14th Century Garments

A comparative study of extant garments in North-Western Europe

By

Maggie Forest

known in the SCA as Marienna Jensdatter
Summary
This document is an attempt at summarizing what garments remain in existence from Northern Europe in or around the 14th Century, what we know about them, and how they compare to each other in certain key areas. All the information contained herein is available in various publications, but much is in Scandinavian languages and so not very accessible. The information is also spread out over several different publications, some fairly hard to get hold of, and so by placing information on such things as neckline cuts side by side I am hoping to make it easier to form conclusions about trends and styles.

In the middle of the 14th Century there was a big shift in fashion. While earlier garments had been looser, cut based on simple geometrical shapes, by about 1330 the silhouette on the continent had changed to a closer fitted, more wasteful way of cutting the garments. The garments known as pourpoints, aketons and doublets belong in this category. The sleeve construction changed from a rectangle with the seam under the sleeve, with one or two gussets for width, into a more fitted sleeve with a sleeve cap. The seam rotated almost a half-turn to go up the back of the arm, and width was provided by one (or in some cases more) gussets at the top. The armhole in the garment was correspondingly rounded to provide a more comfortable fit. This particular change also gave rise to the 'grande assiette' sleeve, which seems to have been used both for the new line of garment (Charles de Blois' pourpoint) and older style kirtles (Margrete's gown) although in the latter case I have a theory that might explain the combination of styles – see below.

This new style of clothing moved relatively slowly across the continent, and seems to have reached Denmark by 1360-70. The Herjolfsnes garments also belong to this transitional phase, although they can be dated to the very end of the 14th C and even into the 15th. We can assume that they still belong in this study based on the slow spread of fashions - it would have taken that long for this new line to reach Norway and then Greenland.

Terms used in this document
The garments of the period were many, and the terms are often difficult to connect to the garments worn in artworks. The terms often remain in use right through the SCA period, in fact, but denote a different looking garment at different times, even if the function of the garment remains more or less the same. For the purposes of this document, I’ve chosen terms based on function. I’ve used 'kirtle' to denote the basic garment, worn on top of the shirt or smock, but below anything else. There are several types of kirtles, the basic ones, the split kirtle (blad kyrtil), the two-coloured kirtle (halfskiptan kyrtil – often called mi-parti in the SCA) and the fitted kirtle found at Herjolfsnes. Outer garments are described here as surcotes. They are of two types: open, or sleeveless, and closed, or sleeved - either short or long sleeves. Often these garments, or some of them, are described as Cotethardies. In my opinion a cotehardie is a particular type of surcote that is very close fitting, and seems to always be buttoned or laced. "Hardie" in Medieval French means 'daring'; (Charles the Bold is known in French as Charles le Hardi.) The name points to the close-fitting nature of the garment, making the buttoning/lacing necessary to get into it.

There are also a number of technical terms used in this document. A fitchet is a slit used to reach a belt pouch or other accessory hung from a belt underneath the outer garment. Consequently, the presence of fitchets on a garment tend to lead us to believe it is an outer garment, since belts were generally used on the kirtle, not the surcote (with the exception of sword belts).

Twill and tabby are weaving terms. A tabby fabric is woven with the weft thread going over one warp thread and under the next. A 2/2 twill goes over two, under two. A 2/1 twill goes over two, under one. A sheet is usually woven as a tabby, denim fabric as a 2/2 twill (which gives a distinct diagonal line in the fabric).

Fulling is a process used to make woven fabric thicker and stronger. After it is woven, it is washed, beaten and then stretched on tenter hooks. This makes it felt up a little, and helps stop the edges fraying. A twill that has been fulled is much thicker than it was on the loom, is very warm and almost water proof. The surface can then be shorn, or left fuzzy.
What’s there and why?

Herjolfsnes

The cemetery found at Herjolfsnes in Greenland was a veritable goldmine of garments. In fact it was an amazingly lucky co-incidence when they were found in the early 1920’s – the cemetery, built in permafrost conditions, was thawing out and within two years the material there was destroyed. Another lucky circumstance was that the Greenland find was excavated by the Danish National Museum; already in possession of large textile finds, they were at the forefront of textile conservation. Today, the methods can be seen to be terribly flawed, but compared to material that was not preserved at the time, the textiles have fared reasonably well. They range from late the 14th to 15th century, and belong to a transitional phase where the cutting strategies of earlier times, using as little cloth as possible with a minimum amount of fit, gave way to a desire to tailor the garments at least somewhat, accepting some loss of material. However, they do not represent the style of garment most often wanted by SCA people, nice clothing of the nobility, but rather the everyday clothing of people living at the very edge of civilization.

Other Nordic material

In addition to the Herjolfsnes garments, there is a number of garments remaining from the rest of the Nordic countries; Denmark in particular. Most are bog finds; along with Ireland, Denmark has the highest incidence of bog bodies. Several are basic, early style garments such as the Bocksten, the Kralgelund and Skjoldehamn kirtles, even though they range in age from the (recently re-dated) 12th Century Moselund kirtle to the late 14th Century Bocksten garments. This tells us that the ‘early’ style cutting strategy remained in use and popular throughout what we call ‘the Middle Ages’, even parallel with the later styles of close-fitting clothing. There are also some very high-status and high-quality garments in this material. There’s some ‘mid-level’ garments that actually fit the SCA scope very well, such as the Ronbjerg and the Soderkoping kirtles. And the Birgitta ‘cloak’, while similar to the Herjolfsnes garments in cutting style, was made from a very high-quality, expensive wool consistent with Birgitta’s status as one of the leading members of the Swedish nobility, and a founder of a religious movement that swept Europe even in her lifetime.

The pinnacle of the Scandinavian material present is the “Margrethe” gown. Made from an incredibly expensive Italian gold brocade, its simple cut mirrors the modern practice of not messing with a fine fabric – but the skilful piecing together of narrow pieces of cloth to enable the gown to be cut so deceptively simply shows the level of craftsmanship available at the time. The National Museum of Denmark, which houses most of the Danish and Greenland finds, is currently undertaking a study of their textile material, including C14 datings of previously undated garments such as the Moselund kirtle. This will result in new documentation which should prove gratifying.
Others

There is a corpus of extant garments from the rest of Europe. Edward the Black Prince’s arming cote from England, Charles IV’s arming cote and Charles de Blois’ ‘pourpoint’ have survived because of their association with important national figures. There are also garments of a similar type found in grave vaults in Spain and Italy, although they are not included here because I haven’t found much information on them yet. The other garment included from the British Isles is the Moy gown. It is unique, because it is probably the closest thing to an actual woman’s cotehardie in the extant material (although I’d hesitate to call it ‘typical’). It is put together with great ingenuity to create a well-fitted garment, and the sleeves are reminiscent of the grande assiette of Charles de Blois’ pourpoint and Margrethe’s gown.

It is strange that Ireland and Britain don’t have a larger representation – alongside Denmark, we know they have a large number of bog bodies. However, these garments have not been written up to nearly the same extent as the Danish material has – what has been written has often been by re-enactors and SCA people! As time passes, we can hope that there will be more information available. We know that Penelope Walton is studying the find at Hull cemetery, so we’ll have to wait and see what happens. With a bit of luck it will be as thorough as the HMSO books on the London finds, from which I’ve included some information and pictures on seams etc.

Photographic illustrations in this document have been lifted mostly from ‘Bockstensmannen och hans dräkt’. Line drawings of patterns are mine based on the various publications listed, both graphic and textual evidence, with the exceptions of the Charles de Blois pourpoint and the Moy gown. Any inaccuracies are my own.
The garments

Basic Kirtles (early style cut)

Bocksten, Sweden: Late 14th Century

Bocksten Man wore a tunic, a mantle, woolen hose, leather shoes, carried two leather belts and two knives. His hood was found nearby. The garment is now yellow-brown on the outside, red-brown on the inside. It is a 2/1 twill, originally fulled. The sleeves had a 1cm hem.

The tunic was cut from fabric that may have been 55cm wide (one selvedge is preserved). The total length of the fabric piece is estimated to 4.5m. Whole body length 230cm. Width around hem 250cm. Neck circumference 82cm. Sleeve length right 61cm, left 59.5cm. Width around wrist right 23cm, left 22cm.

Kragelund, Denmark: 12th – 13th Century

The Kragelund Man wore a kirtle of coarse woolen cloth, the legs were bare but on his feet he had short leather boots, laced over the instep. The boots are not preserved. Because of the boots, the find has been dated to the 12th or 13th Century, but it may well be later.

The garment has two gores in the front, two in the back, and two on either side, all of them gathered into the points. The neck is unusual, pointed in front and back and has a 7cm long slit in the front. The sleeves are also interesting in their construction.
**Skjoldehamn, Norway: 13th – 15th Century?**

The Skjoldehamn tunic is another bog find, this time from Northern Norway. It is kept in Tromsø museum. It has been dated to the late Middle Ages, no earlier than the mid-15th Century, because the 'shirt' that was found with it has a standing collar; a fashion that becomes common on the continent only towards the end of the 14th Century. However, a C14-dating of the fabric shows that it was made much earlier.

I personally note that the shirt in question looks remarkably like a Same ‘kolt’ as they are worn even today. This find may or may not actually represent a common fashion, but could perhaps be the body of a Same of the time. However, the cut of the garment is still relevant. The garment has one gore front and back, two on the right side and three on the left. The neckline is V-shaped. It was worn with a small plaited band for a belt. The fabric is 2/2 twill.

**Mi-parti (two coloured) kirtles**

**Ronbjerg, Denmark: 14th Century**

Only about a quarter of the garment remains intact. The cut is similar to the Moselund kirtle, but unlike the other basic kirtles it has a seam up the centre front. Nockert speculates that this may mean that the garment was mi-parti. There has been no dye-analysis on the find to my knowledge to prove or disprove this theory. The fabric density varies slightly in the different pieces, but that means little. The fabric is a 2/2 twill, with a higher weft count than warp count. It is also woven from a darker warp and a lighter weft, similar to many of the Herjolfsnes garments which it also resembles in the cut.

**Söderköping, Sweden: 13th Century**

The tunic was found in excavations in Söderköping. It has been dated to the time before 1242, and is sewn from a 2/1 twill which is now dark brown. It was originally red and blue. It has a shoulder seam, two gores front and back, and two on either side.
Split kirtle

Moselund, Denmark: 12th Century

The Moselund body was found in 1884, and the woolen costume was sewn together to resemble a trouser suit of sorts with a matching cape. In 1938 a new examination showed that all the pieces combined to one garment, and the kirtle was reconstructed. It is dated to the early Middle Ages through pollen-analysis and based on its cut, and the fabric is remarkably well preserved. It appears to have been quite new when it ended up in the bog, as there is no wear and no mending. The weave is a 2/1 twill. The fabric had been fulled. The tunic is of a kind known in Iceland as 'bladkjortel'. The slit made the garment comfortable in movement, and suitable for working or riding in. The sides could be gathered up into the belt for additional freedom of movement, and could also be used as 'pockets' to carry things in. The cut of the shoulder area is unusual. The back is much wider than the front, which gives it quite a sophisticated, cape like look. The gores are pleated at the top.

Fitted kirtles (transition style)

Herjolfsnes 33, Greenland: Late 14th C

This is a man's garment, which was found in an early excavation at Herjolfsnes in 1840. It is made from brown 2/2 twill that is very heavy.

Herjolfsnes 41, Greenland: Late 14th C

Man's outfit made from 2/2 twill, quite thin and dark brown, although the weft was slightly lighter than the warp. The wearer was a powerfully built 160cm tall man. The garment was knee length. It was quite tight fitting, but gets much fuller from the waist. It had by far the widest skirt of all the garments found. The sleeves are quite full and are fastened by fifteen closely placed buttons. Six in all are preserved still, and they are made from wads of fabric glued together, and then covered with fabric. It is similar in appearance to H38 and H39. The vertical seams are ornamented at the waist with rows of backstitching, similar to H38. The sleeve edges are ornamented with a row of backstitching, and the bottom hem has two rows of backstitching.

Also:
Herjolfsnes 34, Herjolfsnes 36, Herjolfsnes 40, Herjolfsnes 46, Herjolfsnes 49, Herjolfsnes 53
Closed Surcotes

_Herjolfsnes 38, Greenland: Late 14th C_

A woman's dress with long sleeves, made from 2/2 twill of medium thickness. It has a black warp and brown weft, and was loosely woven to show the colours. The woman buried in it was a small woman at most 147cm tall. It is quite tight fitting in the body, and has a wide skirt. The sleeves are quite wide at the top and then narrow at the wrist. It has fitchets, edged with a fine six-stranded plaited cord. The sleeves are edged with the same cord, and the skirt has a fake cord edging of embroidery to look similar. The neck was simply turned over, sewn down with a backstitch and overcast. The vertical seams are also ornamented over the waist with rows of backstitch.

_Herjolfsnes 39, Greenland: Late 14th C_

This is a woman's surcote with short sleeves. It is the best preserved dress of the find and was C14-dated to 1413-1449. The owner was a slight woman with a spinal curvature and a hump back. It was made from very firm 2/2 twill. The weft is so well beaten that the warp is hardly visible. It is quite close fitting, and swings out abruptly at the hips. The neck is quite small compared to the other garments from Herjolfsnes, and has a short slit with two pairs of eyelets for lacing. It has no fitchets.

_Herjolfsnes 42, Greenland: Late 14th C_

Most probably a man's garment made from 2/2 twill, quite heavy. The warp is black, the weft brown, giving a blotchy impression. It was pieced together both at the shoulders and in the sleeves. The back is quite a bit larger than the front, and the shoulder seams sit forward on the wearer. It's quite close fitting, and the neck opening is rather large. The sleeves are also narrow and the armhole quite small. The sleeves have a 13cm long slit, edged with a row of backstitching. It was probably sewn up when worn. The gown has fitchets, edged with six-plaited cord. The neck is edged the same way, but the hem, which is calf-length, is edged with two-plied cord sewn on with overcast stitches. Nörlund draws the pattern with curved side-gores, but Nockert considers this wrong based on an examination of the garment in the National Museum of Denmark.
Herjolfsnes 43, Greenland: Late 14th C

Man's gown made from 2/2 twill, rather thin and woven with a darker warp and paler weft. It's not very full, but it has not been taken in to be very close fitting. It's the least full of the garments. It is a very unusual and puzzling garment for several reasons. It has a very deep slit in the neckline. There are no buttonholes or eyelets, so it must have been kept closed some other way, probably a clasp or brooch. It has fitchets, but they're placed higher and further back than normal, making them quite inconvenient. The garment was also quite clearly worn with a belt, which covered the fitchets (as shown by wear marks). In other words, its fitchets could not be used.

The hem is not turned under, and the edges of the sleeves and neck are turned under but without stitching or overcasting. Similarly, the fitchets have not been hemmed. This may indicate that the garment was lined, probably with fur. It was very worn, and was not very well made in the first place. It had also been much patched, one big patch on the lower edge suggests a sword had been worn with it.

Herjolfsnes 45, Greenland: Late 14th C

This is a short-sleeved man's dress, made from very heavy, coarse 2/2 twill. It appears black, but the weft threads have a brown tint to them. The seams were carefully overcast, but it has no ornamentation. It has fitchets. It's quite wide, giving the impression that the wearer was big. It is also unusually short, hardly lower than mid-calf. Nörlund draws the pattern with curved rear side-gores, but Nockert considers this wrong based on an examination of the garment in the National Museum of Denmark.

Also:

Herjolfsnes 35, Herjolfsnes 47, Herjolfsnes 50, Herjolfsnes 51, Herjolfsnes 56
Open Surcotes

St Birgitta’s “cloak”, Sweden or Italy, mid-14th C

The cloak of St. Birgitta is now in Rome. It was borrowed by Statens Historiska Museum in 1973/4 for an exhibition on 'Birgitta and the Holy Land'. When it was examined closely it turned out to be a garment cut off below the armholes. It has fitchets between the front and sidepieces, which marks it as a surcote. The original garment was probably somewhat longer in the back than in the front. It was made from a dark blue fabric, fulled and shorn.

Herjolfsnes 37, Greenland: Late 14th C

This is a man's gown made from dark brown 2/2 twill, which was evenly woven from tightly spun wool. It has a very gradual and large increase in size from the shoulders and down to the hem and would have been quite loose fitting. Fitchets show that it was an over garment. The armhole edges are sewn down, which indicates that there were no sleeves.

Closely fitted garments

Pourpoint of Charles de Blois, France: mid-14th C.

Kept in the Musee Historique des Tissus in Lyons. Probably post-dates his death at Auray in 1364. Front and sleeves fasten with cloth-covered wooden buttons, same way as Charles VI's with disc-shaped buttons below the waist and domed ones above the waist. There were thirty buttons in the front; the two lowest are missing. The sleeves are of the type known as ‘grande assiette’, with very large armholes. Made from a silk damask with a pattern of heraldic lions and birds set in medallions, and padded. The quilting stitches are horizontal and spaced at 3.5 cm.

N.B. According to someone who has seen this garment in person, the pourpoint was in fact neither quilted nor padded. The quilted effect is instead part of the conservation - the unlined garment has been tightly stitched to a backing fabric.
Margrethe, Denmark: Early 15th C

The size of the gown suggests that the wearer was a young girl, and it is dated to the early 15th Century. While the gown is very closely associated with Margrethe herself, it may in fact have belonged to her daughter-in-law, Philippa of England. The fabric is gold brocade on a red silk ground fabric. The design is a framework of laurel garlands with a group of five pomegranates at their points, surrounding a central motif of something that resembles a pineapple. It is generally considered to be of Italian manufacture. The gown will have used around 10 3/4 metres of fabric at the known loom width of 60cm. The careful joining of pieces to make up the main part of the garment was done matching directions in the weave, which will have wasted some of the very expensive fabric. However, some of the inserted gores under the sleeves are of a different fabric, and one of the four main pieces was made up less carefully.

The garment has deep armholes like a grande assiette garment: although the sleeves survive only as fragments at the top, they do have the expected insets to make the sleeve-cap wide enough to fit. The front skirt had apparently been trodden on, and torn. The damage had been repaired with considerable skill; two patches were inserted which made the mending virtually impossible to see. This was done using the same fabric, which suggests that the gown was perhaps made locally to the wearer. The cut and construction of the gown was done with great skill and professionalism. The four main pieces are all pieced together to gain the width in the skirt, joined virtually invisibly. Only after the four pieces were completed were they sewn together.

The Margrethe gown is lined with three different types of fabric, coarse natural linen and two slightly different blue linens. It appears to have originally been interlined with blue linen through the bodice and at least as far down as where the skirt widens. On top of that, the coarser natural coloured linen was used as reinforcement in the bodice, and then finally another blue facing was added at the neckline. It seems a prosaic lining for such a spectacular garment, and Nockert speculates that a finer lining still was once attached, possibly a fine fur such as miniver, which has been removed and reused.
**Moy, Ireland: 14^{th} – 15^{th} C**

The Moy gown is the one extant example of a woman’s ‘cotehardie’ as we generally use the term in the SCA, but it is by no means typical if you look at artwork of the period. The fabric is a 2/1 twill wool, of a medium fineness. It has a low-scooped neckline, and is buttoned down the front. Both the “bodice” and the sleeves are put together by judicious application of gores, to create a nice fit (although it doesn’t appear very tight).

Some of the pattern pieces, like those of the Charles de Blois pourpoint, have been cut on a curve – a further example of the new type of cutting strategy where fit was more important than fabric use.

The sleeves are very reminiscent of the grande assiette style, with inset gores and a deep armhole, but they are not as rounded as the pourpoint or Margrethe’s gown. The sleeves were buttoned, and although very little of them survive, we can be reasonably sure they were long sleeves. The buttons continue past the elbow all the way up to the shoulder, which seems to go counter to artistic evidence and might be some sort of adjustment to the famous Irish style of wearing very full-sleeved leine, or something entirely different.

The garment had been patched, and there are holes at some of the stress points of the garment. It was not a noble woman’s best gown.

---

*Figures not included in this text.*
Children’s garments

*Herjolfsnes 44, Greenland: Late 14th C*

This dress was made for a girl, approximately ten at the time of her death. It was made from 2/2 twill, quite heavy, and has a strong brown colour although it was originally made from white wool. It was not dyed originally; the colour must have come from its burial in the ground. The sleeves are slashed at the wrist. It is not tight fitting. It was recreated by the National Museum of Denmark for their children’s exhibition.

Also:

Herjolfsnes 48, Herjolfsnes 61

Arming cotes

*Edward the Black Prince, England: 14th C*

The arming coat of the Black Prince is dated to circa 1376, and was made from blue and red velvet, embroidered with the arms of France and England quarterly. It was padded with wool, lined with satin and quilted vertically. It fastens centre front with lacing through eyelets. The sleeves are torn at elbow level, but were probably full length since only the upper quarters of the coats of arms are preserved on the sleeves.

*Charles IV, France: around 1400*

The Coat Armour of Charles VI of France was probably deposited at Chartres Cathedral around 1400. "It is made of quilted white linen stuffed with wool and covered with crimson silk damask woven with medallions containing heraldic birds and beasts, interspersed with foliage. It is mid-thigh length with a scalloped lower edge, closes at centre front with 25 wooden buttons covered with the same crimson damask and has long, loose sleeves which taper to the wrist. On the left side of the garment are two slits to accommodate the straps of the sword scabbard."

The coat armour appears to be cut without a waist seam, and without any side gores. It is however difficult to tell from the picture. The armhole appears to be uncut, and the sleeve cap straight. The neck is rounded and quite high. Disc-shaped buttons below the waist and domed ones above the waist.
What can we learn from all these garments?

Fabrics
There seems to be some trends here that make sense, although of course with such a limited selection we have to be careful about drawing conclusions. However, if a closed surcote is an outdoors-garment, and an open surcote mainly an indoor or fair-weather garment, then it makes sense that the former is more often made of stouter material and the latter of finer stuff.

We can also see that the Grand Assiette garments are spread through society; two are made of the richest material available, and yet the third is of a coarse wool.

Interestingly the arming cotes are both made from silk – an indication of the wealth and status of their owners that probably doesn’t reflect terribly accurately on the style of garment in general.

<table>
<thead>
<tr>
<th></th>
<th>Linen (unspecified)</th>
<th>Fine wool</th>
<th>Medium wool</th>
<th>Coarse wool</th>
<th>silk</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Early” kirtles</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fitted kirtles</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surcotes</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Grande assiette</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Arming cotes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Lining (all from one garment)</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Weave
By far the most common type of weave in this material is the 2/2 twill. Skjoldehamn, Ronbjerg, and all the Herjolfsnes garments (where I have found information) are of this common weave. It is easy to work, and gives a dense, strong fabric very suitable for everyday clothing that will have to withstand a lot of abuse. Similar advantages exist with 2/1 twill, but it is harder to weave on a horizontal loom, and this fact is sometimes used as an indicator that the fabric might have been woven on an upright loom. Be that as it may, in the extant material a fair representation of the “simpler” kirtles are woven in this weave. This includes Bocksten, Kragelund, Soderkoping and Moselund, as well as Moy.

Brocade woven garments include Charles de Blois, Margrethe and the arming cote of Charles IV. Edward the Black Prince’s arming cote is the only example of velvet fabric in the sample.

I have only found thread counts/spin directions on a few of the garments, and the information is presented below. As a general rule, the warp threads are always Z-spun, with the weft S-spun although the Moy gown is an exception, as is the linen thread in the linings of Margrethe’s gown.

The interest in the spinning direction (Z or S describes the ‘slant’ of the thread when you look closely at it) comes from the natural inclination of the thread to twist against itself. To get a stable fabric then it is a good idea to ‘balance’ the weave, with a z-spun thread in one direction and an s-spun thread in the other.

<table>
<thead>
<tr>
<th></th>
<th>Warp spin/density</th>
<th>Weft spin/density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bocksten</td>
<td>Z8-10/cm</td>
<td>S7-8/cm</td>
</tr>
<tr>
<td>Kragelund</td>
<td>Z11-12/cm (circa)</td>
<td>S7-8/cm</td>
</tr>
<tr>
<td>Ronbjerg</td>
<td>Z7-10/cm (circa)</td>
<td>S12-14/cm (circa)</td>
</tr>
<tr>
<td>Soderkoping</td>
<td>Z12/cm</td>
<td>S7-8/cm</td>
</tr>
<tr>
<td>Moselund</td>
<td>Z14/cm</td>
<td>S10/cm</td>
</tr>
<tr>
<td>Moy</td>
<td>Z20/inch</td>
<td>Z18-20/inch</td>
</tr>
<tr>
<td>Margrethe</td>
<td>S80/cm</td>
<td>S22-26/cm</td>
</tr>
<tr>
<td>Margrethe lining 1</td>
<td>Z22/cm</td>
<td>Z22/cm</td>
</tr>
<tr>
<td>Margrethe lining 2</td>
<td>Z11/cm</td>
<td>Z9/cm</td>
</tr>
<tr>
<td>Margrethe lining 3</td>
<td>Z15/cm</td>
<td>Z15/cm</td>
</tr>
</tbody>
</table>


**Colour**

Not much colour exists in the extant material. The Herjolfsnes garments are usually described by Nörlund as having a dark warp and lighter weave, although we know that at least one of those garments, the child’s gown no. 44, was in fact made from white, undyed wool. Perhaps the revisit of the garments currently being undertaken by the National Museum of Denmark will include colour analysis. Aside from the Herjolfsnes garments, this description is also used of the Ronbjerg kirtle. It may well be a way of getting ‘mottled’ cloth from using the natural coloured wool from brown and ‘black’ sheep.

The Bog material tends to be a non-descript brown which Marc Carlson calls ‘Bog Trash Brown’. The term perfectly describes how it looks now, but generally speaking we don’t know what the original colour was. The garments accurately described by this term include the Bocksten, Kragelund, Skjoldehamn, Moselund and Moy.

The colours we do know are bright, which is only natural since most are found on high-status garments. The Birgitta ‘cloak’ is a dark, rich blue wool, and the Soderkoping garment is two-coloured vertically in red and blue.

The silk garments have preserved their rich colours very well. Margrethe’s gown is gold brocade on a red background, lined with white and blue linen, Charles de Blois’ pourpoint gold brocade on white. Charles IV’s arming cote is made from a red silk lined in white linen. The Black Prince’s arming cote is made from blue and red velvet, quartered as the background for his embroidered armorial achievements.

**Fitchets**

Fitchets are slits, or openings in seams, allowing the wearer to put his hands through to reach for a pouch hanging from his or her girdle. The presence of fitchets shows that the garment was a surcote, intended as an outer garment. The exception here seems to be Herjolfsnes 43, which was worn with a belt that actually covered the fitchets (as seen by the wear on the garment).

Where fitchets are found in the extant garments, they vary in placement and size as shown. They are not always placed in the seams; Herjolfsnes 38 and 42 have the slits cut in the actual fabric.

<table>
<thead>
<tr>
<th>Placement</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birgitta: Seam between front and side gore</td>
<td>?</td>
</tr>
<tr>
<td>H37: front-piece seam</td>
<td>?</td>
</tr>
<tr>
<td>H38: Front inset</td>
<td>17 cm</td>
</tr>
<tr>
<td>H42: Front inset</td>
<td>16 cm</td>
</tr>
<tr>
<td>H43: High in side seams</td>
<td>13 cm</td>
</tr>
<tr>
<td>H45: Seam between front and side gore</td>
<td>17 cm</td>
</tr>
<tr>
<td>H47: Seam between front and side</td>
<td>?</td>
</tr>
</tbody>
</table>
Gores and tailoring

The number of gores in the garment determines the fit, both in widening the skirt at the bottom, and also in allowing the tailor to create a narrower fit at the top. In the basic kirtles, the function of the gores was to widen the skirt - the top of the garment was not fitted. In the later garments the second effect was used to great effect. And there seems to have been status in the number of gores used for a garment; in several garments there is an even number of gores on either side (so the false seams were not needed to make the garment symmetrical), and yet false seams have been put in to make it seem as though there were more.

|                      | Front Real | Front Apparent | Back Real | Back Apparent | Left Real | Left Apparent | Right Real | Right Apparent |
|----------------------|------------|----------------|-----------|---------------|-----------|---------------|------------|----------------|----------------|
| **“Early” kirtles**  |            |                |           |               |           |               |            |                |
| Bocksten             | 2          | 2              | 1         | 2             | 1         | 1             | 2          | 2              |
| Kragelund            | 2          | 2              | 2         | 2             | 2         | 2             | 2          | 2              |
| Skjøldehamn          | 1          | 1              | 1         | 3             | 3         | 2             | 2          | 2              |
| Moselund             | 2          | 2              | 1         | 2             | 1         | 1             | 2          | 2              |
| **“Later” kirtles**  |            |                |           |               |           |               |            |                |
| H33                  | 0          | 0              | 0         | 0             | 2         | 2             | 2          | 2              |
| H34                  | 0          | 0              | 0         | 0             | 1         | 2             | 2          | 2              |
| H40                  | 2          | 2              | 2         | 2             | 1         | 2             | 2          | 2              |
| H41                  | 2          | 2              | 2         | 2             | 4         | 4             | 4          | 4              |
| H46                  | ?          | ?              | 2         | 2             | 3         | 4             | ?          | ?              |
| H53                  | ?          | ?              | 2         | 2             | 1         | 4             | ?          | ?              |
| **Surcotes**         |            |                |           |               |           |               |            |                |
| H35                  | 0          | 0              | 0         | 0             | 2         | 2             | 2          | 2              |
| H37                  | 0          | 0              | 0         | 0             | 1         | 2             | 1          | 2              |
| H38                  | 2          | 2              | 1         | 2             | 3         | 4             | 3          | 4              |
| H39                  | 2          | 2              | 2         | 2             | 1         | 2             | 2          | 2              |
| H42                  | 2          | 2              | 1         | 2             | 2         | 2             | 1          | 2              |
| H43                  | 2          | 2              | 2         | 2             | 2         | 2             | 2          | 2              |
| H45                  | 2          | 2              | 2         | 2             | 1         | 4             | 2          | 4              |
| H47                  | 1          | 1              | 2         | 1             | 1         | 2             | 1          | 2              |
| H50                  | 2          | 2              | 2         | 2             | 2         | 2             | 2          | 2              |
| H51                  | 1          | 2              | 1         | 2             | ?         | ?             | ?          | ?              |
| H55                  | 2          | 2              | 2         | 2             | 1         | 2             | 2          | 2              |
| Birgitta             | 0          | 0              | 0         | 0             | 6         | 6             | 6          | 6              |
| **Grande Assiette**  |            |                |           |               |           |               |            |                |
| Moy                  | 1          | 1              | 2         | 2             | 1         | 1             | 1          | 1              |
| **Children**         |            |                |           |               |           |               |            |                |
| H44                  | 2          | 2              | 2         | 2             | 2         | 2             | 2          | 2              |
| H48                  | ?          | ?              | 2         | 2             | 2         | 2             | 1          | 2              |
| H61                  | 2          | 2              | 2         | 2             | 2         | 2             | 2          | 2              |
Necklines
The way the neck opening was done up varies. Most often there was no fastening, as the neck opening was wide enough to just slip over the head. In the cases where there was some form of fastening, there doesn’t seem to be any trends; they could be done up by buttons (if the garment was open the whole or most of the way down the front), laced or pinned. In most cases we simply don’t know.

Kirtles

![Kirtle diagrams]

Bocksten  
Kragelund  
Skjoldehamn  
Ronbjerg  
Moselund  
Herjolfsnes 33  
Herjolfsnes 41  
Herjolfsnes 44 (child)

Surcotes

![Surcoat diagrams]

Herjolfsnes 38  
Herjolfsnes 39  
Herjolfsnes 42  
Herjolfsnes 43  
Herjolfsnes 45  
Herjolfsnes 37

Grande Assiette/close fitting

![Assiette diagrams]

Charles de Blois  
Margrethe
Seams and decorations
The Herjolfsnes garments were sewn with two-ply, s-spun wool of differing thickness, but averaging 1mm. Stitches used at Herjolfsnes according to Nörlund were backstitch, blanket stitch, overcast stitch, darning stitch.

Hems appear to be minimal in size, mostly around 1 cm. Both gowns and hoods were finished through folding over the edge of the fabric, and held down with a double row of short stitches. The edge was then overcast. Sometimes the hem is turned over and the raw edge left without edge treatment.

The other edge treatment relatively common is to edge it with a narrow cord sewn on with an overcast stitch or a darning stitch. The cord was used for edging, lacing, etc. Garments could be edged around the neck, the sleeves, the lower edge and the fitchets. One garment was trimmed with cord and then turned over. There are several different types, from simple two-ply twist, one example of ten-ply, and most commonly plaited cord, usually of three-strand but in some cases six. It makes for a very discreet decoration.

On Herjolfsnes 38, the seams joining the side gores are ornamented at the waist with a row of backstitches. The bottom of the dress was embroidered to represent cord similar to that edging the sleeves and wrist openings. There was a similar treatment on Herjolfsnes 41; where the seams of the gores come close together at the waist, they are ornamented with a row of backstitches. The sleeve opening has a row of backstitches, and the hem has two rows of backstitches.
Margrethe:
The seam most commonly used is the one seen below to the left. The seam was sewn with a backstitch using double, two-ply S-spun silk, now brown, perhaps originally red. The seam allowance was then flat felled with a running stitch, except in the waist where they were hemmed down. The side seams in the waist, and the back seam for the top 60-70 centimetres was reinforced (see below at right). The seams were sewn with a backstitch, then the seam was "taken in" and another row of backstitch sewn through all four layers of fabric, forming a welt. The edges were then flat felled. These seams were executed with a double linen thread in the back seam. This may have been to take in the seam in the back, but it also serves to 'pad' the gown slightly in the back. The remaining seam allowance in the reinforced seams is approximately 2 cm wide, whereas the ordinary seams have been clipped closely to 0.7-1 cm width. The hemming was very simple, with a 1 cm single fold that was hemmed down with silk.

London:

Overstitching of two edges
(usually found on foot sections of wool hose)

Back stitch

Seam reinforced with running stitch

Running stitch

Hem stitch (single folded hem)
The arming coat of the Black Prince is heavily embroidered quarterly in the arms of England and France. Aside from that garment, there is remarkably little ornamentation preserved. There was some small decoration on two of the Herjolfsnes garments however. It is not embroidery per se; rather it is the use of ordinary stitching to emphasize certain areas of the cloth.
**Buttons**

Buttons in the extant material seem to have been made in one of two ways. Either they were fabric covered, stuffed with material which had glue added, such as Herjolfsnes 41 and the Moy gown, or they were wooden buttons covered with the fabric of the garment in the case of Charles de Blois and Charles IV. Whether this was a French thing or not is impossible to say.

The three garments in this study that were buttoned, Charles VI's arming cote, the Charles de Blois pourpoint and the Moy gown were all buttoned the same way, with the buttons on the wearer's right side. The Herjolfsnes 63 garment, which is considered later than relevant to this study, was buttoned on the wearer's left side.

The HMSO book on the London finds contains information on how buttons found there were made, and also on how the buttonholes and eyelets were sewn.
Sleeves

Basic early style
This is the simple, straight shoulder and more-or-less rectangular sleeve with gussets under the arm for width and comfort. The Kragelund is not typical of this style, but nonetheless belongs in this category.

Transitionnal
This peculiar style used in the Herjolfsnes garments, with the rotated sleeve seam and the inserted gusset, is an ingenious way of making a fitted sleeve. Not only does this approach give a nicely fitted sleeve without the difficulties of dealing with the change in width from the upper arm to a comfortable armscye, but the gusset actually makes the sleeve twist and fall forward nicely over the elbow, in a similar way to a modern, tailored jacket. Try it!
Grande Assiette

This seems at first glance to be a terribly complicated type of sleeve. It’s not, but it’s not simple by any means. It addresses the same problem as the more common transitional style above, namely to have a close-fitting sleeve fit a rounded, wider armscye. What makes a grande assiette so special is of course the extreme depth of the armhole, and the particular difficulty in fitting a tight sleeve to such a very large armhole. If this is done with just the one gusset, the pull on the sleeve over the upper arm will be uncomfortable and the stress on the seams too great. The solution is to insert more gussets – anything from three to six can be seen in the extant material here. Charles de Blois’ pourpoint is also split at the elbow, to give a close fit when the arm is slightly bent, but this is strictly speaking not part of the concept of a grande assiette, just additional clever tailoring on a very well tailored garment indeed. There is a similar seam over the wrist for the same reasons.
**How can we use all this information?**

Well, the first thing we can do is to use the basic construction techniques, such as seams, to create authentic garments. And of course, we can choose one of the extant garments and copy it – this is certainly a worthy project. But I also believe we can use the information we’ve learned from studying this material, to give us an understanding of what was done in period and why. We can then use that information to adapt period techniques to our own, original projects.

If one thing is obvious when we study this data, it is that there were no rigid rules, no premade patterns. In fact, when people ask for patterns, we find we leave the area of what ‘they’ did – because I don’t believe they used patterns so much as what we could call a ‘cutting strategy’. And each individual element – sleeve, neckline, number of gores or combination thereof – were mixed to produce a unique garment.

In the case of early style kirtles, we can see that the garments are laid out geometrically, using simple shapes such as rectangles and triangles. This enabled the tailor to cut a garment out of a narrow length of cloth, without wasting any fabric. Using this knowledge to adapt a cutting strategy to my size and to modern width fabric, I can build a long gown of the same principle for myself out of a piece of 150 cm fabric only twice the length of the measurement from shoulder to hem.

Similarly, looking at the transitional garments from Herjolfsnes, I can see that the economy of fabric use was still important, even if it wasn’t as important as a nice fit over the arm and shoulder. A little more wasteful, but not much; a full gown, long sleeved and with a train, can be built out of 4.5 m of fabric – and if there are more than one person involved, less still per person.
Appendix: A special case

**My theory on the original look of the “Margrethe gown”**

The gown has been altered, we know this because of the linings in the bodice that survive. It has a large armhole and a large number of gussets inserted into the sleevecap, but the sleeves are not true grande assiette. The sleeve holes are large, but not the incredibly large ones normally seen - rather they're just big, and the sleeves have then been built up to fit with a different number of gussets in each of the two sleeves.

The four body seams do a funky rounded thing somewhere in the hip region, rather than smoothly tapering out from the bodice and into the skirt, which is enormous - even for the fashion of the time it's both long and wide in comparison to the bodice which is rather petite. So it seems reasonable to assume that the gown was taken in for a smaller person, and that's precisely what the Nockert, Geijer and Franzen suggest in the book about the gown.

But what did the original look like?

Because of the shape of the existing armscye, I think the sleeves were normal sleeves for the time, probably with the sleeve seam just behind the shoulder and a single gusset inserted there. I think the skirt was in proportion to the larger bodice, and I think the seams were tapering in a more 'normal' look. When the gown was taken in, it was taken in through all four seams in the bodice area, leaving a rather large, gaping armhole in the gown. To fit the now smaller sleeve into this large armhole the 'grande assiette' method of multiple gussets was used, but there was no real intention of making it a grande assiette gown, or the armhole would have been carved out even more.

I also think that once the bodice had been taken in, the tailor made the seam jump out to the original seams, so as to use as much of the fabric as possible rather than scaling the whole thing down. This, I think, is also why the skirt is so much bigger than seems right for that size bodice.

*(Note: I'm talking about 'bodice' and 'skirt' only in the sense of those areas on the gown, there is no waist seam in the garment.)*

**Bibliography**


*Drotting Margaretas gyllene kjortel i Uppsala Domkyrka* (The Golden Gown of Queen Margareta in Uppsala Cathedral), Agnes Geijer, Anne Marie Franzen, Margareta Nockert, Kungliga Vitterhets Historie och Antikvitets Akademien, Stockholm 1994

*Arms and Armour of the Medieval Knight*, by David Edge and John Miles Paddock, published by Saturn Books in 1996.


Note: the Herjolfsnes garments have been studied by Nockert and found to be slightly different than originally thought. Also, Natmus are re-evaluating several of their garments and re-dating them by C14 methods, which will modify the info in Hald somewhat.

*My website can be found at Http://www.for est.gen.nz/Medieval/*