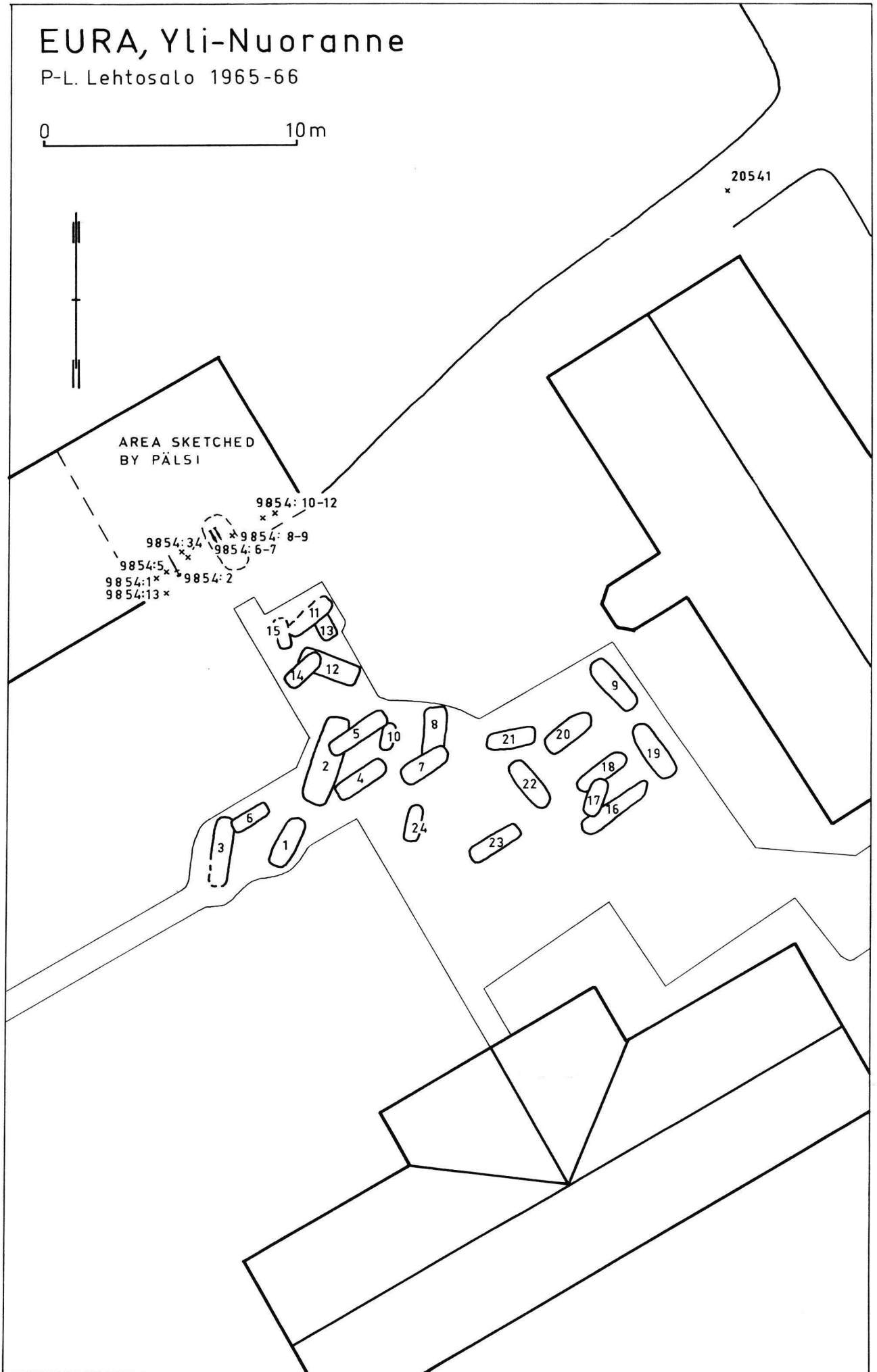


Fig. 11. Map of the Yli-Nuoranne cemetery in Eura.

9. SOURCES OF LIVELIHOOD IN EURA DURING THE VIKING PERIOD

9.1. AGRICULTURE AND CATTLE BREEDING

The material found from the Eura graves also gives some knowledge of sources of livelihood. Sickles and scythes appeared in many graves, and because these were most richly furnished, the wealthiest members of the population were probably farmers. Finnish scientists have in general been of the opinion that the free peasant class formed the foundation of the ancient Finnish society (Cleve 1943 p. 224; Salmo 1952 p. 458; Kivikoski 1961 p. 209, 292), but there have been different opinions about the nature, extent and importance of cultivation. According to Cleve (1943 p. 222) the concentrated settlement of the Eura area indicates cultivation in permanent fields and only secondary burn-beating. Salmo (1952 p. 451) and Salo (1967 p. 92–93) have maintained that in Satakunta and also in the Eurajoki valley felling and burning was the dominant form of cultivation during prehistoric times.

Paleobotanical studies have not as yet been made in Eura, but the results from the neighbouring parish Laitila have been interpreted so that the permanent settlement during the late Iron Age, reflected in long-term cemeteries, means a change from a transient slash and burn practice to a cyclic type of burn-beating cultivation and not cultivation in permanent fields. According to the investigators cultivation in permanent fields would have required more cattle for manuring the land than the inhabitants had in those times (Tolonen–Siiriäinen–Hirviluoto 1976 p. 59; cf. Suvanto 1973 p. 229).

Investigations made in connection with this study have however shown that both in Eura and Kalanti-Laitila cattle had an important role in burying ceremonies. Both in the Laitila-Kylämäki cemetery and in the cemetery and settlement at Kalanti-Kylähiisi bones of cattle dominate, and in Eura, apart from the Luistari finds, also the Yli-Nuoranne cemetery has yielded cattle bones; the most interesting is a grave with a skull with torn off horns (analyses by Mikael Fortelius; excavation reports from 1965–66 and 1968–69 by P-L. Lehtosalo, from 1964 by Marketta Tamminen). All these finds point to extensive cattle breeding, and it is only necessary to compare this material to the bones analysed from the Vilusenharju cemetery, to understand that there is a basic difference. Bear claws, dog bones and insignificant remains of sheep or goats reflect a real hunting and burn-beating society in ancient

Pirkkala (Lahtiperä 1978 pp. 10–11; Nallinmaa 1978 p. 250). The picture represented by the Eura finds show all the most important domestic animals, cow, horse, sheep, goat and pig. All these apart from the pig are also present in Kalanti-Kylähiisi, and also in Laitila-Kylämäki where not all the material is analysed yet. Although some bear claws were also found from the latter (see Kivikoski 1965 p. 27), taken as a whole we have here a stock breeding society.

But now the whole landscape in Eura is different from that in Kalanti-Laitila, so that the economy need not have been based on the same grounds even in these two areas. All the important late Iron Age cemeteries in Eura are concentrated within an area hardly 3.5 km in length and less than 1 km in breadth, and they have been in continued use from at least the end of the 6th century; some of them also contain earlier burials (Lauhianmäki, Salo 1968 p. 88; Osmanmäki, Cleve 1943 p. 217; Luistari, excavations in 1979). No other parish in Finland can present so many important cemeteries in so small an area, and therefore it seems unlikely that arable cultivation there would be an innovation of the Middle Ages only. Naturally burn-beating was practised besides – in fact it was still in use along with field cultivation even in Finland Proper during the 18th century (Meinander 1980 p. 12) – but it seems probable that a rather developed agrarian society was formed in Eura already during the Merovingian period, just as Cleve (1943 p. 222) has claimed. When it is known that Eura belonged later on to the so-called draught-oxen area (Vilkuna 1972 p. 114; Suvanto 1973 p. 223), we may ask whether the quantity of cattle bones in graves could also reflect the use of oxen before the plough.

Paleobotanical investigations in Laitila have shown that besides wheat and barley, known from the earliest Iron Age, both rye and oats were cultivated during the Viking period (Tolonen–Siiriäinen–Hirviluoto 1976 pp. 60–61), and there is no reason to suppose that it has been otherwise in Eura. Domestic animals dominate entirely the material from Eura analysed so far, and there are the same species as appear in the first cattle-lists known from historical sources (cf. Koivisto 1966 p. 123) and are mentioned still in the middle of the 19th century (Lindström 1850 p. 160). Apart perhaps from the goat, all these animals appear already in graves from the Merovingian period. Accordingly

the picture seems to be very similar during the last centuries of the heathen period to that of much later times, when it is known that Eura had good pastures and rye, barley, oats and wheat were cultivated (Lindström 1850 pp. 157–160).

9.2. HUNTING AND FISHING

It is natural to suppose that the inhabitants in Eura have fished in Pyhäjärvi, but there are only two fish-hooks from Osmanmäki (Salmo 1952 p. 422) and one little fish spear (NM 20552:240) from Luistari, obtained as a stray find, and no fish bones. From the Kauttua village area some perch scales and pike bones (NM 19877:25, 27) have been found, but they can be much later than the cemetery. Apart from deer pelts in some graves (e.g. 56, 90, 377), remains of game were not found from Luistari either, but both from the Yli-Nuoranne cemetery and Kylähiisi settlement in Kalanti seal bones were found (NM 17251:2, 10; 17795:609), proof that seal hunting was carried on during the Viking period. However, there are only a few fragments taken all together, and this is very little compared with the amount of bones of domestic animals from the same find places. Hunting must have been an important part of everyday life, but arrows also are very unusual in graves. So hunting seemingly did not have a connection with the cult of the dead, and therefore it is not reflected in cemeteries. The fact that bones of game were not found from the settlement area of Kylähiisi either is worth notice. This location is however only partly excavated, so that the picture obtained may be wrong.

9.3. WORKING IN WOOD, BONE AND BIRCHBARK

Wooden vessels and other kinds of wooden artefacts are a speciality of Vakka-Suomi (= Bushel-Finland), i.e. of the Vehmaa–Kalanti–Laitila area, and in olden times this region with its wood-working traditions extended as far as Köyliö (Vilkuna 1935 p. 192). In the 19th century it was complained in Eura that woods of aspen and birch had been destroyed by making articles of wood and birchbark (Lindström 1850 p. 101), and although the oldest documents mentioning the export of wooden vessels to Sweden are not earlier than the 16th century (Rinne 1963 p. 106), the wood-carving instruments in graves both in Köyliö (Cleve 1943 pp. 146–149) and Eura (grave 145 at Luistari) point to the possibility that this occupation had prehistoric roots. Besides, in a grave from the Köyliö C-cemetery (Cleve 1978 pp. 34, 84–85) and in two

graves from the Yli-Nuoranne cemetery (excavation report in 1968 by P-L. Lehtosalo), remains of totally disintegrated wooden vessels were observed during excavations. At least in Yli-Nuoranne these vessels had been round-bottomed bowls about 25 and 40 cm in diameter and very similar to the ones known from later times. The plane irons found from Luistari and the Köyliö cemetery A are tools especially needed when making vessels like these.

Wooden artefacts were not preserved in the Luistari cemetery, but there is a bog-find from Kauttua with a pair of skis decorated with carved ornaments in band twisting. These skis have a radio carbon dating to the 10th century (920 ± 100 A.D.), so they are from the same time as the rich finds from Luistari. These skis along with some others, e.g. from Laitila and Vesilahti, have been explained as a special western Finnish ski-type, which spread from Satakunta – Vakka-Suomi through the agency of hunting expeditions as far as to Swedish Lappland (Valonen 1972 pp. 256–261, 1980 pp. 41–44, figs. 15, 18). Interesting in this connection is the skilful ornamentation, a reminder that there could have been many ornamented artefacts which have disappeared. The fact that the Eura soil has not preserved artefacts of bone either, renders the obtaining of the true picture difficult; remains of beads and combs of bone or horn in Luistari and two ornamented spoons from Osmanmäki (Salmo 1952 fig. 383) give reason to suppose that the material would be much richer in carved artefacts if only the soil was not so poor in lime.

Although the Luistari cemetery has not conserved any proof of wood-carvings, there were some remains of birchbark artefacts. These were not made by weaving strips as in known satchels and slippers, but by sewing uniform pieces together. This technique is known from different parts of Europe already from the Stone Age, and its distribution is, according to Valonen (1952 pp. 287–289), larger than that of woven articles of birchbark. In Finland two boxes from Keuruu, dated to the end of the heathen period or to the beginning of the Middle Ages, are the best known (Pälsi 1934 pp. 215–222), but there are some other finds from the late Iron Age as well. Artefacts from Masku, Nousiainen, Köyliö and Eura have been mentioned (Valonen 1952 p. 287 note 7), and it is quite possible that at least some of the birchbark »covers» found in connection with inhumation burials have been remains of vessels similar to the one from the Luistari grave 404. A piece of an ornamented artefact (NM 9855:18) from the Pappilanmäki cemetery is evidence that the same band twisting designs as in wood and bone artefacts were also cut into birchbark.



Fig. 12. Clay vessels and vessel fragments from Luistari graves 15, 135, 348, 56, 359, 305 and 170. Below on the left a vessel fragment from grave 170 and a reconstruction of the same vessel, below on the right a smaller bowl from the same grave.

9.4. POTTERY

The uniformity of pottery in all cemeteries in Eura suggests that not every household made its vessels itself, but that there were persons who specialized in this trade; whether they lived in Eura or for example in Kalanti or Laitila is not certain, but it seems that some vessel types are especially characteristic of Eura. Since only about 400 m from the Luistari cemetery a place is known where brick clay was lifted until recent times, it seems possible that there also was clay suitable for pottery in this area, and a potter's workshop was situated in Kauttua. Soil analyses to prove this have not yet been made, but the studies by Selling (1955 p. 154) have shown that Eura is a possible distribution centre of Viking period Finnish pottery (cf. Carpelan 1980 p. 194).

It has been claimed that the pottery in the whole of Finland was fairly similar (Salmo 1952 p. 457; Kivikoski 1939 p. 198), and this would be easily explained by a few larger workshops in which journeymen were trained, the differences in ornamentation again by the fact that there must have been several smaller ones. In general it has been supposed that pottery was made by women during prehistoric periods (e.g. Salmo 1952 pp. 174–175), but from the Middle Ages onwards it was heavy work done by male potters. In Denmark however the tradition of pottery made by women has been preserved into historical times. In the 18th and 19th centuries the so-called *gydepottekonerne* still formed different kinds of clay vessels by hand (Fernholm 1971 pp. 25–27, fig. 7), and so it is possible that as long as the pottery was made by hand it was women's work. If so, the supposed uniformity of the Finnish Viking period pottery needs an explanation, because the households were no longer vagrant hunting and catching units, but stabilized farming communities. Marriages between persons from different areas could naturally transport pottery traditions, but still the idea persists that at least the dark wave lined pottery, which appears over a fairly large area, must have been made by professional potters. The vessel fragments from cremation cemeteries have not been thoroughly studied and therefore the picture obtained could partly be wrong; the difference between pottery in Eura and in other parts of Finland may be much greater than supposed (cf. Salmo 1952 p. 457). The studies in which products of other female occupations, for example textiles, bands and spiral ornaments, are compared with the distribution of pottery, would solve the question of the role of women in pottery production, but the practice of cremation deprives us of this expedient. Before the 11th century only materials from Eura, Yläne and Köyliö

are available, and therefore the solving of this question must wait until some Iron Age sites with rich remains from the Viking period are found and excavated.

9.5. SMITHERY

The Eura region has also been mentioned in connection with smithery, but usually this has happened when speaking of the Merovingian period (see e.g. Kivikoski 1961 p. 177; Meinander 1967 pp. 10–11). It has been claimed that during the Viking period domestic manufacturing of weapons ended or at least declined, and swords and spearheads of Frankish make spread through the agency of merchants from Birka and later from Gotland to all parts of Finland (Kivikoski 1961 pp. 199–200; Salmo 1952 pp. 431–432, 454; Meinander 1967 p. 11; cf. also Nordman 1943 pp. 40–41, 46–48, 54–55). This is probably true with regard to swords, but the X-raying of almost all (about 93 %) of the spearheads from the earlier Viking period has shown that only about 11 % of them on the Finnish mainland – Ladogan Karelia excluded – are damascened. In Åland and in Karelia the percentage is much larger, about 41 and 46 respectively. There are also among the later Viking period spearheads perfectly shaped but undamascened specimens beside the strongly atypical artefacts as in Köyliö (see Cleve 1978 pp. 165–166; the X-raying of these spearheads has shown that only a few of them could be connected to the Petersen types). Supposing still – though all others around the Baltic want to believe that the damascening technique has been known in their home lands (see Selirand 1975 pp. 184–186 with notes) – that pattern welding was not practised in Finland, the bulk of these spearheads could have been made here.

If again the distribution has some significance in this connection, Eura is the first area in which to seek the manufacturing centre, for 23 % of the spearheads from the earlier Viking period are from Eura, and also the fact that spearheads resembling the Petersen type F are mostly found from Eura and they differ clearly from the Scandinavian specimens, points to local manufacturing. Besides, the abundance of slag in Luistari can well reflect the importance of iron production in Eura (cf. A.-S. Gräslund 1980 pp. 70–71; Cleve 1943 pp. 194–195). Although some of the weapons in Eura are imported and bear witness to substantial purchasing power, a great number of them, especially spearheads, are most probably made locally. Naturally analyses concerning metal compositions and simultaneous studies in all Nordic countries are called for to obtain certainty.

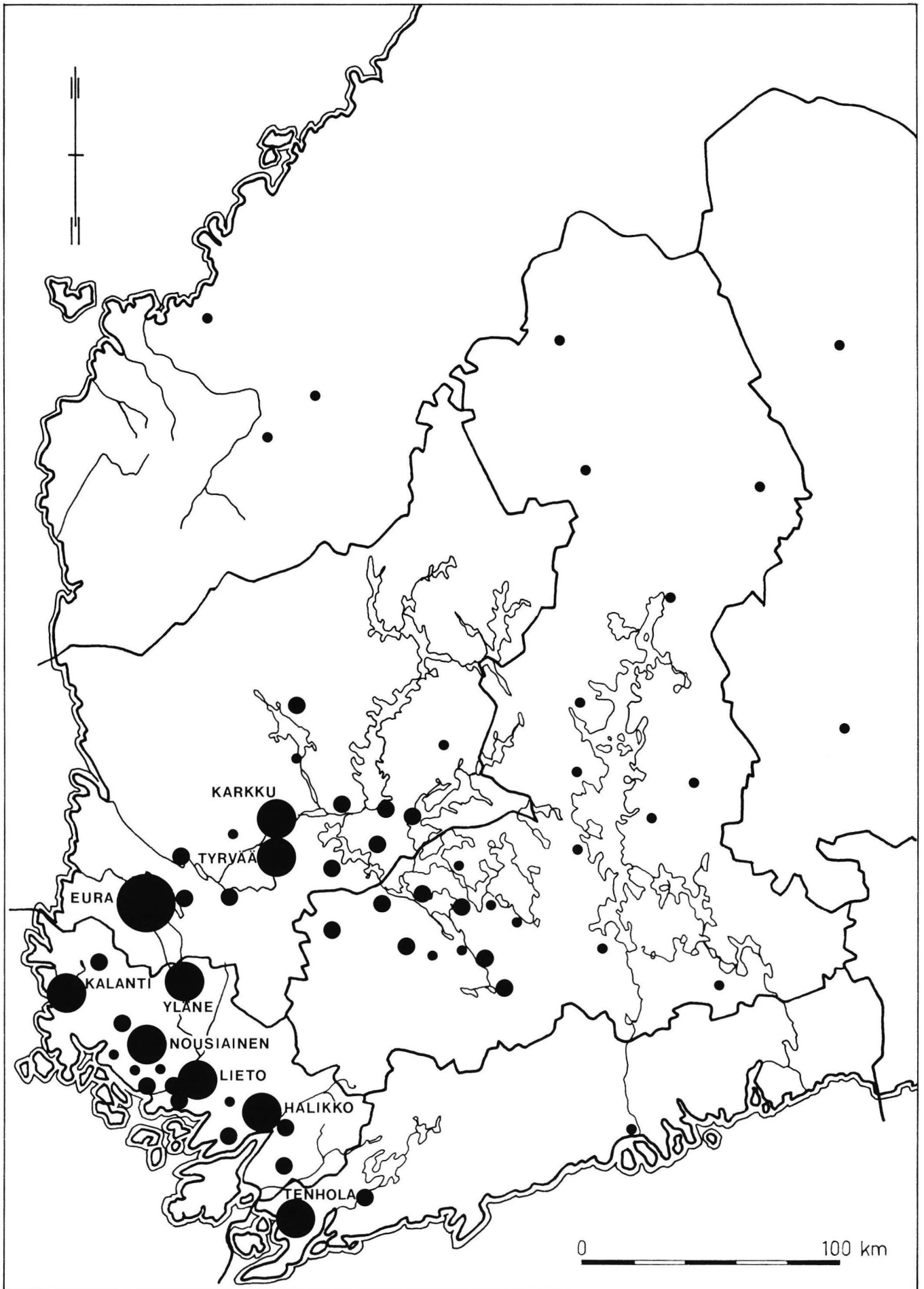


Fig. 13. Distribution of spearheads from the earlier Viking Age (Petersen types A and E with variants) in Western Finland.

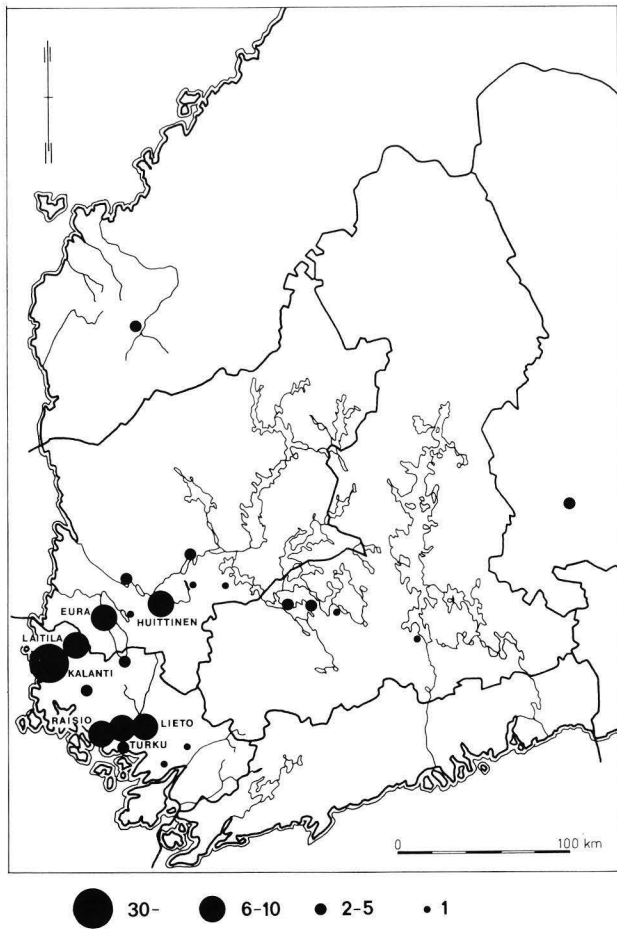


Fig. 14. Distribution of Scandinavian imported ornaments.

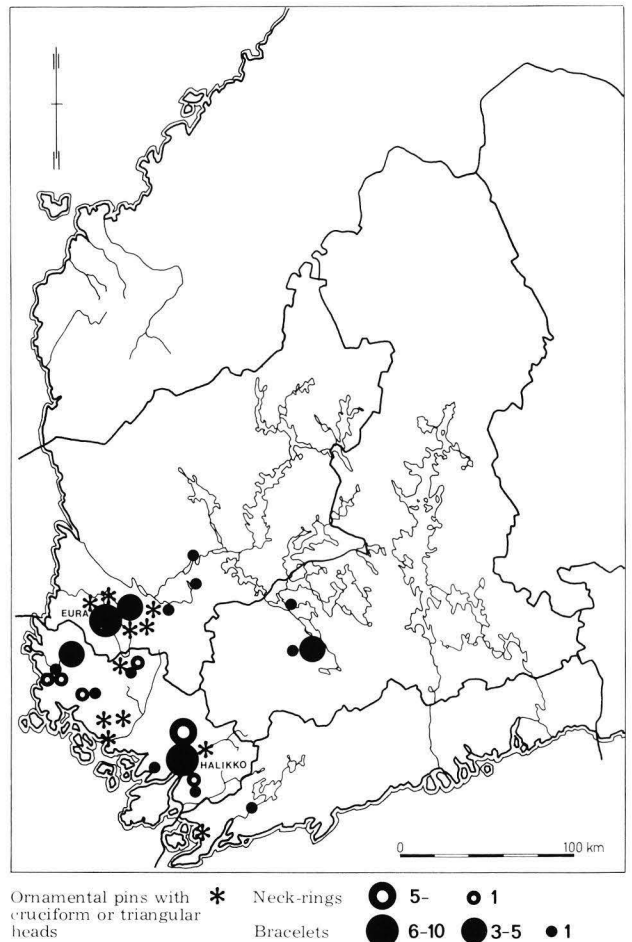


Fig. 15. Distribution of some East Baltic Viking Age ornaments in Western Finland.

On the subject of ornaments the situation is slightly different. On the one hand both East Baltic and Scandinavian types have spread to Eura (figs. 14 and 15), on the other hand the ornaments of Finnish type are fairly similar both in Eura and in other parts of Finland, especially in the Kalanti-Laitila area (Luistari II, 6.1.6., 6.4.2.3.). The comparison of finer details between ornaments from different areas is furthermore very difficult, because in cremation cemeteries the material is very often fragmentary and badly melted. Apart from the bird-brooch and the chain holders with band twisting (Luistari II, 6.1.5. & 6.3.1.), found only from Luistari, there are almost no other bronze ornaments in Eura with a marked local stamp. The bronze and silver ornaments found from Luistari seem better made than most, but the fact that they are whole and many others are not may account for this.

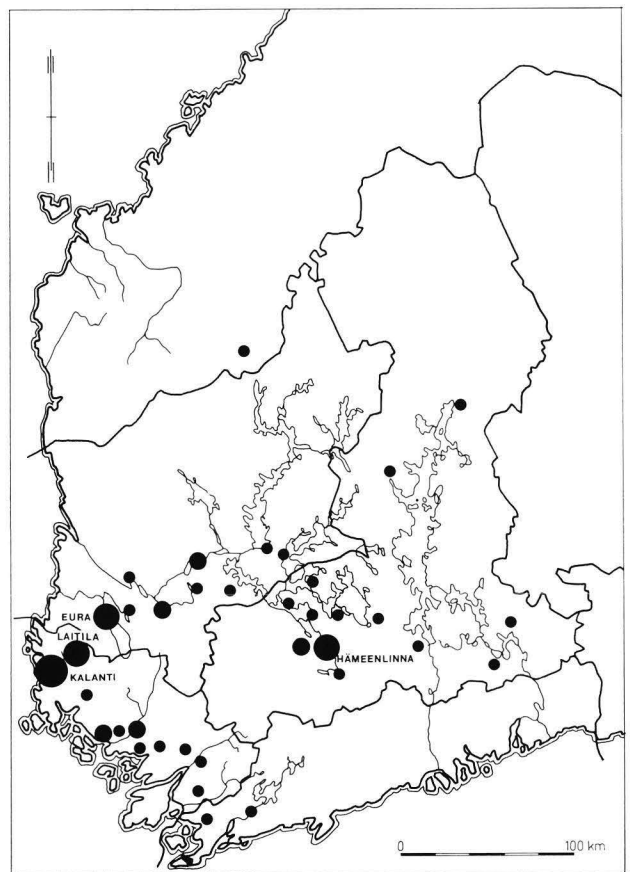
At least at the end of the Viking period there must have been a manufacturing centre for the Finnish-type ornaments, because the wide-brimmed variant of the Finnish D-type convex round brooch (see Luistari II, 6.1.6) was most probably made in only one workshop with a rather wide

distribution area. As shown in the map (fig. 18), this centre could as well have been situated in the Eura-Köyliö area as in the Aurajoki valley. Also the narrow-brimmed variant appears abundantly in these areas (map fig. 17), but it is not as uniform as the former, and so the brooches of this type could have been made in several workshops. When again the types of the earlier Viking period are considered, Kalanti-Laitila is clearly the centre (map fig. 16), and apparently the best specimens are made in this area. Whether the very well-made C-type brooches from Luistari were made in Eura it is not possible to say with certainty, but when the only ones even in some measure comparable with these are from Tyrvää in Satakunta (cf. Luistari II, 6.1.6.), this seems probable. It is also worth noticing in this connection that the only find with bronze ingots found in Finland and dated to the Viking period is from Köyliö (Salmo 1953 pp. 10–12). In the 11th century a silver smith was also possibly active in this area (Lehtosalo 1973a pp. 110–113, fig. 7).

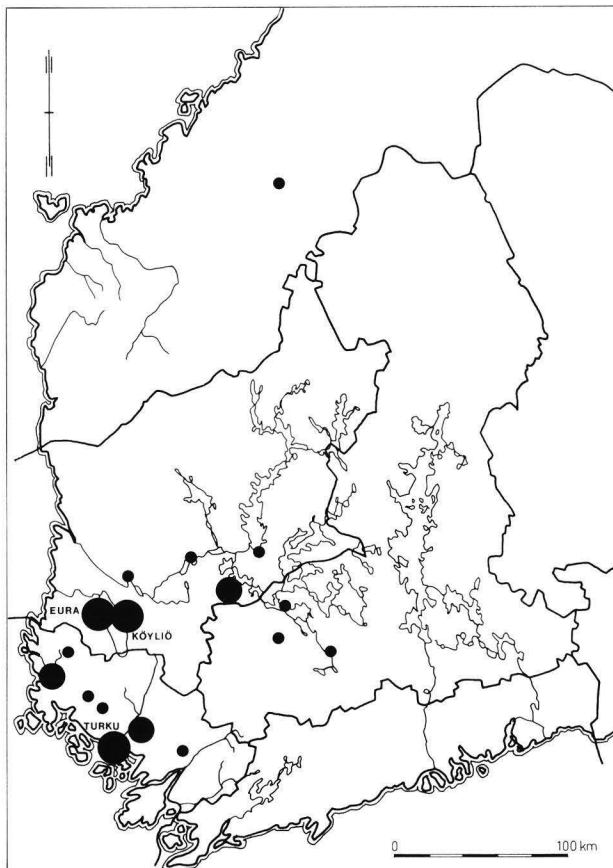
It is, however, apparent that the most sought-after ornaments in Eura have been beads, and therefore the comparison between on the one hand these inhumation cemeteries and on the other cre-

mation burial-grounds is not so easy. In the latter beads are often badly melted and not even described in catalogues and publications, so the impression that in cremation cemeteries heavy bronze ornaments dominate can be totally wrong. There are however from about 300 Eura graves only five neck-rings (one from Luistari and four from Osmanmäki, NM 1913:8(2) and 4633:80, 81), from the Aurajoki valley in Kivikoski's material (1939 pp. 175–176) at least eight; accordingly the latter should correspond to about 480 burials. But if the beads are taken as a measure, the result is quite different. From the Luistari cemetery alone there are 860 one-colour beads; from the Aurajoki valley in Kivikoski's material (1939 p. 175) about 300, which would correspond to only circa 55 graves. Were the beads totally melted? Were some beads not noticed in excavations or identified later? Has the fashion really been different in Eura? These are questions which require further research before the question of manufacturing centres can be solved. It is not probable that bronze smith's workshops were situated in an area where bronze ornaments were only exceptionally worn.

Fig. 16. Distribution of the Finnish convex round brooches (Appelgren 1897 figs. 1–5 and 11) in 800–950 A.D.

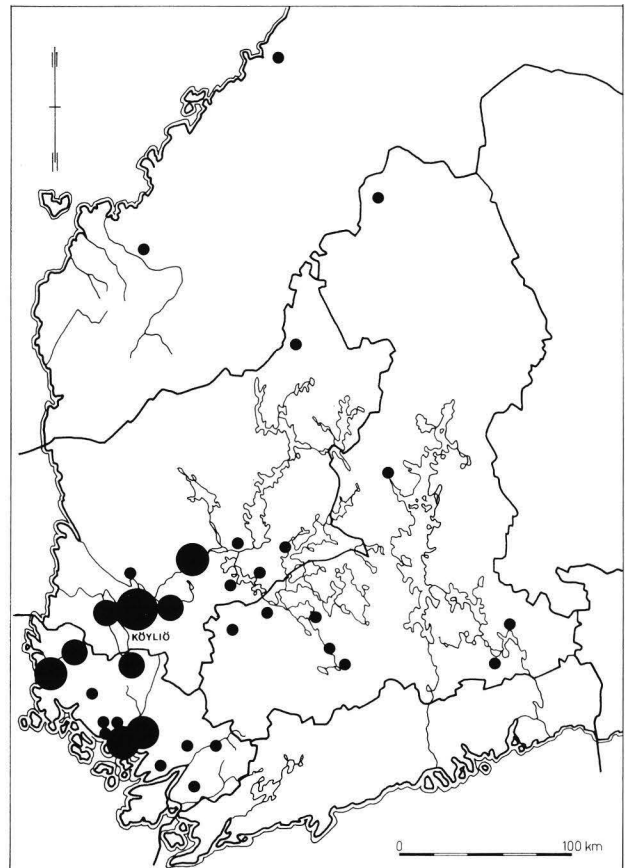


● 35- ● 16-20 ● 6-15 ● 1-5



● 10- ● 5-9 ● 3-4 ● 1-2

Fig. 17. Distribution of the narrow-brimmed variant of the Finnish D-type convex round brooch.



● 5- ● 3-4 ● 1-2

Fig. 18. Distribution of the wide-brimmed variant of the D-type Finnish convex round brooch (Appelgren 1897 fig. 6).

If, however, the ornaments used by men are taken into consideration, it seems more probable that there were markets for a bronze smith in Eura. About 10 % of all large penannular brooches from Finland were found in the Eura cemeteries, and the fact that penannular brooches with funnel ends at Luistari are richly ornamented, and many others are not, is perhaps significant in this connection. Materials from cremation cemeteries must be studied from a new point of view for the solution of this question, but it does not seem probable that most of these brooches are imported as Salmo (1956 p. 52) has claimed.

9.6. »WOMEN'S TASKS»

There were very few artefacts connected to the traditional women's work at Luistari. Only one spindle was found (grave 35) and there is no more than a fragment from the Osmanmäki cemetery (NM 4633:21, Kivikoski 1973 fig. 973). In addition to these, perhaps shears could be connected to work with textiles, and a bristle bunch (NM 9855:17, Kivikoski 1973 fig. 972, p. 126) which was supposed to be from a flax-brush (Pälsi, excavation report in 1934) was found from Pappilanmäki. It is however quite clear that dresses were mostly made at home. Cleaning and combing of wool, spinning and weaving certainly took up much of the women's time, let alone flax dressing. Remains of textiles in graves testify that tablet-woven bands and bands stricken in fingers were also made. Luistari women could also make sewn mittens and probably they twisted their spiral ornaments themselves. An important part of the textile production was dyeing, and apparently it was usual to give garments a variety of colours (see Lehtosalo-Hilander 1973b, 1980; Lehtosalo-Hilander-Tomanterä 1978). Whether some evolution during the Viking period occurred in textile handicrafts it is not possible to say before a detailed analysis of all the organic remains from Luistari has been made (a supplementary part of Luistari II will deal with the Viking period dress in Eura).

Sewing and mending, washing and cooking were without doubt occupations of women, but there are almost no tools to prove this in Eura graves. The fire-shovel in the Osmanmäki grave 15/1905 was perhaps connected with the dead woman's former place by the fireside, but it could also have been connected with more ritual fires. Most of the women's graves at Luistari contained only details of dress, and shears and sickles in some of them perhaps testify to women's membership of an agricultural community. It is however possible that there were originally wood and bone artefacts in

female graves, and therefore it would be bold to suggest that women's life beyond the grave was believed to pass in feasting (cf. Huurre 1979 p. 207) or connect this lack of tools with Christianity.

9.7. TRADE AND COMMUNICATIONS

The Eura graves also contained material pointing to trade. Both from Osmanmäki and Luistari parts of scales have been found, weights derive from Osmanmäki, Pappilanmäki and Luistari (cf. Salmo 1952 p. 498 and Luistari II, 4.5.3.). Of all coins found from the Finnish graves about 40 % are from Eura (111 from Luistari, 8 from Pappilanmäki, 5 from Osmanmäki, 1 from Lauhianmäki, total 125), and 10 % of the Arabian coins and their imitations (the total about 440, see Granberg 1967 and Nallinmaa 1978 pp. 74–76) from the Finnish mainland, 25 % of the material from the present Finland (Talvio 1978a p. 33), have been found from this parish, where treasure troves are totally lacking. Especially Luistari graves have contained many coins, and it is significant in this connection that cut up coins appeared already in graves from the 10th century. This proves that Arabian coins were used in trading and not only as ornaments. The number of barbaric copies (6 of Arabian coins, one of a Byzantine coin, one Irish copy and one of a German coin) must also be considered high, and there are real rarities among them (see Sarvas 1973 No. 34; Talvio 1978 XXXIV:935, 1978a pp. 35–36).

The concentration of coins in Luistari could possibly be explained by the fact that Kauttua was a transit thoroughfare (the name Kauttua has been explained to mean just that), for both the way to Kalanti-Laitila and the short cut to Köyliö go from there. Besides, a winter road over Lake Pyhäjärvi connected Kauttua to Yläne (Suvanto 1973 pp. 151–154). Salmo (1952 pp. 457–461) has laid stress on the importance of the river valleys during the late Iron Age, but without doubt Cleve (1929a p. 11–13), Salo (1961 pp. 62–65) and Kivikoski (1969 pp. 56–57) among others have been right when they have supposed that these land communications existed as early as the Merovingian period. It is no more than 8–10 km from Kauttua to Kepola in Köyliö – rowing along with the river the journey is much longer (cf. Cleve 1943 p. 220) –, and supposing that a riding track had existed during the Viking period at the same place where the old road runs by the Luistari cemetery to Laitila, it was only a day's journey, even walking, from Kauttua to the sites around Valkojärvi in Laitila. From there the most important Iron Age centres in Kalanti, Kylähiisi and Varhela-Kallela could be reached, still on foot (but also by boat), in a couple of hours.

Certainly, many facts testify to the contacts between the Eura-Köyliö area and Vakka-Suomi. Not only are the best counterparts for ornaments in Eura to be found in Kalanti and Laitila, but also the lack of treasure troves join these areas together. If the wealth is measured on the basis of silver hoards, as is often done, Ala-Satakunta and Vakka-Suomi are the poorest parts of the inhabited Finland. However, a half of the number of scales for weighing silver has been found from this area (map fig. 19), and from Eura and Köyliö alone the number of weights is 86 (from the Köyliö C-cemetery 33, Cleve 1978 pp. 180–181; from Osmanmäki 8, from Pappilanmäki 7 and from Luistari 39) – about a quarter of all found from Finland. One wonders what they were weighing in these parts, if they had no silver (already before the finding of the Luistari cemetery there was cause to ask this question, cf. Salo 1967 pp. 112–113).

This lack of silver hoards has been explained in several ways. Salmo (1948 pp. 415–418, 1952 pp. 460–461) was of the opinion that the Kokemäki area, which he considered as most important, was of so warlike a disposition that hostile troops avoided it, and therefore the need for deposition did not exist. Salo (1967 pp. 119–128) has supposed that some kind of an alliance prevailed between Vakka-Suomi and Middle Sweden. It has been suggested also (Rinne 1932 pp. 14–16) that the group of islands in front of Vakka-Suomi was inhabited by Christians as early as the first half of the 11th century, when most of the silver hoards were hidden, but Kivikoski (1961 p. 213, cf. also 1939 pp. 254–255, note 2) does not consider this a sufficient explanation. It has also been claimed that the cause of deposition was not fear of enemies but the hope of future use beyond the grave (see Hårdh 1976 pp. 9–10 and the quoted literature; cf. Salo 1967 pp. 113–114). If the last explanation is right, the lack of hoards in Vakka-Suomi and Ala-Satakunta is easily explained by the fact that the beliefs there were different from those in Finland Proper and Tavastia.

A common feature of Vakka-Suomi and Ala-Satakunta is also the wood-working. The production of wooden artefacts in Kalanti-Laitila and surrounding parishes was really extensive during the Middle Ages and centuries immediately following. The inhabitants of Vakka-Suomi sailed with their own ships to Denmark and Germany (Vilkuna 1935 p. 183), and when Eric XIV in 1565 ordered 200 000–300 000 vessels, he obtained almost 15 000 in three months time (Rinne 1963 p. 107; Sahlberg 1954 pp. 30–31; cf. Hirsjärvi 1944 pp. 60–61, who has considered this immense order a proof of the Swedish king's megalomania; the documents prove that

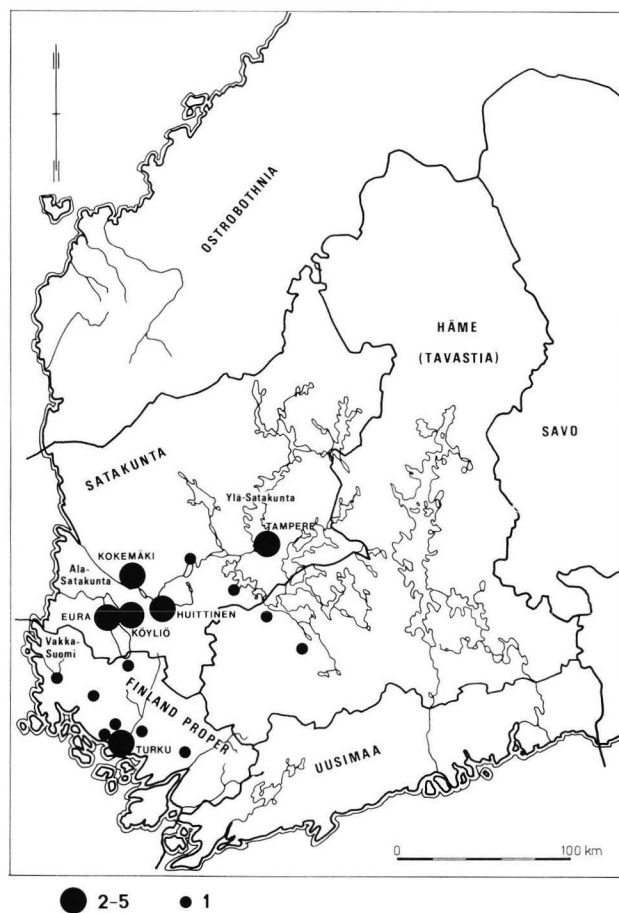


Fig. 19. Balance finds from Western Finland.

thousands of vessels were really delivered). It is often mentioned that the production of wooden vessels for export did not start earlier than in the Middle Ages (e.g. Vilkuna 1969 p. 75; Koivisto 1969 p. 356; Gardberg 1971 pp. 293–294), and Vilkuna (1935 p. 193) has connected this early example of almost industrial production with influences from Gotland and East Gotland and placed it on a level of the production in Hanse-towns. All facts considered it seems however possible that the formation of the early urban communities in the Mälaren area created markets for products like these and the beginning of this mass-production connects up with the Birka time.

A fact which points to the possibility that vessels were one of the export articles of this area as early as the Viking period, is the existence of so-called Finnish pottery, whose similarity to certain wooden vessel forms has been rightly pointed out (Selling 1955 pp. 140–141, 155), in Birka and in some other sites in Middle Sweden, and perhaps also in Latvia (Carpelan 1980 pp. 192–195). It is possible that there were potters of Finnish origin in Birka during the Viking Age, but there is at least one proof of an imported vessel of this type in Uppland (see Selling 1955 pp. 154, 248), and the resem-

blance between this pottery and clay vessels from Eura is strong.

Possibly, some clay ware along with wooden vessels was conveyed as containers on the other side of the Gulf of Bothnia – butter has been mentioned as one possible export article (Kivikoski 1961 p. 210), and there could have been others which needed containers – but nobody can deny that the Finnish pottery during the Viking Age was superior to the earthenware made in Middle Sweden (see Selling 1955 pp. 66, 70). In my opinion, it is unnecessary to stress the primitiveness of this pottery because it is made without a wheel (e.g. Salmo 1952 p. 457), when still today moulds are used in making clay articles in small traditional workshops. Compared with the wheel-made Slavonic pottery, the Finnish earthenware at its best is downright refined (e.g. fig. 12, below on the left), and can well be imagined to have been a sought-after article in the households of its day.

No doubt the traders in Birka, fishermen and sealers on the Baltic islands, likewise the seafaring Vikings also needed large quantities of barrels, casks, tubs and wooden boxes, and so the special products of Vakka-Suomi found markets already in those days. Perhaps Kauttua was one of the villages in which those articles were made. According to Suvanto (1973 pp. 277–279) Eura in the 16th century was the only parish in the whole of Satakunta where carpenters lived, to judge from artisan names. Furthermore there were only two villages in Satakunta with more than one artisan, and one of them was Kauttua, the other Villiö in Kokemäki. Since in those times no industrial com-

munity existed in Kauttua, the question arises whether the concentration of artisans especially in this village is a tradition from prehistoric times.

Documentary material concerning Eura during the early Middle Ages is totally lacking, and therefore the solving of this question is not possible without excavations on the site of the Kauttua village. However, perhaps it is not wrong to suppose that Kauttua was not a completely ordinary peasant village. For there are two more features which are common in Kauttua and Villiö; in both of these villages there are a hill-fort and a sacrificial place. The spring in Villiö has been widely known, and gold and silver coins have been thrown into its water, which was supposed to have healing properties (Salmo 1952 pp. 70–71). Koukonlouko near the Luistari cemetery has not attracted the attention of scientists, but if the name of Kouko in other places is connected with sacrificial resorts (cf. Valonen 1958 with notes; Jaakkola 1958 pp. 264–265; Suvanto 1973 p. 84), it could mean the same here also. Furthermore there are also Hiidenkari and Hiisimaa in Kauttua, the latter according to Suvanto (1973 pp. 27–29; on the map p. 28 the Luistari cemetery is in the wrong place) meaning the same place where the Harola cemetery is situated.

At the end of the 17th century, the inhabitants of Eura wanted to get their own markets, and presented Kauttua as a suitable site for these because of its central situation (Koivisto 1966 p. 312). This cannot yet be influenced by the Kauttua ironworks founded at the very end of the said century, and therefore the question arises whether a tradition from much older times was reflected in this idea.

10. VIKING PERIOD SOCIETY IN EURA IN THE LIGHT OF THE LUISTARI FINDS

The theory that Kauttua was some kind of a market place would explain many features in the Luistari cemetery. The picture, created by Arbman (1937 p. 16), in which furs are collected and traded in smaller markets, gathering in the end to Birka, where wholesale trade is carried on, would suit Kauttua. If a transition stage of the fur trade was situated in Kauttua, where furs from the wilds were collected and traded at appointed times of the year, this would explain the wealth, the artefacts connected to trade, the important part of weapons in the life of the community and the fact that at the same time as the women's dress in general followed the Finnish trend of fashion, the habit of their husbands reflected the features of the mode around the Baltic. The landlords of Eura tied belts ornamented with spiral tassels round their waists, fastened their cloaks with large penannular brooches or ornamental pins, displayed bronze mounted pouches and firesteels, trimmed their hair and beard with combs, furnished themselves with seaxes apart from swords and also sometimes acquired a silken tunic with silver braidings, perhaps as a souvenir of a journey to the East. When they followed their fur-packs carried by horses through the woods to Kalanti and Laitila or sailed with their own boats to larger markets, they needed their excellent weapons to ward off beasts and enemy swords, but in the first place to show that these were men dangerous to meet. This was necessary in the world of the Vikings.

Although the sword-bearing men in Luistari and in other cemeteries in Eura were furnished also with artefacts which point clearly to their home world, the dress itself and the armament have counterparts on different sides of the Baltic, both in Latvia, Gotland and Birka. Latvians had perhaps their warrior's bracelets and headbands, men from Birka their shields with iron bosses, and those from Eura had their tablet-woven belts and spiral ornamented cloaks, Gotland merchants perhaps heavier purses than the others, but all of them had fairly similar armament (one or two spears, a seax and/or sword, later an axe), similar ornaments (ringed pins or penannular brooches) and similar borrowed plumage from the East (silver braids, pouches etc., later belt mountings; cf. Stenberger 1961 figs. 27–47; Geijer–Arbman 1940 figs. 1–5; Birka e.g. graves 495, 643, 832, 834, 842, 855, Arbman 1943 pp. 142,

220, 303, 314, 330; Latvijas PSR Arh. fig. 129a; Mugurevičs 1965 p. 127, 1977 Plates XLVIII, LIV; Šturms 1936 p. 36 and fig. 5). This similarity can only be because the peasant traders of Eura really moved in the society where this fashion was followed. Although the connections of Birka with Kalanti-Laitila and through these also with Eura are without question, it seems that the contacts of the inhabitants of Eura were partly directed more to the south, to Gotland and to the Latvian coast, and that these connexions had their roots in the Merovingian period. On the very eve of the Viking period these contacts were without doubt very lively, which is reflected in the similarity of the weapons and partly also of the ornaments used by men; also later the dealings with these areas are witnessed by the details of male dress and weapons. It is significant that in Latvia, Gotland and Finland the shield without metal parts came into fashion (cf. Steuer 1970 p. 373), and that counterparts for the very narrow-pointed E-spearheads from Luistari are to be found from Gotland (Luistari II, 1.3.9.3.). Penannular brooches with funnel ends and tasselled belts appear in all these areas (Stenberger 1961 figs. 31, 32, 38, 39, 44; Geijer–Arbman 1940; Mugurevičs 1977 Plate LIV; Zarina 1970 figs. 93, 108; cf. also Birka graves 495 and 643, Arbman 1940 pp. 142, 220). Some small details connected to the female dress bear witness also to the contacts with the Latvian area (Appelgren-Kivalo 1907 p. 8; Hirviluoto 1979 figs. 1–3, 6), but they are perhaps from a later period than the above. Indirectly also the fact that Birka's undoing does not seem to be reflected in the Kalanti-Laitila-Eura area speaks for the versatility of contacts.

Certainly, men from this area travelled also to the East, at least as far as to Lake Ladoga – e.g. the pottery (Carpelan 1980 p. 193), peg-ornamented brooches and fire-shovels (Kivikoski 1973 fig. 1019, pp. 129–130) could be mentioned connecting these areas; perhaps they sometimes sailed still farther (see Lehtosalo-Hilander 1979 pp. 81–92 with notes). In Finland their activity is reflected perhaps in the distribution of penannular brooches with a pin under the ring (Luistari II, 6.1.7.3.). In the light of the Eura finds this most active period of trade began as early as the beginning of the 10th century, and this century was not a decadent period, as Cleve (1944 pp. 63–64) has claimed. At that time the first

proofs of skilful spiral ornamentation were displayed, which later on came to represent the finest achievement of Western Finnish handicraft.

Some very abundantly furnished graves from the 11th century have caused the emphasizing of the woman's role and perhaps also the overestimating of the female ornaments in dating and cultural connexions. However, there are reasons to take these graves seriously, for grave 359 at Luistari points to the fact that women could also deal in trade. Perhaps this female person, who had get scales and weights and coins in a pouch in her grave, was widowed and continued trade after her husband, but in connection with all other observations this grave gives real base for the supposition that women's status in Eura and in Finland in general was rather high at the end of the Viking period. Without doubt in those agricultural communities where men made hunting, fishing and trading expeditions, the women's status and especially that of the mistress of the house improved, because somebody had to hold the reins at home. This point has been made in connection with Scandinavian women (e.g. Rydh 1926 pp. 106–107), and although Ibn Fadlan's tale about a Viking chieftain's burial with a female slave following her master into death is most often quoted, Arabian sources also contain

Ibrahim al-Tartushi's report of a visit to Hedeby about 950 A.D., where he wonders at the women's right to claim a divorce whenever they wish (e.g. Jankuhn 1972 p. 173; Graham-Campbell & Kidd 1980 p. 50). The women's graves with swords from Kalvola and Tyrvääntö probably have counterparts in Scandinavia (Rydh 1926 pp. 142–143), and stories about the shield-maidens could be placed alongside the Finnish songs about the Lady of the North, who perhaps just because of her real power was called by insulting names in the songs sung by men – and enemies. Stories and songs are usually made about extraordinary events; in this instance archaeology proves that they may have had a wider foundation.

In regard to the richly furnished female graves from Eura and Köyliö, the tradition explaining the name of Neittamo (see Koivisto 1966 p. 80) seems very logical. The tale is that three old maids (*neitoa*) did not want to embrace Christianity, and therefore they fled to a wilderness between Eura and Lappi and lived there a part of the summer and a part of the winter. In the spring they were found dead. Seemingly they considered death better than silence in congregation. Whether they were buried at Luistari tradition does not tell.

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ABBREVIATIONS:

ESA = Eurasia Septentrionalis Antiqua, Helsinki
 KM = Kansallismuseo – National Museum, Helsinki
 KVHAA = Kungl. Vitterhets Historie och Antikvitets Akademien, Stockholm

SMYA = Suomen Muinaismuistoyhdistyksen Aikakauskirja – Finska Fornminnesföreningens Tidskrift, Helsinki (Helsingfors)
 ASHMA = Abo Stads Historiska Museums Arsskrift, Turku (Abo)