

Eskimo Clothing from Qilakitsoq

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The grave find at Qilakitsoq, with its eight fully clad mummified bodies and 25 additional articles of clothing, was so well preserved that it made possible a description of the dress of Eskimo women in the fifteenth century, and of the advantages and apparently few drawbacks of this clothing in the arctic climate.

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Conservation, treatment and description

On reception, this large find was crumpled, stiffened, and covered with fungus, dirt, and a layer of earth and sand.

In order to preserve the find and to measure, draw, and describe the clothing it was necessary to clean articles of skin by washing and drying them to a comparatively soft consistency without shrinkage. Trials showed that of the many methods of conservation, tawing best met these needs.

Tawing with Lutan F (BASF, Ludwigshafen) was chosen, as this was fairly gentle and simple to execute and supervise. The skins could be slowly softened, unfolded and cleaned. They swelled during softening, but dried out without noticeable shrinkage.

However, badly damaged elements were lost during the softening process, and some hair loss could not be avoided. Furthermore, biochemical analysis (Ammitzbøll *et al.*, this volume) showed that glycosaminoglycans leached out, so after treatment it was not possible to determine the type of seal skin used for the *kamiks* with this investigation.

All the loose items of clothing as well as some of the clothes from mummies 2, 5, 7 and 8 were tawed with Lutan F.

Analysis after tawing showed an Al_2O_3 concentration of 1.2%, revealing adequate tawing. The pH value was 3.90 with a variation of 0.4 which shows that there is no dissociated acid in the skins.

The degree of tawing can be measured by ascertaining the shrinkage temperature of the skin. All skins have the property that, when heated to a certain temperature, an irreversible shrinkage occurs. Some types of tanning raise this s-temperature, showing the formation of strong, unbreakable chemical bonds. This is not

the case with alum tawing, which normally has no influence on s-temperature. And the s-temperature was not raised in the case of these skins. A fresh ringed seal skin has an s-temperature of 58°C. For these old skins the s-temperature both before and after tawing was 52°C, that is, no chemical bonds of any great strength have been formed, and one can thus regard the method as being more or less reversible. That the s-temperature is less for the old skins indicates a certain amount of decay.

The best preserved mummies, numbers 1, 3, 4 and 6, were kept in their clothes while these were softened, cleaned and straightened with Lederweicher SR (an anion-active sodium salt of succinic acid ester, Fritz Minke). Finally the mummies were subjected to gamma radiation (see Arne Johansson, this volume).

After this thorough treatment it was possible to measure and draw up patterns of the clothing, and to study the garments, the original skin treatment and sewing technique.

With few exceptions the innermost part of the costume consisted of a bird skin parka with the feathers inward, edged with caribou skin, the outermost of a sealskin parka with the fur turned outward, both with hoods, short or half-length trousers of seal or caribou skin with the fur outwards, *kamiks* (boots) of hairless sealskin and stockings of seal or caribou skin with the fur inwards. Outer parkas and trousers were made either of caribou skin or seal skin – in this case exclusively the skin of the ringed seal.

How the clothing was worn became clear with the cleaning and subsequent study of the mummies. All the mummies wore their trousers hanging from the hips. The half-length trouser legs came to the knee or slightly lower, and the *kamiks* and *kamik* stockings ended slightly above the knee. *Kamik* grass was used both inside the stockings and between the stockings and the *kamiks*. Both outer and inner parkas were waist-length

Table of all the articles of clothing

Type of clothing	Mummy number:								Number of garments on mummies	Loose garments	Total number of garments
	1	2	3	4	5	6	7	8			
Parkas											
Outer	+	+	+	+	+	+	+	+	8	7	15
Inner		+	+	+	+	+	+	+	7	1	8
Intermediate								+	1		1
Trousers											
Outer	+	+	+	+	+	+	+	+	8	3	11
Inner								+	1		1
Footwear											
<i>Kamiks</i>		+	+	+	+	+	+	+	14	5	19
Stockings		+	+	+	+	+	+	+	14	7	21
Half sleeves										2	2
Totals									53	25	78

at the sides and must have fit snugly. In contrast, the armholes and shoulders were very roomy. The position of the hood on the head could not be ascertained precisely, because in some cases the hood had slid back and in other cases it was partly missing.

The clothes were all presumably sewn with sinew thread, but no study of the thread material has been made. Two kinds of stitches, overcast and running, were used. Overcast stitching was used for parkas, trousers and stockings, while both stitches were used for *kamiks*.

It is characteristic of all the material in the find that the costumes were originally sewn with fine thread and regular stitches. When they were worn out they were repaired, and the repairs are not of same quality as the original work, for they have been sewn with long, crude, uneven stitches and heavy, often frayed thread.

In some cases clothes have been enlarged with gussets which might for example be taken from another garment. Some seams have had narrow bands of newborn or unborn sealskin inserted. Frequently warm pieces of skin were sewn on at the hips and round the facial opening, cuffs were sewn at the wrist and knee, and legs were added to the short trousers. These additions were executed with braided or twisted thread and long stitches.

The clothing was of practical construction, and furthermore reveals a strong æsthetic sense in the execution of an ornamental pattern, often symmetrical, achieved by the use of light and dark skins. But some problems must have arisen with the outer parkas' high, very narrow hoods, which must have left half of the neck exposed, and the fact that the hem sits so high at the waist that much of the hips must also have been exposed.

In all, the material treated comprised fifteen sealskin parkas, eight bird skin parkas, one caribou skin parka, twelve pairs of trousers, nineteen *kamiks*, 21 *kamik* stockings and two half-sleeves, in all 78 garments, all more or less well preserved. The graves also contained

numerous extra skins of ringed seal, harp seal and caribou, either wrapped round the mummies or used as padding together with various crumpled garments.

Exhaustive study of the individual garments in this substantial find has turned up a number of recurring features which must be assumed to be typical of their time. A number of basic types on which people have set their individual stamp have emerged.

The basic types were formed as follows. The outer parka is composed of a front, a back, shoulders, a hood and sleeves. The front is made of one sealskin with the dark skin of the back in the middle. This is cut off level with the woman's chest. On the sealskin this is just above or just under the earholes, where the skin is most narrow, and from here the entire width of the skin is used, with the seal's light belly used as side pieces. The extremely wide armholes, which cut into the front, cut away the front flippers of the seal. The skin is then cut

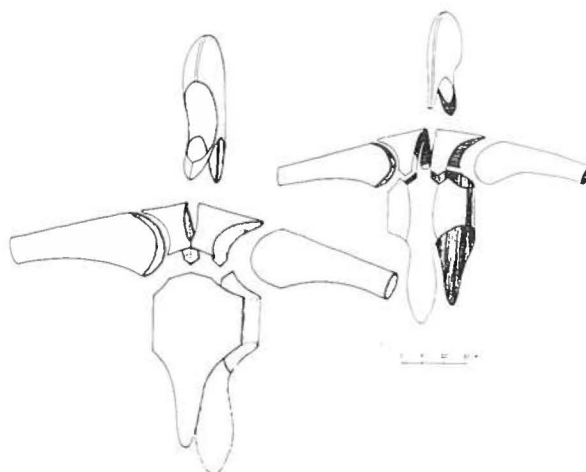


Fig. 1. Drawing of the front and back of the basic type of the parka. Note the placing of the component parts.

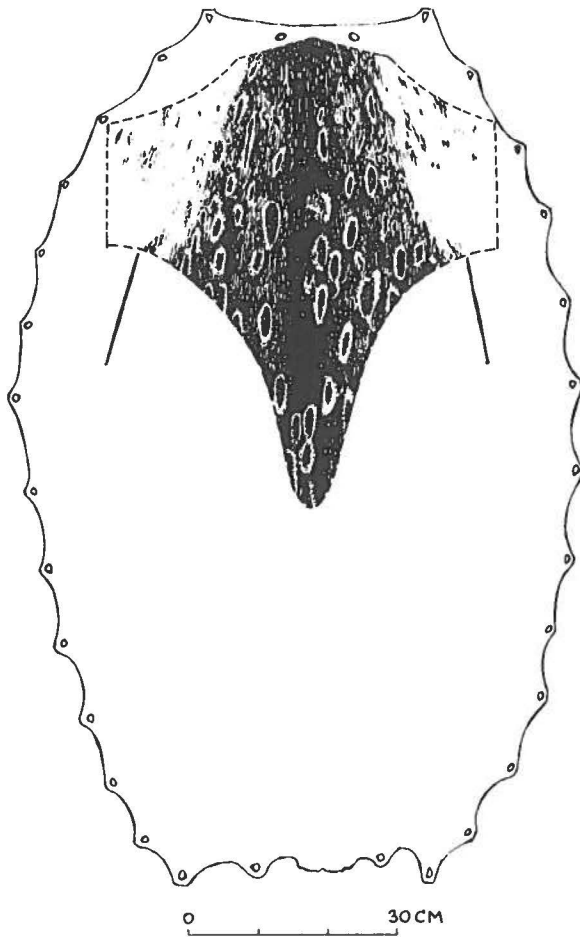


Fig. 2. Drawing of the front of the basic type of the parka placed on the sealskin.

off along the side at the waist and continues downwards in front into a narrow pointed tail reaching about to the knees.

The back is divided into three sections, with a narrow middle section made of the dark skin from the back of the seal. This continues downwards into the back tail, which is longer and slightly wider than the front tail. At the top a deep U-shape is cut into the centre of the skin to allow for the hood. Along the sides it continues in two narrow straps up over the shoulders next to the hood. The two side pieces of the back are made of light belly skin. Together with the shoulder pieces they form the back part of the armhole, and are connected with the front by a seam along the sides.

The shoulder pieces are made of light belly skin. One end is joined to the front from which they go over the shoulders to the middle of the shoulder blades, where they meet the rear side pieces and the dark middle section. The shoulder pieces are widest over the shoulders, where the width is further increased by the addition of a crescent shaped piece towards the sleeves. In front the two pieces are sewn together at the middle for a couple of centimetres, after which they are joined to and divided by a chin piece. Together with the front, they form the front part of the armhole.

The hood is composed of two symmetrical halves of light-coloured skin joined at the middle by the insertion of a dark fur band about one centimetre wide. Both the

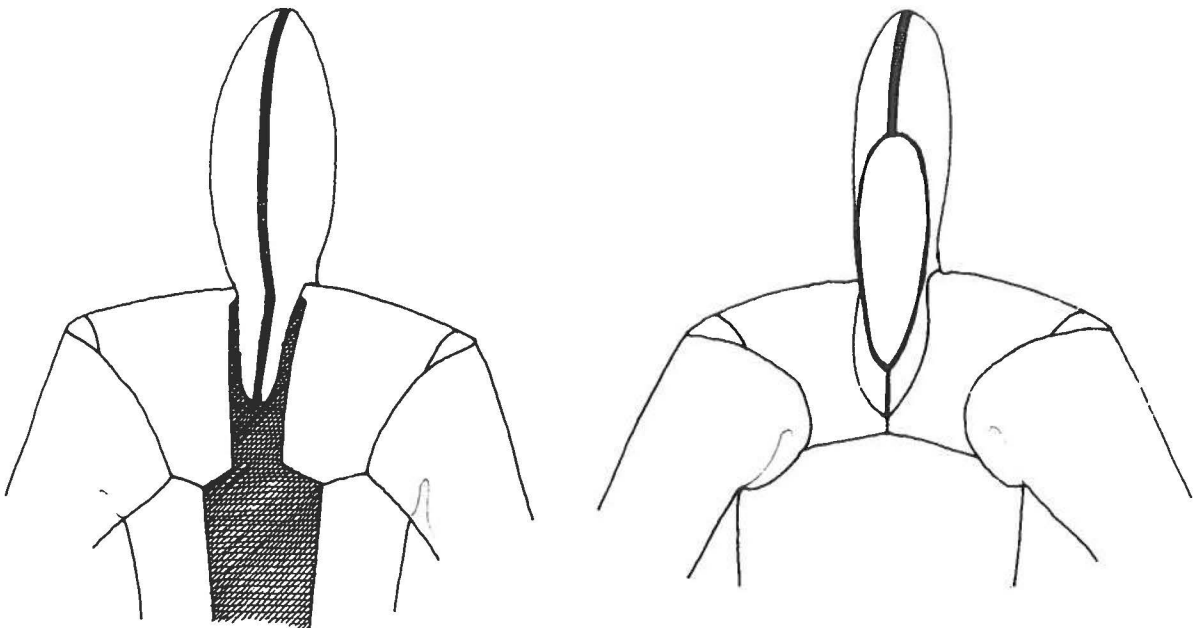


Fig. 3. Drawing of the back and the front of the outer parka with the typical pattern of the basic type.

light skin pieces and the dark band continue at the back down into the U-shaped neck opening of the back, thus creating a striking ornamental effect. In front the side pieces of the hood are elongated by two gussets which together form a U-shaped chin piece. This is joined to the shoulder pieces at the sides.

The hood is edged with a dark, turned-in fur band which also lines the uppermost edge of the chin piece. The hood is quite high and remarkably narrow, especially in relation to the neck piece.

The sleeves are made of the back skin of the seal and composed of two, three, or four parts. They are set in round and extremely wide at the armhole. The armhole is cut deep into the front and shoulder pieces, which makes the garment extremely narrow at the chest – only 22–25 centimetres. There is a band at the wrist with an inset of light belly skin at the front forming part of the cuff.

The inner parka is cut to the same pattern as the outer parka. However, in some instances the same basic elements have been pieced together from innumerable small pieces of skin, such as the of the female eider. In other instances, larger entire skins from various birds have been used. Bird skins are used with the contour feathers intact. The inner parka closely duplicates the front and back pieces of the outer parka; both have tails in front and behind, shoulder pieces, hoods and sleeves. All free edges are set with bands of caribou skin.

The trousers have the fur turned outwards, and the legs are either short or half-length. They are fashioned out of two symmetrical halves joined by a centre seam. Most trousers have a waistband with a belt to be tied at the back.

Kamiks and stockings. The *kamiks* consist of a leg and sole. The sole has upturned edges and is gathered in at heel and toe. On the outer and inner sides there is an ungathered length of six or seven centimetres. At the front of this length on both sides an eye is cut for a *kamik* strap, and in some instances this strap is attached. The leg of the *kamik* has either one front seam or a front and back seam, and there may be various piecings both at the top and bottom. Right and left *kamiks* are rarely identical. The front seam runs straight out to the sole with no instep piece, or else it turns towards the outer or inner edge of the sole. The leg of the *kamik* may go straight up and end in a turnover for a strap that ties at the back, or it may widen towards the top and end in a binding with no strap, or it may end with no binding. Some *kamiks* are very carefully sewn, with front and back gatherings which are small works of art, while others are very loosely sewn.

The *kamik* stockings are made with the fur side innermost. The pattern is the same as the *kamiks*. The sole is turned up and gathered to the leg at front and back, but the pleats are larger and fewer here than on the *kamik*. There may be a turnover at the top with an attached strap; there may be a turned-in fur binding, or there may be no binding at all. The leg is joined either

in front or at both back and front. Stockings sewn of sealskin always have the back part of the sealskin towards the back, corresponding to the calf of the leg. The sole is nearly always made of light belly skin with the hair pointing forwards.

Clothing of the six women

The clothing of the six women conformed, with few exceptions, to the types described.

Mummy 3: the costume consists of outer parka, inner parka, short trousers, *kamiks* and stockings.

1. The hood of the outer parka is missing. The area round the neck and shoulders has deteriorated, with some loss of hair. The back tail is about 45 centimetres long with a fur band which is dark on the inside and light on the outside. This band is not sewn together along the edge. The front tail is about ten centimetres shorter and also has a fur band, which is sewn along the edge. The light band also edges the fur at the side. Here between the fur and the band a narrow dark band has been sewn in. The sleeves have no wrist bands, but there are insets of light skin about 11 centimetres wide.

2. The inner parka also lacks a hood. The back tail is a good 40 centimetres long and the front tail is about ten centimetres shorter. At the hips the caribou skin edgings of the parka are extra wide, with hair about fifteen centimetres long forming a light border below the outer parka.

3. The short trousers, which are of sealskin, have legs about twenty centimetres long, edged with a dark, turned-in fur band. At the top there is a waistband with an attached belt tied at the back. A triangular gusset is inserted at the top front.

4. The *kamiks* are beautifully sewn with fine, regular gatherings at the toe and heel. The leg is about 45 centimetres long and ends at the top with a band of white skin 1.5 centimetres wide. Each *kamik* is sewn together in front with an inset gusset and overcast stitch-



Fig. 4. Mummy 3.



Fig. 5. Mummy 3. The *kamiks*.

ing. The gusset seems to have been added later, because the *kamiks* were originally sewn together with running stitches. The gusset also goes up over the binding. The right *kamik* has a triangular piecing at the front of the foot. The left *kamik* has a piecing at the bottom of the leg. Both have eyes for *kamik* straps at the side. Both stockings are made of caribou skin. They end at the top in a turned-in band of sealskin fur.

Two samples were taken from the left *kamik* for biochemical analysis (Ammitzbøll *et al.*, this volume). One revealed well preserved harp seal skin, the other decayed skin.

Mummy 4: the costume consists of outer parka and inner parka, half length trousers, *kamiks* and stockings.

1. The outer parka has a back tail of about 45 centimetres and a front tail 10–15 centimetres shorter. Both tails have light, turned-in fur bands, which also edge the parka along the side. Below this on both sides are attached pieces of skin about eighteen centimetres wide; these go from the middle of the front tail to the middle of the back tail, and thus cover the hip areas. These side pieces are made of seal skin (ring seal) with the fur turned inwards, and they are sewn on with



Fig. 6. Mummy 4.

braided sinew thread in long crude stitches. The sleeves have insters of pieces of light skin and a turned-in fur band at the wrists. The hood of the outer parka is detached.

2. The inner parka is made of bird skin with a tail at front and rear.

3. The half length trousers are made of light sealskin and reach the middle of the knee. They have a turned-in fur band at the top.

4. The *kamiks* are composed of various pieces of skin, but they are carefully sewn. The leg of each *kamik* is about 32 centimetres long and ends at the top in a white edging 1.5 centimetres wide. The leg is sewn together in front with a single row of running stitching which is doubled at the end of the foot. The soles are attached to the legs with very regular and finely made gathers. A

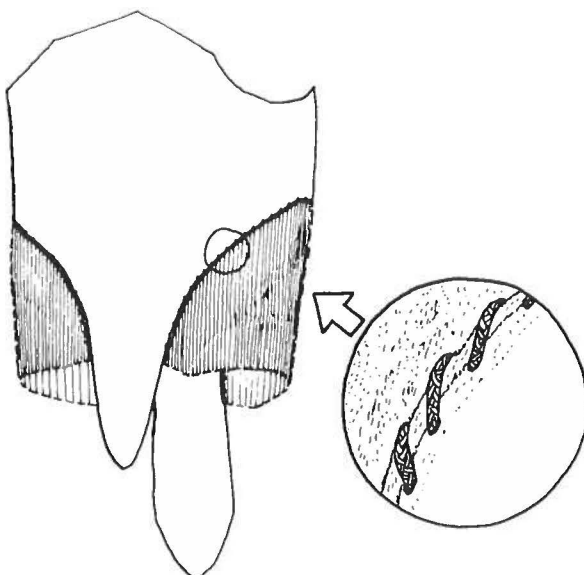


Fig. 7. Drawing of the outer parker of mummy 4 with the attached pieces of skin sewn on with braided sinew thread.



Fig. 8. Mummy 4. *The kamiks.*

sealskin strap 1.5 centimetres wide is tied round the right ankle. There is a patch under the heel of the right sole and traces of a patch on the left. Both *kamiks* have eyes for *kamik* straps at the sides.

The stockings, which are made of sealskin, terminate at the top with a turned-in fur band. On both stockings this band has been extended with a piece of sealskin,

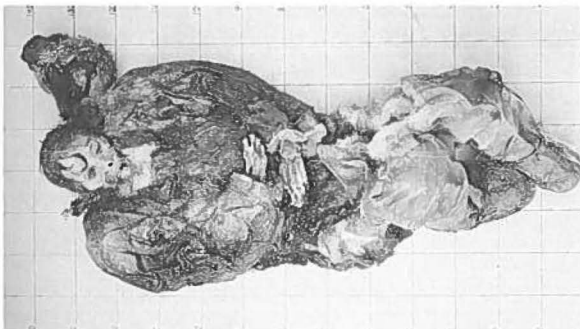


Fig. 9. Mummy 5.

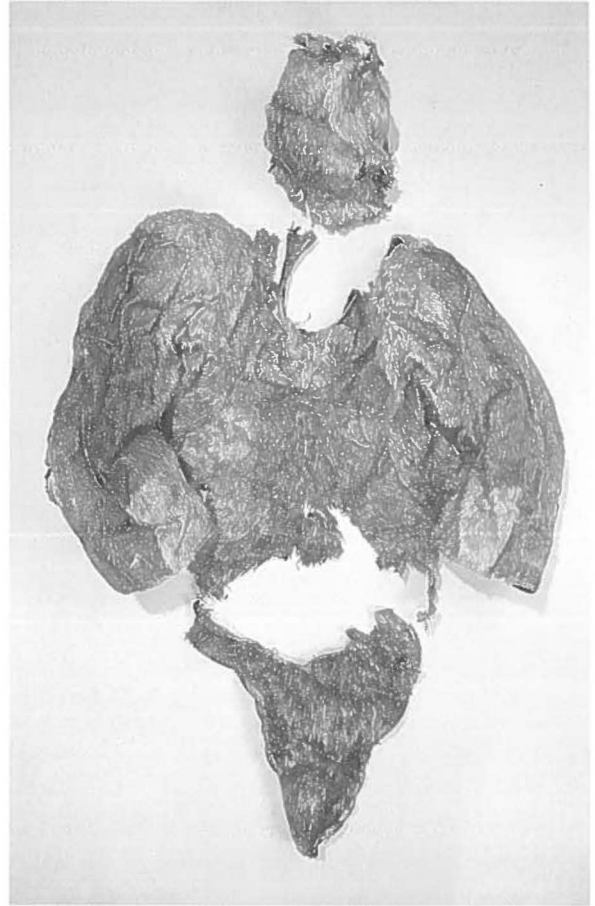


Fig. 10. Mummy 5. The front of the outer parka.

10–11 centimetres wide, pieced together of several skin fragments. This skin has been sewn on with long crude overcast stitching. The fur side is innermost, and the stocking goes over the knee, so as to cover the trousers.

Mummy 5: the costume consists of outer parka, inner parka, half-length trousers, *kamiks* and stockings. Their condition is bad, especially at the back.

1. The outer parka has a tail in front and probably has had one behind as well. Most of the back is missing. However, it is possible to see that this parka has had the characteristic markings over the shoulder blades. The hood is edged with a dark, turned-in fur band, which also follows the outer edge of the chin piece. On both sides of this band are remains of a string made of braided sinew thread and ending in a knot, showing that the hood and chin piece could once be drawn together. The sleeves are edged at the wrist with inserts of light-coloured skin.

2. The inner parka appears to follow the cut of the outer parka.

3. The trousers are made of caribou skin, and are very poorly preserved. Most of the back is missing. The

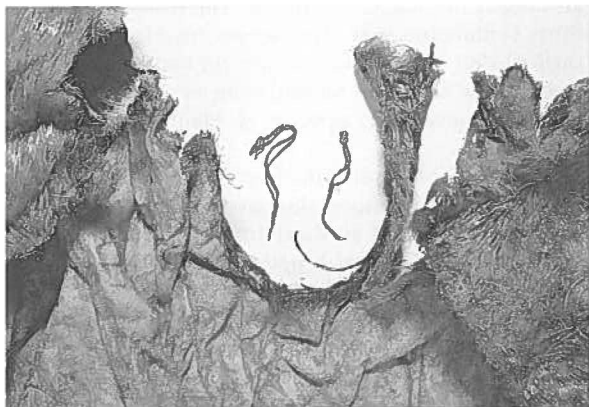


Fig. 11. Mummy 5. Remains of a string from the hood and chin piece.

trousers are about 40 centimetres long from the waistband to the legs, which end just above the knees. There is a fur band at the top with an attached belt to be tied at the back. The trousers appear to have been built up symmetrically with a right and left half, each composed



Fig. 12. Mummy 5. The right kamik.



Fig. 13. Mummy 5. The right stocking.

of various pieces of skin, and the play of light and brownish tones makes for a lovely ornamental effect.

4. The *kamiks* have well preserved legs, but the soles are by and large missing. The legs are about 50 centimetres high and go up over the knees. There is a front seam running over the instep towards the innermost edge of the sole. Another seam runs across the toes. The sole is finely and regularly gathered to the leg at the toe. The remains of a strap lie on the instep. The leg goes straight up at the back but in front it runs upward diagonally so that at the top it measures 30 centimetres. The skin was de-furred by cutting off the fur, a procedure that left stripes of short hair which clearly show that the hair ran downwards on the left *kamik* but horizontally on the right one.

The stockings are made of caribou skin. The legs are well preserved but the feet are completely gone. The stockings are 50–55 centimetres long and sewn together both at the front and back. They have been widened by piecing at the top.

Mummy 6: the costume consists of outer parka, inner parka, outer trousers and inner trousers, *kamiks* and stockings.

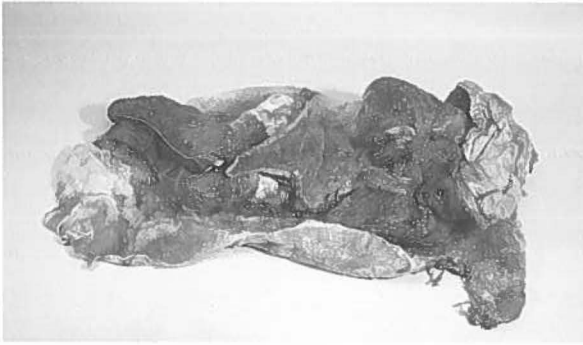


Fig. 14. Mummy 6.

1. The outer parka has a piecing under the side running from tail to tail. This extension is widest at the back, where it measures about six centimetres. It differs in character from the piece tacked onto Mummy 4's parka. This piecing is unusually well sewn and must be considered a decorative border. Both the front and back tails are edged with a light-coloured fur band, which



Fig. 15. Mummy 6. The kamiks.

also edges the side of the parka. The front tail is about thirty centimetres long. The sleeves are edged, first with caribou skin and next with a light fur band. The hood is stuck to the head and pushed somewhat out of shape.

2. The inner parka appears to follow the cut of the outer parka.

3. The outer trousers are of caribou skin with sealskin legs added. The caribou skin trousers must have been originally fashioned as short trousers. They are most ingeniously cut, pieced together of various skin fragments in beige, brown and whitish tones. However, no clear pattern is evident. The added-on sealskin trouser legs were worn under the kamiks.

When the outer trousers were cleaned, the woman was seen to be wearing a pair of short inner trousers underneath.

4. The legs of the kamiks extend about 45 centimetres, ending above the knees. They are sewn together in front with fairly loose overcast stitches, which divide at the top to make room for a piecing. The soles are quite crudely gathered at the toe and heel and sewn to the leg with overcast stitching. Beneath the soles there are traces of both wool and guard hair. Both kamiks have a strap wrapped round the ankle and knotted at the front.

The woman appear to be wearing stockings inside the kamiks, but it has not been possible to uncover them enough to describe them.

A sample was taken from the left kamik for biochemical analysis (Ammitzbøll *et al.*, this volume). The sample revealed well preserved harp seal skin.

Mummy 7: the costume consists of outer parka, inner parka, trousers, kamiks and stockings.

1. The outer parka is greatly worn and often mended. In the grave it disintegrated further, particularly at the back, where only the bottom part of the tail and a detached piece of fur from the middle of the back are preserved. The front tail is about 30 centimetres long and edged with light-coloured skin, which also borders the fur at the side. At the bottom on both sides pieces of skin about twenty centimetres wide have been sewn on;

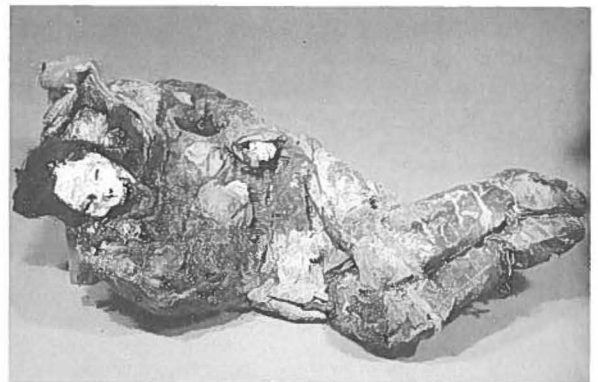


Fig. 16. Mummy 7.



Fig. 17. Mummy 7. The front of the outer parka with the attached skin pieces.

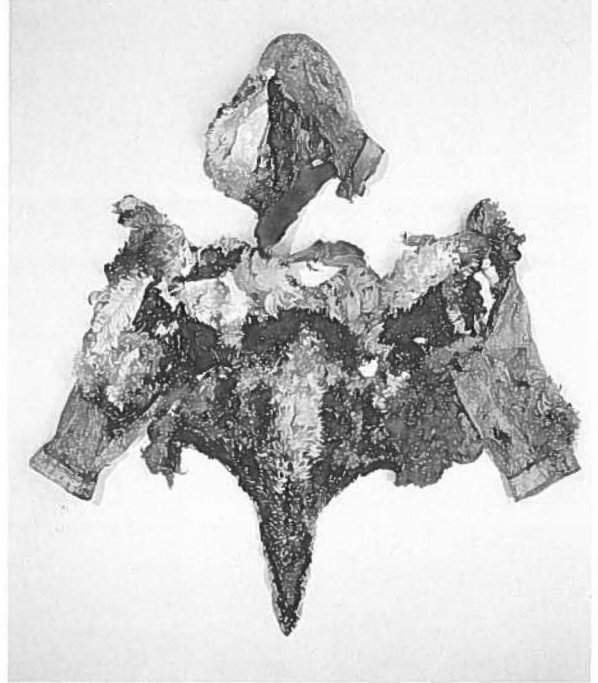


Fig. 19. Mummy 7. The front of the inner parka.



Fig. 18. Mummy 7. The lower part of the sleeve.

these pieces extend from the middle of the front tail round the side and to the back, where they are sewn onto the back tail. These skin pieces are made from the flippers of newborn seal, placed with the fur inwards. The pieces are bordered at the bottom by a band. The stitches, made from braided sinew thread, are long and crude.

The sleeves are very worn. They were mended on the lower side and at the armholes with patches roughly sewn on with large stitches. The sleeves have light fur bands at the wrists. Below these bands ten centimetre wide cuffs of sealskin, pieced together out of skin scraps, are tacked on with braided sinew thread. Inset in one of the piecing seams is a narrow woolly strip of newborn seal skin, which project about five centimetres beyond the cuff. In the middle of the sleeves, nineteen centimetres from the shoulder seam, smaller pieces of light skin are sewn in. The side pieces on both sides run into the undersides of the sleeves with gussets.

The hood is edged with a turned-in binding of dark fur, which also edges the chin piece. To this is added a piece of sealskin, fur turned inwards, about five centimetres wide. As with the other additions, the stitching here has been done – crudely – with braided sinew thread.

2. The inner parka has lost most of the back. However, the front, sleeves and hood were in such good condition that after conservation it was possible to identify the types of birdskin that had been used. All the skins have their contour feathers intact and are placed

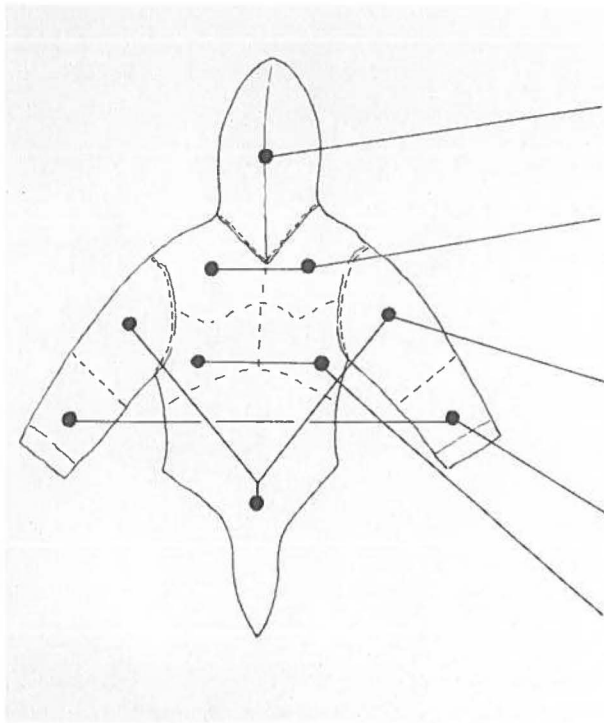


Fig. 20. Mummy 7. Drawing of the front of the inner parka showing how the skins from 5 different types of bird are placed.

to best advantage in the garment. Thus skins with short, dense plumage are used at spots where warmth is most important, and more open-feathered skins are placed by the wrist and neck openings to let heat out. The middle of the front panel is formed from the skin of a young cormorant. The neck hangs downward, forming the front tail, and the anus is seen just under the cut-off point on the chest. There are side pieces of female eider. The two chest pieces, which join in the chin piece at the neck, are made of white-fronted goose, which has loose feathers. The chest pieces continue to the back, interrupted by a transverse shoulder piece made of cormorant. The hood is assembled from two red-throated

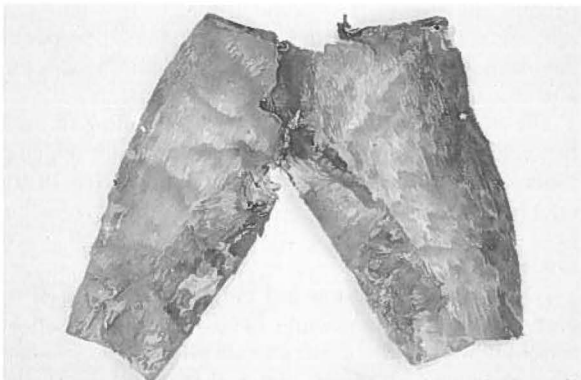


Fig. 21. Mummy 7. The trousers.

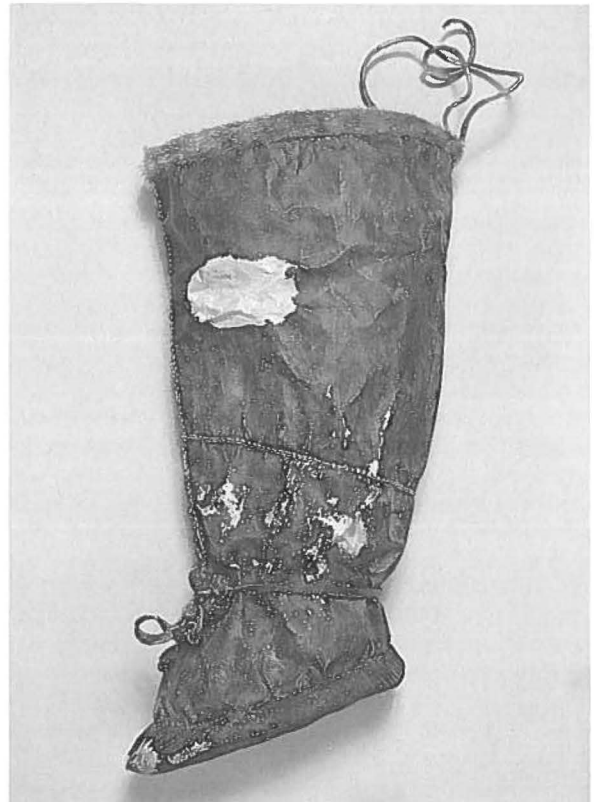


Fig. 22. Mummy 7. The left kamik.

diver skins. These have dense, short feathers which can fit the head closely. The sleeves are built up symmetrically with cormorant above and mallard downwards as a storm cuff. There are edgings of caribou skin.

3. The trousers are half-length and made of sealskin. They are somewhat delapidated, with loss of hair here and there, they are also badly worn and much mended. They are about 52 centimetres long, with the legs ending respectively twelve and six centimetres below the knee. There is a piecing in the seat of the trousers which runs down the inside right leg. It consists of three ten centimetre wide scraps of skin joined together. The right trouser leg is thus made ten centimetres broader than the left. The scraps are lined along the edge and appear to come from another garment. A strip of woolly newborn seal skin, 0.3 centimetres wide, has been sewn between the piecings and the original trousers. The long irregular overcast stitches used here are done with thick sinew thread. Originally the trousers were sewn with very neat, regular stitches. Below, on the inside of each trouser leg, light-coloured skin pieces measuring about 20 × 10 centimetres have been sewn in.



Fig. 23. Mummy 7. The left *kamik* with the strap tied with many knots.



Fig. 24. Mummy 7. The foot of the right caribou skin stocking. Note the marking from the strap just over the woman's heel.

4. The *kamiks* are well preserved. The legs are 36 centimetres high and sewn together in front with regular running stitches. At the top there is a sealskin casing with an attached strap, tied at the back. The sole is attached to the leg in regular gathers at toe and heel, and there are eyes for *kamik* straps in the sides of the soles. The woman, who is wearing both stockings and *kamiks*, has both feet lying above the ankle, where a strap has been wound tightly round, and tied in front with many knots. On the left *kamik* the strap lies under the woman's heel, on the right *kamik* just above. There are traces of wool and guard hair under the sole.

The caribou skin stockings are in good condition. They have piecings at the top of the legs and above the front part of the foot. The legs are 33–35 centimetres high and seamed at both front and back. At the top they are edged by a fur band. Tacked onto this band is an edging of sealskin, about fifteen centimetres wide, with the fur turned inwards. Sewn into the right edging is a woolly band, 0.3 centimetres wide, of newborn seal skin.

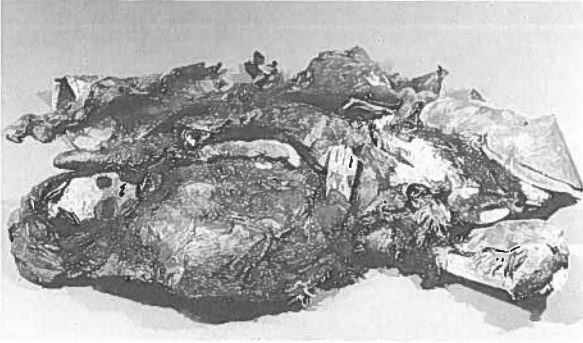


Fig. 25. Mummy 8.

Mummy 8: the costume consists of an outer parka, intermediate parka and inner parka, trousers, *kamiks* and stockings. This costume is the worst preserved of all.

1. The outer parka lacks the back entirely. There is extensive hair loss from the front and sleeves, but the remains show that the parka was of the same type as the

other outer parkas. In the middle of the front, in the seam connecting it with the shoulders, a loop has been sewn in. The sleeves have a band of light skin at the wrist.

2. The intermediate parka, of bird skin, also lacks the back entirely, together with the left sleeve. What remains is formed from the front of a skin with the neck turned downwards; thick, dense skin across the shoulder with the neck side towards the sleeve. The edges are trimmed with caribou skin.

3. The innermost parka is of caribou skin, with the fur worn against the body. Only parts of the front are preserved with the hood and tail. These preserved parts are very well sewn. An impressive ornamental pattern has been made with areas of dark and light skin and narrow bands. Two white flaps corresponding to the chest area have been set in, and a narrow white stripe runs down the centre line. The tail has a band of skin scraps whose hair acts as a border, and just within a narrow dark stripe. In the centre a little tail has been sewn in, surrounded and thus emphasized by dark skin strips in which the fur has been trimmed to the same length. The hood is made of light skin edged with a

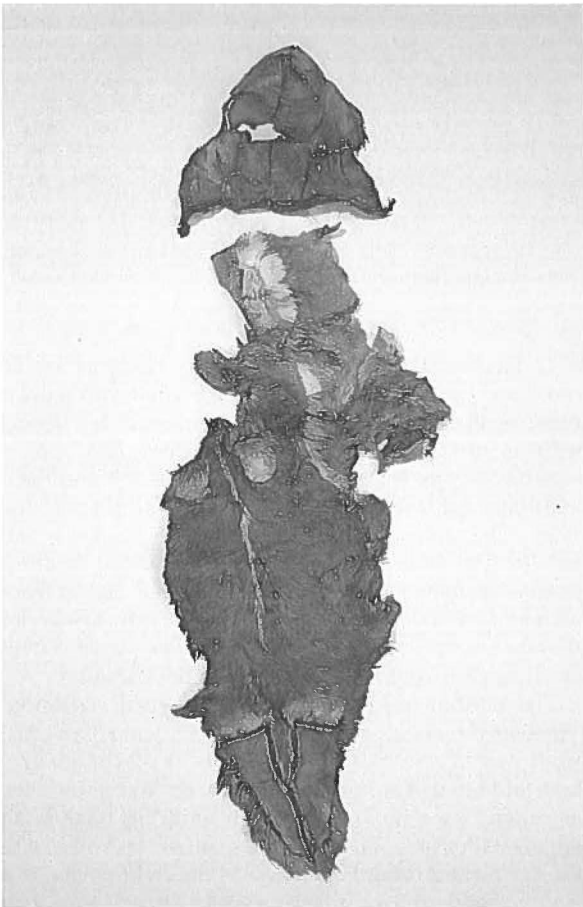


Fig. 26. Mummy 8. The front of the innermost parka.



Fig. 27. Mummy 8. The left *kamik*.



Fig. 28. Mummy 8. The left stocking.

dark, turned-in fur binding. Running back from the forehead, two un-haired pieces of skin measuring about 25 × 5 centimetres have been tacked on to the outer side with just a few stitches. There is a very fine pattern at the nape of the neck, made by an inlay of dark and light pieces of fur.

4. The trousers are very badly preserved. The entire seat is missing. These trousers are made of sealskin, with half-length legs reaching the knee and measuring about 42 centimetres. There is a turned-in fur waistband at the top.

5. The *kamiks* are also poorly preserved, especially the right one, whose back and right side have rotted away. The legs are about 50 centimetres high, with a seam at the front. This seam divides over the instep and turns down over each side. There are triangular piecings at top and bottom. The sole is attached to the leg with regular gathers, and there are eyes for a *kamik* strap at the sides. At the back the leg goes straight up; in front it widens to about thirty centimetres at the top.

The stockings are made of caribou skin with very thick, coarse fur. The left stocking is well preserved.

The leg is 53 centimetres long, with a good deal of piecing out on the inner side. The leg is topped by a turned-in fur band of caribou skin, and sewn together in front with a gore. The sole is gathered at the toe and heel and attached to the leg by two narrow strips of skin which run all the way round the foot. The right stocking is poorly preserved, but matches the left one closely. The whole of the back and some of the outer side have rotted away. The leg is about 50 centimetres long.

The children's clothes

The infant *mummy 1*: is clothed in a sealskin parka and leggings.

1. The sealskin parka is made of dark skin at the front and rear with somewhat lighter sleeves. It has a sewn-on hood of light skin with a dark, turned-in fur band containing a cord, so that the hood can be closed over the baby's face and tied over the forehead. An in-sewn skin strip joins the two halves of the hood in the middle. This strip is dark in the middle with a light strip on each side.



Fig. 29. Mummy 1. The baby.



Fig. 30. Mummy 1. The fur band on the top of the hood.

The hood has disintegrated at the back, but it looks as if the strip went down over the back of the head. The parka is waist-length all the way round. In the middle of the front there is a little skin bag sewn together at the bottom and side and fastened to the parka with a sinew thread.



Fig. 31. Mummy 2. The skin clothing of the four-year-old boy.

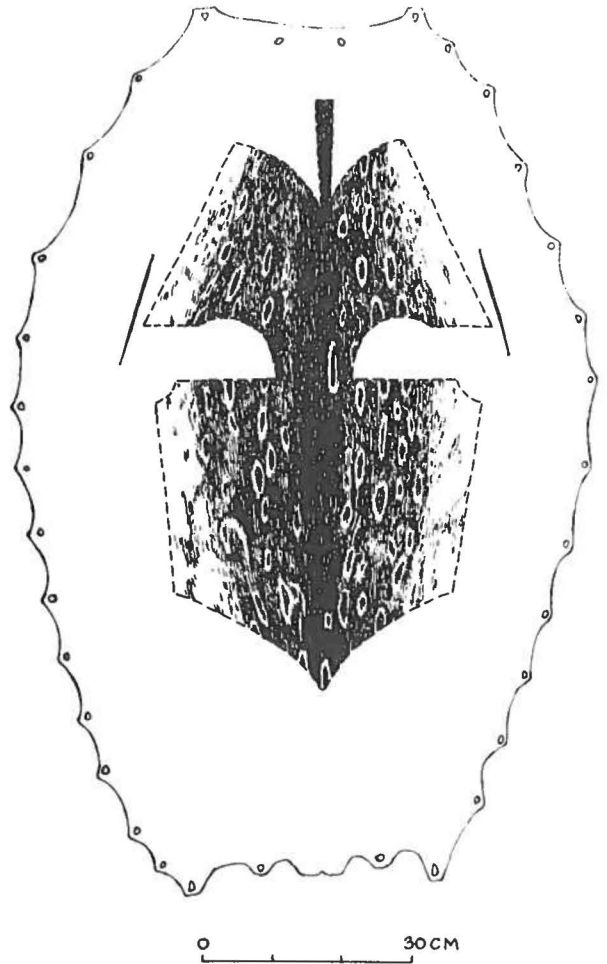


Fig. 32. Mummy 2. Drawing of the back piece and hood of the outer parka placed on the sealskin.

2. The leggings are made of soft skin, with the fur worn next to the body. They seem to have been cut in two symmetrical halves and sewn together in the middle. Round each ankle there is a strap, tied in front.

Mummy 2: The skin clothing of the four-year-old boy consists of an outer parka and an inner parka, both hooded, trousers, *kamiks* and stockings. All the clothes are made of sealskin. Both inner and outer parkas are delapidated at the bottom, especially in front, where much is missing.

1. The outer parka has the fur on the outside. Back piece and hood are cut out in one piece with the dark back of seal in the middle. The front of the hood has a short decorative strip of skin, the rear part of which is dark, cut out in one piece with the hood, while the front part is an insert of light skin. There is a casing round the facial opening of the hood. The front is made of one piece of dark skin with inset chin piece, and joined to the back by light shoulder pieces. At the bottom there is

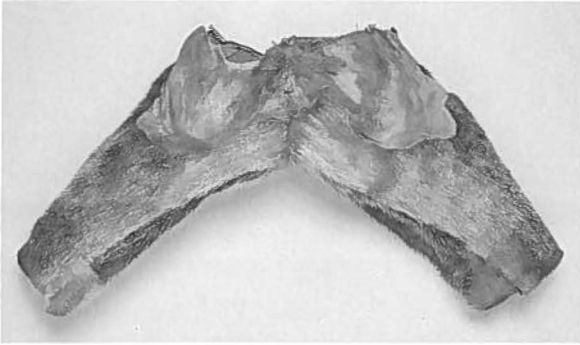


Fig. 33. Mummy 2. The front of the trousers.

an edge, five centimetres wide, which descends to a broad point at front and rear. The sleeves are set in straight.

2. The fur on the inner parka is turned inwards. The back and hood are cut out in one piece as in the outer parka, but the tailoring is more complicated. The short skin strip to the front of the hood is divided into three, with one dark one centrally, and two light stripes at the sides. The hood has a dark casing round the face opening. The shoulder pieces are pieced out at the back and a gusset has been inserted to the front. The front is made in one piece. The sleeves are set in straight, but

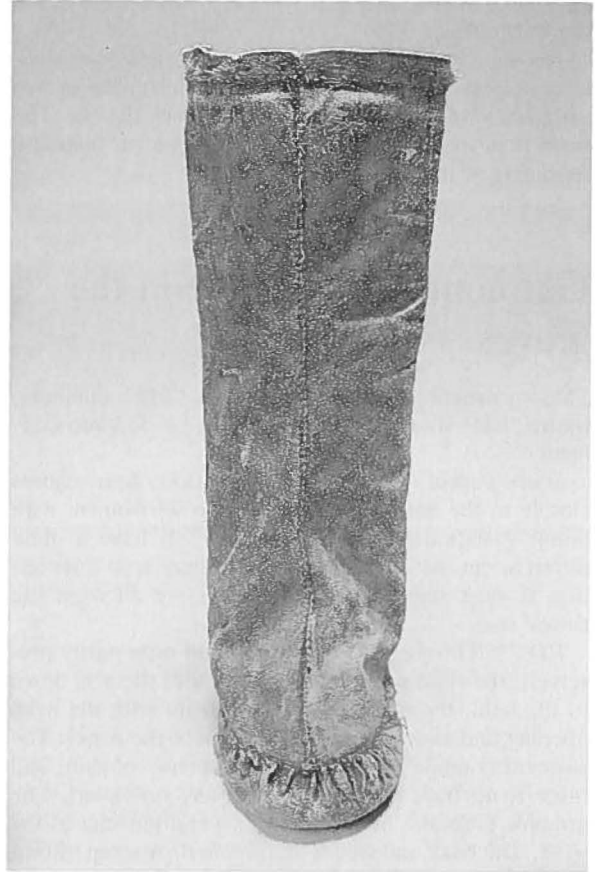


Fig. 35. Mummy 2. The right stocking.



Fig. 34. Mummy 2. The kamiks and the stockings.

with the insertion of a triangular gusset towards the shoulders. The parka has a hem, just like the outer parka, but only half as broad.

3. The trousers are half-length, with the fur turned outwards. They are badly deteriorated at the top, with a loss of hair both in front and at the seat. A right and a left half have been sewn together in the middle. Both trouser legs have been made of two pieces of skin, with an inner seam between the legs and a side seam turning into the back of the legs. There are triangular piecings of light skin at the bottom and a waistband at the top. This band has a lacing of a good two centimetres at the back. The trousers are very badly sewn, clumsily and roughly done, with loose ends, large knots and long stitches.

4. The *kamiks* are well sewn, but very worn with scratches on the legs and patches under the soles. The left *kamik* is made up of two pieces of skin, the right *kamik* of one, both seamed at the front. From the instep the stitching runs towards the outer edge of the *kamik*. The sole is attached to the leg with very regular gathers at front and rear. At the sides of the soles there are eyes for a *kamik* strap, and an attached strap. Traces of

stitching indicate that there was originally a band at the top of the legs.

The stockings, with the fur turned inwards, are similarly well sewn and well cared for. Each is made of two pieces of skin with a piecing at the top of the leg. The seam is in front. The legs are 27 centimetres high and terminate at the top in a fur band.

Garments found loose in the graves

These garments are identified with "ED" numbers, where "ED" stands for *Eskimo Dragt*, i.e. Eskimo Garment.

Outer parkas: Of seven outer parkas, four answer closely to the basic type worn by the six women, with minor variations, two (ED 30 and 78), have a quite different cut, while of one (ED 25) there is so little left that it must stand alone. The skins are all from the ringed seal.

ED 25: The parka is very worn and only partly preserved (the right arm and the side under the arm down to the hem, the upper part of the front with the neck opening and about thirty centimetres of the back). The garment is made up of many small pieces of skin, and there is no trace of a hood or of any ornament. The armhole is round, and there are several piecings at the wrist. The back and sleeve are patched. A scrap of bird skin has been sewn on the inside, just above the hem. Braided sinew thread is sewn into the seams in the arm, the armhole and by the hem.

ED 26: The fur has been worn away at the front, where there are many holes. The back is torn to pieces, and there are many pieces missing. Both sleeves are cut off just below the armholes. The rear tail is 43 centimetres long, the front one about ten centimetres shorter. Both are edged with a turned-in fur band. In this band have been set long crude stitches from the middle

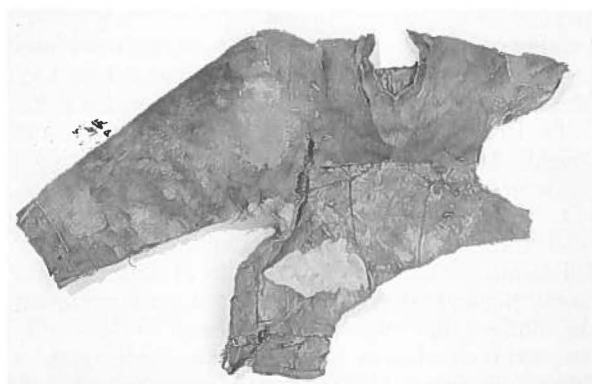


Fig. 36. The parka ED 25.

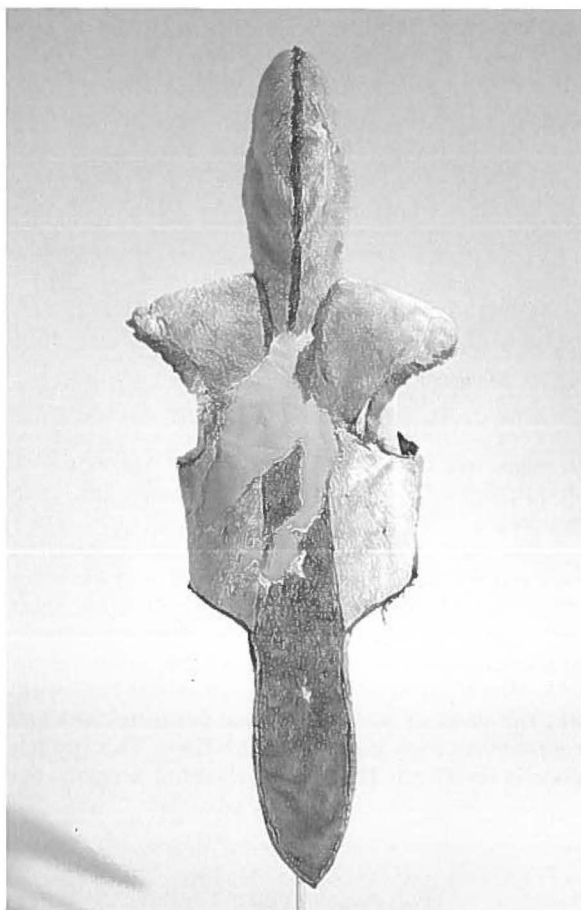


Fig. 37. The parka ED 26.

of the forward to the middle of the rear tail. On the right hand side are traces of a fur which has been sewn on, and subsequently ripped off. The parka is otherwise well sewn.

ED 27: The parka is damaged around the collar, where the breast and the top of the back are missing. Also missing are the lowest, rearmost part of the hood and the lowest portion of the right sleeve. The rear tail is 46 centimetres long, the front about ten centimetres shorter. Both are edged with a light fur band, which also trims the side of the parka. Under this border a small piece of light skin has been sewn on, which goes from the front to the rear tail. There are piecings on both sides between back and front pieces. The sleeves are in four pieces, the left one with a border to the hand. A piece of black bird skin is sewn onto the back of the front tail about 22 centimetres from the end. It is the head of one of the *alcidæ*, and measures 3.5 × 2.5 centimetres. It is sewn on with sinew thread.

ED 28: The left sleeve is torn across the upper arm, where there is also some loss of fur. The hood is also damaged on the right hand side and at the top. The rear



Fig. 38. The parka ED 27.



Fig. 40. The parka ED 28.

tail is 43 centimetres long, the forward one about seven centimetres shorter, both with a light turned-in fur band. The sleeves are in two parts with a similar turned-in fur band at the cuff and piecings of light skin.

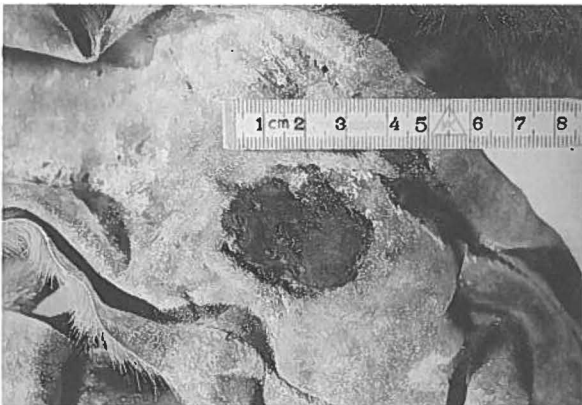


Fig. 39. ED 27. The black bird skin on the back of the front tail.

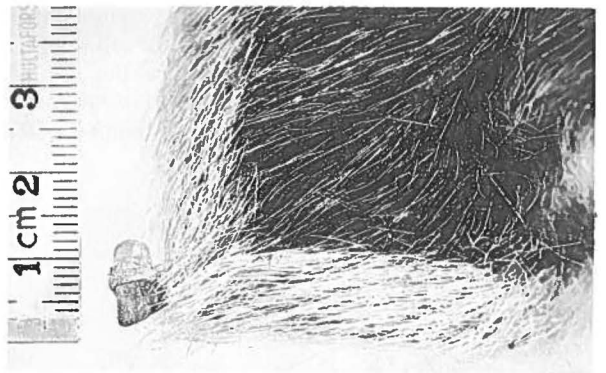


Fig. 41. ED 28. The point of the back tail with a little piece of bone hanging in a loop of braided sinew thread.

There are further piecings on both sides, between back and front pieces. The rear tail has two bands of white skin sewn at the bottom of the dark skin. From the point of the front tail there hang a braided sinew thread, one centimetre long, with a knot. The point of the back tail

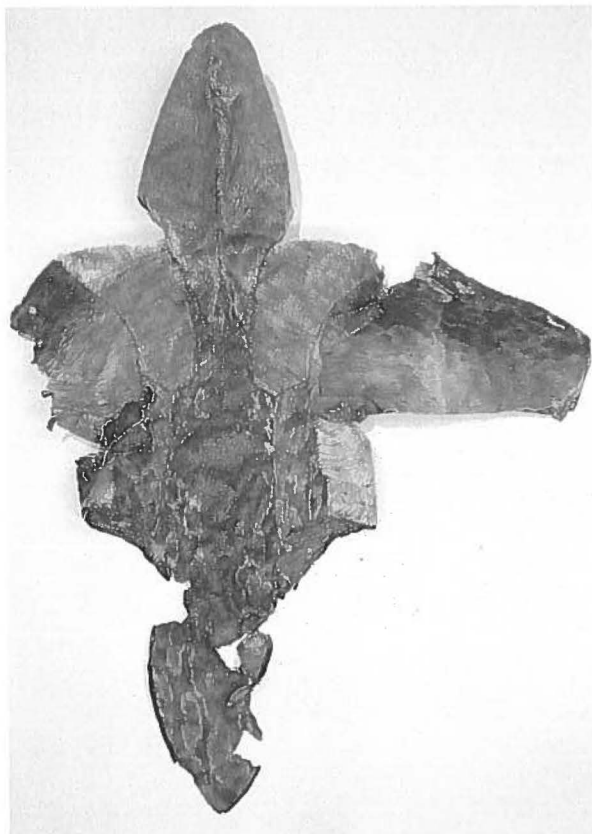


Fig. 42. The parka ED 29.

has a loop of braided sinew thread enclosing a little piece of bone. The back of the front tail bears traces of something having been sewn on about twenty centimetres from the point.

ED 29: Much of the parka is missing: the left sleeve, the tail at the front and about half of the rear tail. This is the largest of all the parkas, and the only one where all three parts of the back are of dark skin. Otherwise the

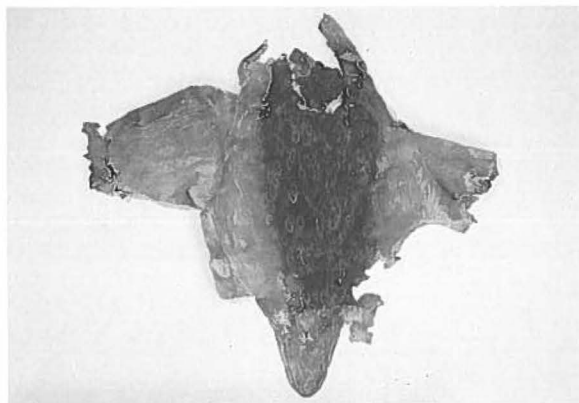


Fig. 43. The parka ED 30.

sewing and cut are the same as for the other parkas. The rear tail is about fifty centimetres long with a border. The right sleeve is of two parts with a band at the cuff.

ED 30 is very badly preserved, and much is missing from the front, from one sleeve and the hood. It appears to have been sewn as an *amaat*, that is a parka with room to bear a child pick-a-back. The child is stopped from sliding down by a strap round the back which fastens at the front, for example with a toggle. The front is made of a single sealskin. It ends at the bottom in a tail and is cut off at the top across the breast. There are light shoulder pieces, sewn to the front. In the centre of this seam is a toggle. The shoulder pieces are connected to a light chin piece. The back and the hood are cut in one piece out of a single sealskin. The parka was cut off at the hips, and a rear tail, of which most is missing, was sewn on. The shoulder pieces, six or seven centimetres wide at the back, are sewed to the back over the shoulder blades. Over the shoulders they broaden towards the sleeves in a tongue form and measure about twenty centimetres. It is difficult to describe the hood because of its poor condition, but forward it forms a chin piece with the aid of two gussets,

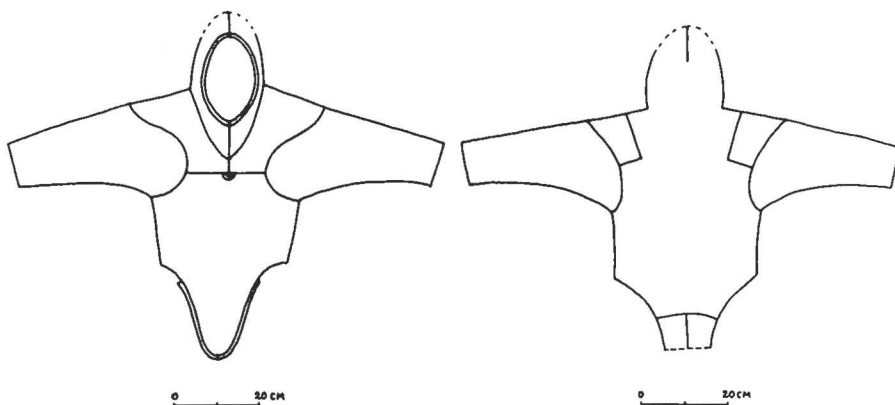


Fig. 44. ED 30. Reconstructed pattern of front and back sides.



Fig. 45. The front of the parka ED 78.

and the sides are joined to the shoulder pieces. The hood is bordered with a dark, turned-in fur band. A thick sinew thread is crudely stitched along this band. The armholes are round and the sleeves very full.

ED 78: The parka has a tendency to lose hair, and most of the hood is missing. The parka consists of front, back, hood and sleeves. The front is a single sealskin. It reaches to the shoulders where it is joined to the back with a shoulder seam. The back is also formed from one skin, which runs down to form a broad, tongue-shaped tail, quite unlike the tails on the other parkas. The bottom ten centimetres are an added piece of dark skin.



Fig. 47. The trousers ED 12.

The hood, the top of which is missing, is edged with a dark turned-in fur band. Forward it forms a light chin piece, which is joined to the front and at the back is slightly curved and joined to the back. The very wide armholes are straight or slightly rounded, and the sleeves very full over the shoulders. In front, at the end of the sleeves a 21 centimetre wide light skin piecing is sewn in as a cuff. This parka is fashioned quite differently from the others.

Inner parka ED 77: The parka is of bird skin edged with caribou skin. It is poorly preserved, in that the front, most of the back, one sleeve and part of the hood are missing.

The right shoulder is formed from one skin, which falls down at the back, and at the front joins onto the chin piece. The hood is of one skin at the back and one forward with additions.

Trousers ED 12: This is a well preserved pair of short

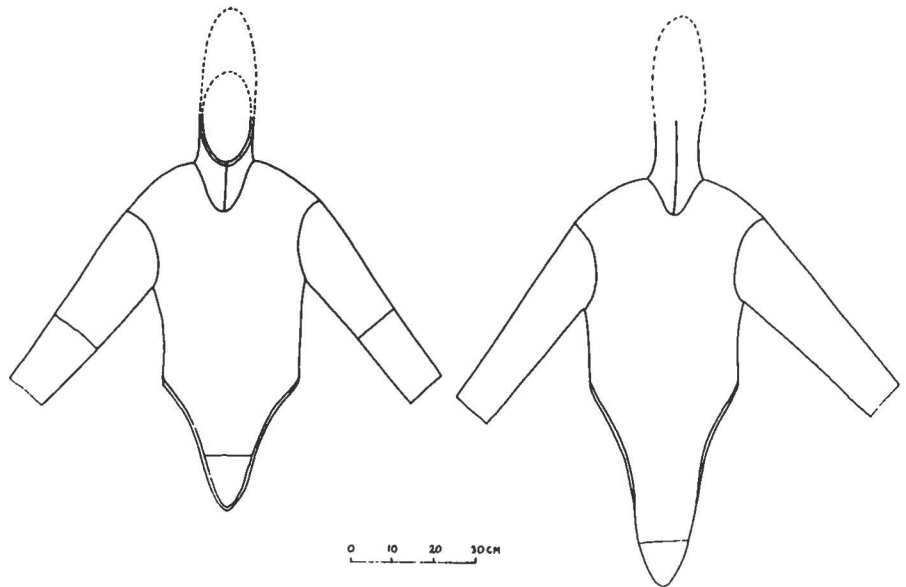


Fig. 46. ED 78. Reconstructed pattern of the front and back sides.

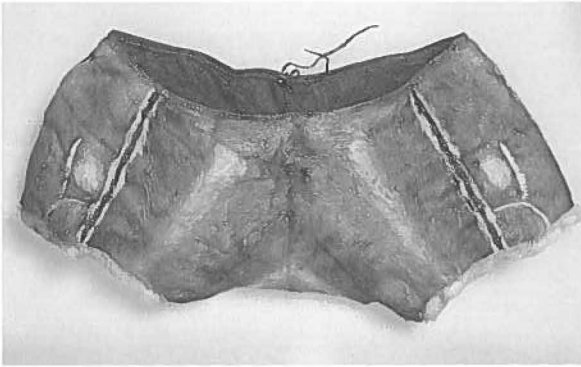


Fig. 48. The trousers ED 13.

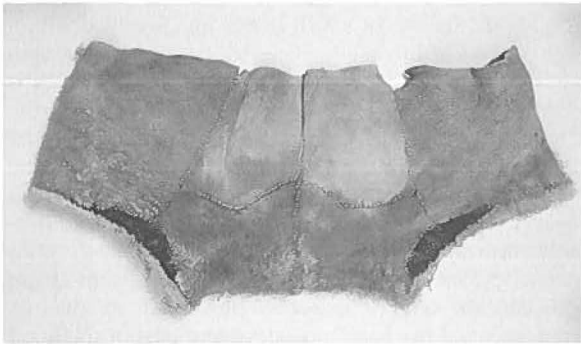


Fig. 49. The trousers ED 24.

sealskin trousers. They are fashioned in two symmetrical halves with a central seam. They have a waist band of de-furred sealskin containing a belt that ties behind, and a turned-in fur band at the end of the leg. Each half is composed of ten pieces of skin, so that the light and dark colours form a highly decorative pattern on the back.

ED 13 is a pair of short caribou skin trousers. They are fashioned similarly to *ED 12*. They have a waistband with a belt that ties at the back. Cut and pattern employ over twenty pieces and strips of skin in each half. The larger pieces are taken from a caribou's hind leg, where two skins have been placed at the front, so that both a white spot and a light stripe in the skin sit symmetrically on each side of the midline. The rest of the ornamentation is made by the insertion of white and dark strips of skin. Into the middle of the back seam have been sewn two small patches so as to protrude freely. The trousers are worn, particularly at the seat, where the fur has been worn away.

ED 24 is a pair of short caribou skin trousers. The fur is worn down and worn away at both front and back, and the waistband is missing. Each half is composed of seven pieces of skin. The legs are banded at the edge. Just over this band at the back a piece of dark sealskin, about twelve centimetres long, has been sewn in. Below

each leg hang a number of cut thick sinew threads, indicating that earlier there have been extensions.

Kamiks

ED 1: This *kamik*, made of de-furred sealskin, was paired with the stocking *ED 2*. The top of the leg is cut away. There are two patches under the sole, and eyes for a *kamik* strap on both sides. It is seamed down the front with a single row of running stitches, which divides over the instep and runs out to each side. There was *kamik* grass inside the stocking, and also between the stocking and the *kamik*.

ED 4: This *kamik* of de-furred sealskin was paired with stocking *ED 3*. It has two patches under the sole and there are eyes for a *kamik* strap on both sides. The leg is seamed at the front with a single row of running stitches, which divides over the instep and runs out to each side. The leg goes straight up at the back; in front it gets wider. It is edged with turned-over white skin. There was *kamik* grass inside the stocking and between the stocking and the *kamik*.

ED 14: A *kamik* of de-furred sealskin. There are two patches in the sole, eyes for a *kamik* strap on both sides and a *kamik* strap threaded through. The leg measures



Fig. 50. The *kamik* *ED 1* with stocking.



Fig. 51. The *kamik* ED 4.



Fig. 53. The *kamik* ED 15.



Fig. 52. The *kamik* ED 14.

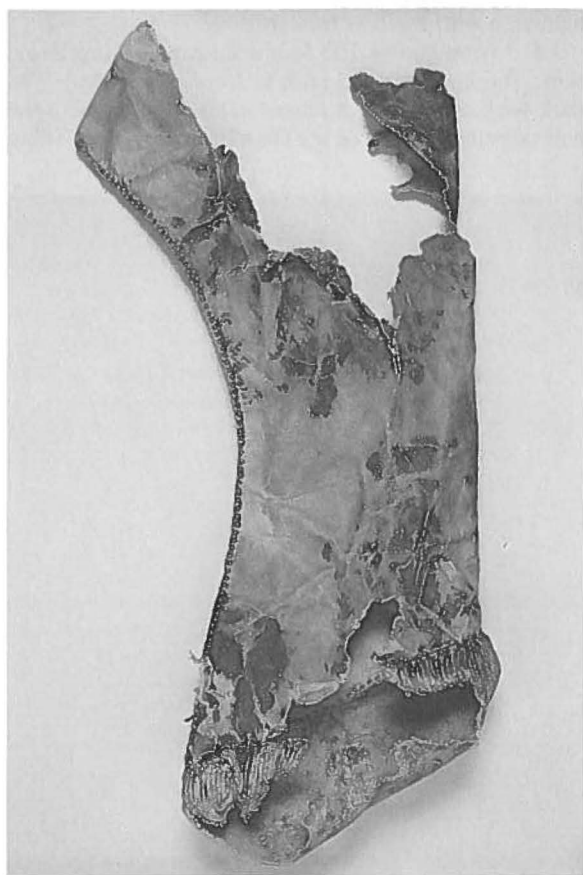


Fig. 54. The *kamik* ED 17.

about 34 centimetres and has double seams of running stitching both before and behind. At the top there is casing with a strap that ties at the back.

ED 15: A *kamik* of de-furred sealskin. There is a patch under the heel and a big hole at the top of the leg. There are eyes for a *kamik* strap on both sides of the sole with remains of a strap. The leg measures 36 centimetres and is joined at the front with a single seam of running stitches, which becomes double over the instep. At the top there is casing with a strap which ties at the back.

ED 17: This *kamik* of de-furred sealskin was paired with stocking *ED 18*. Its condition is poor with a big hole on the side of the sole and with bits missing from the top. The 35 centimetre long leg is joined at the front with a single row of running stitches. There are two eyes for a *kamik* strap. There was *kamik* grass in the stocking and between the stocking and the *kamik*.

Stockings

ED 2 (from *kamik* *ED 1*) is a stocking of ringed seal skin. The leg is joined at the front. The dark back of the skin is positioned behind the leg with the hair pointing downwards. Light skin is added over the instep and at the top of the leg with the hair horizontal. The sole is of light skin with the hair forward.

ED 3 (from *kamik* *ED 4*) is a stocking of ringed seal skin. The leg is seamed both in front and behind. The dark back of the skin is placed behind the leg with the hair pointing down. The leg has a turned-in edge. There



Fig. 55. The stocking *ED 16*.

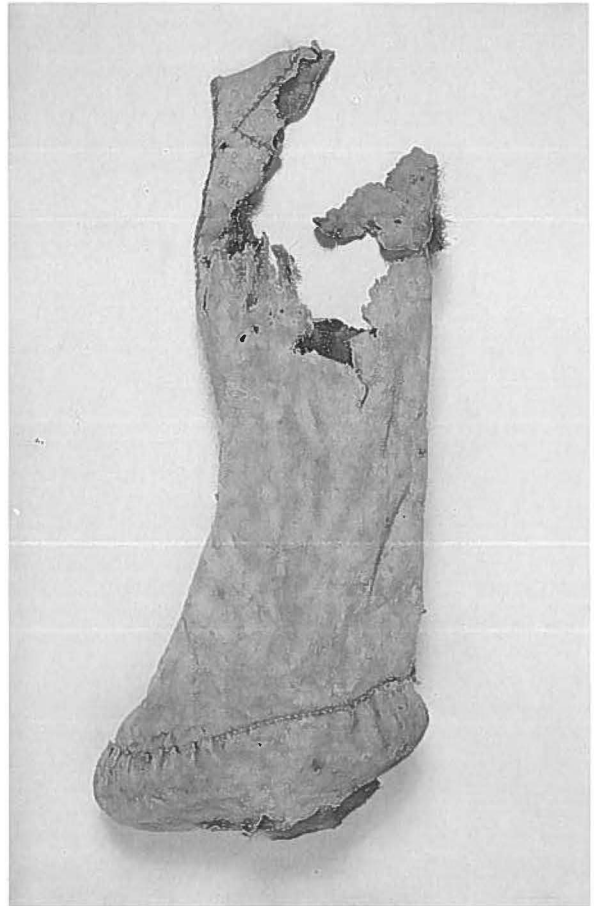


Fig. 56. The stocking *ED 18*.

are pieces added at the instep. The sole is of light skin with the hair pointing forward.

ED 16 is a stocking of ringed seal skin. The leg is 36 centimetres high and seamed at the front. The seam divides to each side over the instep. The dark back of the skin is placed over the calf. A casing of about one centimetre's breadth at the top of the leg contains a cord that ties at the back. The sole is of light skin with the hair pointing forward.

ED 18 (from *kamik* *ED 17*) is a stocking of ringed seal skin. Large bits are missing from the top, and there is a big hole in the sole. The leg is 35 centimetres high and seamed at the front with running stitching. A fold has been impressed at the back. The sole is of light skin with the hair pointing forward.

ED 19 is a stocking of ringed seal skin. The leg, about 35 centimetres high, is seamed in front with running stitching. The dark back of the skin forms the back of the leg and the hair points downward. The top of the leg is trimmed with a band one centimetre wide.

ED 20 is a stocking of unborn or newborn seal skin. The foot has rotted away. The leg, which has several



Fig. 57. The stocking ED 19.



Fig. 58. The stocking ED 20.

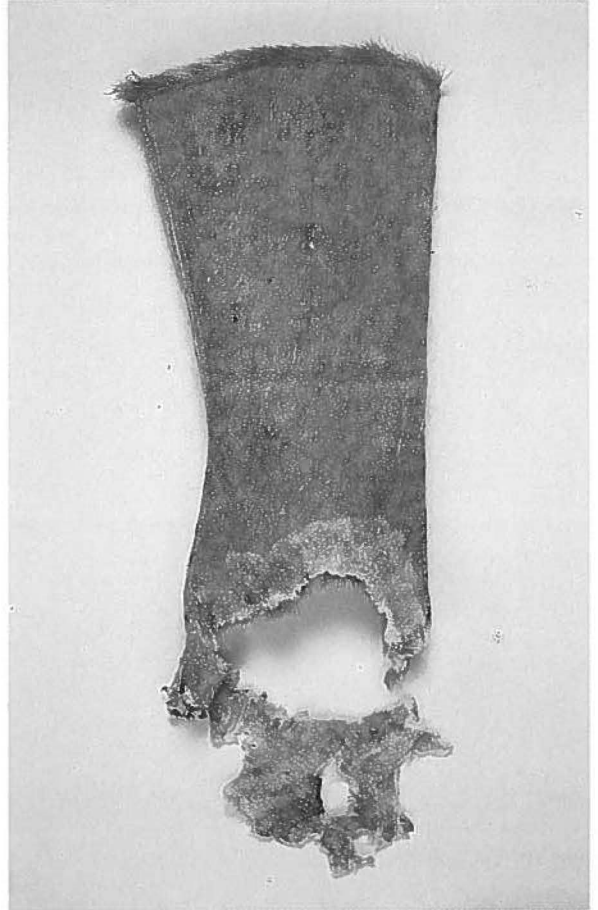


Fig. 59. The stocking ED 21.

piecings at the front as well as high up at the back, is 34 centimetres high. The calf covering is made of a piece of skin that shows stretch holes on both sides. The top of the leg is trimmed with a sealskin band about one centimetre wide.

ED 21 is a stocking of ringed seal skin. The leg, 33 centimetres high, is seamed with overcast stitches front and rear. Belly skin has been used for one side, back skin for the other. The top of the leg is trimmed with a sealskin band about half a centimetre wide. The sole is of light skin with the hair pointing forward.

Half-sleeves

ED 22 is a half-sleeve of ringed seal skin. It is formed of three bits of skin with a triangular piecing above. Only the upper half of the sleeve is preserved, plus a complete seam down to the edge of the cuff. It can thus be seen that the sleeve was 23 centimetres long. In the uppermost corner hang two sinew threads with knots, so it could have been fastened to another garment.



Fig. 60. The half-sleeve ED 22.

ED 23 is a half sleeve of ringed seal skin. It is formed of three bits of skin, and has a turned-in fur lining at the cuff, where it is narrowest. It widens upwards by about seven centimetres.

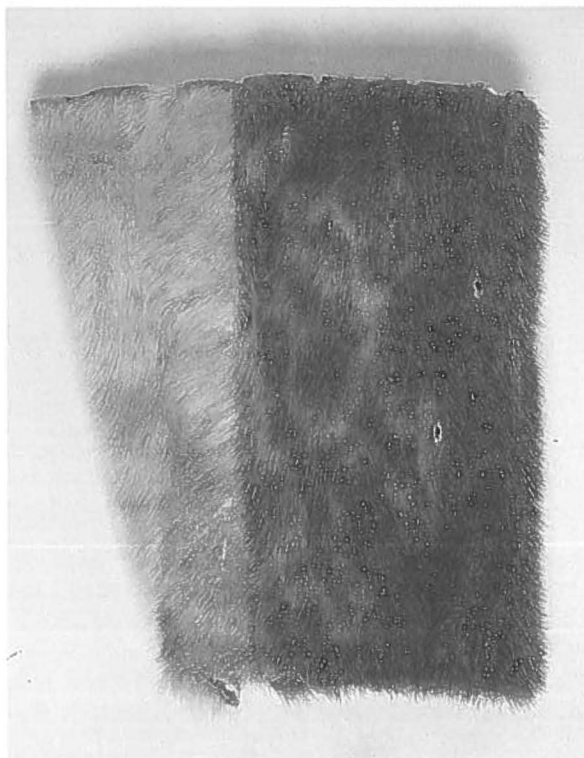


Fig. 61. The half-sleeve ED 23.

Acknowledgements

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