

Cut and Construction of a Man's Pleatwork Embroidered Shirt c1500-1600

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Whenever there is a discussion about the construction of a garment, modern construction and embroidery terms, such as “smocking,” are used to define the techniques. This paper will challenge those modern thought processes and redefine the concepts of the construction and embellishment of the pleated embroidered shirts of the 15th and 16th century through examination of the surviving portraiture of the era, the writings and the extant garments of the period.

When studying the cut and construction of historic clothing, much depends upon the availability of garments from the era, written descriptions and portraiture. The limited access to primary resources adds to the difficulty of the study. The skill and style of an artist determines the detail of a portrait. There are very few portraits that show enough detail to be able to say, “Yes, here is how it was done.” Writings are subject to language interpretations and there only a few extant garments that feature pleatwork and they outdate this shirt by 20-70 years. While a few fragments of clothing showing pleatwork dating from the 16th century do exist, they do not give us all the information that might be needed to reconstruct a garment. Using these limited resources, attempts can be made to discern the techniques used on the garments.

The accessibility to clothing and material for people of all class levels during the late Middle Ages into the Renaissance eras brought with it changes to fashion. Conspicuous consumption of goods directly influenced styles. More was better, and as a result, changes took place with clothing. Clothing became fuller and more sumptuous and as a direct product of this trend, a distinctive style of garment arose in the form of a full-pleated shirt in the late 15th century through the mid 16th century.

Pleating

The shirts and undershirts prior to the late 1400's are of rectangular construction, generally in the shape of a T (see Figure 1). By the late 15th century, the shirts had started becoming fuller. This fullness stayed in fashion until about the middle of the 16th century where they once again slimmed down, most likely to fit inside much tighter fitting doublets.

As the silhouette changed over this 50-70 year period, the shirt saw many different stages of development in an attempt to maximize the amount of pleating around the neckline.

The actual techniques used to create the pleating are likely as varied as the garments themselves.

Remnants of pleated linen dating from about the 10th century were discovered in the digs at Birka. Agnes Geijer, in her article on the Textile Finds from Birka notes:

“that the pleats were done by gathering the fabric with a needle and thread and subsequently drawing the thread straight. After removing the thread, the fabric was soaked in water, stretched in the direction of the pleats, and then left to dry. When fully dried, the fabric remains tightly pleated” (Geiger 80-99)

The usage of gathering threads to create pleats exists 500 years later. There are examples in the portraiture of the 15th century through the early 16th century where this technique appears to be the means of creating the pleating in the clothing.

In this Self Portrait of Durer, done in 1498 (Plate1), the gathering threads used to form the tight pleats have been faintly painted. This is one of the earliest paintings to actually show the pleating of the fabric.



Plate 1: Durer Self Portrait 1498

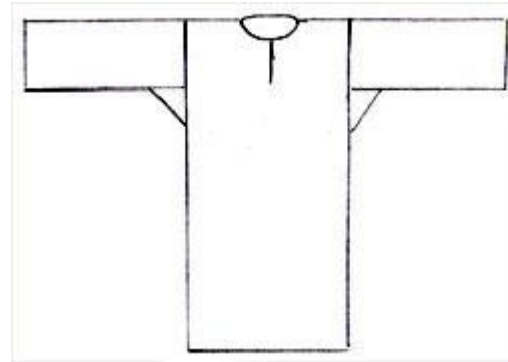


Figure 1: T shaped rectangular shirt construction

Giovanni Boltraffio, in his portrait of St. Sebastian (Plate 2) painted in the 1490's, also shows the rows of threads through the pleats though the pleating is not as extensive or as tightly pulled.

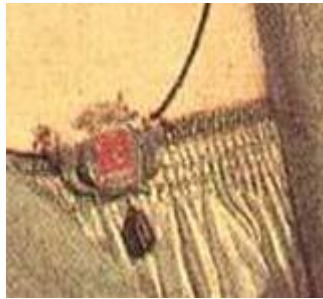


Plate 2: St Sebastian by Boltraffio *Plate 3: Henry the VIII by an Unknown artist*

In a brief excerpt, Virginia Churchill Bath, in her book Lace, references pleating on garments:

"Henry VIII issued the Acts of Apparell, which forbade the wearing of "garded and pynched shirts and partlets" to anyone with a rank lower than that of a knight." (Bath 2)

A portrait of Henry VII by an unknown artist (Plate 3), shows a shirt that could possibly be an example of the "pynched" shirt that Bath discusses. Just like the Durer and Boltraffio paintings, it infers the gathering threads as represented by faint shadowing in the rows.

This was by no means the only way to create pleats. Dr. Zander-Seidel in her book, Textiler Hausrat, Kleidung und Textilien aus Nürnberg, 1500-1650, describes a process by which pleats were set in place using a linen press, a wooden implement that clamped the pleats in place, presumably while wet (Seidel 202-206). This would explain the orderly pleating seen on many garments over the full length of the fabric.

Pleat Work

If we examine modern classifications of smocking, it not only covers the embroidery, but any manipulation of pleating in a decorative fashion. Arguments are often given that the embroidery on the garments seen in the portraiture cannot be smocking because it is not adding to the structure of the garment itself. Smocking, by many definitions is embroidery used to control the

fabric thus adding to the structure of the clothing. Even modernly, this is not necessarily true. It is a combination of the surface embroidery used in the design and the pleating used as the ground for the embroidery.

Put into the context of pleating and embroidery in medieval and renaissance clothing as a solution to a problem, i.e. how to put large quantities of fabric in a small area and make it fashionable, the broader definition of the embroidery form seems to apply. Taking this one-step further, consider the tight pleating seen in the portraits, such as the Durer Self Portrait of 1498 (Plate 1) as a ground for the “pleat work” and the definition broadens even further. The pleating becomes a ground for the embroidery and any form of embroidery normally done on a flat ground can be done on this pleated surface. Dr. Zander-Seidel, describes a period term for this as 'fitz-arbeit' (pleat work), modernly called 'smok-arbeit' or smock work (Seidel 202-206).

It should be noted that there were prohibitions on certain types of embroidery and embellishment, regionally, depending on the social status. In 1493 and again in 1583, in the sumptuary laws in Nuremberg, shirts embroidered with pearls, having pearls "fastened thereon" and other embroidery "pleated or gathered in gold and silver" were prohibited for all except for the Patrician (Seidel 72-74).

Dr. Zander-Seidel discusses a custom of German brides presenting their husbands with a shirt worked in gold as a wedding gift. Additionally she has found records that wives were willing to pay sumptuary law fines of up to 20 guildens in order to provide their husbands with these elaborate shirts (Seidel 202-206). For those who could not afford this extravagance, or for the day-to-day apparel, these laws would explain why we see such an abundance of white worked embroidery on the shirts shown in the merchant class portraits throughout these periods. The white work is very likely a variation of Opus Teutonicum, a period embroidery form originating in Germany during the 12th century. The more elaborate gold and silver works, as well as the embellishment with trims and gems, generally only appear in the portraits of the nobility.

Trim vs. Embroidery

When examining portraiture from the early 16th century an argument can always be made for trim vs. embroidery. It was not mutually exclusive. In studying the Durer (Plate 1 and Plate 4) self-portraits from the end of the 15th century and that of Hans Balding Grien's portrait of Count Philip (Plate 5), it is clear that trim and embroidery are used in conjunction with each other.

Trim would have been very expensive and as such, again used on just the best garments or only those who could afford it. Bands of heavy trim, most likely tablet woven, such as in the portrait of Ottheinrich, Prince of Pfalz, painted in 1535 by Barthel Beham (Plate 6) would be the reserved for those of the highest echelon.



Plate 4: Durer Self Portrait c1498 Plate 5: Count Philip by Grein c1517 Plate 6: Ottheinrich by Beham c1535

An extant cuff fragment dating from the 16th century is part of a find from the Alpirsbach Monastery (Fingerlin). The fragment shows fine pleats laid over with lace and backed by a band of fabric. The lace would have been another type of trim embellishment and the band backing the pleating would give a smooth surface against the skin that would help stabilize the pleats. The backing band also explains why the pleated shirts have a smooth back surface in many of the portraits.



Plate 7: Shirt fragments from the Alpirsbach

Pleatwork Embroidery: Stitch Types

For the purpose of this paper we will be defining “pleatwork” as embroidery on pleats based on the period term described by Dr. Zander-Seidel. As there is no way to determine the actual period terms for the forms of embroidery used on the pleatwork, modern terms will still be used to describe stitch types.

Upon study of the portraiture and a few extant pieces both in and out of period, it becomes somewhat clear that there are as many different styles of the embroidery over pleats as there are types of embroidery. Simplifying the styles seen in the portraits and the few extant garments, the embroidery categorizes into three basic forms:

Stitching through pleats

Stitching through pleats is when the fabric is drawn up using a gathering thread, or pleated without one and then stitched through the actual pleats either for decorative purposes or for providing a way for structurally managing the fullness of garments.

This would include modern stitches such as outline/stem, trellis, chain, satin, honeycomb, surface honeycomb, and other variations of similar stitches. In this type, the fabric generally maintains a level of elasticity and movement. The actual embroidery supports the structure of the garment.

Another extant fragment of a shirt from the find at the Alpirsbach Monastery (Plate 8) dating from the 16th century documents the usage of a honeycomb-like stitch to control the pleating.



Abb. 743 Hemd, Ärmelschluß in Smokarbeit (Kat.-Nr. 28).

Plate 8: Shirt fragments from the Alpirsbach

Pleating as a ground

Pleating as a ground is when the pleating itself provides the structure of the garment and the embroidery provides little or no structure to the clothing. Leaving in the gathering threads may help to add structure to the garment. The embroidery uses the pleats for anchoring stitches or as a thread count to the design.

This technique works very well with the counted forms of embroidery such as blackwork and pattern darning. A fragment of a cuff dating from the Tudor era (Plate 9) has evidence of

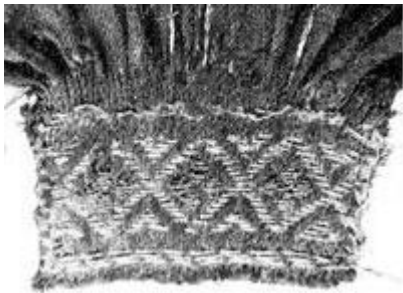


Plate 9: Cuff fragment from Museum of London

pattern darning in the embroidery on the pleating. In this case, threads are drawn through the pleats, the resulting embroidery is not flexible, and the pleats provide counted thread for the design. Other techniques, such as couched and laid work, gold work, and appliqué can utilize a pleated ground.

Shirred fabric

Shirred fabric can be considered when the gathering threads that form the pleating are either drawn up from uniform rows or when they have been run in such a way that a pattern is formed when the fabric is drawn up. It is generally classed as a form of fabric manipulation.



Plate10: Man's Shirt, Italian

This form is often called “Italian smocking” or “Italian shirring” and classifies as a form of modern smocking. While it is not technically considered embroidery, it is a form that shows up in the garments from the renaissance era and can be classified within the definition of pleat work.

A shirt from circa 1600-1650, held at the Los Angeles County Museum of Arts (Plate 10) shows shirred pleating on the sleeve-heads.

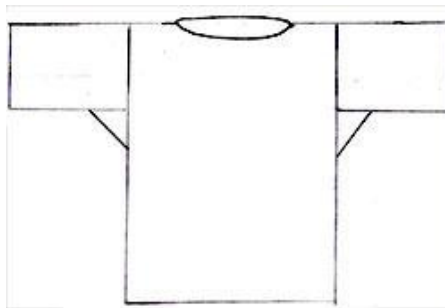
Styles, Shapes and Embroidery

Prior to the late 1400's the shirts were straight rectangular construction similar to the undergarments shown from *Triumph of Minerva* by Francesco del Cossa.



Plate 11: Triumph of Minerva

As the fashions progressed in the mid to late 15th century to the more voluminous styles, the shirt necklines widened (Fig.2) as seen in a painting by van der Weyden (Plate 12).

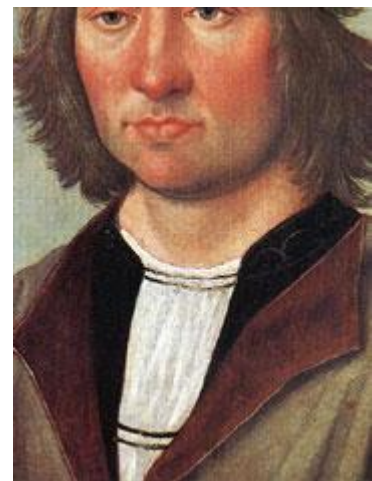


*Figure 2: T style shaping
with widening neckline*



*Plate 12: St John Alterpeice,
Rogier van der Weyden*

Fullness begins to be seen around the top of the garments. This fullness is often represented in the artwork by a pleat at the neckline where the fabric folds over as it is worn under the high-necked outer garments and by slight gathers as the shirts begin to show in the open necklines. A self-portrait by Pedro Berruguete (Plate 13) is representative of this style.



*Plate 13: self portrait by
Pedro Berruguete*

Lower Rounded Neckline: Early 1510s-1520s ~ mainly Italian

Transitioning from the rectangular construction of the pre 1500s, this shape features a low, scooped neckline. The shirts represented in the fresco of the Mass at Bolsena in the Palazzi Pontifici in the Vatican, painted by Raffaello Sanzio (Plate 14), are typical of the shirts seen throughout the artwork of this period.



Plate 14: Mass at Bolsena by Raffaello Sanzio, Stanza di Eliodoro, Palazzi Pontifici, Vatican

Other works such as portraits by Ambrosius Holbein, Holbein the Younger and a number of portraits by Raphael, Titian and Capriolo are also representative of this style.

The construction of these shirts could be done in a number of different ways, each giving a slightly different silhouette. One version is not necessarily exclusive of the other. It is likely that all were used depending on the fashion of the region.

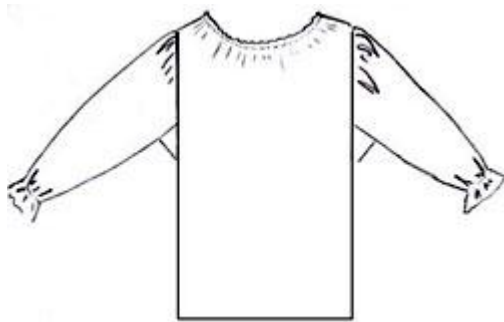


Figure 3

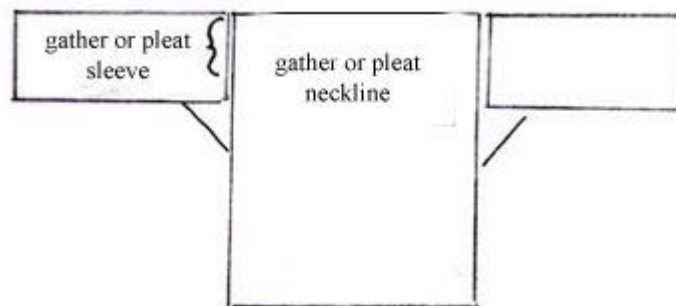


Fig 3a: layout

Figures 3 and 3a show the shape and layout of one construction style. The wide shirt neckline from the earlier styles is simply gathered/pleated up. The sleeves could be left straight or gathered as well. The cuff treatment would also vary from straight to gathered/pleated. This is likely a transition style from the nonpleated to the pleated shirts.

The Durer self-portrait of 1498 (Plate 15) gives some thought to an alternative shirt style based around the widening necklines. The sleeve fabric is raised so that they are no longer even with the shoulder seams. The wide center panels are then pleated up to give the fashionable fullness; the sleeves left straight over the shoulder or gathered / pleated to give the desired silhouette (see Figure 4).



Plate 15: Durer Self Portrait of 1498

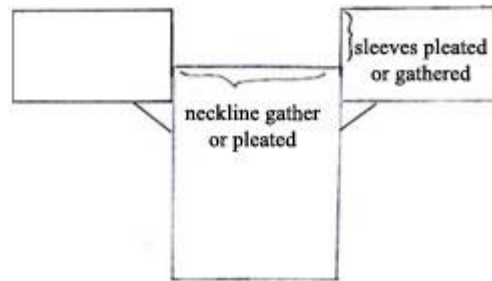


Figure 4: Possible layout for pleated shirt

Figure 5 would appear to be more representative of what is seen in the artwork: the gathers are fuller about the neck and shoulders and there are no obvious shoulder seams. This garment would mark the transitional garment of the next 30-40 years.

The pattern layout and construction of this garment is open to debate. As with any other type of clothing construction, it is unlikely that there was just one way to achieve the desired look.

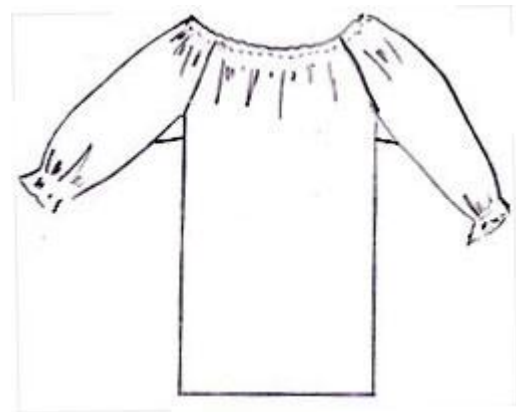


Figure 5

Figure 5a is based on a modern layout that is probably the most common way people modernly use to duplicate the silhouette in Figure 5. It is very unlikely that this was the layout used for the shirt because it does not follow the typical rectangular format that the majority of the clothing from this time period does.

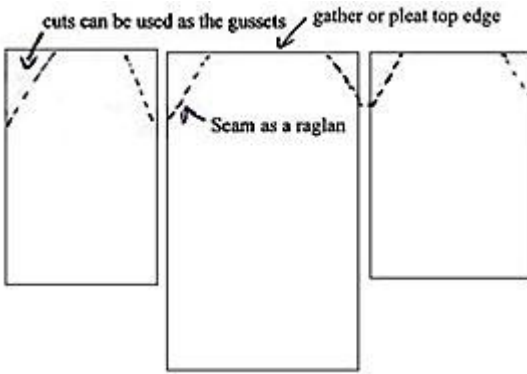


Figure 5a: layout based on modern construction techniques

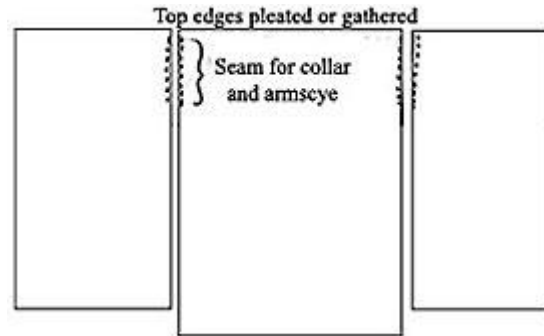


Figure 5b: Layout out based on rectangular construction

A more plausible layout is one that could carry forward into the shirts of the next decades. This layout (see Figure 5b) still follows rectangular construction but the sleeves are now parallel to the body when constructing the garment. The entire top edge would then be gathered/pleated up and drawn up into the circle garment portrayed in the artwork. Gussets would be used under the arms to provide ease.

Regardless of the number of variations on the layout and construction of this basic shirt style, the embroidery treatment was just as varied. It is narrow or wide, combined with trim or utilized on its own. In most of these shirts, the embroidery is simple. It serves as a decorative means of controlling the pleats.



Plate 16: Portrait of a Young Man, Ambrosius Holbein

In the Portrait of a Young Man by Ambrosius Holbein (Plate 16), painted in 1518, the actual embroidery on the neckline could be done in a number of ways; the most obvious would be a variation of the honeycomb stitch. This would create the pleat shape shown in the portrait while providing structure. The extra pleating behind and underneath the raised diamond shaped design suggest, however, that a stitch more related to the modern trellis forming a raised effect, but using more pleats to create the pattern.



*Plate 17: Jakob Meyer by
Holbein the younger*

make more sense. The stitch is not elastic and thus adds structure to the neckline.

A test version (Plate 18) is done with pattern darning using silk floss on a lightweight wool.

Another possibility is that the embroidery is done in a variation of satin stitch worked over the pleats almost in a fretwork-like pattern. This style of stitching is found in post-period folk garments throughout the Spanish and Slavic communities(*Keay27-28*).



Plate 19: Portrait of a Young man Holbein the Younger



*Plate 18: Pattern Darned test version
of the Meyer Neckline*



Close up of Neckline

The embroidery and pleating of the Jakob Meyer shirt is echoed in a portrait of a Young Man, attributed to Holbein the Younger, painted in the 1520's (Plate 19). There is less evidence of surface embroidery in this case, though the artist does hint at some form of stitches holding the pleating in shape on the right hand side of the neckline, possibly more pattern darning.

It should be noted the amount of fabric being used to create this shirt. In order to have the neckline that tightly pleated, over 10 yards of fabric would be required assuming about 1/8” pleats. The amount of fabric needed for these huge shirts is even more interesting if the sumptuary laws are considered. For example, in 1536, Henry VIII, in a letter to the town of Galway forbade the usage of more than 5 ells of fabric in any shirt or smock. (McGann 2004)

Higher Rounded necklines with embroidery or trim - 1510-1530s

This style likely evolved from the earlier fashion as styles changed. The neckline becomes slightly higher, closer to the collarbone and the shirt becomes more of a fashion item with embroidery or trim that is more visible. The basic shape will continue to stay the same; the pleating/gathering around the neckline from the earlier styles would only have to be drawn tighter to raise the actual neckline.

A portrait of Charles V, done circa 1519 by Bernaert van Orley (Plate 20) is representative of this style. If you look closely at the neckline, you can see what appears to be pleating through the red stitching. This could easily be duplicated with small rows of trellis or even perhaps a chain or outline stitch done through the pleats themselves.



Plate 20: Charles V, c 1519 by Bernaert van Orley



Close up of the neckline

The honeycomb pattern is very prevalent throughout the paintings and woodcuts of the German artists and the surviving fragment of the boy's shirt from the Alpirsbach Monastery (Plate 21) would confirm this style of embroidery. Plate 22 is a reproduced sample of a honeycombed pleated garment.

In the portrait of Anthonis van Hilten by Joos Van Cleves (Plate 23), very tiny diamond or honeycomb shapes are seen along the neckline. Possibly done using the modern honeycomb stitch, this again would be an indication of embroidery used to control fabric, but also serving a decorative function.



Plate 21: Reproduced honeycomb stitched pleating



Plate 22: Boys's shirt from the Alpirsbach Monastery



Plate 23: Anthonis van Hilten by Joos Van Cleves

This style carried through the early 1530s, the embroidery continuing to be influenced by the fashion trends of the time. A good example of this would be the influence of blackwork and other similar colored embroideries on clothing.

Holbein documented the usage of this stitch through many of his portraits, to the degree that it modernly became known as the Holbein Stitch. The stitch can be done through the pleating following a form of blackwork: back stitch or double running, the pleats replace the threads counted for the patterns. A very simple example of blackwork being used to hold pleating is nicely seen in the portrait of the Merchant Georg Gisze painted in 1532 (Plate 24) and the portrait of Charles V painted in 1525 by Lucas Hornebolte (Plate 25).



Plate 24: Georg Gisze by Holbein



Plate 25: Charles V, Lucas Hornebolte

Higher Rounded Neckline: no discernable front opening - 1520s through 1530s

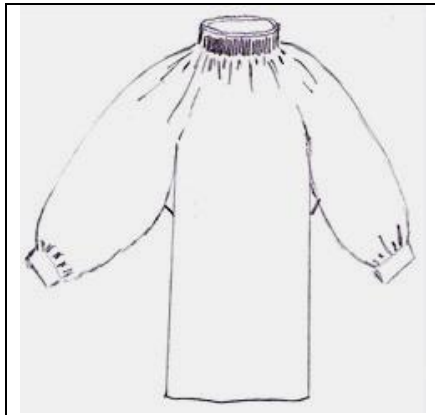


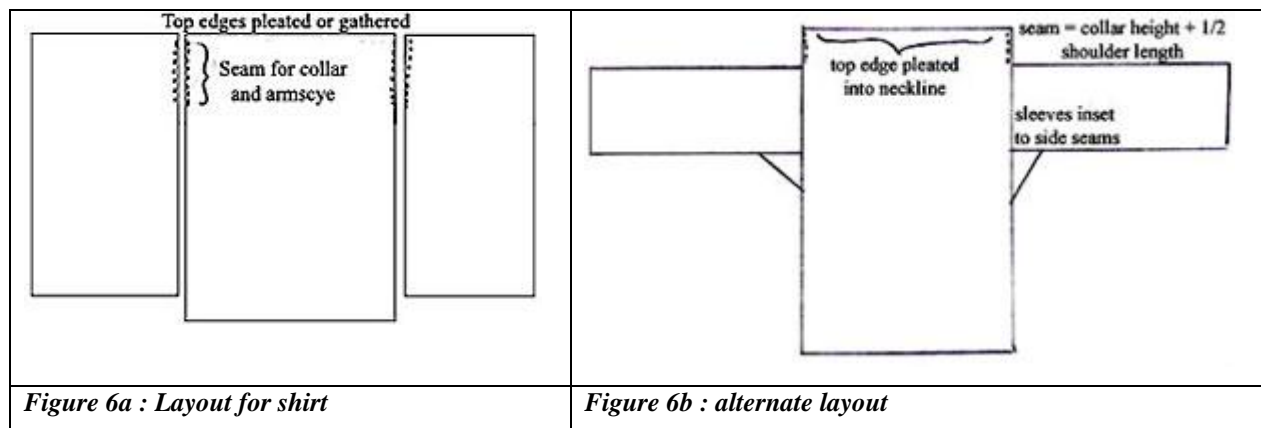
Figure 6

As the early 1500s progressed the necklines on many of the shirts began to rise up above the collars as the top layers of the clothing become more voluminous and showy. This style of shirt likely evolved from the earlier styles by drawing the neckline up into a collar (Figure 6). A possible layout is shown in Figure 6a. The layout is the same as for the earlier shirts, but the neckline is drawn up tighter.

An article in the Livrustkammaren, a Journal of the Royal Armory of Sweden, in discussing the evolution of the shirt adds that:

“the sleeves had been drawn up towards the low neck and the slit had been moved to the side of the neck along the seam between the frontpiece and the sleeve (Nyen 275)”

Alternately, medieval rectangular construction could be adapted to this shirt style, with the sleeves inset into the sides of the front and back panels, short seams creating the collar and shoulders of the garment (see Figure 6b).



In both these cases, the construction would most likely be similar. The front and back panels and/or the sleeves would be pleated into one piece, and then the embroidery would be done on the pleats or through the pleats. The edge treatment on the shirts varies from a fine ruffle close to the edge to a rounded top edge made by either folding over the fabric and pleating it into the

neckline or by adding a small finishing band over the raw edges. The neck closures would follow one of the seam lines at the shoulders, as the shirts would be impossible to pull over the head due to the inelasticity of the embroidery or trim on the pleating.

Clear examples of side openings can be seen in two portraits, one by Jan Gossaert called Mabuse, of a Man with a Rosary, c1525-1530 (Plate 26), and the other a Portrait of Landgraf Phillip von Hessen by Hans Krell done in 1525 (Plate 27).



Plate 26: Mabuse, of a Man with a Rosary *Plate 27: Phillip von Hessen by Hans Krell*

The embroidery on the shirts of this era tends to be of a similar style: whitework in some form. The actual embroidery is as varied as the regions and social class level of the sitter. Simple honeycomb-shaped embroidery is seen in such portraits as that of the Family Portrait by Heemsker in 1530 (Plate 28) St Gregory by Grein c1510 (Plate 29), and Nicolaus Kremer's Portrait of a Nobleman c1529 (Plate 30). More elaborate neckline treatments such as the Portrait of a Man by Jan Gossaert called Mabuse (Plate 31) features small pearls along the neckline.



Plate 28: Family Portrait

Plate 29: St Gregory

Plate 30 Nobleman

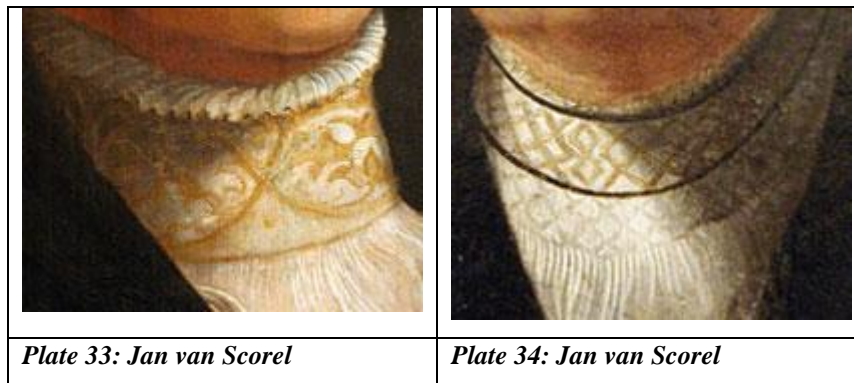
Plate 31: Portrait of a Man

Interesting to note is the sleeve treatment on this image from the Last Supper by Joos Van Cleves (Plate 31). This is one of the few portraits, with shirts of this style, which show a non-pleated cuff treatment.



Plate 32: Joos Van Cleves

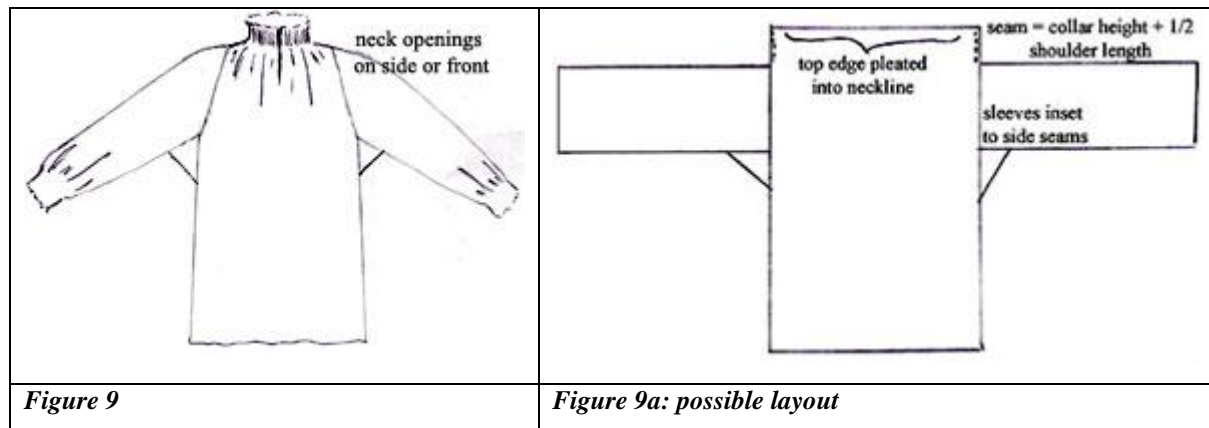
A pair of portraits painted in the 1520s by Jan van Scorel (Plates 33 and 34) is reputed to be of two brothers are wearing shirts done in two different styles for the embroidery and embellishment. The first shirt has what appears to be appliqué work overlaying the pleating. While the appliqué could have been applied directly on the pleats, it is more likely that it was fully embroidered onto a sheer fabric then overlaid onto the pleats.



The second brother is wearing a shirt that shows the pleating done in a honeycomb design and overlaid with what looks like a strip of gold embroidery. It demonstrates that there was not one definitive technique being used, nor were the techniques and styles strictly regional, but that many different ways of embellishing the clothing was being done concurrently.

Higher Neck - Full Collar –center opening - 1520s to 1540s

Fashion began to move the necklines up higher and instead of hiding the finished neck edge it began to be left as a ruffle above the trim and / or embroidery. If the portraits are explored the transition can be seen from these earlier styles to those of the mid century with the fuller ruffs. Like the shirts of the earlier decades, the styles and embroideries varied greatly. The silhouette of the shirts did not vary much. They all had variations on a high collar, topped either by a band or a ruff and they were all center-front opening. The same construction techniques from the earlier styles of non-and side-opening shirts will apply.



A shirt shown on a portrait of Henry VIII by Holbein, painted in 1536 (Plate 35), has a seam in the shape of a “V” along the top of the shoulder. A layout such as is shown in Figures 9 and 9a would produce this type of shoulder treatment. This construction style would have been a much more economical use of the fabrics, which were by now strictly controlled by the guilds and heavily taxed.



Plate 35: Henry VIII by Holbein

In the Germanic regions, the styles were represented mainly by elaborate whitework done on or over the pleating. Holbein, paintings and woodcuts from about 1532 to 1536 in both Germany and England and other regions documented this style extensively. Even though there are no extant shirts featuring this work on the shirts in existence, there are numerous extant samples of whitework on other items, such as linens, chalice and altar cloths, a style originating back to the 12th century.



Plate 36: Baby Coif 16th century

A 16th century baby's coif held at the Victoria and Albert Museum in London (Plate 36) shows whitework embroidery over pleating (with the drawing threads intact) in what appears to be a form of buttonhole stitch or chain stitch.

Many of the portraits that were painted by Holbein and others during the 16th century in England, Germany, and Italy were of the bourgeois and merchant class (see Plates 37-42). Many of these portraits were used as wedding portraits and documented both the patron's social status as well as wealth.



Plate 37: Scorel, Portrait of a Young Scholar



Plate 38: Barthel Beham, Karl V



Plate 39: Amberger, Sebastian Münster



Plate 40: Amberger, Jörg Zurer of Augsburg



Plate 41: Barthel Beham, Portrait of a Nobleman



Plate 42: Hans Maler, Matthäus Schwartz

As discussed earlier, the German brides customarily presented their husbands with a shirt worked in gold as a wedding gift. These classes had wealth, but they did not have the social standing that would allow them the richer clothing due to the existing sumptuary laws. This would explain the elaborate whitework embroidery on some of the portraits we see. To challenge the laws could possibly reflect badly on the merchants and their wives. It is very likely that the whitework progressed from the ecclesiastical to the secular, as a craft form in direct response to the sumptuary laws.

Goldwork generally only shows up in the portraits of the royalty such as a portrait of Jan Bezdruzicky of Kolovrat done by a Unknown Bohemian Master (Plate 43) and Holbein's Portrait of Edward, Prince of Wales painted in 1539 (Plate 44).



Plate 43: Jan Bezdruzicky of Kolovrat



Plate 44: Holbein's Portrait of Edward, Prince of Wales

A group of fragments from shirts exists at the Museum of London. Unfortunately they have not been studied due to their fragility. The museum description is as follows:

“A sleeve fragment found in Worship Street, circa 1501-1599, wool and silk, 200mm at widest. A fragment of garment probably part of a sleeve, with gathered cuff and embroidery (smocking). Dark brown weave wool, fragmentary, with fraying edges. One edge with fine pleats held in place with gathering stitches and smocked embroidery in a pale brown thread. Under a microscope the thread looks like a floss silk. The gathered section measures 80 mm across and is 50mm deep. The embroidery forms a diamond pattern enclosing a pattern of four smaller diamond shapes, in what appears to be silver metal thread wrapped around a silk core, now very discolored and decomposed. The main diamond pattern is bordered with three lines of bold stitches on each side. Each of these bordering stitches is offset to form a decorative pattern” (MOL 2004)

The sample to the right of the extant cuff is a re-working of the original design done with pattern darning using 2 strands of fine silver passing threads.

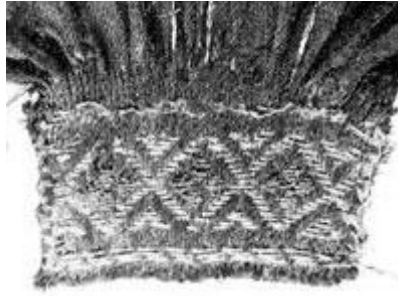


Plate 45: Extant Tudor Cuff



Plate 46: re-worked sample



Plate 47: Venetian gentleman by Jan van Scorel

Colored embroidery also begins to be seen more in this last time period before disappearing into separate collars and neck ruffs. The most obvious proof for embroidered pleats is seen in the Venetian gentleman by Jan van Scorel (Plate 47), painted in 1520. In the close-up you can easily see the stitches through a pleated fabric. This was likely done in a form similar to blackwork, by either a double running stitch or a backstitch.

It is to be noted that the fabric was extremely fine. In order to put the number of stitches in the design as it is shown, there would have to be approximately 16 pleats per $\frac{1}{4}$ inch. Using $\frac{1}{8}$ inch stitches for the gathering threads that would equate to 4 inches of fabric / $\frac{1}{4}$ or 1 inch of pleats to 16 inches of fabric. Considering a typical 16-inch neckline, leaving allowance for ease, it would require a neckline edge, un-pleated, of 256 inches or 7 yards. It would require very fine linen in order for this much fabric to be drawn up this tightly without adding substantial bulk.

Blackwork continues to be seen in this time period in the embroideries. As it becomes more and more popular for fashion, it shows up on the necklines of the shirts as in the shirt on the portrait by Holbein of Deitrich Born (Plate 48).



Plate 48: Derich Born by Holbein

Considerable argument can be made that the blackwork shown in the many portraits are in fact bands embroidered in blackwork laid over the pleats, but it is also very possible that the patterns were done on the pleating directly, counting pleats for the pattern instead of threads.

A beautiful painting by Lotto (Plate 49), of a Husband and his Wife, 1523, is a rich study in the blackwork on the pleated shirts and cuffs.



Plate 49: Husband and Wife by Lotto

Shirts post 1540s

As fashion progressed in much of the European area from the full over-garments to the tighter fitting doublets and jackets, the shirts worn under these garments also changed. The full elaborate shirts began to be less fashionable, because they were no longer seen through the outer garments.

Necklines and sleeves or cuffs were now the visible parts of the garment and a shift back to the slimmer lines took place. By the middle of the century the clothing began to have a separate ruff, thus ending the need for an integral ruff in the shirts. In fact, in 1532, Willibald Pirckheimer had in his clothing inventory:

27 linen ruffs (Kragen) "smocked and unsmocked so a person can place and sew it to a shirt" (Seidel 202-206).

By the mid 1500s the use of pleating and the embroidery on the pleats were now a structural function. The purpose of the embroidery was now to hold the fine pleating in place and was no longer as decorative.

The top edge of the fabric, instead of being pleated as part of the collar, now becomes the fabric pleated into the collar (Plates 10 and 10a). This is a natural transition from the layout style for the Henry VIII shirt (Figure 9 and 9a).

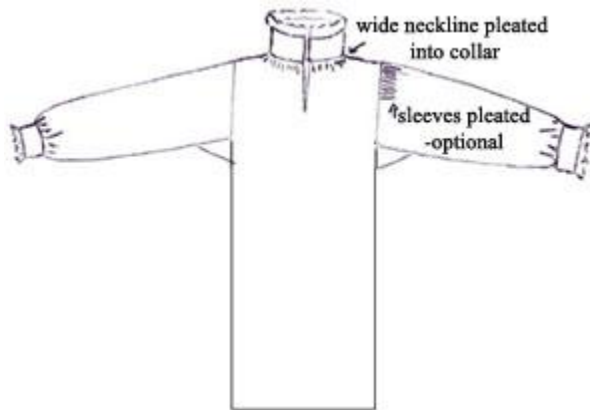


Figure 10

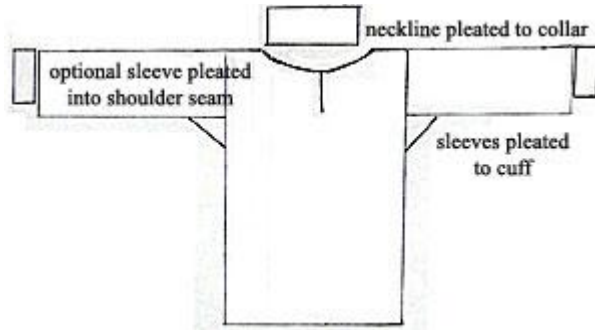


Figure 10a: layout



Plate 50: Sture Shirt

An extant shirt, dating from 1567 is part of a collection of shirts found in a strongbox in Sweden (Plate 50). The collection has four shirts, two fancy and two without collars, which might have been used as nightshirts (Nyen 274).

The layout of one of the shirts from a museum study (Plate 52) indicates that these shirts may represent a transition style from the earlier proposed styles with the sleeve dropped into the side seam (Figure 9a) and the later period layout styles (Figure 10a).

The sleeves fit into the sides of the body panels as in Figure 9a but the top edge is notched and set into a collar instead of being gathered up to form the collar itself.

The neckline and the sleeves of the shirt are tightly pleated as they are attached into the collar and the cuffs. The pleating is estimated at 14 pleats/cm (Nyen 238). A very simple outline or stem stitch holds the pleating in place (Plate 51).

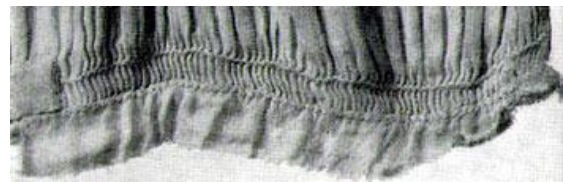


Plate 51: Detail of gathering on sleeve at the wrist

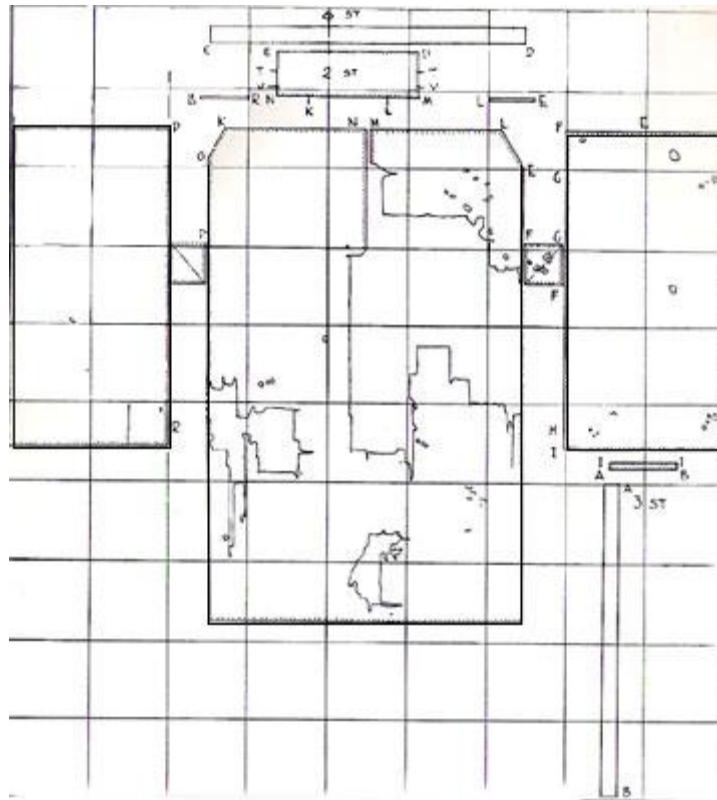


Plate 52: Cutting diagram of Shirt 1 from the Sture Collection

A similar style to the Sture shirt is a shirt that was part of a find from a Venetian merchant ship wrecked off the coast of the island Gnalic (Plate 53). Dating from 1583, three shirts were recovered from the wreck (Flury-Lemberg 328).



Close examination of the shirt as it goes into the collar shows very tiny stitches holding the pleating in place.

Plate 53: Venetian Shirt c 1583

A number of extant shirts exist in museums, most of them dating from after 1600. In most of them, the layout and construction is very similar to that in Figure 10.

This shirt, from the Los Angeles County Museum of Art, dates from the early 17th century.



According to the museum, the tightly drawn stitches around the neckline create a “smocked effect”. (LAMCA 2004)

Plate 54: embroidered shirt from the Iberian Peninsula, early 17th century

Conclusions

As fashion continued to move towards the cavalier era at the end of the 16th century, what has been discussed as pleated or pleatwork embroidery disappears from the day-to-day clothing of men and women. The form very likely left the realm of the guilds and embroiderers and stayed a craft technique with the working and merchant classes and in ethnic and folk clothing.

Articles of pleated embroidery dating from the 18th century are on display at museums such as the Victoria and Albert Museum and the Museum of Bath, where both have baby layette items that are smocked. The worker’s smocks of the 18th century likely originated the term “smocking” based on the elaborate embroidery on the pleats. It became fashionable once again on clothing in the 18th centuries and beyond where it continues to be used as embellishment on clothing today.

Fashion dictates what people want the clothing to look like. Creative solutions in clothing construction must be found in order to meet those needs. Pleating and the embroidery used on or over the pleats is an example of how fashion and practical construction merged for the brief time during the early 16th century. It has left society with a foundation and a needlework form that is still used today for the same purpose: a decorative means to deal with large quantities of fabric.

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