

"Stockings/Chausses Pattern Workshop", taught by Annisa Gabrielli.

Working in pairs, each student will develop a custom pattern for bias-cut stockings or chausses. You will learn how to find the bias grain of the fabric, and experiment with the basics of draping muslin on a body and transferring that information to a paper pattern. We will discuss fabric choices, construction and finishing, and samples of finished garments will be available to examine. If there is time, you may cut your patterns out in real fabric and learn how to assemble the stockings.

Maximum: 6 students

Cost: \$8

Instructor will provide muslin, Sharpies, safety pins, paper, pencils, tracing wheels and cheapo shears to use.

If you want to start making up a real fabric version (there will probably be time for some of you to do this), you should bring 1-1.5 yards of plain-weave medium weight linen or light weight wool for stockings, or 1.5-2 yds for chausses. You may bring a portable sewing machine too, or needle and thread. If you want to use better quality shears, please bring your own.

We will be partnering up and draping on bare feet & legs. Please wear socks prior to class so that nobody has to deal with stinky feet. If you will be making a pattern for knee-length stockings, wear clothing which you can roll up to above the knee. If you will be making a pattern for chausses (long hose for men which tie to the waist cord of the underwear), wear boxer briefs or bike shorts, and leave your modesty at home.



13th century field workers, Maciejowski Bible

History

There are a few archaeological finds which include remains of bias-cut woven fabric hose, for example the Bocksten Man and the Herjolfsnes finds in Greenland.

Information about these can be found at:

<http://www.personal.utulsa.edu/~marc-carlson/cloth/hose.html>

They may be called chausses, calze, hosen, stockings, or a variety of other names, depending on your time and place.

Fabric

Fabric with a plain, balanced weave works best. Avoid synthetic fibers and fabrics with elastic. Wool is the most durable choice, but for hot weather, linen works well too. There are a few records of linen hose, for example, this quote from Bertus Brokamp on the AOTC yahoo list, a discussion group for 14th century enthusiasts:

I have read through a few accounts of Jan van Blois (yes Charles de Blois was his uncle), a nobleman with his court and lands in the county of Holland. And except for 1 pair of brown linen hosen (out of over 300 entries for clothing!) all other linen clothing mentioned is underwear made out of undyed linen and linen linings for his clothes, also made out of undyed linen.

Wool has natural stretch, so it will fit more snugly than linen, which tends to stretch out with wear. Linen is also susceptible to degrading in contact with salt water such as the sweat from your feet. That said, my linen hose have held up for three seasons of wear when worn with soft leather turnshoes. The friction of wearing them inside structured modern shoes, which don't move as much with the foot, wears them out rapidly. Silk has very little stretch, and fabrics of a good weight tend to be very closely woven, which limits the stretch even more. Silk also has very good insulating properties and is susceptible to rotting in contact with sweat, so is probably a good choice only for light-use, cool weather hose.



Left: 14th century bishop's hose. Right: 15th century man with rolled-down chausses

Draping

You will need:

45" square of muslin or other plain-woven fabric (can be 36" square for knee-high stockings)

Felt pen with a good point (Sharpies work well)

Safety pins- about 30 medium-sized

Shears suitable for fabric

Paper- medium weight brown craft paper or similar

Pencil

Shears suitable for paper

Tracing wheel

Ruler- transparent plastic sewing rulers are best for this

Flat surface

Step 1- determine the true bias

Start with an appropriately-sized piece of muslin.

"True bias" refers to a 45 degree angle from the straight grain of the fabric (which is parallel to the selvedge). To find this, make a clean straight cut across the fabric- with muslin, you can make a snip in one selvedge and rip across the fabric. The fabric will tear in a straight line. Another method is to pull one cross-grain thread out and cut along the resulting line. This works well on linen, where the threads are too strong to rip neatly, and wools which don't tear well.

Fold the cut or torn edge over to line up with one selvedge, and gently press the resulting diagonal fold. Mark this fold with a felt pen.

Step 2- prepare the fabric for draping

Cut off one corner perpendicular to the marked bias line, about 10" from the corner.

Save this triangle for patterning the front of the foot.

On the large piece, cut a slit up from the cut end about 5" long along the bias line.

Step 3- drape the fabric on the leg

For stockings, center the bias line at the front of the leg, with the slit spread over the instep. The edges should reach the floor at the sides of the foot. If they do not, extend the slit along the bias line until they do.

For chausses, pin the corner at the other end of the bias line to the waistband of the undergarment. If needed, cut more off the lower edge and make a new slit along the bias line. Take care not to stretch the fabric too much along the bias line during this step.

Start pinning the fabric at the back of the leg. Keep the bias line centered at the front of the leg, and the pin-line centered at the back of the leg. Having the model stand on a box may be useful.

Trim away excess fabric as needed, setting the large scraps aside to use for patterning the soles. Be patient, and keep adjusting until you are happy with the fit. The stocking should be snug, but not super-tight, and there should not be an excess of wrinkles or gathers in the seam.

Check that the edges still reach the floor, and mark where the fabric touches the floor around the back of the foot. If one side is very far forward of the other, trim it away to balance, tapering to the top of the slit. You may need to round the top of the slit slightly to get a smooth fit at the ankle.

With the felt pen, mark both sides of the pin line, and write "outside" on the outside of the leg. On some patterns this will be obvious, on some it will not.

For stockings, mark a line about 2" above mid-knee.

For chausses, mark the top edge, as high as will be comfortable, and trim away the excess fabric. You may want to unpin the back for a few inches to avoid frightening the model when trimming. Re-pin and check the fit.

Step 4- Drape the fabric on the front of the foot

With the leg piece still in place, tuck the scrap with the bias line on it under the slit, aligning the bias line from the line on the leg to the end of the second toe. Smooth the fabric down over the sides of the foot, and mark where the fabric touches the floor, and where the edges of the slit in the leg overlap the foot piece. Mark the little-toe side of the line “outside” and remove the foot piece.

Step 5- check for removability

With the back of the leg piece still pinned, have the model try to slip the stocking off over their foot. Often the ankle area needs to be loosened, gradually, until the stocking is removable. Mark the new pin-line and remove the leg piece.

Step 6- mark the sole

Take one of the larger scrap pieces and put it on the floor (or box if you’re using one). Mark the straight grain of the fabric with a line. Have the model stand on the fabric with the line extending from the heel to the second toe. Trace around the foot with the felt pen, keeping the pen upright (don’t trace in under the arch).

Step 6- transfer the information to paper

Put the muslin pieces down on a piece of paper, straightening the grain if needed. Pin or use weights to fasten the muslin to the paper (foam core craft board makes a nice temporary pinning and tracing surface).

Using the tracing wheel, copy all of the lines to the paper, including the grain & bias lines.

Remove the muslin and transfer the “outside” marks.

Draw over the tracing wheel lines with pen.

Mark the bias grain lines as bias. For ease of cutting, you may want to mark straight grain lines on the pattern pieces as well.

Make a small mark at the top of the slit, perpendicular to the bias line.

On the sole pattern only, add ½” of seam allowance.

Mark each pattern piece with the name of the model, garment type (stockings or chausses), piece name (leg, foot, sole), date, and seam allowance (1/4”).

On all pieces, ¼” seam allowance will be used. Adding seam allowance only to the sole just works, you’ll have to trust me.

Mark foot pattern piece at the points where the bias or grain line meets the edge of the pattern piece.

Mark sole pattern piece at the points where the bias or grain line meets the edge of the pattern piece.

Cut all pieces out on the cutting lines.



13th century chausses. Right, left: unknown medical text.

Cutting and assembly

Lay out 2 layers of fabric, aligning grain and smoothing out wrinkles.

Pin pattern pieces to fabric, aligning grain lines with fabric grain.

Cut on cutting lines, making small (less than ¼") snips at the marks.

For chausses, cut a facing for the top of the leg, using the leg pattern, and cutting straight across about 6" down from the lowest point (at the back seam).

Pin the front of the foot piece into the slit in the leg piece, matching the notch to the top of the slit, checking that the outsides of the foot and leg are matching up, and making sure that they are opposites (one right leg, one left leg). Stitch. The center may be a little tricky- be patient, and reinforce with small stitches if needed. Hand-stitching may be easier than machine-stitching for this seam.

Pin the back seams of the leg pieces. Stitch.

Pin the sole to the stocking, again checking that outsides and notches match. Stitch.

For chausses, stitch the back seam of the facing, then stitch the facing to the top of the leg, right sides together, and turn.

Finishing

In my experience, seam-finishing for linen hose is optional. The fabric wears out before the seams do. However, finished seams look nice, and for worsted wool or loosely woven fabrics it helps to prevent fraying. On thicker wool, it keeps the seams flat and smooth.

The simplest thing to do is to open the seam allowances out on the inside, and use a plain running stitch on each side to hold them there.

Felling the seams is another option, though this doesn't work very well on the tightly curved front of foot seam, and tends to make a bigger lump against the foot on the sole seam, so I would recommend that finish only for the back seam.

The top of stockings may be finished with a rolled hem or a simple narrow hem, using running stitch, hem stitch or whatever other stitch you prefer. Remember that the tops will fold down over the garters, so something which looks nice on the inside is a good choice.

On chausses, the lower edge of the facing should be finished with a fairly flat treatment to avoid chafing and a visible ridge on the outside. Overcasting the cut edge works nicely.

The back seam may be tacked to the outer layer to prevent it rolling out, and a running stitch around the top will keep the edge crisp.

Make 2 eyelets in the top point of each chausse, about ¾" apart and ½" from the edge.

A point (approx. 16" cord with aiglet on one end) will be threaded through these to tie them to the waist cord on the braies (underwear). Use an awl to make the holes, and whip stitch or buttonhole stitch to keep the threads apart and reinforce the hole.

Cutting the holes or using grommets makes eyelets which are not durable enough.



Early 14th century braies. Left: Petits Heures of Jeanne d'Evreux. Right: unknown manuscript.

Wearing

For stockings, all that is needed is a pair of garters. This can be as simple as a strip of fabric (fulled wool works well), or as fancy as tablet-weaving or leather with nice buckles and strap-ends. Fasten them over the stocking snugly but not tightly below the knee and fold the top of the stocking down over them.

For chausses, garters may also be worn below the knee. This supports the lower part of the leg to prevent excessive tugging at the waist. At the top, there must be something to tie the point to, so appropriate underwear is necessary.

Braies are best made of medium or heavy weight (opaque) white or natural linen. For the 12th century, these are quite full, and reach to the knee or even below the knee. In the 14th century, they have more in common with modern boxer shorts, being loose but not baggy and reaching to about mid thigh. By the 15th century, they are still smaller, looking rather like a linen “speedo”, though by that time the chausses are often extended to the waist and tied to the upper-body garment. There are images in the Maciejowski Bible and the Petits Heures of Jeanne d’Evreux which may show an opening in the casing for access to the waist cord. Here is my technique: When making the braies, make a pair of eyelets 1” apart at the front of each hip, and another pair at the front, each one ½” from the center front seam. These should end up on the outside of the waist cord casing once the casing is complete. Thread the waist cord through the casing, exiting at each hip, to create an inch of exposed cord to tie to. For the waist cord, and the points, fingerloop braid works well- it is strong, but does not make as large a knot against the hip bones as commercially made cord.



15th century chausses and braies. Left, center: unknown. Right: St John Altarpiece, Rogier Van der Weyden