



Sarks

*suomalaisia
muinaispukuja*

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dräkter*

Pirkko-Liisa Sehtosalo-Hilander

Ancient Finnish Costumes

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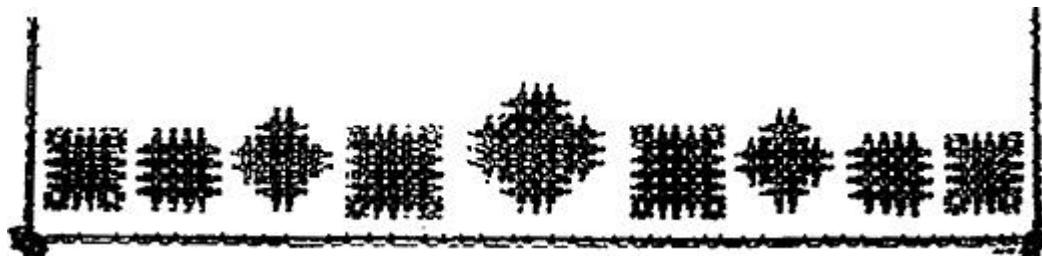
ANCIENT FINNISH COSTUMES

by Pirkko-Liisa Lehtosalo-Hilander

This is the story of Finnish ancient dresses, of dress fragments found in graves and of costumes made according to them. These costumes have become the festal garments of many Finnish women, but only few know the history of them.

These dresses are not national costumes although they have often been confused with them. National costumes are copied or constructed according to the peasant dresses of the 18th and 19th centuries. The costumes we are studying now are more or less scientific reconstructions of much older garments deriving from the Viking Age and centuries following.

Their story, however, is closely linked with the history of Finnish national costumes, and also with that of »Kalevala», the Finnish national epic. Therefore there is every reason to tell it now, on the eve of the 150th anniversary of »Kalevala».



From Grave Finds to Reconstructions

Finnish inhumation cemeteries

There are almost no pictures of Iron Age costumes in Finland. Accordingly only grave finds can tell us how the Finns were dressed in prehistoric times. However, during nearly all of the Bronze and Iron Ages, cremation was the prevailing form of burial in Finland, and therefore the first information we can obtain from graves is from a fairly late phase of the Iron Age. Certainly, the oldest known textile remains are from the 4th century A.D., but they are only small fragments fastened on a spearhead found in the Kärsämäki cemetery in Turku. It is not possible to make any reconstructions based on them.

About the year 600 A.D. inhumation burial became usual in Eura and Köyliö in Satakunta. At the end of the 8th century this practice had extended to Yläne in northern Finland Proper, and it spread also to the other neighbouring areas, but only sporadically. In Eura, Köyliö and Yläne, however, the inhumation cemeteries were in continued use until the end of the heathen era. Accordingly it is mostly from these parishes round Pyhäjärvi that we can get information about dresses and their materials during the Merovingian and Viking periods.

Fig. 1

From the 11th century onwards there are inhumation graves also from other parishes in southwestern Finland, and from the next century there is also material from eastern Finland, from Savo and Karelia. The dress fragments found in these graves are also important from the pan-European point of view, because there are furnished graves as late as these only from a very few areas in Europe and there are no costumes from that time in any private or museum collections.

Dress details have mostly been preserved in Finland because some garments have been ornamented with small bronze spiral tubes sewn on to the fabrics. These spiral ornaments have often been preserved, and their oxides have also conserved textiles. The spiral ornamentation is richest in the garments found in the youngest graves, and therefore our knowledge about the costumes of the 11th, 12th and 13th centuries is most abundant. Finds like those from Yliskylä in Perniö and Ristinpelto in Lieto, where textile fragments more than one metre long have been preserved, are very unusual, however. In general only after a careful excavation, a detailed documentation and many laboratory examinations can we get enough information about the connections of the ornaments and spiral decorations.

The deceased have not always been dressed like living people. Sometimes the dead women have been covered with their big mantles or they can have been wrapped up in them, although they have otherwise been dressed in their best garments. The men on the other hand seem often to have had the mantle on their shoulders just as it could have been worn. But although there were many details in graves and they were in their proper places, it is a long way from the finding of an inhumation grave to a reconstructed dress.



Fig. 1. A woman's grave from the beginning of the 11th century. Birchbark has been used to cover the deceased and her imposing ornaments. Photo Ranno Hilander.

Textile finds and dresses

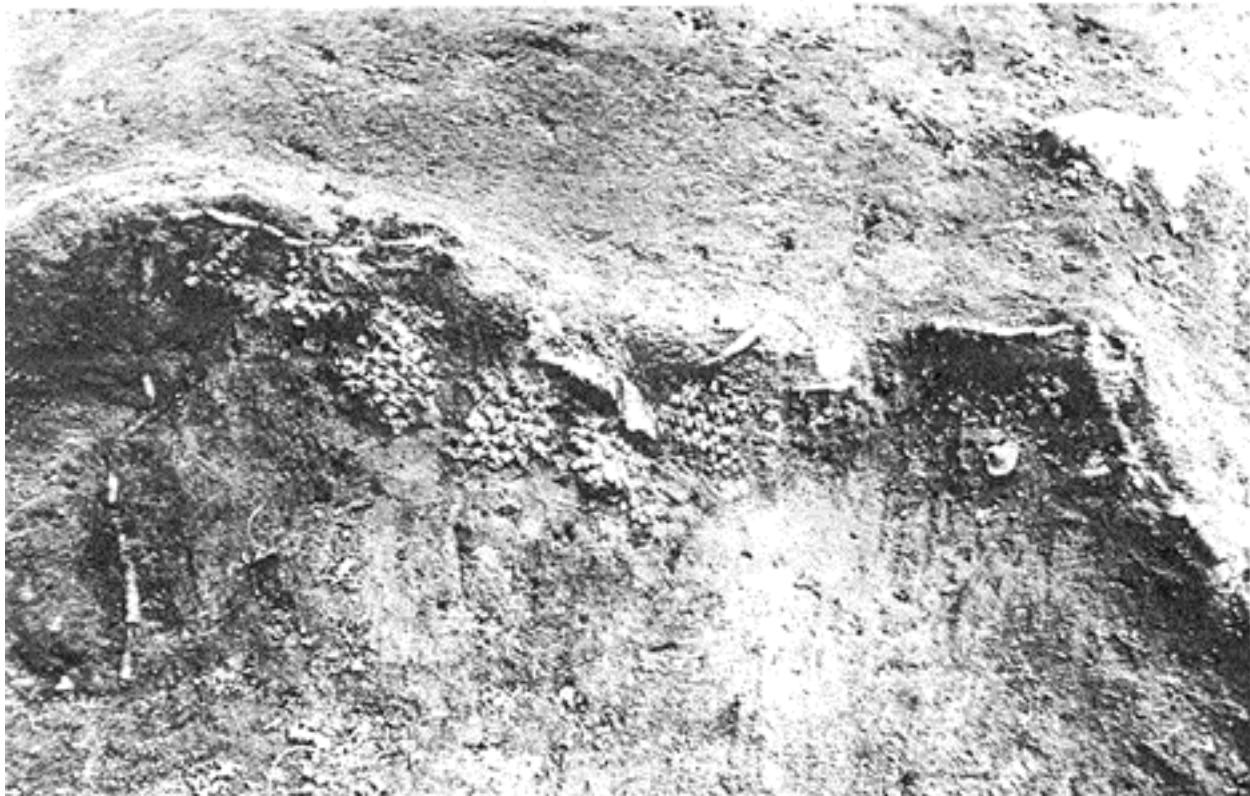
The problems involved with textiles and other organic substances already begin to appear while excavating. The textile remains are seldom well-preserved, because the graves are generally shallow, about 40 to 100 centimetres deep, and the fine sand - and still less the gravel - in which the graves have most frequently been dug is by no means favourable soil for the preservation of organic substances. On the other hand, the custom of ornamenting clothes with small twisted spirals of bronze and using heavy bronze ornaments has helped preservation. Accordingly the best details have been preserved in graves with abundant furnishings.

The spiral decorations are often the only parts of clothes left. In women's mantles, only the trimming has been preserved, in aprons the hems, and in veils the rows of rings round the face. There are not many remains of under garments or dresses. There might be small textile fragments in connection with brooches and other ornaments of dress, but skirts and gowns have usually not been ornamented with 'spirals, and therefore they have not so often been preserved. Shirts and under garments have mostly disintegrated, especially linen ones, because linen suffers more from soil acids than wool.

According to digging observations, the under garments have also often been of wool. It is however possible that in these instances too the deceased might have had a linen shirt nearest his skin. Not all details have been preserved, and often

Fig. 2

Fig. 2. Apron hem ornaments in a grave at Luistari in Eura. Photo Rauno Hilander.



only the textiles directly under or over bronze ornaments are identifiable. Thus there could have been more than we can observe now.

Spirals were used less in men's clothes, and therefore there are fewer remains of them. In some graves in Eura and Koyliö there have been men's belts and garters with spiral platings. Men's cloaks have also been ornamented with applied spiral stars and with ornaments extending from the corners or edges of the mantle. Thus it has been possible to reconstruct some details of the male costume also.

Fig. 3 There are also children's graves in the Finnish cemeteries, and some of them have been abundantly furnished. Thus we know that sometimes the children have been adorned with miniature-sized ornaments. It seems that little girls could have had garments similar to those used by women, although there are no remains of aprons and veils in children's graves. Shirt, dress and mantle have been sufficient for little girls.

The little boys have been given a miniature spearhead or an axe, and there are sometimes details of belts and mantle brooches or ornamental pins. Textile remains are however few. There is nothing from Finland like the spiral-ornamented tunic found in a Livonian boy's grave at Salaspils Laukskola in Latvia. Just as in men's garments there has not been abundant metal ornamentation in their costumes. This does not mean that these garments have not been decorated. They may have had colourful bands and ornamental borders, which have not been preserved.

Excavations in the field and in laboratories

Textiles a thousand years or more old are very brittle. Nor have the small bronze spirals always preserved their structure during the centuries. Even in some instances the cords have been preserved and the spirals have disappeared. And they can disintegrate very soon after the excavations. Therefore it is very necessary to chart and photograph various details at the excavation stage.

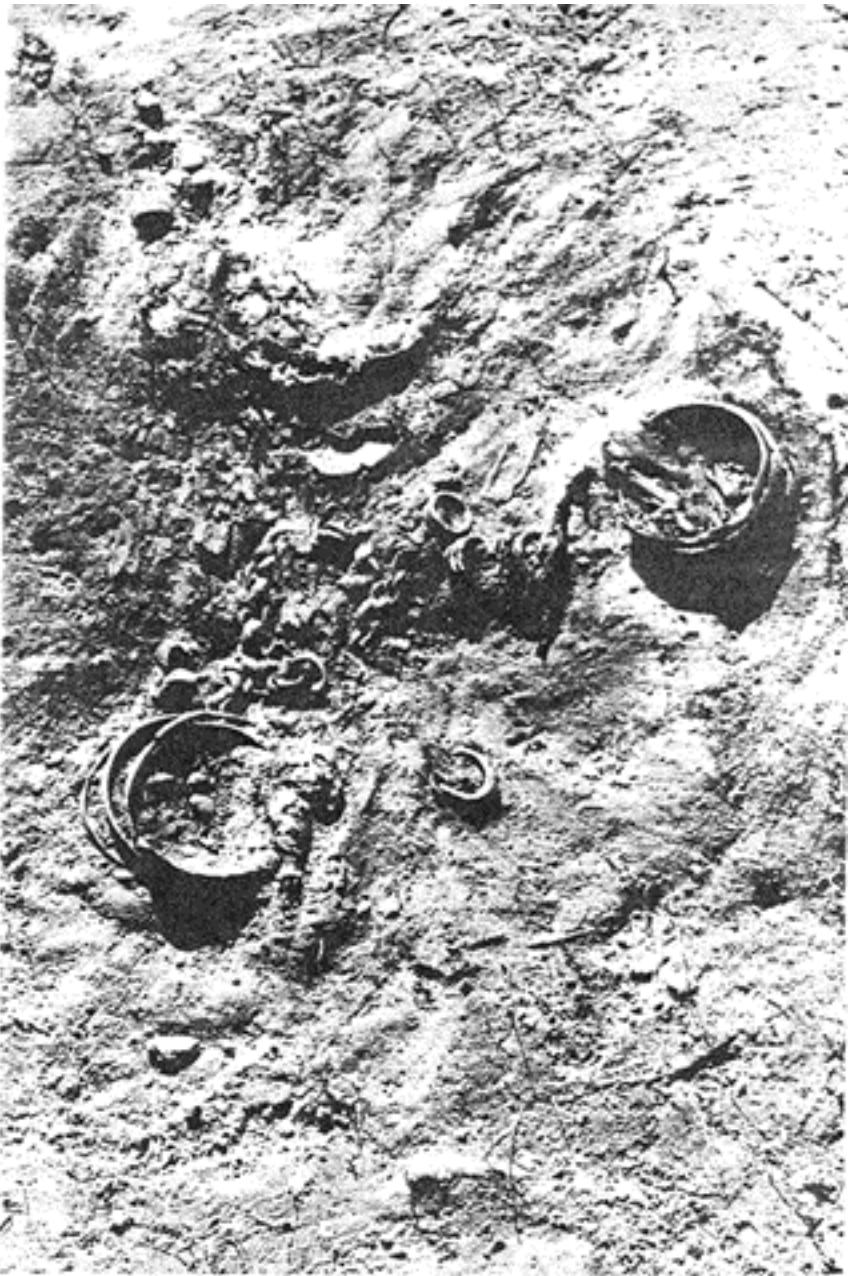
There are however certain risks in trying to throw light upon all details during the excavations. The varying of conditions, a change from damp cool sand to the air at a temperature of perhaps 30 degrees Centigrade, will not fail to leave traces on objects and fabrics. Rust cracks off in flakes from iron objects, birchbark and leather curl up, textiles crumble in the hands. In no more than the time it takes to make a drawing and take a photograph, objects may disintegrate.

This happened, for instance, to the large bronze-coated knife sheath found in the Luitari grave according to which the Eura costume is reconstructed. The sheath was dug up almost undamaged, and was photographed along with other objects from the grave, but before it could be transferred to a box for transportation, the leather below the bronze plating began to curl up. This caused the thin bronze plate, which had become very brittle, to disintegrate, so that nothing but fragments was left. Fortunately the photographs had come off well; the details could be studied in them.

To avoid situations like this, various methods of transporting graves or parts of them packed in some kind of adhesive substance have been developed. The final excavation is performed in the museum after the grave has first been studied by X-raying. Every detail is drawn on maps and studied in microscopes before the lumps of organic material are parted from metals. It is most fortunate, although not



Fig. 3. Ornaments of a little girl in the Luisjoki cemetery in Eura. 10th century. Photo Rauno Hilander.



always possible, if this kind of "excavation" in the museum is performed by a team of textile experts, laboratory personnel, archeologists, draughtsmen and photographers.

The conservator's biggest problem is how to handle the combinations of many different materials. Bronze spirals sewn on to various pieces of clothing or with threads through them are met with in almost all investigations of inhumation graves. Pieces of cloth preserved on or under bronze ornaments and rusted fast to the surfaces of iron objects are not uncommon either. Leather has often been preserved together with bronze-plated knife sheaths, belts and purses, and sometimes one may find remains of skins spread beneath the dead persons. Brocade ribbons and silver braids are more rare, but they are found every now and again. The conservator wants to separate the different materials for the proper treatment, but this cannot be done without careful documentation.

The textile expert may be quite content if he observes the composition of a rare fabric, or a tablet-woven band with an unusual weft. The archeologist wishes to know whether this fabric was the cover for a body or whether the body was dressed in it. The things the historian of dress is interested in are again different. He wants to know whether the warp may run across the body, and whether the unusual band was stitched on to the edge of the fabric or was separate from it. Even very small pieces of fabric may help him to reconstruct the whole, if he gets correct information about them.

Colours under the microscope

The structure of fabrics can be detected from little bits, too, and it is possible to find out the original colours of the fibres to some extent by microscopic studies. Some colouring matters used like indigo can be detected by chemical analyses, but most of the vegetable dyes are as yet impossible to distinguish with chemical methods. Therefore the microscopic observations are very important in defining colours. Also our knowledge about dyes formerly used by country women is of use, likewise the fact that interest in dyeing with vegetable matters is increasing in Finland. So we can compare the old fibres with the new ones dyed with known matters.

Unfortunately, the colours have changed in the earth during the many hundred years gone by. Bright scarlet and deep-blue are, however, easily distinguishable from others. In addition, there are also textile finds in which different tints can clearly be seen. For instance from Tuukkala in Mikkeli (Savo) there are cloth fragments with brownish basic tone and red, blue and yellow stripes. Thus we know that strong colours have also been used.

It is possible that the threads for tablet-woven bands and other ribbons were most often dyed. With them one could get a colourful impression although the garments would have been of natural colours, white, grey or blackish brown. It is however worth remembering that there are many plants in Finland which were used in dyeing before the aniline colours were invented, and it is not difficult to get them or use them in dyeing. Nettles and spruce twigs for greens, birch leaves, heather and lycopodium for yellows, moss and lichen for browns and hazels, many different kinds of *Galium* species for brick red and orange yellows can be found everywhere. And it is known that still during the last century woad (*Isatis tinctoria*) was cultivated in Finland to get blue. Now it is almost extinct; it only grows wild in some places on the Finnish coast.

The dyeing substance in *Isatis tinctoria* is the same as in the indigo plant, although much weaker. Therefore it is not possible to say whether the dyeing has been done with woad or with indigo. Probably the colouring matter used in the northern countries in ancient times was woad, because its seeds have been found from the Oseberg ship burial in Norway. It is also known that Charlemagne had woad and madder fields sowed in his domains, and later on these plants were widely cultivated in Western Europe.

According to present finds we could assume that blue was a very popular colour among the Finns. However, this can be a misconception. When textiles have been preserved only in graves with ample furniture, blue can be the colour especially favoured by the rich and only used by them. Are then the clothes dyed blue

imported? There are no other facts to support this claim; weave constructions and thread counts are mostly the same in the blue stuffs as in other woven fabrics found in Finland.

Fabrics and materials

The fabrics woven in Finland during the Iron Age were not complicated. In addition to plain weave, different twills were woven. Plain four-shaft fabrics were the most popular, but in the youngest finds there are also chevron and broken twills and three-shaft twills. Sometimes the pattern was formed by using threads spun in differing directions.

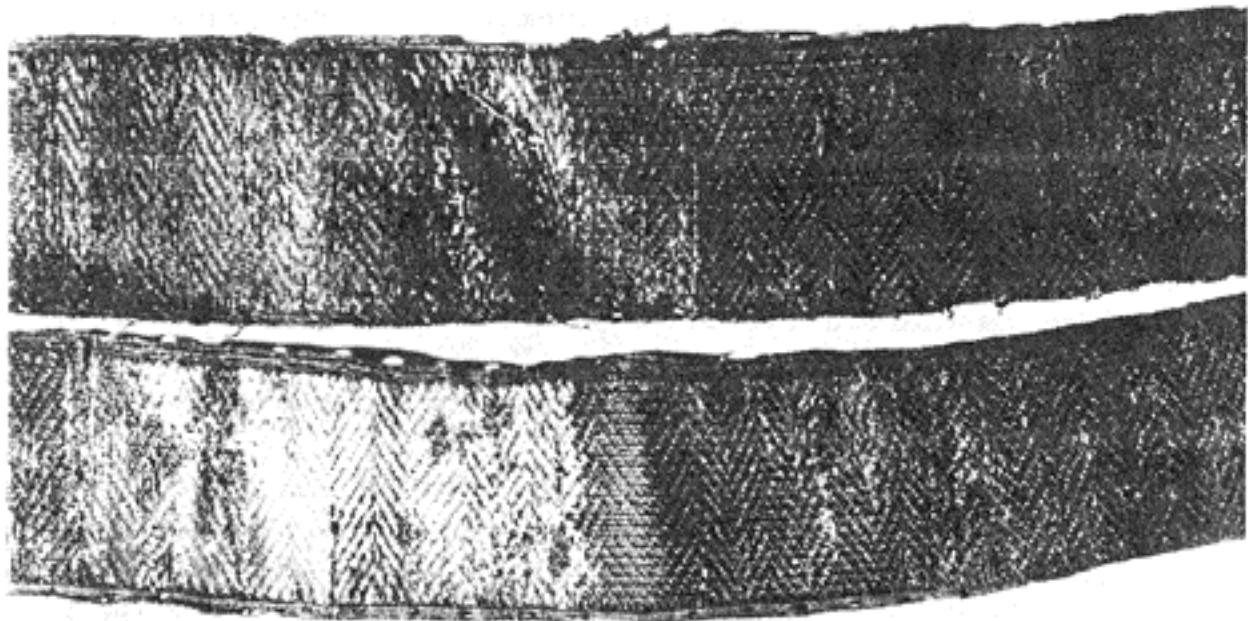
It is most likely that the stuffs were woven in warp-weighted looms similar to those still in use among the Lapps. The fabrics woven in these could be very wide but seldom long, although it must have been possible to roll up the stuff in some measure. We will see later that this fact has had a certain effect upon the forms of the garments.

In Finnish twills the thread counts are mostly about 10×10 threads per centimetre. There are much rougher twills, too, but they are rare. The finest fabrics can have more than 20 warp threads, but then the weft is usually looser. Some stuffs in the Karelian finds with nearly 40 warp threads may possibly be imported. There are however bands from the Viking Age made of very fine threads, so the great thread density is not necessarily a mark of foreign origin.

Woollen tabbies are found more seldom, but every now and then they occur, and mostly in under garments. They have usually eight to ten threads in both directions, but finer weaves are not uncommon. Linen, hemp and nettle appear only in plain weave. Thread counts in these vary very much. The loosest hemp weaves have less than ten threads per centimetre in both directions, the finest linen found more than twenty.

Bands woven with gold and silver threads and silk fabrics are the most unusual finds in Finnish cemeteries. These luxuries have not however been unknown in

Fig. 4. Brocade bands from Kekomäki in Kaukola. Photo P.-L. Lehtosalo-Hilander.



Finland during the Viking Age and the centuries immediately following. The oldest silk find is from a 10th century man's grave in Eura, and there are both silk and brocade bands from a man's grave of the 12th century in Tampere. From about the same time or still later are the Karelian graves containing remains of brocade bands. In these the bands were found in connection with female head dresses. All these rare fabrics are certainly imported.

From details to dress

A mere cloth, although its structure and colours may be known, is not a costume. It is not enough for a reconstruction of a dress that one sample of each article of clothing is analyzed. The pieces of fabrics from different parts of the grave must be studied and the analyses of them must be compared. It is most fortunate if there are several pieces of fabric of all the garments in one and the same grave, but the graves are seldom so well preserved.

In studying ancient costumes there are always many details which allow different interpretations. Even if we inspect the things most carefully, there are always details about which we cannot be sure. If there are several contemporaneous textile graves in the same cemetery, the observations made from different graves can be used to support each other. It must be remembered, however, that in all probability the fashions were not so uniform as is generally supposed.

We can obtain information also by studying dresses of the neighbouring areas and contemporaneous fashions of the neighbouring countries. Possibly also the native costumes of later times can suggest practical solutions. There is good reason, however, to be cautious in dealing with this material, because many international fashion trends have influenced the Finnish native costumes we know from descriptions of the 18th and 19th centuries and from garments collected in the museums.

Every Finnish dress reconstruction is made by linking together excavation observations, analyses and knowledge of fashion. The role played by each of these has been dependent on the individual scientists and on the object of the reconstruction work. Some costumes have been reconstructed for a museum exhibition, some others to be worn as festal garb, some to be stage costumes. Some dresses have first been drawn as sketches, and realized later on just as sketchily, some have been studied in every detail. When Eura costume was reconstructed, archeological observations were the most important, most of the others have been reconstructed by scientists with ethnological background. Thus these dresses do not only describe the fashion of ancient times, they tell us also about the changes in the principles of investigations.

Sketches and Adaptations

The first pictures of ancient Finnish costumes

The first pictures of ancient Finnish costumes according to archeological finds could be seen in 1887, when drawings of an Iron Age man and his wife were published in the third popular edition of "Kalevala", the Finnish national epic. According to the explanation with the pictures, the costumes had been sketched on the base of the grave finds excavated by Theodor Schvindt in Ladoga Karelia.

Fig. 5

The details in the man's appearance have probably been taken principally from grave 3 in the Kekomäki cemetery in Kaukola. In this grave there was a sword with silver-ornamented handle and a sheath with bronze chape. Both can clearly be seen in the picture. Further the band around the neck, two knives, a purse, a firesteel and a spear are drawn according to the finds in grave 3, although all details are not accurate.

Both in grave 2 and 3 there was a ring-shaped brooch like the one fastening the man's shirt, but the big silver brooch in the tunic must have been drawn according to a brooch from grave 1 at Kekomäki; in graves 2 and 3 the big silver brooches were of a different type.

Silver cross pendants had already reached Finland in the 11th century, and they seem to have been chiefly used by men. Also in the Kekomäki cemetery men in graves 1 and 3 had been buried with cross pendants on their chests, but this detail has not caught the interest of the artist. Apparently he has wished to picture a man from pagan Finland, although he has taken his models from graves dated to the 12th and 13th centuries.

The man's costume consists of a shirt, a long-sleeved, knee-deep smock and rather tight trousers. On his feet he has fur brogues laced round the ankles. The belted tunic is open almost to the waist, and it is fastened with the big silver brooch mentioned.

In the woman's dress there are also details from many different graves. The brocade band round the head, the veil with spiral borders, the neck ribbon with small silver studs and the hat-formed brooch in the neck-line are certainly from grave 1 at Kekomäki. But there are no breast ornaments similar to the ones in the picture from any of the Karelian graves excavated before 1887.

Many graves in the Tuukkala cemetery in Mikkeli had been excavated in 1886, and apparently these also had influenced opinions about the shape of the female dress. Oval brooches with the so called crayfish ornament (in fact a palmette composition), small bronze tubes with hanging pendants, cross-formed chain holders, an ear-spoon with pendants and a bird pendant must have been drawn according to the finds from Tuukkala. But the imposing ornament has not been enough; there are two knives, a firesteel and a purse hanging from the chains. Of these, only one knife really belongs to the set according to the grave finds.

1. Muinais-suomalainen mies.



2. Muinais-suomalainen vaimo.

Fig. 5. Sketches of ancient costumes in the third popular edition of "Kalevala", 1887.



Fig. 6. The Indian ink drawings of the costumes from Tuukkala published in A. O. Hetkel, Tuukkalan löytö, SMYA X, 1889.

The influence of the Tuukkala finds is visible also in the garments. The fringes on the side seam of the skirt appear also in the pictures of a girl and a woman from Tuukkala, drawn and published in 1889, and a textile fragment with a preserved seam with fringes really exists, found from grave 36 at Tuukkala. Some fragments found at Hovinsaari in Räisälä have been explained by Schvindt similarly. The spiral decoration of the skirt hem on the other hand can only have been made on the basis of the finds in Tuukkala grave 26.

The apron ornamentation, on the other hand, seems to have details of two separate aprons, both found in the Kekomäki grave 1 at Kaukola. There were in this grave two men and two women, and apparently the border ornament has been taken from the one and the broad applied ornament from the other apron. Thus the confusion of the details, which appears in all reconstructions of the eastern Finnish ancient dresses, originates in the first sketches ever made.

There are still some interesting details. The long-sleeved jacket with open front appears only in this picture. Its model has probably been obtained from jackets of later peasant dresses. It is not impossible that garments with open front were used in Finland during the 11th and 12th centuries, but probably they were used by men.

Another garment which requires comment is the woman's mantle. It hangs down her back and is fastened with three brooches. A big silver brooch joins its upper corners, and two oval brooches make it fast to the jacket. There is, however, a mention in the explanations attached to the pictures that probably the oval brooches should be under the mantle to fasten some other garment.

Fig. 21

The sketches of the costumes from Tuukkala

There is in the ethnological Archive for Prints and Photographs of the National Board of Antiquities in Finland a series of water-colour sketches and Indian ink drawings of costumes from Tuukkala. In all probability all of them have been made according to the instructions of Fig. 6 A.O. Heikel, a former well-known ethnologist and expert in questions of native dresses, who has published the finds from Tuukkala.

The water-colours represent a man, a young wife and a girl, and there are two sketches of an older married woman. The Indian ink drawings picture the man, the woman and the girl in the same positions. These have been published in connection with A.O. Heikel's report on the excavations of Tuukkala in 1889.

There has not been much more material than some shirt brooches and bronze-mounted belts for the reconstruction of the man's costume. Thus it does not have many details, and also in the water-colour sketch all the man's garments are light-coloured, white or grey.

The man has rather wide grey trousers fastened round the calves with gaiters and garters holding them. He has a white shirt fastened with a ring-brooch and a natural white coat girded with a belt with rectangular bronze mounts. This belt, from which a purse, a firesteel and a knife are hanging, has clearly been drawn according to the belts found at Tuukkala. The man has an axe stuck in his belt and a bow and arrow in his hands. It is probable that grave 39 at Tuukkala has provided most details for this sketch.

The Tuukkala girl's dress consists of an apron, a long-sleeved shift, a waist-high skirt and a sleeveless tunic open at the shoulders. In this dress the oval brooches have a real task: they hold the tunic up. After this picture was published all the brooch pairs found in graves have been regarded as fastenings of a dress open at the shoulders. The long tunic, however, appears only in the pictures made of the Tuukkala girl and the young wife. Later on the brooches have been connected to the long skirt, which covered the chest and the back and was fastened with brooches over the shoulders. The older Tuukkala woman has apparently this type of dress, although the mantle fastened on the right shoulder covers the details of the upper dress.

There is more colour in the Tuukkala female dresses than in the man's costume. All the women have been given a white shift, a blue skirt or dress and a grey brown apron. The woman's mantle and the girl's tunic are brown, the young wife's tunic, which also covers the upper part of the apron, is almost black. All the wives have a white veil on their head, but the girl has only a dark headband. There is still more colour: the neck-openings and wristbands of the shifts are bordered with red. This is a detail which certainly has not had a counterpart in reality.

The water-colour of the young Tuukkala wife contains an interesting detail: the woman's mantle is striped with different colours. When it was painted, no textiles with stripes had been found at Tuukkala. It was almost fifty years later that rather large fragments of a brown garment with yellow, red and blue stripes were found from this cemetery!

If these sketches of Tuukkala women are compared with the earlier picture of the Karelian wife, it is not difficult to see that the differences are small. None of these pictures is made on the base of one grave only, and no reports exist explaining which finds had been used and why. Although they are made according to the

instructions of scientists, they are not well-founded scientific reconstructions. The Tuukkala woman's costume, in which the mantle covers the shoulders, corresponds, however, rather well to the picture obtained on the base of the grave finds. Seemingly it is based principally on details in grave 26 at Tuukkala.

All the Tuukkala people in these sketches have birchbark shoes, but this is not correct. Remains of footwear in graves have always been of leather, and there are not many of them. Although birchbark was used for many different purposes, there are no remains of objects made by weaving strips as in these slippers. All birchbark articles found in graves have so far been made by sewing uniform pieces together.

Ancient costumes on the stage

The next time the ancient costumes appeared, they were already on living people. This happened at a lottery festival of the Viipuri students' union in 1893, where a tableau of an ancient Finnish family was shown. There were a man, a woman and a little girl in costumes probably made according to the instructions of Theodor Schvindt. This "ancient family" was photographed perhaps in the previous year, and accordingly we know what these first costumes of natural size were like.

Fig. 7

Contrary to the pictures presented the man was dressed in a very tight-fitting tunic, which seems to have been a little too narrow for its wearer. Its hem was ornamented with a multi-coloured band woven with a rigid heddle. There was a small skull-cap on the man's head, and his-dark trousers were cross-gartered to his calves with long coloured ribbons. His tunic was girded with a leather belt, and a purse, a firesteel and a knife were hanging from it. There was a ring-brooch in the tunic's neck-opening, and a spear represented the man's arms. Some of these objects are in the collections of the National Museum in Helsinki.

The woman's dress was deposited with the historical collections of the National Museum of Finland almost in its entirety, and therefore we know its appearance still better. This ancient mistress of the house was dressed in a white veil and a shift, over which she wore an azure blue shoulder-strap dress and a cherry-red apron. The dress was decorated with coloured bands round the edges of the neck-opening, the arm holes and the hem, and the apron hem was applied with a spiral border and ended with fringes. This decoration resembles the border found in grave 3 at Hovinsaari in Räisälä and one of the ornaments in grave 1 at Kekomäki in Kaukola.

Fig. 28

There was a penannular brooch on the neckline of the shift. This brooch has not been deposited with the collections of the National Museum; only the round brooch from the girl's shift neckline is there. Two oval brooches with band ornaments fastened the dress on the shoulders. These brooches bore the chain holders and chains, from which an ear-spoon, a purse, a firesteel and a knife were hanging. It is noteworthy that all the objects are hanging from the breast-chains; no side-chains appear as in the costumes designed according to the finds from Tuukkala.

The chains are of iron like the original chains in Karelian finds, but their links are eight-formed. Apparently they have not been made according to the actual finds, and the fastening of the objects directly to them must be based on wrong interpretation of sources. The objects in the arrangement have been copied according to different grave finds from Kaukola, Räisälä and Käkisalmi.

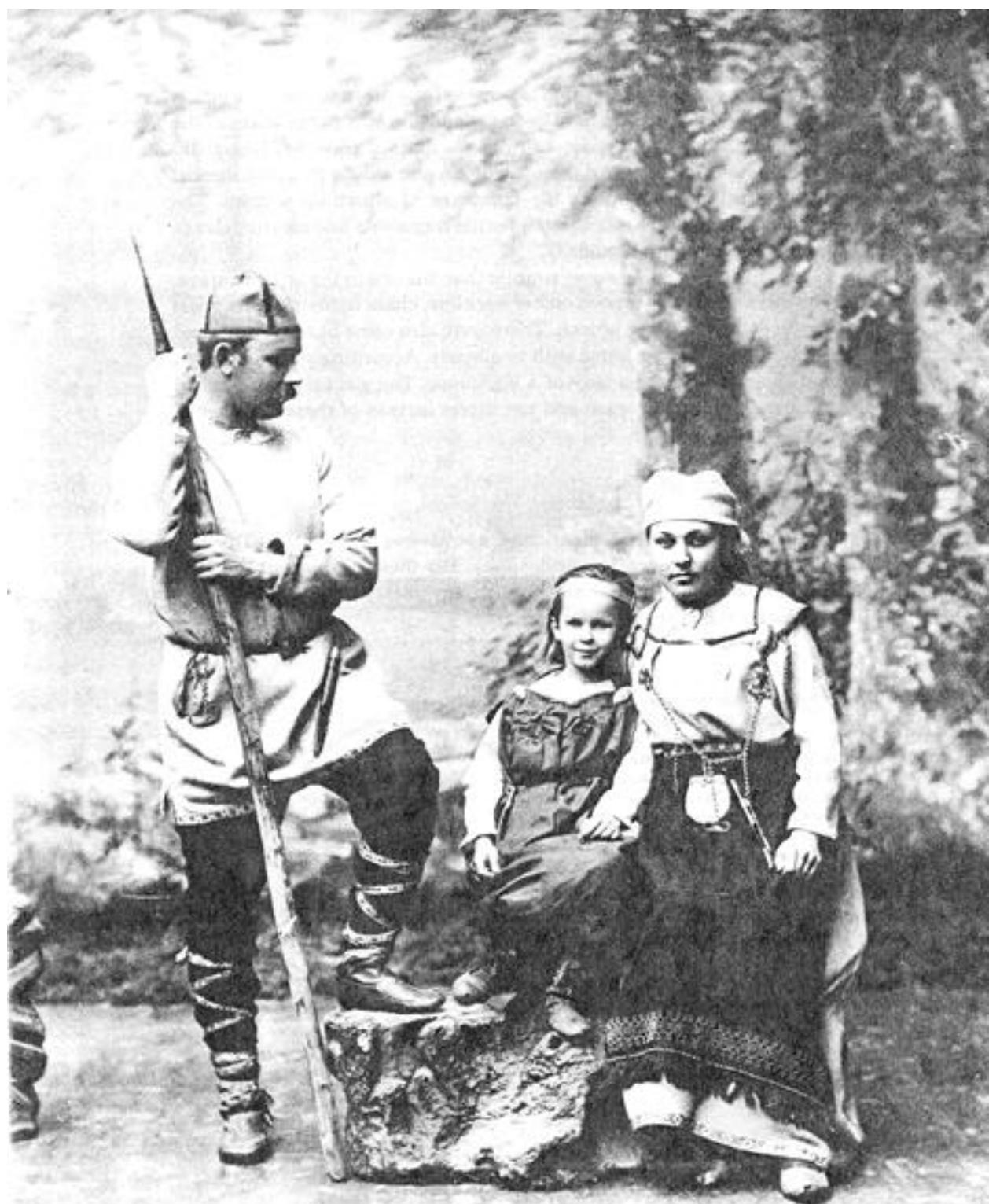


Fig. 7. Ancient Finnish costumes on the stage. A photograph probably taken in 1892. Photo NBA.

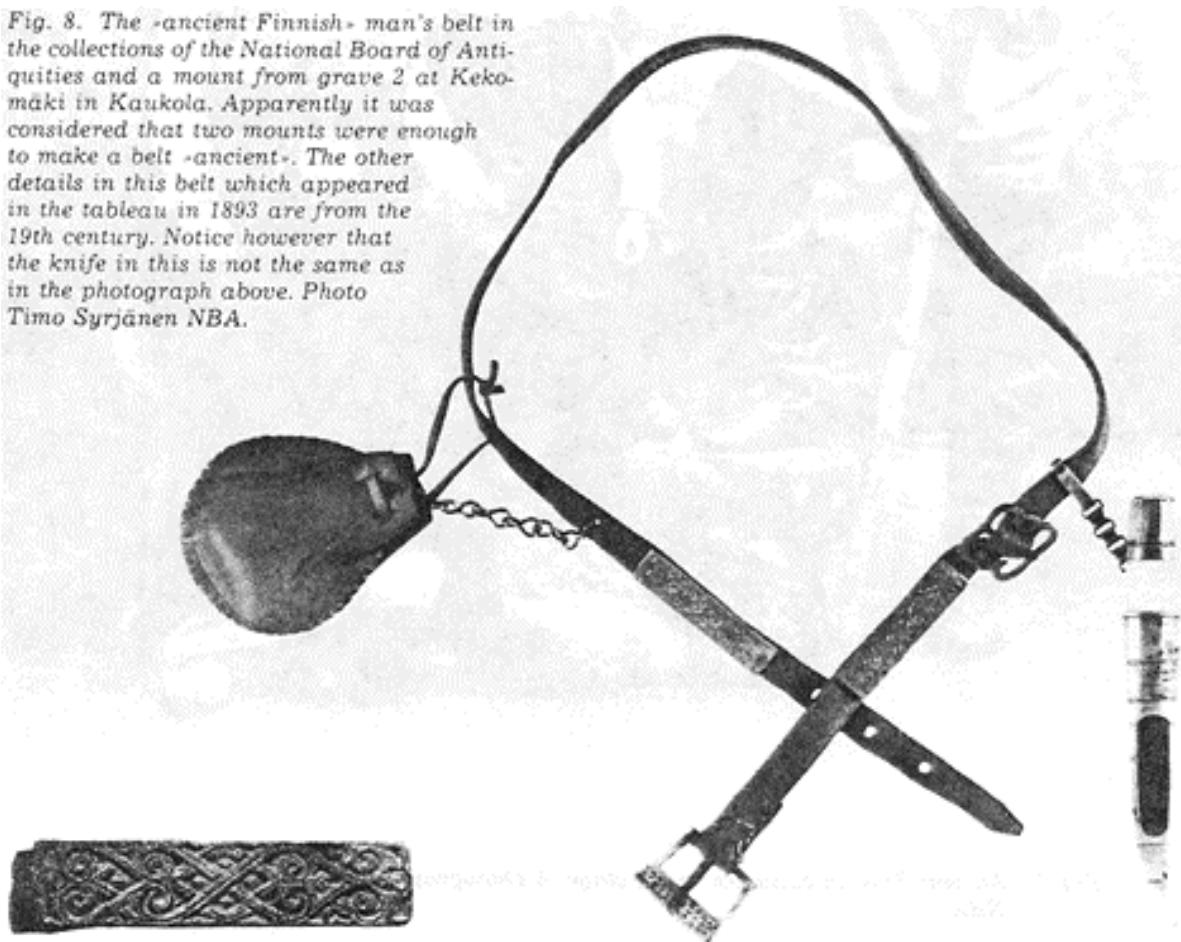
The most interesting in this connection is however the dress of the little girl. It seems that in her dress the brooches have been fastened on straight selvages of the cloth. Apparently this has been done according to the finds of grave 5 at Kekomäki in Kaukola. There was in this grave a man, a woman and a little girl, and the girl was dressed in a costume resembling the costumes of grown-up women. The brooches only were of miniature size and the textile fragments had clearly selavage borders without any ornamental bands.

The girl's stage costume was however simpler than the one in the original grave. In the latter the girl had a silver brooch on her neckline, chain holders on her chest and a mantle with engraved silver brooch. There were also some beads, a knife and a bronze pendant representing a horse with two heads. Accordingly she had been buried dressed as gorgeously as a lady of a big house. The girl on the stage had multi-coloured bands round her waist and her calves instead of these ornaments.

What the scientist said

In the same year as the tableau mentioned above was performed, Theodor Schvindt took his degree of doctor of philosophy. His thesis was about the Iron Age in Karelia, and although he did not publish any sketches of reconstructed dresses, he portrayed the costumes in words.

Fig. 8. The -ancient Finnish- man's belt in the collections of the National Board of Antiquities and a mount from grave 2 at Kekomäki in Kaukola. Apparently it was considered that two mounts were enough to make a belt -ancient-. The other details in this belt which appeared in the tableau in 1893 are from the 19th century. Notice however that the knife in this is not the same as in the photograph above. Photo Timo Syrjänen NBA.



According to him the Karelian men had next to their skin a shirt of woollen cloth. This had a neck-opening in front fastened with a silver ring-brooch. Sometimes there were eyelets for the brooch pin, sometimes the pin was stuck through the shirt cloth. Most of the brooches were of silver, some gilded, and seemingly many of them were imported from the western world; one of them had a text Ave Maria on the front.

According to Schvindt there were few remains of trousers, but near the waist there were often remains of a thick woollen garment, which also covered the chest. This garment was most probably some kind of a smock or tunic, closed in front and girded with a leather belt studded with bronze or iron mounts. In some graves there was also a cloak fastened with a silver brooch engraved with vegetable patterns. This is a garment which had not appeared in any of the pictures.

Schvindt was of the opinion that the men's footwear had been of leather although there were only small fragments left. Some other leather fragments he interpreted as remains of a cap, but otherwise headgear seems to have been lacking in the men's graves in Karelia.

The men had around their neck a birch bark band covered with fine nettle linen and mounted with thin silver studs. On their chest they bore a silver cross pendant, and on their fingers they had rings of silver or bronze.

According to the finds, Karelian women had next to their skin a woollen shirt-like garment, the neck-opening of which was fastened with a round silver brooch. The shirt was covered by a garment open at the shoulders, the upper and lower selvages of which were bordered by tablet-woven bands or plaited ribbons. Thus in the graves there were no bands woven with a rigid heddle as in the dresses made for the stage. Later it has been thought that rigid heddle bands were probably not woven in Finland during prehistoric times.

In the same connection Schvindt mentions clearly that the dress was sometimes folded in two at the shoulders, and he compares it with the Grecian peplos, which was only a large rectangular piece of cloth. He reminds us also that similar mantle-dresses were seen as late as in the 19th century in south-eastern Karelia and in Inkeri. On the other hand he talks of a dress sewn together under the arms. In either case he passes over in silence the shoulder straps which appeared in the women's dresses in the pictures and in the tableau. Thus from the beginning scientific ideas of dresses were different from those of "art".

Schvindt tells us that the apron was one of the most imposing parts of the Karelian woman's costume. He reminds us, however, that the apron ornamented with bronze spirals was not worn as often as breast ornaments of the dress. All women had two oval shoulder brooches and often there were heavy chain arrangements hanging from them.

As their topmost garment, women had a large folding mantle, which covered the breast ornaments but not the shirt brooch. This statement is also in contradiction to the fashion plate of the third edition of "Kalevala", where the mantle covers only the back of the woman. Moreover, Schvindt tells us nothing about the spiral ornaments of the mantle. He mentions only that the border of the mantle was woven differently and was fringed. The mantle in the plate has a spiral border.

In addition Schvindt makes a very interesting remark. He says that the veil could have been the selfsame garment as the mantle. This supposition has not been sketched in any of the reconstruction drawings known, but it has not been made without grounds. If we recall the madonnas in eastern icons and the western



Fig. 9. A woman and a man from ancient Karelia. P. Nordman, Bilder till Finland historia, 1906, Photo NBA.

Fig. 10. Two different Aino costumes, the one on the left made at the beginning of this century, the other without an apron fabricated not many years ago. Photo Rauno Hilander 1982.

European fashion of the same time, the 12th and 13th centuries, which Schvindt also mentions, it seems very possible that a wide mantle could have covered both the head and the shoulders.

Schvindt supposed that the footwear of the women was not made of only one piece of leather like the slippers called "nokkakurpposet", which are known from ethnological material. Among the finds there were fragments and ribbons of leather with holes along the borders, so that the shoes must have been sewn from several pieces. Separate soles or heels were however not found, so the shoes could have been made of one piece, but ornamented with separate lists. Schvindt explains in his book that birchbark slippers were not found in graves, because they were working shoes. The deceased were buried in their festal garments, and so they had to have finer shoes with them.

According to Schvindt there were no socks or stockings in these graves, but later on Tyyni Vahter, another Finnish ethnologist and dress researcher, interpreted a textile fragment from Kekomäki in Kaukola as a remnant of a sock. Probably this is a misconstruction and the fragment is from a mitten. The fragment in question is made with needle like sewn mittens, which are known from some Finnish late Iron Age finds.

Aino costume

Although Schvindt interpreted his finds critically and presented several possibilities, he is responsible for the existence of the dress which was later known as the "Aino costume". This costume, which became connected with Aino in "Kalevala", was very popular at the turn of the 20th century and was put on a level with national costumes.

Schvindt first published a coloured drawing and instructions for this "ancient Finnish woman's dress" in an appendix to the periodical "Koti ja yhteiskunta" (Home and Society) in 1899. When this appendix, which also contained seven national costumes, was very soon sold out, Schvindt published a separate pattern brochure in 1902. In addition to several national costumes it contained patterns for the Aino costume and also for an ancient Karelian man's costume.

In these pattern drawings the woman's dress resembled rather closely the costume presented on the stage in 1893. There were the same white shirt, azure blue dress with shoulder straps and cherry red apron with spiral decorations. The dress hem, neckline and arm openings were bordered with multi-coloured rigid heddle bands.

Fig. 9 These costumes also became known through the medium of schools and courses. Black and white drawings of them were published as educational pictures in 1906, and there were needlework courses in Helsinki where women made Aino costumes for themselves and for their daughters. I have not seen anybody mentioned who had sewn an ancient costume for a man.

Fig. 10 The immense popularity was fatal for the Aino costume. There was soon a variety of dresses all called by the same name. Not everybody wanted to make difficult spiral ornaments, and they began to replace them with flat metal pieces or needlework decorations, finally with weaved stripes. The ornamental bands became wider and more coloured, and in the end the apron totally disappeared and the dress was given a belt with mounts, a detail which is never found in Finnish women's graves.

Accordingly the Aino costume, which is still manufactured, has almost no genuine details. It could be considered as a perfect fantasy dress, for the shape of which the late Doctor Schvindt could no longer be responsible.

Hjalmar Appelgren-Kivalo's book and the first "Eura costumes"

Still in the same year 1893, when Theodor Schvindt defended his thesis about the Karelian Iron Age, Hjalmar Appelgren(-Kivalo) excavated at Yliskylä in Perniö. He dug up only eleven graves, but some of them were the best preserved in the whole of Finland. Moreover, Appelgren-Kivalo, who later became the Finnish state archeologist, was one of the best excavators Finland has ever had. Through his excellent work in the field, the western Finnish woman's dress of the 12th century began to take shape abreast of the eastern Finnish costumes.

Appelgren-Kivalo's work "Finnische Trachten aus der jüngeren Eisenzeit" was published in 1907, and it is still a very important source-book, especially for its excellent pictures. It also throws light upon find conditions much more completely than any earlier and many later published works. There are, however, no

reconstruction drawings of costumes in this book. Appelgren-Kivalo was content with descriptions of the finds, which had contained dress details.

He has seemingly, however, already in this connection drawn the sketches preserved in the archives of the Section for Prehistory of the National Board of Antiquities. In addition to the sketches of costumes based on the Perniö finds, there are also drawings connected with the finds from Eura and an outlined dress with the heading "Osmanmäki". Osmanmäki is a late Iron Age cemetery in Eura, disturbed and excavated during the last decades of the 19th and at the beginning of the 20th century.

The last-mentioned sketch represents a female torso, which has on its shoulders a mantle ending in spiral ornaments. It is interesting to note that the model for these ornaments has been the same border which Appelgren-Kivalo explained in his work as an apron hem decoration.

This woman has round her neck a band with some beads and a round pendant or coin. The dress front reaches right up to the neck and its upper edge is quite straight. There is at the right shoulder a strap coming from behind and overlapping the front part, to which it is fastened with a double cross pin common in East Baltic countries. Apparently there is another pin at the left shoulder covered by the mantle. There are spiral-ended chain holders between the pins and the breast chain, and on the right a very big knife sheath has been fastened with a side chain to the holder.

On her left wrist and arm the woman bears two spiral bracelets. Spiral-ended charms and a round pendant or coin hang from one of them. All these details appeared in a grave published in Appelgren-Kivalo's book and excavated in 1890 at Osmanmäki in Eura. The grave was, however, not undisturbed when it was excavated.

Also the earliest published picture of western Finnish costume seems to a great extent to have been based on the finds from Eura. In a picture plate prepared for school teaching and printed in 1911 there is among objects of the late Iron Age a woman dressed in an ancient costume. It is quite apparent that the pattern for her apron and mantle has been obtained from the Osmanmäki and Lauhianmäki finds in Eura. It is also possible that the chain arrangement with its round shoulder brooches is based on finds from Eura, although there are additional pendants e.g. from some other western Finnish finds.

Some of the bracelets can also be from Eura. likewise the penannular brooch on the woman's breast, but the neck-ring has been shaped according to some Lappish hoard finds. There is also at her neck a silver chain with many pendants, the original of which was found from Hämeenlinna. Her head is decorated with a diadem based on the Perniö finds.

Apparently the rich finds of Eura were not enough for those, who dreamed of an ancient time of greatness. This woman has not only ornaments from many different parishes, but she has been dressed in the fashions of many centuries. The oldest ornaments in her dress are not later than the middle of the Viking period (about 900 A.D.), the youngest details show the fashion of the 12th century!

Fig. 12

Fig. 11



Fig. II. A sketch based on the finds from Osmanmäki in Eura and the costume in a picture plate prepared for school teaching, printed in 1911. Above a spiral border found at Osmanmäki. NBA.

Reconstructions for Exhibition and for Use

The Perniö costume

The first dress

A woman's dress based on the finds from Perniö is exhibited on a mannikin in the Finnish National Museum in Helsinki. It was reconstructed for the Nordic Archeological Congress in 1925, and it was made according to the instructions of Hjalmar Appelgren-Kivalo, who was then the head of the museum. For many decades it represented the official truth, because the scientific basis of the Karelian dress sank into oblivion and the Tuukkala costume was reconstructed without new detailed research.

Fig. 17

The excavations at Humikkala in Masku in the 1920's produced plenty of new material, but the excavator Sakari Pälsi, who - although an archaeologist - is better known as a writer and an ethnologist, was of the opinion that these finds only confirmed the truthfulness of the reconstruction in the National Museum. Nobody contested the shape of the dress, although there were discussion about its colours. It was still claimed in the 1970's that no need could appear for greater alterations in the design of the ancient woman's dress.

The Perniö dress in the National Museum consists of a shift, a dress, an apron, a mantle and a headdress. The shift is of linen, although according to Appelgren-Kivalo also the innermost garment in the Perniö graves was of four-shaft woollen cloth. Its simply bordered neck opening is fastened with a small open penannular brooch, but in none of the Perniö graves was there a brooch which could be regarded as a shift brooch.

Over the shift the mannikin has a red sleeveless dress, open at the shoulders. It widens out to the hem, there are straps at its shoulders and the arm-holes extend to the waist. The hem, the neckline and the arm-holes are trimmed with a tablet-woven band. The band is so wide that it is turned double round the edges. There are no finds from Perniö, or for that matter from anywhere in Finland, with a border band like this. Besides, no known find has contained a shoulder strap with clipped edges. Also the fastening of the brooches to the cloth differs from that known from most finds. Accordingly there are in this dress many questionable details. Perhaps just because of them the reconstruction of the Perniö dress has never been scientifically justified.

The splendid spiral decoration

There was a much sounder base for the reconstruction of the mantle and the apron. The aprons in the Perniö graves were bordered with spirals round the edges, so that their size is rather easily measurable. There is at the waist a broad spiral ornament, for which cloth has also been preserved, and the apron corners have been decorated with small fan-like ornaments.



Fig. 12. Sketches according to finds from Yliskylä in Perniö, most probably by Appelgren-Kivalo himself. Apparently the sketch on the left represents the garments in grave 1, the one on the right those in grave 6. NBA.

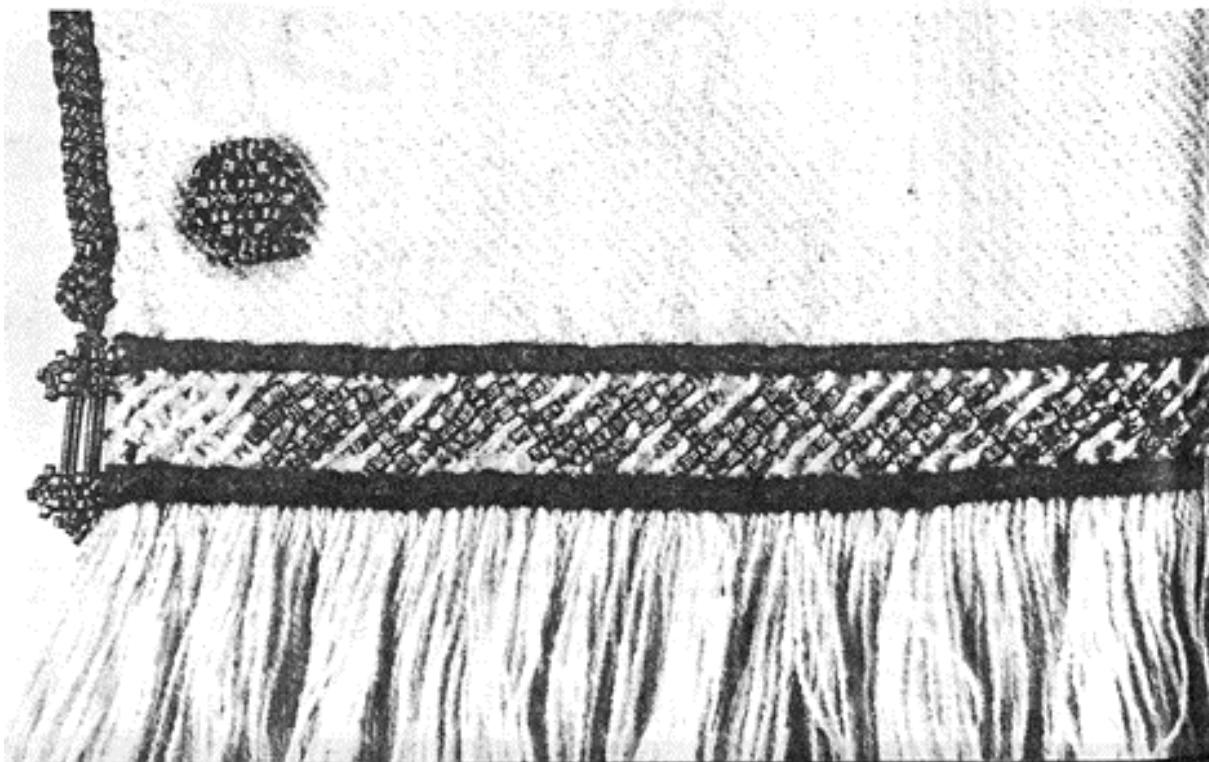
In the Yliskylä grave 6, on which the Perniö dress was principally based, all sides of the mantle have been ornamented with spirals. Therefore its size is also accurately known: its length was 147 centimetres without fringes and its width 94 centimetres. On the long sides there is about 1 cm broad spiral plaiting and on the short sides an ornament made of spirals, crosswise braided warp threads, tablet-woven bands and fringes.

The last-mentioned ornaments are rather complicated. Warp threads in both mantle ends have first been used as weft in tablet-woven bands which terminate the cloth. Then these same warp threads have been plaited and braided crosswise, and at the same time small spirals have been threaded in them, so that different figures were formed. After that a new tablet-woven band has been woven, and again the original warp threads have been used as weft. Finally they have formed the fringes of the mantle ends.

The spiral borders of the long sides have been made differently. They are braided as separate bands, and the equal length of the spirals has been very important for these ornaments. It says something for the skill of the ancient women that not even the mantle in the National Museum has been made like its originals. The modern reconstructor has not had sufficiently patience for the slow threading, and so the spirals have been soldered into bigger parts, which have been sewn on to the selvages of the mantle cloth.

There are still more ornaments in the mantle. In every corner it has roundels, which have been made of long and short spirals, and on the long sides there are applied cross-formed and round ornaments, seven on both borders. The mantle with its many decorations has certainly been the most splendid garment of the women, and it is possible that there were women specialized in the making of these.

Fig. 13. A corner of the Perniö mantle with its complicated spiral decoration. Photo P.L. Lehtosalo-Hilander.



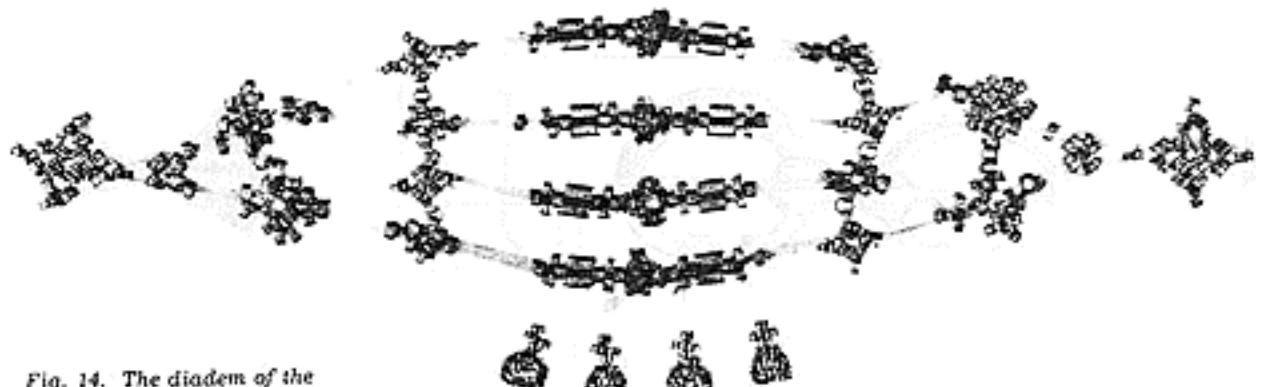


Fig. 14. The diadem of the Perniö mannikin. Photo P.-L. Lehtosalo-Hilander.

Fig. 14

The Perniö mannikin has on her head only a diadem made of plaited woollen threads and bronze spirals. At the beginning there was also a picture of a veil arrangement in the exhibition. In this the veil was folded over some kind of a stand and fastened with a penannular brooch on the back of the head. This picture was based on the grave finds, but perhaps there were some difficulties in the placing of this headgear on the head of the mannikin. So it was left out and was later totally forgotten.

The ornaments

On the other hand the mannikin has more objects than were found in a single grave. There were in grave 6, from which the model for the garments have chiefly

Fig. 15. Veil arrangement of the Perniö costume. Photo NBA.



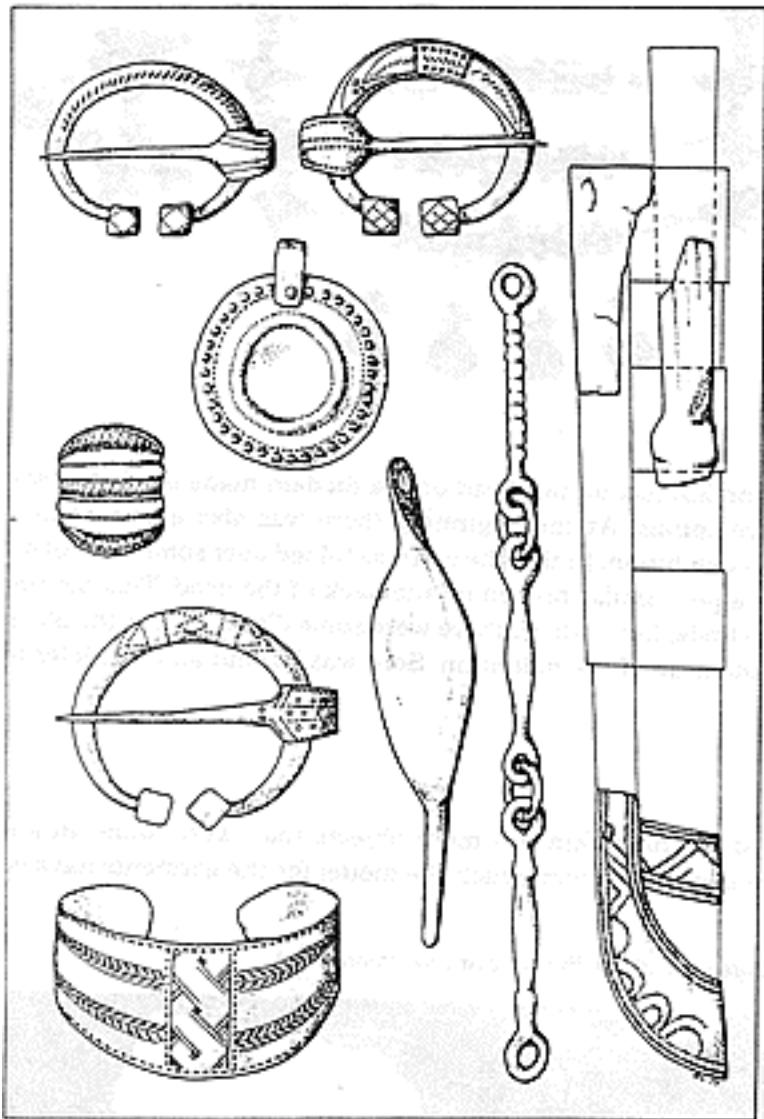


Fig. 16. Ornaments from graves 3, 5 and 6 from Yliskylä in Perniö which appear in the Perniö costume. Drawing Rauno Hilander.

been taken, no bracelets, knife or earspoon, and only one bead was found in it. All these details have been found in the other graves in the Yliskylä cemetery.

In grave 1 there were more than thirty beads, so the neckband mostly originates from it. The earspoon, a chain made of rod-like links and a bronze-plated knife sheath have been borrowed from grave 3, and the bracelets have been made according to the originals in grave 5.

The shirt brooch has perhaps been added after the finds at Humikkala in Masku (Finland Proper). The Humikkala graves were excavated in the same year as the costume was completed, and there were often more than two brooches in these. According to them it has been possible to have up to five penannular brooches in a woman's dress.

In the old drawings and photographs of the Perniö costume the knife is hanging from the right-handed shoulder brooch. Perhaps this detail was also reconstructed



Fig. 17. Fastening of brooches in the dress of the Perniö mannikin in the National Museum. Photo NBA.



Fig. 18. Fastening of brooches in a grave at Saramäki in Turku. Photo P.-L. Lehtosalo-Hilander.

Fig. 16

according to a find from Humikkala, for in the Perniö grave 3 the knife, chain and earspoon were found near the waist and probably an apron band went over the chain. The fastening of the knife sheath to apron bands seems to have been usual in western Finland, and so this detail was changed some years ago in the dress of the mannikin.

The mannikin has two more ornaments. She has a broad bronze ring on her finger and a silver pendant on her breast. Similar silver plates have most frequently been pendants of neckbands, but according to Appelgren-Kivalo this one had been hanging in a band between the shoulder brooches.

Uncertain details

The Perniö costume was made for the exhibition, and therefore there are details in it which were not studied thoroughly. It became, however, the festal garment of many women and so differing adaptations began to appear. The colours had not been studied in detail, and so they were not accepted by all. Some said that the red of the dress was not correct, it should have been more brownish. Others wanted a costume coloured like the fragments found in grave 6, from which the details of spiral decorations had been taken.

So there are in use costumes coloured like the one in the National Museum, but also some which are different. The dress can be natural white and the apron blue, the mantle can be without coloured tablet-woven bands. Which is right and which is wrong? This cannot be said without colour analyses, and perhaps not even after them. Since this costume was not made according to one grave only, it gives the general idea of the costume of the late Iron Age and particularly Appelgren-Kivalo's opinion of it, but only the model of the mantle and the apron could be based with certainty on the grave finds.

There are also in Appelgren-Kivalo's sketches details which cannot be ascertained from the original finds any longer. One of them is the fastening of the brooches to the dress. In these sketches the brooches are fastened on the front side of the broad straps. The pin goes transversally through the strap and the dress front under it. But in the other, later finds the brooches have been fastened to two tangent edges so that the pin goes from below upwards. The edges are also often double. Have we here two different models of dress or only two different interpretations?

The finds from the Perniö grave 1 seem to contain a dress with a totally straight upper edge. It could have been sewn together at the shoulders or it could have been fastened with an iron pin found in the grave. But there were no knife or brooches in this grave. Appelgren-Kivalo, however, has fastened the dress front in his sketch with a penannular brooch. Why? Can we be sure that his sketch of the dress in grave 6 was based on carefully studied details, when this other dress has been improved with quite imaginary objects?

Fig. 18

Fig. 12

The Tuukkala costume

A dress for use

The first ancient Karelian dresses were stage costumes, and the Perniö dress was made for a museum exhibition. When the Tuukkala costume was realized, it was right from the beginning meant to be a festal garment of dignified women. Elsa Heporauta, a woman author, was the driving force behind the plans, and the first Tuukkala costume was made for her at the end of 1930's.

Fig. 19

The sketches made according to Heikel's instructions have been the base of the costume, but they have not been followed slavishly. The blue dress appearing in the sketches has been chosen for the main garment, but the brown mantle has been changed to a light grey one, and this colour has been chosen for the apron also. Tyyni Vahter, the textile expert mentioned above, was however of the opinion that there had not been any blue dresses in Tuukkala; the skirts and dresses should have been grey. Thoroughgoing analyses have not been made, and so there is no certainty about the colours.

There are no border bands in the Tuukkala dress, although these appear in the finds. In connection with shoulder brooches most often plaited ribbons were found, but sometimes also tablet-woven bands. The spiral ornamentation of the dress hem is very much simplified. In the costumes in use there is no more than a simple spiral row, although in the sketches there is in addition to this an applied border made of threads and very small spirals.

This ornamentation of the dress hem has been amply discussed. It has been claimed that the ornaments in the Tuukkala grave 26, which were interpreted as dress hem decorations, were in fact apron ornaments moved from their places. This is possible, because the grave was partially disturbed. These ornaments are, however, different from those which certainly belong to the apron, so the situation is not quite clear. These ornaments which it is possible to connect with the dress hem have been found only in this single grave, and therefore it should be quite possible to make Tuukkala costumes without these ornaments.

Fig. 21

Also the apron is ornamented differently from the originals and the aprons in the sketches. The spirals round the borders are not placed as densely as in the originals, and the applied spiral band has been sewn far away from the hem, although in the preserved apron borders it is only a couple of centimetres from the spiral row on the hem. So the decoration of the apron is also rather different from that in the sketches.

It is noteworthy, however, that the aprons in the sketches are not quite correct either. They are probably drawn according to an apron found in the disturbed area of the cemetery. In this apron the side ornaments are narrow bands and the general impression is that both sides of these bands are similar. In the sketches the innermost sides are indented and the outer sides straight. It is quite possible that these side ornaments had reached from the hem to the waist as in the sketches, but they have not been preserved. The hem ornament is broader than these and it is quite straight.

The apron in grave 26, according to which most of the other details have been drawn, was however different. In it both the waist and the hem had been ornamented with applied spiral bands, and these had been curved and not straight as in sketches. Apparently also the hem ornament in an apron pictured in Heikel's



Fig. 19. The author Elsa Repourata in the first Tiekkaela costume and her guest Mrs Schumann in a Latvian costume in 1937. Photo archives of Kalandra Korn Limited.

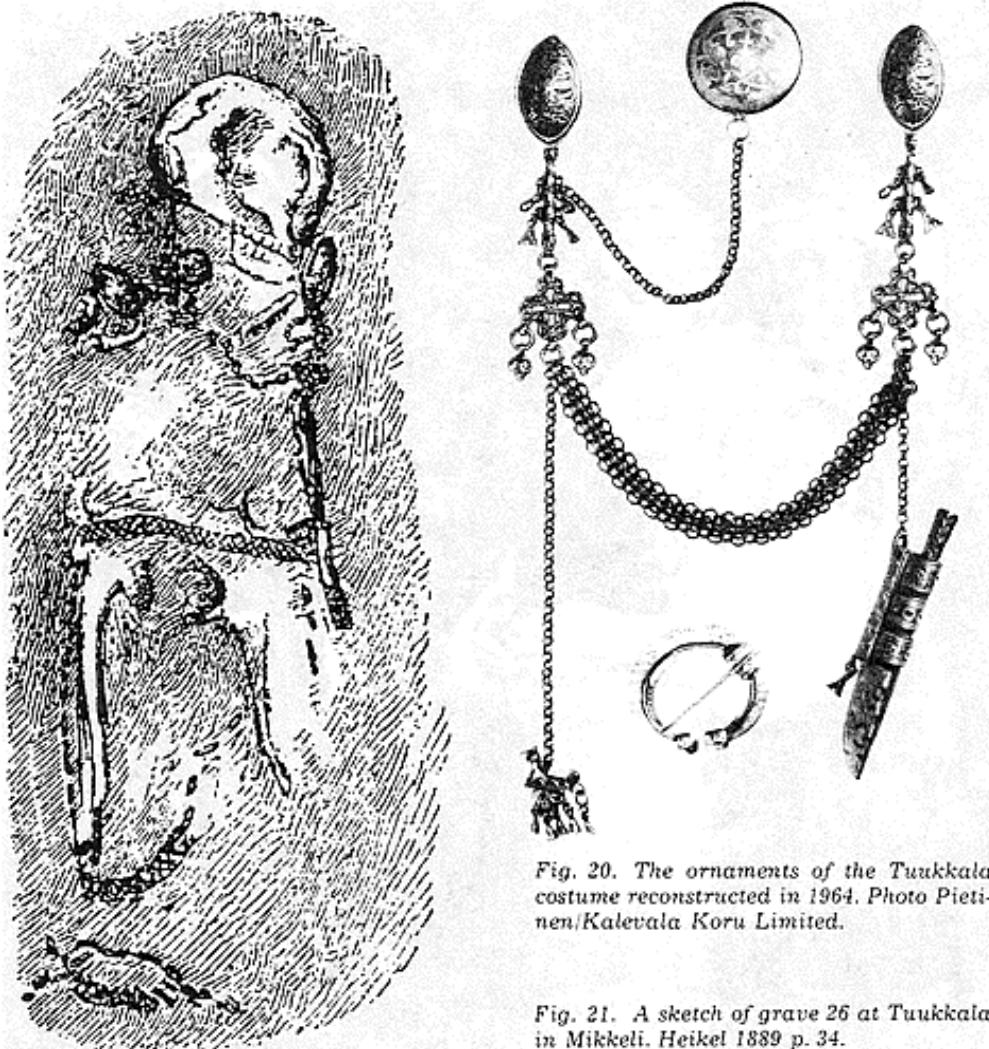


Fig. 20. The ornaments of the Tuukkala costume reconstructed in 1964. Photo Pietinen/Kalevala Koru Limited.

Fig. 21. A sketch of grave 26 at Tuukkala in Mikkeli. Heikel 1889 p. 34.

work had been bent, although it was drawn as straight and was exhibited many years as straight in the National Museum. There are certain marks in the cloth which prove that the spiral band, now loose, must have been sewn on the cloth in curved line.

The Tuukkala apron ends in fringes, and it is usually shorter than the aprons in the other ancient dresses. This seems to be correct, because the aprons found have been about 65-70 cm long, and apparently the others from the same time have been about five to ten centimeters longer. These aprons from the 12th and 13th centuries seem, however, to have been shorter than the ones from the Viking Age, although the Karelian aprons are rather wide.

The mantle in the Tuukkala costume is large and fringed all around the borders. There is also a plaited band on the edges, but in the only mantle fragments found at Tuukkala - these also were found in grave 26 - there are only tablet-woven bands in the mantle ends. So there are also questionable details in the mantle.

Very often the persons wearing the Tuukkala costume fasten the mantle on the shoulders with oval brooches. This is not correct. The penannular brooch of silver sheet is the brooch for the mantle, the oval brooches belong to the dress.

The ornaments of the first Tuukkala costumes

The ornamental set of the first Tuukkala costumes consisted of a silver penannular brooch and a chain arrangement hanging from two oval brooches. According to some photographs and a portrait the author Elsa Heporauta seems to have used the penannular brooch in her neckline, but there is in some other of the oldest Tuukkala costumes a round silver brooch for the shift.

The first chain arrangements of the Tuukkala costume were lop-sided. There was a tubelike ornament with loops between the brooch and the chain holder only on the right side. On this side the holder was also without pendants, although the one on the left side had small palmetto-like ornaments hanging from it. The knife-sheath was hanging from the latter on a bronze chain, and on the right side there was a bird pendant. The breast chain was simple and of bronze.

There was no knife in the oldest knife sheaths but only a stick made of leather. The upper part of this was encircled with bronze and it was thrust into the sheath.

It is not easy to discover the prototype for the first chain arrangements, because apparently the intention was not to copy accurately. Perhaps the source for inspiration has been the set of ornaments in grave 9 at Tuukkala. In this two brooches with crayfish ornament hold up a chain arrangement with only one tube with loops. The birdlike ornament hanging from chains has been copied according to a pendant found loose, and the knife sheath is technically so different from the original finely engraved sheaths that it is not possible to make comparisons.

Very often these first ornaments seem to have been gilded. Perhaps the intention has been to give more grandeur to the ornaments embossed with thin brass plate. The originals are however never gilt and they have been cast in solid bronze.

The ornaments newly reconstructed

The set of ornaments was newly reconstructed in 1964. Now it consists of parts of silver, bronze and iron. The mantle is fastened with a penannular brooch of silver engraved with plant and ribbon motifs. There is also in the neckline a silver brooch, round and bulging and also decorated with plant motifs, but differently. It is fastened to the chain arrangement with a chain.

The shoulder brooches are rather small, of bronze, and decorated with the crayfish ornament. A leather thong is fastened to them and it goes through the tubes with loops and joins the chain holders to the brooches. There are four loops in every tube, and chain holders consist of cross-formed ribbon plaitings. Small hanging charms decorate both the tubes and the chain holders, and at both ends of the tubes there are bronze beads. A bird or animal pendant is hanging from the right-hand chain holder, and on the left-hand side there is a knife in its bronze-plated sheath. The latter is ornamented with embossing, stamping and engraving.

It has been attempted to copy the ornaments as accurately as possible. Therefore all parts possible to reproduce by casting have been copied by this method. The gravers were made especially for the engraved ornaments, and the chains were twisted by hand from bronze and iron wire. The lengths of the chains were defined according to the excavation observations. The iron breast chain is made by the same method as the ancient ring mails, and the side chains of bronze are of double rings.

In grave 26 at Tuukkala the dress was fastened with the oval brooches high up on the shoulders. The shift brooch was under the chin and the mantle brooch was on the right shoulder. Thus the mantle had covered the left arm and it had been fastened on the right.

If we consider all the Finnish mantle finds as a whole, we can observe that the mantle may have been fastened also in the middle, and sometimes the brooch may have been on the left shoulder, too. There was a certain variation in the use, but I do not know of any finds according to which the oval brooches belonged to the mantle. In my opinion the incorrect use of oval brooches in connection with the mantle is based on the picture in the third popular edition of "Kalevala", and not on any thoroughly studied finds. Accordingly there is every reason to give up the picturing of the Tuukkala costume with oval brooches fastening the mantle.

Fig. 22

Although the ornaments of the Tuukkala costume have been revised and copied according to new principles, the dress itself is still awaiting its scientific reconstruction. We know now rather more about the details of the cloth fragments from Tuukkala than those enthusiasts of the 1930's who created the Tuukkala costume, but we also realize that we do not know all. Perhaps some day there will be new finds which will make an ideal reconstruction possible.

Fig. 22. The use of the mantle according to Finnish grave finds. Drawing Raimo Hilander.



The new costumes made according to finds from Ladoga Karelia

The first Tuukkala costumes were prepared during the last years of the 1930's. The decade around World War II passed without any new ancient dresses, but in the 1950's two dress reconstructions differing considerably in details were made according to the finds from Ladoga Karelia.

The ancient Karelian dress

The Karelian Culture Foundation and the Foundation of the Karelian Isthmus gave support to the making of the ancient Karelian dress, which was completed in 1952. Tyyni Vahter, who has already been mentioned, was the specialist behind this reconstruction. Although there is no doubt about her great competence as a textile expert, she was not a field archeologist and not a specialist in jewelry. Moreover, this dress like the Tuukkala costume was reconstructed for use, and therefore there were from the beginning some modifications in it.

Vahter has given about two pages of written instructions for the making of the ancient Karelian dress, and there are in connection with these colour and textile patterns and sketches of details. All information about the finds on which these details are based, are lacking, as also the instructions for the making of tablet-woven bands and thread counts for the clothes. The length of the dress and apron has not been mentioned, and the patterns are only sketchily drawn. It is however possible to see that some of the puzzling details which appear in the ancient Karelian dress are really based on the instructions of Tyyni Vahter. However, some details have certainly been changed after the first dresses were made.

The ancient Karelian costume complies with the pattern created in connection with the Perniö costume, although the details are naturally different. It consists of a dark blue shoulder strap dress, a white blouse and veil and a greyish mantle and apron.

According to Vahter the colour of the mantle and the apron should be pearl grey. The colour pattern following her instructions was however greenish, and although Vahter has expressly mentioned that the colour should not be like this, greenish grey is the colour appearing in the dresses made.

The short white blouse, which to my mind should be a long shift, is of thin woollen tabby. The cutting is simple, there is an opening in front, and the neckline is tucked in a narrow separate band. Theodor Schvindt certainly supposed that there were in Karelia also this kind of neck openings, but among the fragments preserved until this day there are only ones with simple borders.

Tyyni Vahter explained that the dresses in Karelia had been made of only one piece of cloth used cross-wise. She supposed however that this would be impractical in the modern versions, and advised making the dress of two pieces and using the cloth length-wise.

The dresses made are of four-shaft twill, they broaden a little to the hem and have fringes on the right-hand seam. The broad rounded shoulder straps are bordered with three-coloured (brownish red - pearl grey - light grey-blueish green) tablet-woven bands, and a similar band edges the hem. There are two oval brooches at the shoulders, and a chain arrangement hangs from them.

The rather small mantle is also of four-shaft twill. It is bordered with a slightly

Fig. 23. Sketches for the ancient Karelian costume by Alli Touri. Published in Kaukola. Laiti 1952, between pp. 136 and 137.



different two-coloured (brownish red and the colour of the mantle) table-woven band, and on one side there are fringes. A big silver penannular brooch belongs to it, and apparently it was meant to be worn as in the picture of the third popular edition of "Kalevala".

According to Vahter the veil should be of light grey thin woollen twill or of plain-woven linen, but nowadays the veil is usually white and made of thin woollen tabby. It is folded over the head and a crested silver penannular brooch fastens it at the neck. Originally the silver ornament called "sykerö" was placed on top of the head, but probably it should be more on the forehead. The short pin belonging to it could not have been its fastening. Probably in ancient times there was a band through the loops at its ends, and it was fastened to the head with this band. The pin perhaps pinned folds of the veil.

The apron of the ancient Karelian dress is the most imposing part of this festive garb. It is of same greenish grey shade as the mantle and ornamented with a broad spiral border on its hem. The pattern in this border is the same as in the apron

pictured in the third popular edition of "Kalevala", and accordingly it is copied from the border found in grave 1 at Kekomäki in Kaukola.

The apron ends in fringes and there are spiral rows on the sides. It is fastened to a multicoloured waistband, woven with a tablet loom. The pattern is the same as in the bands of the dress. Also two bands with small metal studs, one for the neck and one for the head, belong to this costume. The former of these is based on the grave finds, but there have been no bands with mounts for the head in graves.

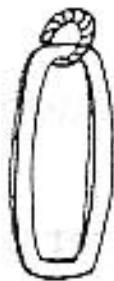
Karelian ornaments

The ornaments copied for this costume had been found from different graves. Since no detailed reconstruction report has been made, we do not know why certain ornaments have been chosen and why certain details have been made differently from those in the originals.

It is a real mystery why for the first ancient Karelian dress as for the Tuukkala costume, a defective chain arrangement had been chosen as a model. This is the more remarkable because already in the picture of the third popular edition of "Kalevala" the chain arrangement was symmetrical with two brooches, two small tubes with loops and two similar chain holders.

There are several graves from Karelia with a complete set of ornaments, but none of these had been taken as a basis for reconstruction. The ribbon-ornamented oval brooches had seemingly fascinated the selectors, and since there was no grave with these and a complete chain arrangement, the latter was gathered from separate parts. Accordingly there are many errors and real absurdities in it.

For instance, in the chain arrangement which belong to the first costume ever made, the looped tube is crosswise on the right hand side, and on the other side it is substituted for a short piece of chain, a use quite unknown in the prehistoric Karelian material. In Karelia the chain holders were joined to the brooches by leather thongs, and very often these thongs were covered with bronze beads or tubes. There are finds with only one tube with loops, but it is most probable that these finds were not undisturbed.



In Karelia the chains were always of iron during the 12th and 13th centuries, but in the reconstructed costumes they are of bronze. A peculiar feature is that the firesteel hanging in the middle of the breast chain could also have been made of bronze. In the first costume the knife sheath is fastened to the breast chain, but in the next one, made in the same year, it hangs from a side chain, which is correct. It seems that since there were no complete written instructions, every new set of ornaments differed from the others.

In the first set of ornaments the ear spoon was hanging on a chain on the right hand side, and on the left hand side there was a double-head horse or bird pendant fastened to a long double chain by its ears. The original pendants have, however, a hole in the middle, through which a leather band has been thrust and tied into a knot. It is also quite possible that both the earspoon and the pendant should be on the right-hand side and the knife alone on the left.

The firesteel is quite needless. It has not belonged to the artefacts found in women's graves, and it would have been very impractical in the middle of the breast chains, not to mention the fact that a firesteel of bronze is absurd. Both this and the purse hanging from the breast chain are details which appeared already in the picture of the third popular edition of "Kalevala". It is quite surprising how this



Fig. 24. Reconstructed ornaments of the ancient Karelian costume. Photo Pietinen Kalevala Koru Limited.

picture, drawn before the most important finds from Karelia, has influenced opinions concerning Karelian female costume.

The shift brooch in the first dresses produced is round, made of thin silver plate and ornamented by driving. The decoration has apparently been copied according to the shift brooch in grave 5 at Kekomäki in Kaukola, but a small flower ornament has been added in the middle. This brooch is also smaller than the original.

The silver penannular mantle brooch connected to the first costume made is engraved like the originals. The section of the ring is however inaccurate, so it is not an exact copy of an original. Later both the mantle brooch and the brooch for the veil were made by driving and pressing, and they were rather different from the originals. The model for the mantle brooch was taken from the ornament found in grave 5 at Kekomäki, but the form and decoration of the pressed veil brooch, which is still being made, is from the Tuukkala grave 16. Its size is no more than about a half of the original brooch, which is circa 14 cm in diameter.

Considering that there are about a dozen brooches of the same type from Karelia, this was a rather thoughtless choice. It seems, however, that at the beginning the veil brooches were copied according to some other originals, but

*Fig. 24
Fig. 25*

since there was a rather similar silver brooch in Kalevala Koru's production, this was transferred to the ancient Karelian dress. Nobody seems to have noticed that the brooch in question was from Mikkeli in Savo, and would have been more in place in connection with the Tuukkala costume.

The set of ornaments made by Kalevala Koru for the ancient Karelian dress was partly revised in the middle of 1960's. The shift brooch was copied according to a brooch found in grave 1 at Kekomäki, because it was possible to get a correct impression by casting. The shoulder brooches were made according to a variant of the ribbon-ornamented brooches which has been found only in Karelia. These were cast in moulds made by using an original brooch as a casting model.

The chain holders were also changed to the ones ornamented with spirals and volutes, and between these and the brooches a bronze bead was added. The original breast chains were studied, and a new chain plaited like the ring mails was made for the arrangement. The side chains, the pendants and the knife have not been revised.

It is also possible to obtain nowadays penannular brooches for the veil and the mantle engraved by hand. They are naturally more expensive than the pressed ornaments, but the women who own the ancient Karelian dress are seldom poor. Without doubt these ornaments also lend more dignity to this dress, which has become a very popular festive garment of many important women in Finland.

Fig. 25. Silver mantle brooch from grave 16 at Tuukkala in Mikkeli. Photo P.-L. Lehtosalo-Hilander.



The Kaukola costume

Perhaps just because the ancient Karelian dress did not correspond completely to the grave finds, the Section of Prehistory of the National Museum had its own version of the Karelian costume reconstructed for the museum exhibition. This so-called Kaukola costume was made according to the studies of Riitta Heinonen, and it was completed in 1956.

There was, however, not sufficient time for studies - it has been said that Riitta Heinonen was engaged for this work for only a month - and therefore this costume also was reconstructed without detailed and complete analyses. A reconstruction report was never made, and therefore it is not clear on what original finds the costume was based. It seems that only some details had been studied and the structure known from the Perniö and Tuukkala costumes had been accepted as it was.

Like the other ancient dresses, the Kaukola costume consists of a shift, a dress, an apron and a mantle. It has also a veil and a silver head ornament just like the ancient Karelian dress. As a matter of fact it differs from the latter mainly in its colours: the dress is brown, the mantle white, the veil and apron blue. The indigo-blue colour was based on the chemical analyses, but - according to a unwritten tale - the brown dress cloth was dyed with *Parmelia saxatilis* to a hue found by looking at the backs of the books in a book-case!

According to Riitta Heinonen this costume was based principally on finds in grave 5 at Kekomäki in Kaukola. Perhaps the brown dress and the blue apron, the shoulder brooches and the tubes with loops are from this grave. At the beginning all the silver ornaments on the Kaukola mannikin were original grave finds from different locations, but in 1972 these were substituted by copies made according to the finds from grave 5.

There are however many details which are not from grave 5. For example the pattern of the apron ornamentation is from the apron found in grave 1 at Kekomäki. In grave 5 the spiral decoration of the apron was made of several square pieces applied side by side on the hem, whereas in grave 1 the ornamentation was continuous from one side of the apron to the other. It is this very finely-made decoration with swastika pattern which was chosen both for the ancient Karelian dress and the Kaukola costume, although the apron of the former is greenish grey and that of the latter deep blue. As a matter of fact, this is the apron pictured already in the third popular edition of "Kalevala".

The head ornament of silver wire and the blue woollen veil of four-shaft twill are from grave 6 at Kekomäki, which is the only grave in the whole Karelia with this kind of headdress. There are in fact seven sausage-like ornaments made of silver wire and with conical silver-plate ends like this from Karelia, but only for this grave do we know that they have been head ornaments. The remains of the blue veil were found fastened on the silver wires, and accordingly the ornament must have been partly under the veil.

The fashion in which the veil is arranged in many photographs with this ornament on top of the head cannot be correct. The veil could not have stayed on the head of a living woman without some perhaps complicated folds and arrangements, but it has been considered best to arrange it as simply as possible. Perhaps the veil originally covered also the neck and shoulders, and it was a very practical garment during cold and rainy days.

The shift of the Kaukola costume is made of natural white woollen tabby, and its neck opening has a separate border band just like the shift of the ancient Karelian dress. The straight sleeves seem rather too short, because the wrists of the mannikin are bare.

The shift brooch is round, of silver plate and bulging a little. It is decorated with engraved ornamentation. There is a plain rosette and round it a border with slanting transverse lines. Farther out on the edge there is a cord-like list in relief. This is the same pattern as in the first shift brooches of the ancient Karelian dress, but now copied accurately according to the brooch found in the Kekomäki grave 5.

The brown shoulder-strap dress of four-shaft twill has a very large neck opening and big armholes, both bordered with a tablet-woven band. This band has reddish edges and a middle part with white and blue pattern. This pattern is rather similar to that in the mantle band of the ancient Karelian dress, but it differs from those pictured according to the finds from grave 5 at Kekomäki. The dress is made of only one piece of cloth. It is quite straight and seems cumbersome. Apparently it is too short and made of too heavy and rough cloth.

The shortness of the dress is accentuated by the fact that the apron is rather too long and wide. When the spirals for the apron ornamentation were made, they became a little too large. There are more than 5000 spirals in the broad apron hem ornament, and so the very small fault was multiplied manifoldly. No wonder that the apron and the dress seem to belong to different women.

The apron is bordered by a spiral row and it is tied on the waist by a long separate tablet-woven band made of the same blue yarn as the apron. In this it also differs from the apron of the ancient Karelian dress, in which the waistband is multicoloured and sewn to the apron.

The spirals in the apron border ornament are threaded in woollen plaits and not in horsehair as in the original apron. It is rather amusing that the only apron in which the original technique was tried out in practice, belongs to the costume made for the stage!

The white mantle of the Kaukola costume is also made of woollen four-shaft twill. It has long fringes at both ends, and there are spiral rows on the long sides. Probably this is a mistake, because there are no finds from Karelia in which the mantle brooch has been fastened to a cloth bordered with spirals. Possibly there was a veil with a spiral row on the forehead in grave 5 at Kekomäki, and it is this garment which has been confused with the mantle. This detail like all the others cannot be checked, because Riitta Heinonen neither wrote a report of the reconstruction work, nor published the results of her investigations.



Fig. 26. The silver head ornament and the veil of the Kaukola costume, the latter covering also the neck and the shoulders. Photo P.-L. Lehtosalo-Hilander.

Also the chain arrangement joined to the Kaukola costume is based on separate finds. The chain holders are rather similar to the ones in grave 6 at Kekomäki, but the variant appearing in the reconstructed dress is more common in the Mikkeli area than in Ladoga Karelia. Although the breast chain is correctly of iron, the faulty side chains of bronze appear also in this dress, and they are fastened to the wrong loops of the chain holders.

The double-headed horse pendant has been copied according to an ornament found in grave 5 at Kekomäki, but it was found in connection with a little girl and not with the woman to whose chains it has been fastened. The ear spoon and the knife and its slide have been copied according to finds from grave 1 at Kekomäki. Perhaps the ear spoon found in grave 5 was considered too plain because it was without ornaments.

The Kaukola mannikin has also a neckband with silver studs, although no neck ornament was found from grave 5, and there are only two from all of the women's graves in Karelia - one of them however from grave 6 at Kekomäki. Originally the mannikin also had earrings, although they have never been among the ornaments favoured by Karelian women. There are only a couple of finds with possible ear- or temple rings, and none of them was found near the head of a woman. Accordingly those earrings have now been removed from the ears of the mannikin.

A confusing interlude

The Kaukola costume has been criticized much more than its pair the Perniö dress. We have however seen that the Perniö costume is not without faults either. It seems that nobody before the 1970's considered these costumes seriously and questioned how much in them is based on studied details and how much only on belief in authority. Although there have been many new finds, questionable details which had appeared in the first pictures drawn of ancient Finnish costumes have been added to the dresses reconstructed decades later. And - what is very serious - these details have been believed to be studied facts by scholars of other countries.

In 1962 an ancient Finnish dress was endowed to the Musée de l'Homme in Paris by the Kalevalaiset Naiset society, a women's organisation specializing in fostering ancient Finnish culture. According to some documents the intention was to make an exact copy of the Kaukola dress in the Finnish National Museum, but for some reason the dress which was sent to Paris is the version adapted for use and known as the ancient Karelian dress.

Unfortunately also the ornaments following this dress had not been made with the original technique. Thus one does not know whether to laugh or to cry at the article in which a French scientist analyses these ornaments believing that they represent ancient Finnish methods of working. She has given attention to the method of production of the mantle, veil and shift brooches, although a modern silversmith had copied them by methods best known to himself. He had used pressing, stamping and driving, whereas the original ornaments had been made by casting and hammering, and been decorated principally with engravings!

Another ancient Karelian dress is in the National Museum in Bresil. It is to be hoped that nobody has written an article about its ornaments without any knowledge of their real connection to the originals.



Fig. 27. The Kankola costume in the National Museum of Finland. Photo Esa Siominen NBA.



Fig. 28. The first Aino costume in the collections of the National Museum of Finland. The shift brooch and the headband added. Photo P.-L. Lehtosalo-Hlander.



Fig. 29. Reconstructed costumes of Eura, Perniö, Tuukkala and ancient Karelia. Photo Ulla Finnia Katerala Korn Limited.

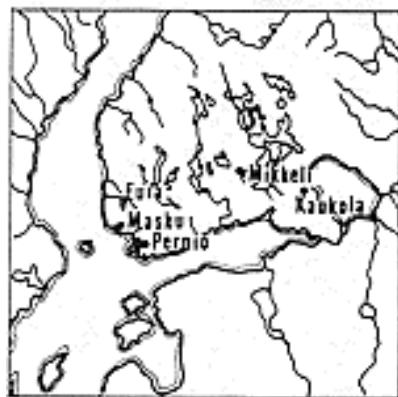




Fig. 30. Big silver brooches from east and west. The brooch with engraved ornaments is from Kaukola in Karelia (late 12th century), the other decorated with stamps from Eura in southwestern Finland (11th century). Drawing and photo P.-L. Lehtosalo-Hilander.

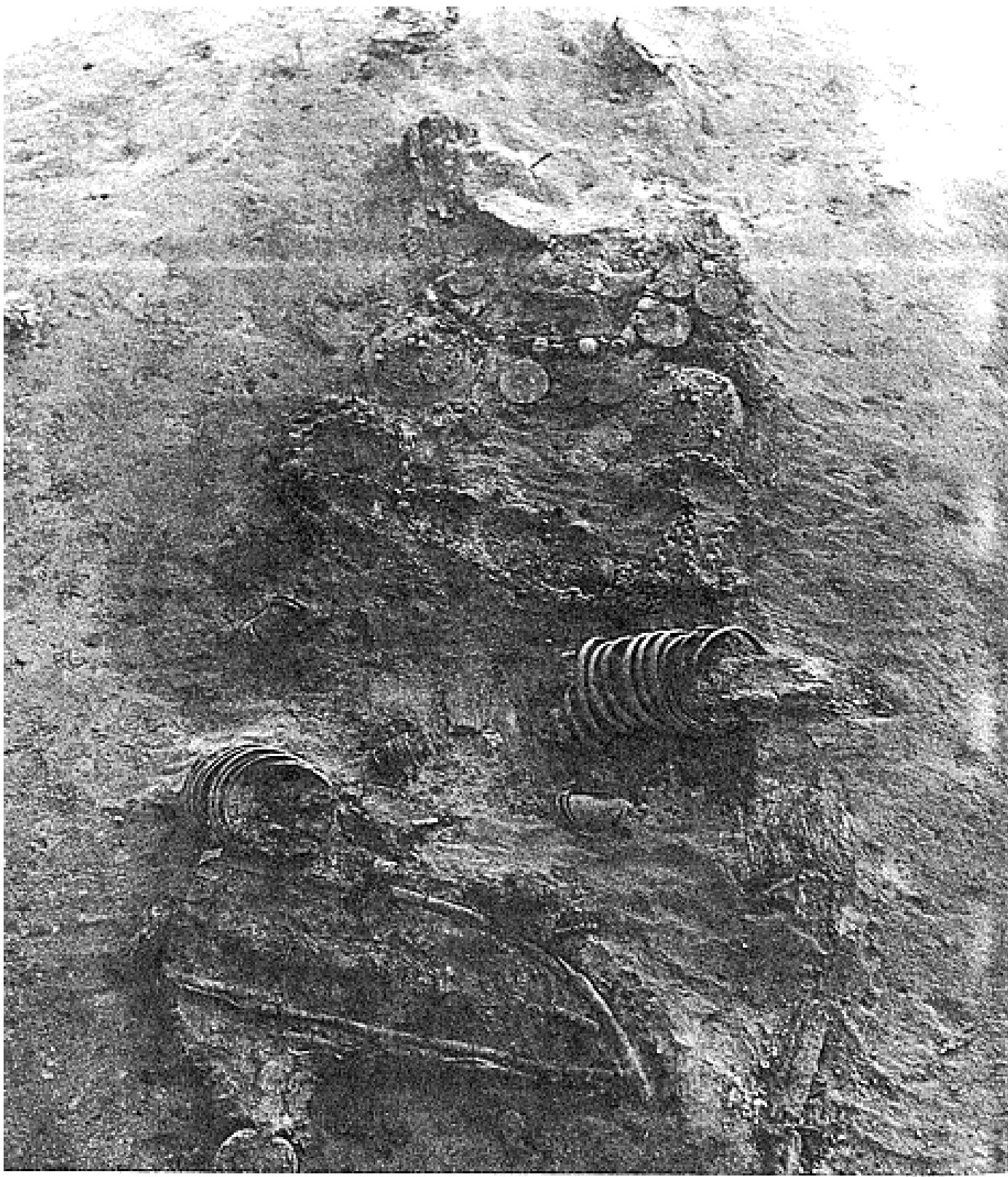


Fig. 31. Grave 36 at Länsi-Eura according to the finds of which the Eura costume is reconstructed. Photo P.L. Lehtonen-Hilander.

The Eura costume

Eura, a parish in south-western Finland near the cities of Rauma and Pori, was already in the last century famous for its archaeological remains. Probably the largest of its inhumation burial grounds was however only discovered in spring 1969, when an excavator - used in connection with sewerage construction in Eura - lifted a silver-ornamented sword in its bucket. The digging was stopped immediately, and excavations were begun the same summer. Up to now over five hundred graves have been excavated, and the burial place of Luistari in Eura has turned out to be the largest found in Finland. Only about a half of the area with graves has now been scientifically excavated - probably the total number of graves will overstep a thousand.

Fig. 31

The richest grave found up to now in this famous burial place was discovered already in the summer of 1969. It belonged to a rather tall woman, who had died in the early part of the 11th century at the age of about 45 years. In addition to round buckles with knobs worn on the shoulders and another brooch to fasten the cloak, bronze chains, broad spiral bracelets and four rings, the deceased wore a necklace comprising coloured glass beads, twelve silver coins and two silver pendants. At the level of her waist there was an adorned bronze-plated knife sheath. Furthermore, her cloak and apron were ornamented with bronze spirals.

Due to the metallic oxides released by the bronze, textile fragments were also preserved in different parts of the grave. Thus it was possible to reconstruct the dress of the late Viking Age through the medium of this single grave, numbered 56.

The work became possible through the efforts of women's organizations in Eura. These formed a committee to raise funds for the research project, and they also took care of the practical arrangements of the work. The scientific research was carried out by a team consisting of the author, conservator Leena Tomanterä and research associates Seija Sarkki and Eeva Savolainen from the National Museum of Finland.

The different phases of the reconstruction work were carried out in 1976-1982, and the prototype of the Eura costume was presented officially on July 24th in 1982 in Eura. It was later transferred to the Kauttua factory museum, in which it is on display just a few hundred metres from the site of the Luistari cemetery. The costumes for use, carefully made according to this model, are being made in Eura by the same committee that collected funds for the scientific project.

The find

Grave 56 at Luistari did not contain any larger pieces of fabric, but there were fragments in many different places and at strategic points. The grave was also discovered in excavation, and even its smallest details were recorded from the very beginning. Accordingly the particulars that differ from the earlier observations could not be due to the objects in the grave having changed place.

*Fig. 33
Fig. 36*

The necklace, from the whole front part of which hung silver coins and pendants, was found round the woman's neck. The heavy round bronze brooches were on the collar-bones. Their situation corresponded accordingly to that of the penannular brooches in the Perniö costume and the oval brooches in the eastern Finnish costumes. The third brooch in this grave was longish, equal-armed, and it was found between the round brooches in the middle of the chest.

On the underside of the round brooches there were rusted iron sheets, which were discovered to be chain holders made of iron wire. The wire had been bent into three loops, which had been fastened together with a very thin bronze wire, and both its ends had been rolled in spirals. The chain holders were joined by a bronze chain of double links, and there was a chain also from the right-hand one to the equal-armed brooch. There were also loops of chains hanging from the chain holders, and in both of these two pendants, on the right a sleigh bell pendant and an iron hook, on the left a sleigh bell pendant and an oval pendant in open-work.

A bronze-coated knife sheath about 25 cm long was attached to a band which was found at the waist. The sheath was ornamented with a driven and stamped pattern all over, and it contained a knife with a blade only about 5 cm long. There was a spiral of bronze wire on the wooden handle near the blade, and the other end of the handle was decorated with iron pendants. This knife sheath is one of the most imposing ones found in Finland, and it is very carefully made.

Fig. 32

The woman had round her wrists broad spiral bracelets, both made of about 180 cm of triangular bronze rod. These bracelets had about ten turns, and they were ornamented with zig-zag lines. They had been worn over the sleeves of a garment, because there were fragments of very dark woollen tabby inside them.

On each hand there were two rings, one simple spiral ring with eight turns and another with a broad middle part decorated with engraved ornaments. Fragments of a striped textile, coloured red, blue and perhaps yellow, were found in connection with these rings. Apparently there had been some kind of mittens in the grave, but perhaps they had not been on the hands. They could have been tucked in the band at the waist.

This band, reddish in colour and woven with tablets, had apparently also held up the apron. It was running twice across the waist, and the upper edge of the apron was folded over the first turn. In the grave the edge was turned inside, but most probably it was turned outside when used by a living person, because it was also bordered with spirals as were all the other sides of the apron.

For these spiral ornaments it could be observed that the apron had been about 50 cm wide and somewhat over 90 cm long. Although its hem had been partly

Fig. 32. Knife and sheath of the Eura costume drawn by Rauno Hilander.

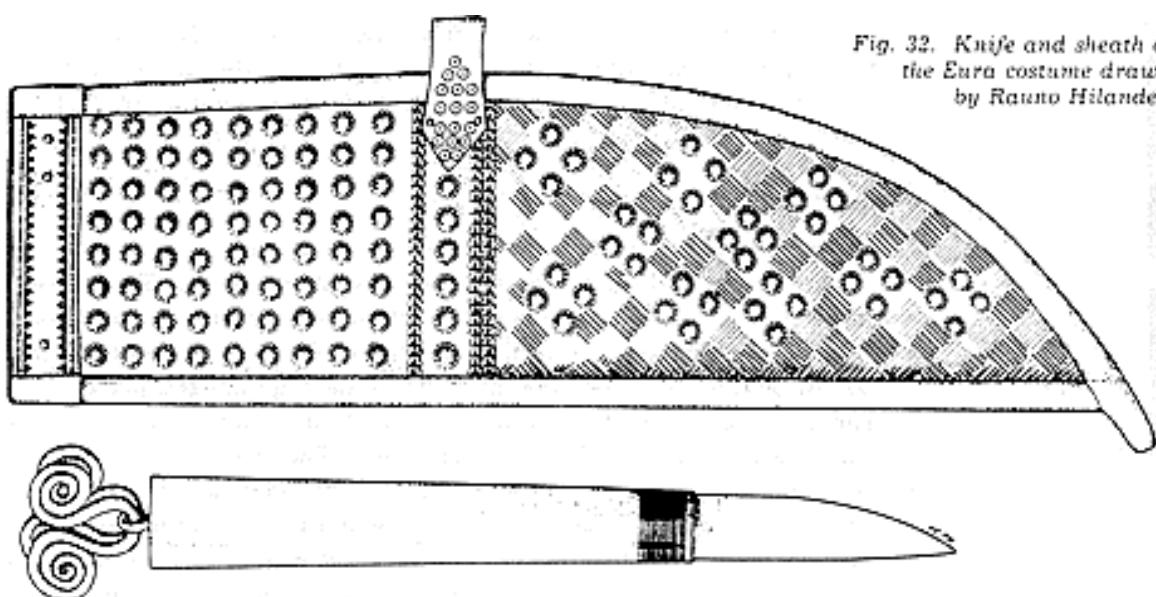


Fig. 33. The set of ornaments found in grave 56 at Läistari in Eura. Photo P.-L. Lehtosalo-Hilander.



destroyed by a later burial, more than a half of it was preserved and contained five applied spiral ornaments. Under these ornaments both the cloth of the apron and some other garment were preserved. This other garment was bordered with a multicoloured tablet-woven band.

Fragments of this same band, woven of red, blue and white (?) yarn, were found also under the bracelet of the right arm. The fabric continued from this band towards the head, and the same fabric was found in connection with the brooches and the necklace pendants and also on the chest. Under the chains there were two layers of this cloth. The upper layer was with the reverse side facing outwards and the under one with the same side inwards. As this fabric was also found bent double near the neck under one of the pendants, it seemed probable that the grave had contained a dress with the upper part folded like the peplos of the ancient Greek women.

It was mostly this observation and the fragments of the sleeves - the first found

in Finnish graves - which inspired the studies of the Eura costume and led to the creation of a new ancient dress.

Results of textile and colour analyses

There were in this Luistari grave some 170 separate finds from 84 locations, and there were textiles in about 90 finds. All these - mostly small pieces of fabric - were analysed, and the reconstruction is based on these and on observations made from various parts of the grave.

According to textile analyses carried out by Leena Tomanterä and Seija Sarkki, there were remains of perhaps seven different fabrics. The fabric inside the bracelets was dark blue plain-weave woollen cloth. The cloth found with the brooches and chains was greenish four-shaft twill, and rather similar material but of a lighter shade was found in connection with the spiral ornaments of the apron. So apparently there had been blue sleeves, a green dress encircling the trunk and a light green apron.

A small twill fragment fastened to a small round spiral ornament found on the chest was probably part of the mantle, but there were so little remains of this garment that it is impossible to reconstruct. The striped woollen textile fragments found near the knife-sheath and finger-rings were made with the sewn mitten technique of blue, red and light (white or yellow?) yarn. Most probably these were really remnants of sewn mittens, because in one of them the base of the thumb was preserved.

The two tablet-woven bands were rather different. The separate reddish band was about 15 mm wide and woven with at least 12 tablets. The surface of this band formed the most common stitch pattern. The three-coloured band used as the border of the darker green twill had been woven with 17 tablets and there had been four threads in each tablet. Because the band was no more than about 11 mm wide, the yarn must have been very finely made. The tablet-weaving requires rather strong yarn, as the turning of the tablets wears it out very easily.

Fig. 34

There was some kind of a meander motif running in the pattern of this band. Because the only totally preserved part was from the very beginning of the band, where the pattern had not yet formed, it was very difficult to reconstruct. Many efforts were made, and the band in the final reconstruction has been chosen out of a pair of bands, both of which were results of compromises.

The textile analysis included also determination of the weft and warp thread density and the direction of the twist and ply of the thread. In this connection it could be observed that the threads used in all of these textiles had differed from the modern home-made woollen yarns. When threads for the reconstruction were sought, it was discovered that all available threads were too loosely spun. The Iron Age textiles had apparently been woven of very tightly-spun threads. In this, as in other respects, the textiles in the Luistari grave resembled those found in other Finnish cemeteries.

Determination of colour was also performed, and blue was found in all the different cloth types. Because this blue dissolved in alcohol and phenol, it was probably indigo. Accordingly it is possible that *Isatis tinctoria* had been used in dyeing all these fabrics. It was impossible to ascertain the dyeing matter which had been used to get yellow or green for the greenish shades. In the reconstruction the most usual known dyeing matters - heather, birch leaves and nettle - were tried.

The yellow red of the bands was supposed by Leena Tomanterä to have been dyed with madder and perhaps *Parmelia saxatilis*, a lichen species growing on stones.

The apron

It is supposed that warp-weighted looms were used in Finland in the 11th century. Because it was easier to make in these short and wide fabrics, the cloth for each garment was separately woven. Usually the fabrics were begun with a starting border made of a tablet-woven band, the weft-threads of which continued as the warps of the cloth. The cloth could be ended with another border made after the weaving, and often there were tube-like selvedges at the sides of the cloth. So it was not necessary to hem the edges.

The apron in the Luistari grave was an example of this fashion. It had been woven so that the starting border was at the hem and the end border at the waist. It had also tube-like selvedges at the sides. The spiral rows surrounding the apron are threaded onto separate cords. One long and three short spirals alternate on this band, and it is sewn to the apron borders in between the spirals. The corner ornaments made of small bronze spirals are made at the ends of the warp threads of the starting and end borders.

Probably there had been originally nine applied spiral ornaments on the apron hem. Because the grave was partly destroyed at its foot end, only five of these were preserved.

All these five figures differ from each other, but all of them are made of long spirals straightened in several parts. These have been placed crosswise with each other so that the straightenings meet. The different forms of these applications have been brought about by varying the length of the spiral tubes and placing short spirals in corners in different ways. The colour of these ornaments has been accentuated by using a red finger-struck band inside the spirals.

Fig. 34

When the reconstruction was made, the figures for the destroyed right-hand side of the apron were made according to those preserved on the left-hand side. So in the apron of the Eura costume there are on the hem nine applied ornaments, one big one in the middle and four smaller ones on both sides of it.

The long-sleeved garment

The clothes known from the Iron Age bog finds in Northern Europe are fashioned so that only very small pieces have been wasted. When it was necessary to cut the cloth, it was done as economically as possible. Probably this was the practice also in Viking Age Finland, and the clothes were made using every single piece of fabric. At least this was supposed when reconstructing the garment with the long sleeves found in the Luistari grave.

It was rather difficult to solve the problem of these sleeve fragments found inside the bracelets. The same dark blue fabric was not found elsewhere in the grave, and the sleeves - although they were of a dark material - could not have belonged to any outer garment, because in that case there would have been this same fabric on the surfaces of the metal artefacts. It is naturally possible that the garment which covered the body had had sleeves of this differing material or that the costume had had detachable sleeves.

It is, however, more probable that the woman was dressed in an under-garment

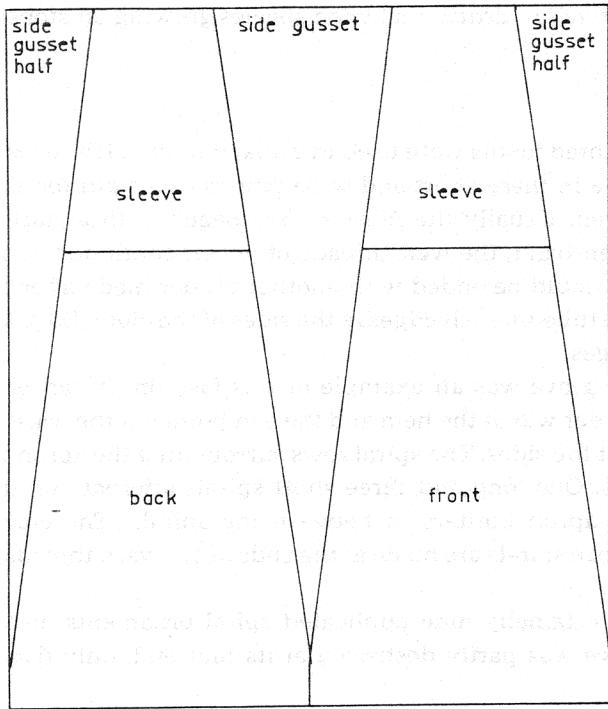
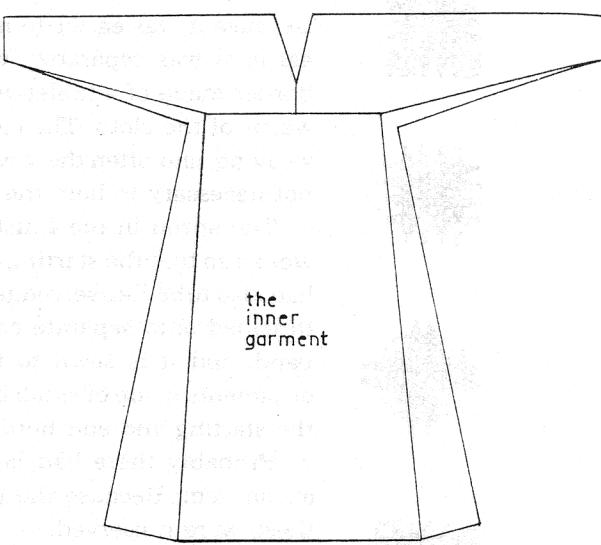


Fig. 34. Patterns for the inner garment, the mantle dress and the apron of the Eura costume. Below the reconstructed spiral ornamentation of the apron. Drawings Rauno Hilander.



tablet-woven band sewn to the border, the wrong side out

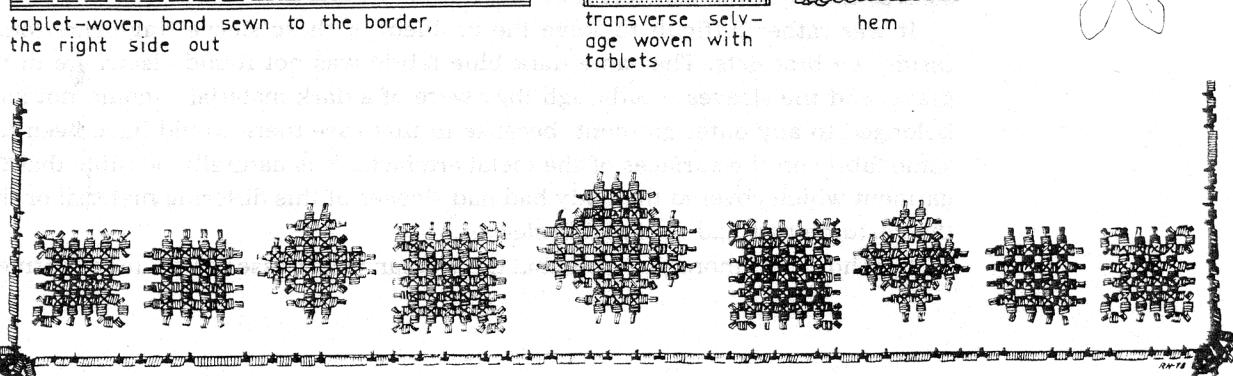
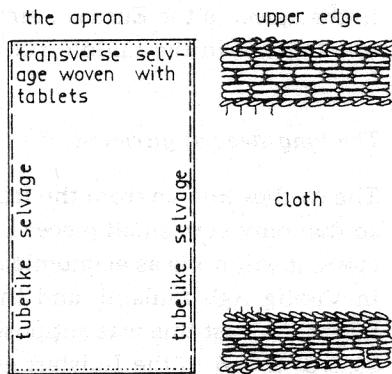
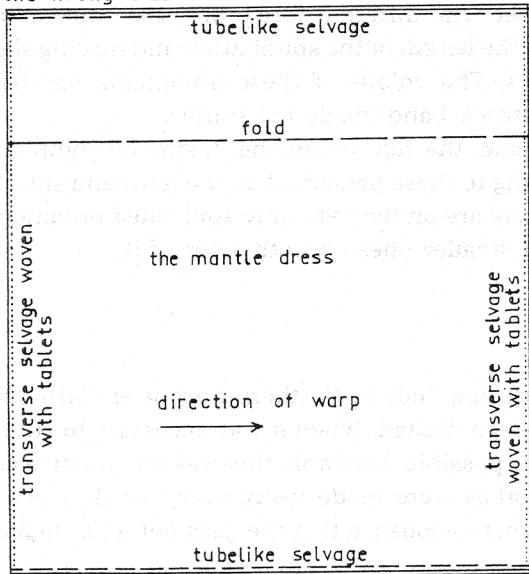


Fig. 34

with long sleeves. This kind of a garment was a part of both Byzantine and Western European dress in the Romanesque Period. A long and loose garment extending to the ground and often with long narrow sleeves is said to have been used in the 11th century.

The sleeves inside the bracelets had been narrow at the wrists, widening slightly upwards, and were rather long, extending outside the bracelets on the hands. The warp had been parallel to the sleeve length. So it was decided to try a pattern which would permit the cutting of sleeves in a lengthwise direction and the fashioning of a loose, long-sleeved dress, so that the cloth would be wide and very little material would be wasted.

After several trials made of pattern cloth on the basis of the shirt-like tunics of the Eastern Finnic tribes, the most probable pattern was found in a leather tunic from a Danish bog find assumed to be of Iron Age date. In this garment the sleeves extend to the neck so that there are no seams on the shoulders, and the body part is formed of a front, a back and two side pieces.

The inner garment of the Eura costume fashioned according to this pattern could be cut from a piece of cloth measuring either c. 190×160 cm or 380×80 cm, and this could be made without wasting a single piece of material. This garment has only straight cuttings, and if the cloth is started and ended with tablet-woven bands, only the edges of the neck-opening must be hemmed; the starting and end borders of the cloth form the edges of the hems and sleeve ends.

It is naturally quite possible that the garment in the Luistari grave was not cut according to the pattern used in the Eura costume. However, the tunic in the reconstruction is not in conflict with the observations of the grave and known features of the early Medieval fashion.

The dress with tablet-woven bands

The green dress cloth had apparently been used cross-wise. The warp threads were running across the body, and the tube-like selvedges were found across the ankles and the chest. The distance from the hem to the shoulder brooches was about 120 cm and the fold was about 35 cm broad. So the width of the dress cloth had been c. 155 cm, which seems to be a quite possible cloth width for weaving on a warp-weighted loom.

The sides of the dress had not been preserved. So we do not know whether the dress had been made of two pieces or of one piece only, and if of one piece whether it had been closed or open. There was in the Perniö grave 1 a dress made of only one piece and closed in front by a seam, and the fact that there was in the dress of the Luistari grave a continuation of the tablet-woven band on the breast suggests a closed dress. But this is not a conclusive proof. If longer pieces of band were woven on the same warp - perhaps the bands of the hem and the upper edge were not made separately - the band may have been too short, and a separate piece had to be added. Accordingly the continuation of the band does not leave out the possibility of an open dress.

For the solving of this problem practical experiments were made. As there was no information on the width of the dress in the Luistari grave, the information needed was obtained from the dress in grave 1 at Yliskylä in Perniö. The width of this dress had been estimated by Appelgren-Kivalo at 140 cm. So the experiments were made with a piece of fabric measuring c. 155×140 cm.

It was soon observed that a closed dress with wide folds was not especially becoming, but an open dress held up with shoulder brooches was both handsome and surprisingly comfortable to wear. Tied at the waist with the apron band it did not open disturbingly even when sitting down. A mantle-dress made of a rectangular piece of cloth, folded double at its upper edge and held in place with a brooch on the right-hand shoulder and with a belt at the waist was still in use in the Baltic region in the 17th century. Thus it is not at all impossible that a garment resembling this might have been used in Viking Age Finland. The use of two shoulder brooches, one on each shoulder, does not alter the basic idea of this garment very much.

Fig. 35
Fig. 39

The final reconstruction of the Eura costume

In the final reconstruction of the Eura costume there is a deep blue inner garment, an open mantle-dress fastened with brooches and a light green apron with bronze spiral ornamentation tied around the waist with a yellow red band. There is no mantle and no headdress in this costume, because the remains of these were so small that reconstruction would have been very uncertain. The sewn mittens are not yet reconstructed either. The shoes which are used with the Eura costume are made according to a pattern copied from early Medieval shoes in Scandinavia.

Fig. 29
Fig. 37

The threads for each garment in the first Eura costume were hand-spun with the same ply as was observed in the original threads. They were dyed with vegetable dyes, and many trials were necessary before the desired shades were obtained. The deep blue of the tunic was dyed with several indigo baths, the colour of the dress material was obtained by using heather, indigo and birch leaves, the yarns for the apron were dyed with nettle and indigo. The apron band was made of yarns dyed with the roots of *Galium mollugo* and *Galium boreale*. The same dyeing matters were used for the red threads of the tablet-woven band in the dress, and the blue in this was obtained by using indigo.

Model pieces for the fabrics were first woven of undyed yarns, later of dyed yarns. Only when both the thread thickness and the warp and weft density were right, were the final fabrics woven. Although a warp-weighted loom was not used, the dress and apron cloths were bordered with tablet-woven bands. With a horizontal loom starting borders are not necessary, and so the borders were made at the ends of the ready-woven cloth. The model for the tablet-woven end borders of the dress was taken from that of the apron. This detail was not preserved in the dress fragments found in the Luistari grave, but a tablet-woven band seemed to be the right way of bordering the open dress which was the result of the reconstruction.

All the details of the Eura costume were tried out in practice before the final reconstruction was presented. So this costume is comfortable to wear, although it is made entirely of wool. However, it must not be thought that women in ancient Finland always wore a dress like this. Probably they went about their work dressed in a woollen or linen tunic and had perhaps at their waist a simple apron without bronze ornaments.

A mantle-dress, a veil and a cloak could be added to this garb in cold weather. On festive occasions the brooches and chains, bracelets and finger-rings, and especially the spiral-ornamented apron were used. The woman in the Luistari grave had been furnished for all occasions.



Fig. 35. The Eurä costume from behind. Photo Rauno Hilander.



Fig. 36. The chain arrangement of the Eurä costume drawn by Rauno Hilander.



Fig. 37. The Eurä costume. Photo Ulla Finnila-Kalevala Korn Limited.

Uniform and Dissimilar Fashion

Women's costume and its ornaments in Western Finland during the late Iron Age

The Eura costume seems to differ in many respects from the other dresses reconstructed. These differences perhaps appear greater than they really are. It is not impossible that in the graves on which the other reconstructions have been based the dresses have been similar to the Eura costume. There are both in the western and eastern Finnish material shoulder brooches fastened to edge fragments bent double, and Theodor Schvindt already compared the dress of the Karelian women to the Greek peplos.

The dress with broad shoulder straps could only be a product of the reconstructors' fantasy, inspired perhaps by the kosto dress of the eastern Karelians. The shape of this old-fashioned costume as a whole is the same as that in the first reconstructions; the straps only are sewn together in front. So far no clear evidence for this type of shoulder dress in ancient Finnish graves has been presented. It must however be remembered that shoulder brooches do not appear in every woman's grave. There must have been different garments in use, and perhaps only the richest women got their shoulder dresses in the graves. Perhaps the most common garment was a woollen or linen smock, and the mantle-dress was an outer garment.

There could also have been mantle-dresses of different forms. Perhaps some of them had only a band over the shoulder like the huTstut-garment in Karelia and Inkeri. The others could have been fastened with a knot in upper corners or with only one pin or brooch in the same place. As already mentioned a mantle dress like this is known from Lithuania from the 17th century. And there is also the skirt made of a rectangular piece of fabric and fastened with a band round the waist.

The possibilities are many, but unfortunately on the basis of the finds we can only follow the development of the dress fastened with brooches.

The appearance of the dress fastened at the shoulders dates back to the 7th century in western Finnish finds. There is some evidence of double pins used during the older Iron Age, but it is not possible to say whether they indicate the Baltic mode of carrying a mantle or whether they prove the existence of a dress fastened at the shoulders.

Pairs of shoulder brooches pointing to the existence of a mantle-dress are known from every century of the later Iron Age in closed connections. However, only in graves from the end of the 10th century onwards are the shoulder brooches and the other ornaments connected with them so common that they can be considered usual.

The first ornaments appearing with certainty in pairs are small round and equal-armed brooches from about the year 600 A.D. With them there is often a third brooch called the crayfish brooch, which probably fastened the mantle. Sometimes





Fig. 39. Lithuanian mantle dress from the 17th century and a skirt consisting of a rectangular piece of clothing fastened round the waist. *Arheologija iin etnografija VII*, 1966, Plate 4: 4.

Fig. 38. A kasto dress from eastern Karelia. Photo U. T. Sirelius 1911/NBA.



Fig. 40. -Hurstut- worn as a mantle. Drawing in NBA.

a chain joined all of them. Two or four bracelets and a couple of finger-rings often completed the combination, but only a few women had neck rings or glass beads round their necks. The material of all their ornaments was usually bronze.

At the end of the 8th century bow-brooches of iron were sometimes used at the shoulders, but from the beginning of the Viking Age round brooches dominated the fashion. In addition to the shoulder brooches the third brooch could be round, but also equal-armed brooches appeared as mantle ornaments. At the end of the Viking period penannular brooches were also used for this purpose.

Contrary to the belief usually adopted chains were not usual during the Viking Age in Finland. Although there are some finds with chains from the 9th century, it is only towards the end of the 10th century that the heavy chain arrangements became the fashion. Apparently a bead band was the most popular ornament of most Finnish women, and beads were imported from east and west.

Bracelets and finger-rings continued to be in vogue, and especially armrings could be very heavy. From a single Viking Age bracelet about a dozen ornaments of the foregoing period could have been cast. The ornaments were still mostly of bronze; only at the end of the Viking period did silver brooches and rings become common. Very few ornaments were gilded.

At the end of the 11th century in Finland Proper and in Satakunta women began to wear small penannular brooches at the shoulder. On the other hand there is also evidence that about that time they began to sew the shoulder parts together. The role of shoulder brooches as an ornament disappeared when mantles with rich spiral decoration came into fashion.

Development of fashion in other parts of Finland

In other parts of Finland the development of jewelry was different. Shoulder brooches with their chain arrangements developed on the basis of the 11th century fashion and they acquired some new details.

In Häme the penannular brooches of western Finnish fashion were sometimes worn, likewise some other less common types of brooch. A new form of brooch, however, appeared there as a shoulder fastening at the end of the 11th century. These oval buckles got their shape from the Scandinavian brooches of the Viking period, but they were decorated with motifs borrowed chiefly from eastern plant ornamentation. A pair of brooches of this type became an essential part of a woman's costume in eastern Finland as we have seen.

Some of these brooches were ornamented with interesting patterns. In the middle of a palmette a protective cross-like knot may be placed or a garland of acanthus is formed into a spiral row. Both these ornaments appear on the eastern sword hilts found in Finland. The most popular model was however the so-called "crayfish ornament".

The popularity of brooches with this palmette composition is one of the puzzles of the time of the Crusades, the 12th and 13th centuries, in Karelia. These ornaments were by no means representative of the best of their time, but apparently brooches of this type were made in several workshops. Sometimes a magical significance may account for the widespread use of artistically inferior decorative motifs, but nothing like this has been mentioned in connection with this pattern.

One explanation is however possible. Perhaps no special attention was paid to ornaments made by casting during the period, when the engraved ornamentation was the height of fashion. Cast ornaments were repeated in the same old pattern, and all inspiration was used in the creation of intricate engraved figures.

This engraved ornamentation appears at its best in the silver penannular brooches which were used in veils and mantles in eastern Finland. These brooches were hammered from a thin sheet in order not to waste expensive silver, but they were all the larger because the ornamental engravers had to have plenty of room for their plant and ribbon motifs. The eastern plant ornaments merged in these brooches with northern band-twistings, and often asymmetrical details formed as by a miracle a balanced unity.

This ornamentation appears however on many different metal articles, on ear spoons, knife handles, knife sheathes and belt mounts. Probably it was used to decorate objects made of other materials as well, but articles of bone and wood have not been preserved in the Finnish soil.

The development of this plant decoration attained its peak in eastern Finland about the year 1200, when western Finland had already been converted to Christianity. Therefore it is not possible to know whether this ornamentation in its most refined form spread also to the west. From the excavations of medieval Turku there is a leather sheath fragment ornamented with plant motifs, but this can reflect the influence of the Romanesque art of the West. The decoration of eastern Finnish ornaments is supposed to originate from Russo-Byzantine art through Novgorod.



Fig. 20

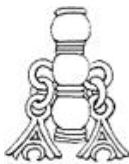
Fig. 25
Fig. 30a



Specific Eastern Finnish details

Fig. 24 In eastern Finland one meets a variation of chain holders with spiral endings, each side of which is ornamented with volutes. These chain holders have prototypes in western Finland and especially in the Hame area. The fact that they are more used around Kakisalmi than in Mikkeli implies that the direct contacts between Hame and Karelia have been important. The oval brooches of western type and other western Finnish artefacts found in the Karelian area also point in the same direction.

Fig. 20 Cruciform chain holders are apparently connected with cross pendants. These pendants appear in Latvia from the 12th to the 14th century, but some ten pieces of one variation are known from western Finnish finds already from the early 11th century. Accordingly the form could have been developed on Finnish soil.



Between the shoulder brooches and chain holders a tubelike ornament appeared in eastern Finland. These curious tubes with their salient rings and small pendants are a loan from the eastern Finnic tribes. Instead of these there are sometimes bronze beads between the brooches and chain holders. These beads seem to be related to the tubelike ornaments, and possibly they are rather ungainly copies of the beads in filigree.



Bronze birds and horses hanging from the chains with their small bells and webfoot pendants have probably also come to Finland from the shores of Lake Ladoga. An extensive quantity of these mascot animals have been found in the North Russian area, and at least partially these must have been made in N ovgorod. The habit of suspending the knife sheath on breast chains is common in eastern Finland. Possibly this Scandinavian trait came there through the Viking colonies near Ladoga.

The bronze chains from Mikkeli are partially similar to those in western Finland. They are made of spirals or of single and double rings; sometimes they are formed of 8-shaped links. The use of iron breast chains, cut perhaps from chain armour, may have arisen from local conditions in eastern Finland, but also in western Finland iron parts of the chain arrangement were used at the end of the Viking Age. Iron chain holders, iron rings and rod like links are found along with the bronze ones.

Fig. 20 The fastening of the third brooch with a chain to the other ornaments of the combination is familiar already from the western Finnish finds of the 7th century. In the west this third brooch was however for the mantle, whereas in eastern Finland it was the round silver brooch for the shift that was fastened to the chain arrangement.

The use of round silver brooches on the neckline of shirts and dresses is apparently a Continental fashion. It is often illustrated there in books of the 12th century. In some measure this fashion spread also to western Finland, but in Karelia and in the Mikkeli area this round brooch became an essential part of the native woman's costume. The fact that it was often imported from Gotland or from the Swedish mainland was a minor point.

In eastern Finland the mantle could sometimes be fastened with a bronze penannular brooch. These brooches were not different from those in western Finland, the Eastern Baltic area and in Ladoga Karelia. The flat and crested silver penannular brooches on the other hand were something special there. They could be about 14 cm in diameter, and some of them were very finely engraved.

These brooches have prototypes ornamented with stamps in western Finland. They derive from the beginning of the 11th century and they have also been used as mantle brooches. A rudiment from the ornamental trisection of the western Finnish brooches has been preserved in some specimens with plant ornamentation.

Western traits in the east

If the costume in eastern Finland is taken under examination as a whole, it will be seen that it is very similar to the western Finnish dress of the late Viking Age. The basic elements are: a shift or an inner garment, a dress fastened at the shoulders, an apron and a mantle. As an ornament there is a chain arrangement with its different parts. Only the apron is ornamented with spirals, so in this respect also the eastern Finnish dress is like the western Finnish from the Viking Age.

Fig. 41

The veil has apparently been the head-dress of married women in all the above-mentioned districts. There are however only very modest remains of veils not ornamented with bronze rings or spirals or fastened with brooches. Thus from the Mikkeli area we know virtually nothing about veils. On the other hand the blue veil with silver brooches in Ladoga Karelia is famous, and there seem to have been many different kind of head-dresses in western Finland.

On the subject of colours in costumes it has been observed on examination that they have been very varied. For example the mannikin dressed in the Perniö costume could have had a blue apron just as well as a white one. Similarly the blue -grey-white scale of the eastern Finnish costumes is a mere chance flavoured with the Finnish preference for blue. The difference in colours existing in the reconstructed costumes does not mean that there were blue dresses in the east and green and red dresses in the west during the late Iron Age; there could have been many other colours.

It is also possible to find western Finnish prototypes for the aprons with broad spiral borders from Sakkola and Kaukola in Karelia. The aprons from Patja in Sakkola and from grave 1 at Kekomaki in Kaukola have borders covering the whole of the apron width. On the other hand, the ornamentation in the apron from grave 5 in Kekomäki is composed of several quadrangular pieces made of small bronze spirals, horsehair and woollen thread.

The Karelian aprons with broad borders can be compared with many aprons from western Finnish 11th century burial places, in which there are also uniform spiral coverings at the hem. The apron with separate pieces resembles some contemporaneous aprons especially known from Eura and Köyliö and ornamented with a row of spiral figures. If the Karelian costume is compared with the combination including this type of apron, the similarity of the general impression is startling. Seemingly it has been the western Finnish Viking Age fashion that has been continued in the costumes of Häme, eastern Finland and the north-western shore of Lake Ladoga.

Both in western and eastern Finland, and even in Karelia around Käkisalmi, the dress with shoulder brooches has been similar. It has been made from a rectangular garment, encircling the trunk and fastened over both of the shoulders by brooches. Perhaps it has sometimes been open, sometimes sewn together. This dress does not appear, however, in all graves, and it has not always been worn: in a way it has been an outer garment.

Fig. 41. The eastern Finnish costumes from the 12th and 13th centuries resemble the Viking period costumes in western Finland. The heavy chain arrangement and the richly ornamented apron are the most important details. On the left the costume from Tuukkala (drawn according to the author's idea of its shape), in the middle the Eura costume, and on the right a sketch according to finds from Kaukola (with a dress drawn according to the earlier reconstructions).

Drawing Rauno Hilander.



These Finnish costumes and the Scandinavian dresses with shoulder straps differed in the manner of fastening. In Scandinavian costumes the shoulder brooches were mostly clasped on to links projecting from the upper edge of the dress, whereas in Finland the brooches were fastened to the cloth itself. Also Livonian brooches are mentioned as fastenings of garments, but it is not quite clear whether this Livonian dress was similar to the Scandinavian one with shoulder links, or whether it was more like the garment known from the Finnish finds.

*Fig. 22
Fig. 29
Fig. 45c*

The costume illustrated by the Perniö finds probably represented a new trend in fashion. In it the chain arrangement was no longer the most important detail. Breast chains had disappeared, and the small penannular brooches were only fastenings without greater ornamental value. On festive occasions they were mostly covered by the mantle, the most imposing part of the costume.

Basic structure of costumes in Northern Europe

There were in Northern Europe three or four basic structures in female dress during the younger Iron Age. The combination of a shirt, a skirt and a mantle was represented by the Latvian costume. In Scandinavia and in Finland there was a shirt, a dress with shoulder brooches and a mantle, which combination included an apron in Finland. The third combination included a shirt, an inner garment, an upper garment and a mantle, and is the same as was usual in Western Europe. There are some finds in Sweden supposed to point to a dress like this, and a rather similar type of costume has been outlined according to a Livonian find.

A dress combination with a caftan-like garment should also be borne in mind. This is known from the grave of Queen Arnegunda in Paris, and it is supposed to

have also been worn by some women in Birka. On the other hand the dress with a hanging apron presented in some Danish publications seems rather impractical. It is hard to believe that a living woman has worn a costume like this.

The Estonian woman is pictured in a dress with shoulder straps sewn together, and the large ornamental pins have only the task of upholding the chains. The general impression is similar to western Finnish costumes from the 12th century.

A rather interesting detail has been found in some graves in South Estonia. Women seem to have had a garment with spiral-ornamented hangings at the back round their waist. This brings to mind the loin cloths of the Mordvinians in Central Russia, and points to the fact that there may have existed rather different applications of spiral ornamentation on both sides of the Gulf of Finland.

The origin of Finnish spiral ornamentation

Spiral ornamentation has been regarded as the most characteristic element of the Finnish Iron Age costumes. Appelgren-Kivalo considered it originally Finno-Ugrian, and according to him the Indo-European Letts had borrowed it from the Finnic tribes. He even presumed that the presence of spiral ornamentation in some area was a mark of Finnic sojourn.

However, in Latvia costumes were decorated with spiral ornaments already in the 5th and 6th centuries. In Finland the oldest traces of textiles with spiral decoration are, according to the present finds, only from the beginning of the 9th century. So it is more probable that the Finns acquired this form of decoration from the Letts.

The most abundantly ornamented garments of the Letts were the women's mantles. If the inhabitants of south-western Finland had acquired their spiral ornamentation from the Latvian direction, one could suppose that ornaments used in mantles would be found. However, no female mantle with spiral ornaments older than the 11th century has been found in Finland.

On the men's mantles, spiral ornaments began to appear already about the year 900 A.D., perhaps even a little earlier, but these ornaments differ from those known in the area south of the Gulf of Finland. They are either separately threaded applications sewn on to the cloth or corner ornaments and band endings made in a like manner. Besides mantles, they have been used on waist bands, garters and probably also mittens.

The oldest kind of spiral decoration in Finland was, however, to form small fan-like ornaments in the apron corners. These began to appear about the year 800 A.D. Sometimes there was also a row of spirals in the hem, and sometimes they were the only ornaments.

Later the corner ornaments grew larger. In the 10th century they could be about 3-4 cm in diameter, but at the beginning of the 11th century, when spiral applications began to appear as ornaments on apron hems, the corner ornaments became smaller again. They remained small throughout the last century of pagan time in western Finland, when they appeared again separately or only with a single spiral row. The aprons like the ones from graves 1 and 6 at Yliskylä in Pernio with their spiral bands at the waist are exceptions. Corner ornaments are very common in south-western Finland, i.e. in Finland Proper and in Satakunta, but they have not been found in eastern Finland.

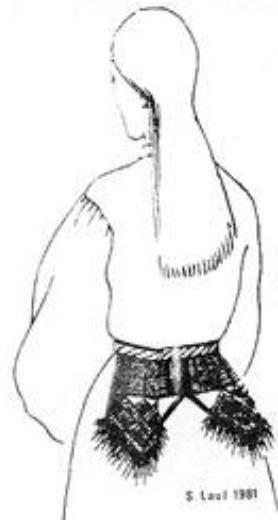


Fig. 42



From Latvia spiral-ornamented aprons are not known, and the ornaments, in some way comparable with the fan-like ornaments of the aprons and the applied figures of the men's mantles, are only from the 11th century at the earliest in Latvia. Consequently we are faced with the situation that, although spiral ornamentation in Latvia seems to be older than in south-western Finland, it is impossible to locate in that area prototypes for the oldest patterns in the Finnish finds.

Perhaps there is, however, a very simple explanation for the difference between the oldest ornamentation in Latvia and Finland. The use of spirals in other connections was known from of old in Finland. The years around 800 A.D. were in Finland a period of active relations with the outer world, when influences were received easily. Perhaps some sailor or trader merely remarked that in the south spirals are sewn on to the cloth, and this resulted in the adopting of the new fashion. The small tubes, previously threaded to neckbands or knife slings, became ornaments of garments.

As a matter of fact, a spiral row edging a garment is only a spiral necklet sewn to the edges. The oldest small fan-like ornaments in apron corners are not at all complicated either. When the elaborately entwined ornaments of the men's garments appeared, Finnish spiral ornamentation had been developing already for at least 50 years. Consequently it is quite likely that they were fashioned in Finland.

Real or imagined schools of decoration?

From the Mikkeli cemeteries there are some aprons bordered with only single spiral rows, but also others decorated with applied ornaments. These are bandlike and they usually decorate apron hems, but once one of these has also been found at the waist. Corner ornaments do not seem to have been used in that area.

Fig. 11 The bandlike applied ornaments mentioned have a parallel among the western Finnish finds from Osmanmäki in Eura. This ornament is probably a hundred years older than the ones from Mikkeli, and in a technical sense it can be compared with the above-mentioned ornaments in the men's mantles. The idea itself, a band plaited separately and sewn on to the cloth, is however the same.

As a matter of fact all the details of the western Finnish spiral ornamentation seem to appear in a primary stage in finds from the 9th and 10th centuries in Eura. Moreover, an apron border recently found combines nearly all of the techniques formerly divided between western Finland, the Mikkeli area and Karelia.

Fig. 44 Tyyni Vahter supposed in the 1920's that the spiral ornamentation had been made differently in the different areas in Finland. For western Finland the straightened centre parts of the spiral tubes had been typical and the thread used in ornaments had been of wool. In the Mikkeli area the ornaments had been plaited of linen or hemp thread and in every crossing of the threads a small spiral had been placed so that the threads were totally covered. In Karelian ornaments, spirals were threaded in horsehair, and there were places without spirals in which the horsehair was twisted with woollen yarn. The figures in these ornaments were formed by the interchange of spirals and yarn-covered hair.

However, in the apron border from Eura mentioned, there are spirals with straightened centre parts, but also spirals without these, forming a latticed composition. This resembles the structure in the Karelian aprons. The structure in

the corner ornaments is the same as in the aprons in the Mikkeli area, and also hemp thread has been used. Accordingly all these methods could have been used in the same garment, and all of them have been known in Eura.

Cremation prevents us from defining the general occurrence of this ornamentation in other parts of Finland before the 11th century. The identification of spirals alone in cremation burials is not enough. It does not even prove that the spirals have been used as ornaments sewn on to the cloth, because bronze and silver spirals were also worn in necklets from the Roman Iron Age to the Viking Period. There is even a grave from Tuukkala in Mikkeli, dating probably from the beginning of the 12th century, in which there seem to have been bronze spirals in a necklet.

Pan-European trends of fashion?

Because of the dress reconstructions, the broad spiral applications of the Karelian aprons have become famous. There are, however, only three finds with them, two from Kaukola and one from Sakkola. Together with the last a coin from the 13th century was found; so these imposing ornaments belong to a rather late phase of the Finnish Iron Age. In other Karelian graves with aprons the spiral ornaments have been simpler. There were in some of them narrower applied borders, in others only spiral rows round the edges.

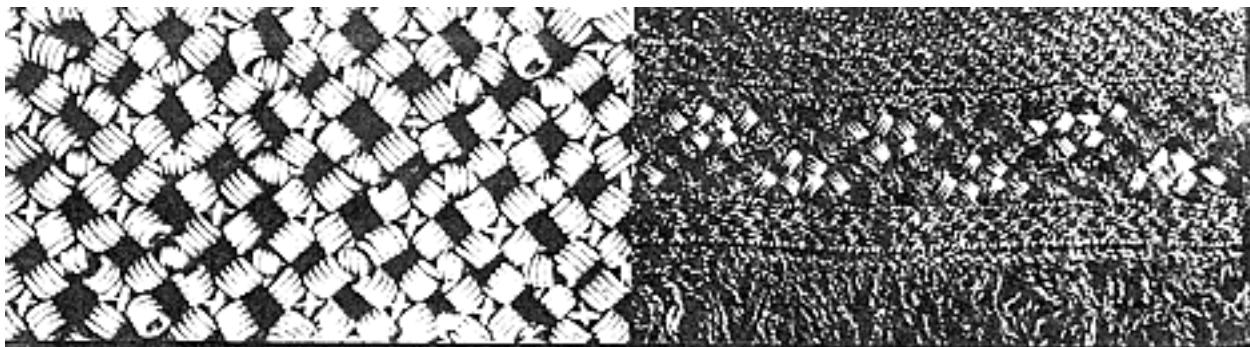
The figures in the broad spiral borders make it interesting to turn again to the Eastern Baltic finds. Among the Lettish head-dress endings there are quadrangular ornaments decorated with a swastika like the ones on the apron hem from grave 1 at Kekomaki. Similar motifs appear also in Estonian textiles, and from the Livonian area there are spiral figures, the ornamenting of which is similar to those from grave 5 at Kekomaki. Even the execution of the ornamentation is the same as in Karelia: there are no spirals threaded into crossings as in western Finland and in the Mikkeli area.

On closer examination it becomes apparent that the ornamental motifs in them represent a pan-European fashion. Almost the same ornaments as in the Karelian aprons appear in textiles found from the tomb of Archbishop Walter de Gray in York. They are bands woven with gold threads; and because there are many different patterns in these, it has been supposed that they have originally been model bands for a maker. One band like this imported into Finland could have given the inspiration for all of these apron borders!

As for the technique of spiral ornamentation, it is the same as in western Finland before spiral centres were straightened. Although similar spiral ornaments appear from Latvia to Karelia, these witness perhaps only the realization of a

Fig. 27
Fig. 29

Fig. 41



pan-European fashion by old means and its application to the indigenous costume of each district.

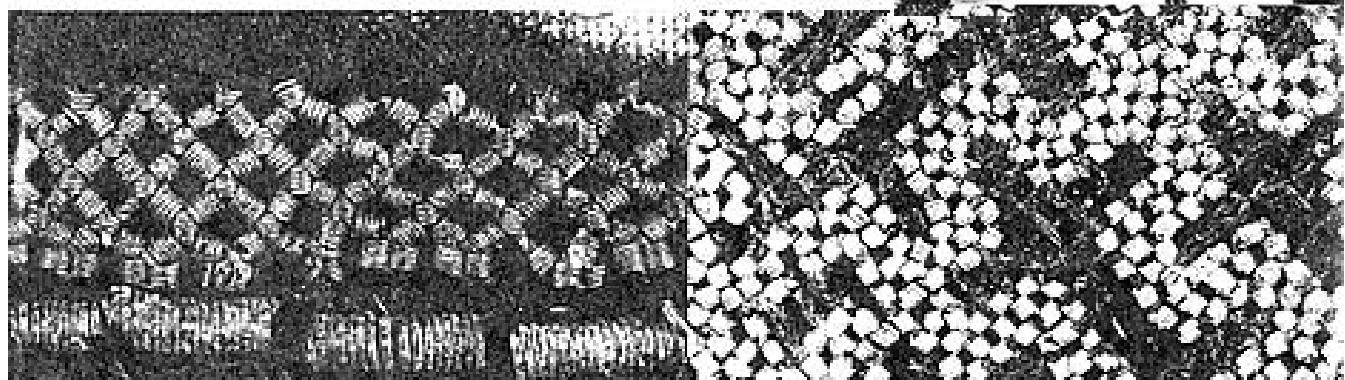
Spiral ornamentation in its most imposing form is not a creation of one tribe or one language group. Many different factors have influenced its development, and among these the pan-European fashions are worth keeping in mind. It seems possible for example that the western Finnish mantle at its best is a copy of the mantles wrapping the Madonnas of Byzantine art. The tiny bronze spirals have only substituted the golden threads in bands and stars.

These mantles do not appear in the eastern Finnish finds, and similarly the applied stars and fan-like ornaments of the apron corners belong only to the western Finnish dress. So when lines of Finnish folk poetry mention brass mantles and golden flowers, they appear to mention garments of the western Finnish women. The men who sang the songs could be from anywhere.



Fig. 43. The Pernjö mantle as a head cover.
Photo Ulla Firminia Kalevala-Kone Limited.

Fig. 44. Examples of differing spiral ornamentations. On the left, details of an apron hem ornament from Ristimäki in Turku and of a mantle border from Ihalta in Raision, before part of an apron border found at Tuukkala in Mikkeli, and on the right a detail of a broad apron border from grave 1 at Kekomäki in Kaukola. Photo P.-L. Lehtosalo-Hilander.



Select bibliography

- APPELGREN-KIVALO, Hj., 1907. *Suomalaisia pukuja myöhemmiltä rautakaudelta - Finnische Trachten aus der jüngeren Eisenzeit*. Helsinki.
- BAU, F., 1981. Seier och sleb i vikingetid. Birka's kvindedragt i nytt lys. *KUML* 1981. Aarhus.
- CLEVE, N. 1978. *Skelettgravfälten på Kjuloholm i Julo II*. SMYA XLIV: 2
- GEIJER, Agnes, 1938. *Birka III. Die Textilfunde aus dem Gräbern*. Uppsala.
- 1980. The Textile Finds from Birka. Birka III, Die Textilfunde aus den Grabern, revised by the author. *Acta Archaeologica* 50. 1979. København.
- GEIJER, A.-ARBMAN, H., 1940. En detalj I den gotländska mansdräkten under vikingatiden. *Fornvännen* 35. Stockholm.
- HEIKEL, A.O., 1889. *Tuukkalan löytö*. SMYA X.
- HIRVILUOTO, A-L., 1973. *Raison Ihalan "vaskivaipat"*. SMYA A 75.
- HÄGG, I., 1974. *Kvinnodräkten i Birka*. AUN 2. Uppsala.
- ITKONEN, K., 1960. Esihistoriallinen nakkajalkine Raisiosta. *Suomen Museo* 1960. Helsinki.
- KALEWALA, kolmas helppohintainen, selityksillä ja kuvilla varustettu painos. Suomaisten Kirjallisuuden Seuran toimituksia 48. Helsinki (1887).
- KAUKONEN, T.I., 1972. Aino-puku ja sen historia. *Vakkanen. Kalevalaisten Naisten Liiton vuosikirja*. Helsinki.
- KING, D., 1971. The Tombs of Archbishops Walter de Gray and Godfrey de Ludham in York Minster, and their Contents. The Textiles. *Archaeologia, or Miscellaneous Tracts Relating to Antiquity*. 103. Oxford.
- LAUL, S., 1981. Tagapöll muinaseesti naise röivastuses. *Eesti ajaloo probleeme*. Tallinn.
- LEHTOSALO(-HILANDER), P-L., 1973a. Luistarin hopeasolkki. SMYA 75.
- 1973b. Punahame, sinihuntu - monien mahdollisuksien muinaispuvut. *Vakkanen* 2. Helsinki.
 - 1978. Euran puku - uusi tulokas suomalaisten muinaispukujen sarjaan. Puku ja sen koristeet. *Vakkanen* 3. Helsinki.
 - 1979. Muinaispukujemme korut. *Kotiseutu* 5/1979. Helsinki.
 - 1980. Common Characteristic Features of Dress - Expressions of Kinship or Cultural Contacts. *Fenno-ugri et slavi* 1978. HY AL 22.
 - 1982. Luistari I -III. SMYA 82: 1-3.
 - 1984. Keski- ja myöhäisrautakausi. *Suomen historia* I. Helsinki.
- LEHTOSALO-HILANDER, P-L. & SARKKI, S. & TOMANTERA, L., 1982. Euran puku ja sen edeltäjät. Eura.
- MANNINEN, T., 1957. Die Kleidung. *Kansatieteellinen arkisto* 13. Helsinki.
- NØRLUND, P., 1941. Klaedegrægt i oldtid og middelalder. *Nordisk kultur* XV: B. Dragt. Stockholm.
- PÄLSI, S., 1928. Puvustoaineksia Maskun Humikkalan kalmistosta. *Suomen Museo* 1928. Helsinki.
- 1936. Jalkineiden jäähööksiä rautakauden ruumishaudoissa. *Suomen Museo* 1936. Helsinki.
- SARKKI, S., 1979. *Suomen ristiretkiaiset nauhat*. HYAL 18.
- 1982. *Nuoranteen esiliinanhelma*. HYAL 29.
- SCHAUMAN, M., 1971. *Finska kedjegarnityr*. HYAL 2.
- SCHLABOW, K., 1976. *Textilfunde der Eisenzeit in Norddeutschland*. Göttinger Schriften zur Vor- und Frühgeschichte. Band 15. Neumünster.
- SCHVINDT, Th., 1893. *Tietoja Karjalan rautakaudesta* (Aus dem Eisenalter Kareliens). SMYA XIII.
- SLAV A, M., 1966. *Latviec tautas terpi*. Arheologija un etnografija VII. Riga.
- Ergebnisse einer Kartogrammaufnahme für Frauenumlegetücher im Baltikum. *Suomen Museo* 1977. Helsinki.
- TENKAMA, P., 1977. Muinaiskarjalainen puku - totta vai tarua? *Kotiseutu* 6/1977. Helsinki.
- TOMANTERA, L., 1978. Euran puvun tekstiilialaineisto. *Vakkanen* 3. Helsinki.
- 1978. Tampereen Vilusenharjun tekstiililöydöt. *Karhunhammas* 3, liite 2. Turku.
 - 1982. Tekstiililöytö - muinaispuku. HYAL 29.
 - 1984. Pukurekonstruktio Maskun Humikkalan haudasta 32. "Ken kantaa Kalevalaa". *Kalevala 1835 -1985* (exhibition guide). Helsinki.
- VAHTER, T., 1928. Pronssikerukkakoriste. Iun teknillisista menetelmistä. *Suomen Museo* 1928. Helsinki.
- 1934. Tuukkalan neulakinnas. SMYA XL. Helsinki.
 - 1939. "Tuukkalan emännän" puku. Suomalaisen kulttuurin ylväs aikaansaannos. *Nuorisoseuratyö*. Helsinki.
 - 1952. Varsinaissuomalainen kaarihuntu. *Corolla archaeologica in honorem C.A. Nordman*. Helsinki.
- ZARINA, A., 1970. *Seno latgalu apgerbs* 7.-13. gs. Riga.
- HYAL = Helsingin Yliopiston arkeologian laitoksen moniste, Helsinki.
- SMYA = Suomen Muinaismuistoyhdistyksen Aikakauskieli - Finska Fornminnesföreningens Tidskrift, Helsinki.

Suomenkielinen lyhennelma - Resume på svenska

The Swedish summary on pp. 65-76 has been omitted here to keep the overall file size smaller.



*Fig. 45. The 12th century costume from Masku presented in the exhibition of the 150th anniversary of 'Kalevala' the 1st November 1984. This costume is reconstructed by Leena Tomanterä and made by Riitta Lävönies from Heinola. It is based principally on grave 32 at Humikkala in Masku and consists of a linen shift, a white open skirt -*hurstut*-, a closed golden-brown dress and a deep blue headdress, apron and mantle. Apart from the shift all the garments are of wool, the headdress and the open skirt are of broken twill, the dress, the apron and the mantle of 2/2 twill. Photo Rauno Hilander.*



The Masku costume

Fig. 46. Two different interpretations of the western Finnish veil with bows. On the right Tyyni Vahter's reconstruction from 1952, on the left the new reconstruction by Leena Tomanterä. Photo Rauno Hilander.

