

Geometric Construction of a Tunic

GENERAL COMMENTS

The geometric tunic was the garment in general use for everyday wear up to about 1250. It is loose, unshaped and simple to make. Men's and women's garments differ only in the length and the amount of fullness in the hem: tunics are about knee-length, often slit at the front and back or sides. Dresses are always ground length. Sometimes they can be pouched over the girdle for working.

In the early Middle Ages, the width of fabric was limited to how far one could reach for the spool since there was no cradle for the shuttle. Today we can purchase a variety of widths of fabric. Optimally, you will purchase 100% wool or linen. If that is a little undaunting, or beyond your finances right now, try a linen-cotton blend. (This was called "fustian" in period.) There are some fabrics to avoid. They are polyester, rayon, microfiber, vicose, tencel, fleece, upholstery or drapery fabric, and anything knit. These fabrics may look medieval, but they aren't. In most cases they will be terribly uncomfortable to wear and will wear out quickly. Below is a chart to help you tell real wool, cotton, linen, or silk from the fakes. Burn a small amount of the fabric and observe how it burns and what it smells like.

FIBER	SMELL	IGNITES	RESIDUE
Linen	Paper/ Burning leaves	Takes awhile to ignite. The fabric closest to the ash is very brittle. Easily extinguished by blowing on it.	Powdery ash
Cotton	Paper/ Burning leaves	Steady flame. Easily extinguished by blowing on it.	Powdery ash
Rayon Tencel Vicose	Paper/ Burning leaves	Burns readily with a flickering flame that cannot be easily extinguished.	Powdery ash
Silk	Burning hair	Burns readily, not necessarily with a steady flame. Not easily extinguished.	Ash easily crumbled
Wool	Burning hair	Harder to ignite than silk. Flame is steady but more difficult to keep burning.	Ash easily crumbled
Polyester Acrylic Nylon	Burning plastic acid	Catches fire fast, but sometimes puts itself out. It bubbles, sizzles, and melts	Ash is hard

A blend will show the properties of both fibers which make it up. That means, if it melts – DON'T BUY IT! You will notice that with the burn test cotton, linen and rayon all react similarly. To tell the difference you must look at the fabric. Feel it. Try to crimple it up and see if it wrinkles easily. If you can, take a swatch out into the sunlight. Pull off a loose thread and "unspin" in with your fingers. Compare the fabric to the chart below.

	LOOK OF FABRIC	FEEL OF FABRIC	LOOK OF THREAD	LOOK OF UNSPUN THREAD
LINEN	Random slubs	Stiff, wrinkles easily	Crisp	crisp
COTTON	Smooth, even weave	Soft	Cottony, like the edge of torn jeans	fuzzy
RAYON	Smooth, even or slubs at regular intervals	Smooth, "cold"	Fuzzy	Shiny the more you play with it.

LAYOUT AND CUTTING DETAILS

MATERIALS

- 3 yards of 60" fabric or 4 yards of 45" fabric
- sewing thread
- bias tape if not using a neck facing
- trim as desired

MEASUREMENTS

_____ A = nape of neck to end of tunic + 5"

_____ B = bent arm length +1"

_____ C = chest + 4"

_____ D = shoulder width +1"

_____ E = sleeve width + 2"

_____ F = waist to floor + 5"

_____ G = A - 1/2E

_____ W = width of material

1-2 = main body

3-4 = front and back inset

5-8 = side gores

9-10 = sleeves

11 = neck facing

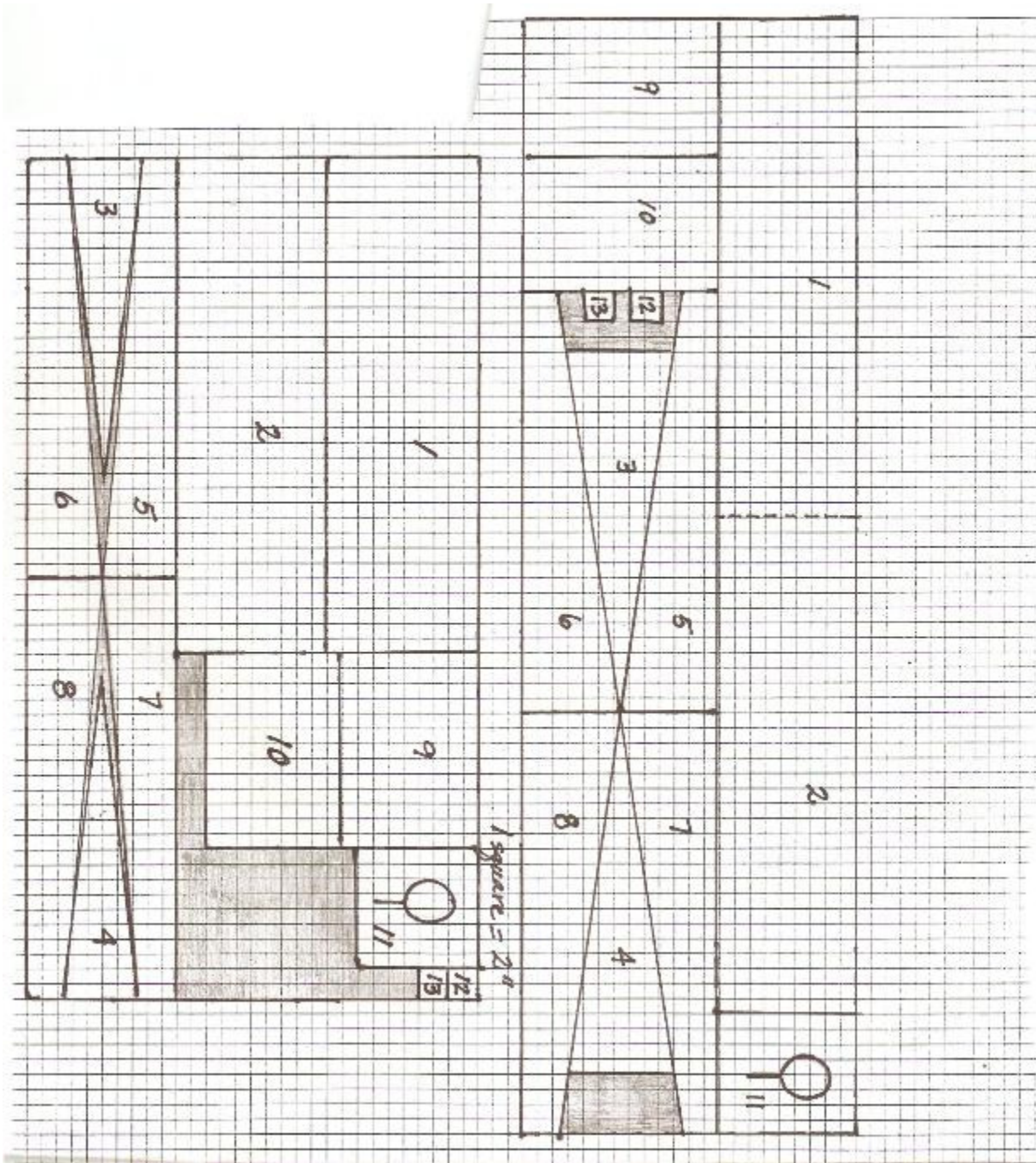
12-13 = underarm gusset

The side gore length is determined by $A - 1/2 E$.

There needs to be at least 4" of ease in the chest area. For each additional layer, add at least 2" per layer. This is created by making sleeve gores to attach to the sleeves. Gores can be anywhere from 2" to 4" or more square. The bottom of side gores can be as wide or as narrow as you like, but if they are too wide they will hang in deep folds rather than draping gracefully.

LAYOUT FOR 60" FABRIC

LAYOUT FOR 45" FABRIC



CONSTRUCTION NOTES

General Sewing Tips

1. It is very important to pre-shrink all fabrics. Treat the fabric as you would after the garment is complete.
2. All seams are to have 1/2" seam allowances.
3. Zigzag all edges to prevent raveling.
4. Backstitch 1/4" at the beginning and end of each seam to keep seam from coming out.
5. Pin pieces of fabric being sewn together before sewing to keep fabric from slipping and edges together while sewing.
6. Always put "right" sides of fabric together when sewing.
7. Mark "wrong" sides of material if necessary with a chalk pencil or soap as pieces are cut out.

SEWING DIRECTIONS

Step 1

Cut out all pieces and label for ease of identification

Step 2

It is important when sewing to finish all the seams. The weight of the skirt may put a strain on the seams. Either French the seams (folding in both raw edges to face each other and stitching down) or, to be more period, fold under the raw edges to the outside and hand stitch a running stitch down either side of the seam. Use a contrasting color so that the stitches show decoratively on the outside of the dress!

Step 3

If there are two separate pieces for the front and back, stitch the shoulder seams first.

Step 4

Create the keyhole neckline opening by going to "MAKING A KEYHOLE NECKLINE PATTERN AND FACING" and following the directions.

Step 5

When getting ready to cut out the neck hole, fold the tunic in half lengthwise. It is a good idea to also iron a crease into the fabric at the shoulder line. Then place the neck facing so that all but about 1" of the neck opening is to the front of the shoulder line.

Step 6

Cut out the neck hole and finish the neck edge by either sewing in a facing (turning the facing to the outside is a very "period" way to do this), rolling a hem, or encasing the neck in seam binding tape. In period, a small silk equivalent of modern bias tape would have been sewn on the raw edge of the neck and then folded under and stitched down with a small running stitch. For directions on making a keyhole facing, see below

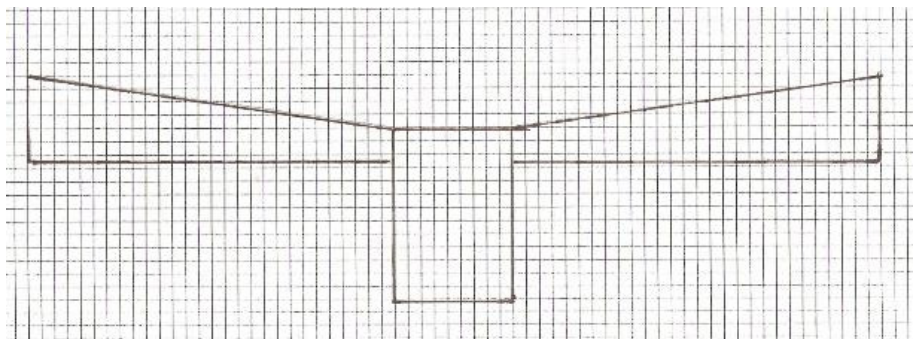


Step 7

Insert the front and back gores by going to "INSETTING GORES" and following those directions.

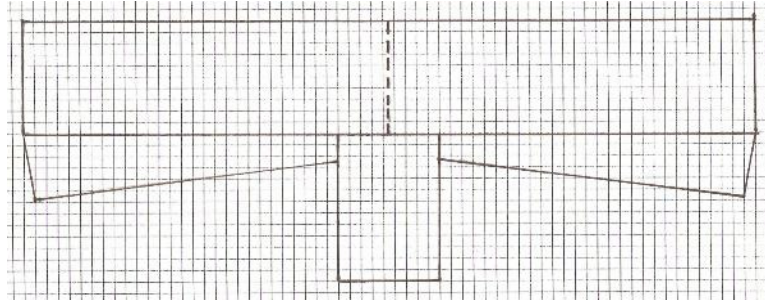
Step 8

Sew the side gores to the sleeve.



Step 9

Sew the sleeve unit to the body making sure that the center sleeve matches the center shoulder line of the body. Now you have a strange looking creature that looks like this if laid flat. This is a good time to iron out the seams if you haven't already done so.



Step 10

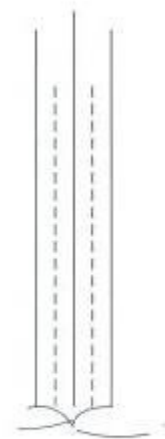
This is the time to add any decoration such as embroidery, trim, etc. around the neck, around the shoulder seam, and around the upper arm or cuffs. In period, if the edge of a garment was to be hemmed, then it was generally left unadorned. In period, unhemmed areas were frequently decorated with strips of silk samite. Samite was a product of Byzantium, a thick, rich, silk twill that was woven in patterns that were often elaborate and multicolored. Once cut into strips, sometimes the silk was treated like bias tape. Sometimes the edges of the samite strip were folded under neatly and the whole piece sewn down on top of the garment material. Much more common than embroidery or samite, was the use of tablet woven bands; they were applied directly to tunics, gowns, and coats, or sewn onto strips of samite that were applied to the garments. These bands were usually a centimeter or less in width and used a single bright color brocaded with silver.

Step 11

Sew up side seams leaving a 4" opening on both the sleeve and the body to insert the gusset. Go to "INSETTING GUSSETS" for directions on inserting the gusset.

Step 12

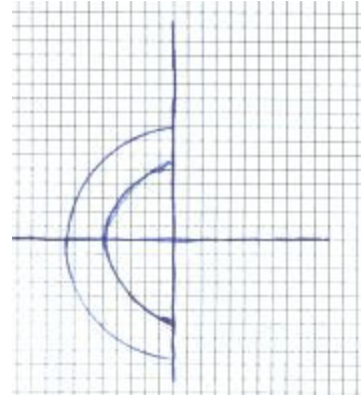
Hang the garment for at least a week. Two weeks would be better to let it stretch. Then have someone mark the length and hem. Hems came in a variety of styles, usually depending on the weight of the fabric; lightweight silk hems were usually rolled; linen, lightweight wool, and heavy silk were double folded; and heavy wool was single-folded. For medium weight fabric, the seams should be either flat felled or topstitched.



MAKING A KEYHOLE NECKLINE PATTERN AND FACING

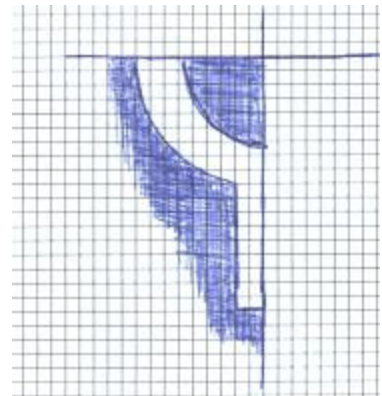
Step 1

Determine what a comfortable neck opening is for you and make a circle with this diameter. For example, if you have a 19" neck, you need to cut your tunic neck hole using about a 6" diameter. This would be a 3" radius. (The circumference of a circle divided by 3.14 will give the diameter. Half the diameter is the radius.) Cut out this circle. Fold this circle in quarters.



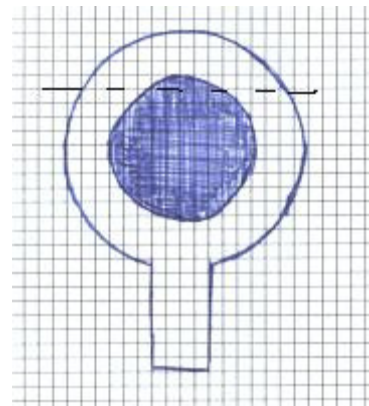
Step 2

Take a larger piece of paper; fold it in quarters and trace around the circle you just drew. Measure out from the line about 3" in a lot of different places around the arc and connect the dots to form an even bigger circle. Below the circle just drawn, measure in about 1.5" in several places along one of the folded edges. Connect the dots to form a line about 5" long. Cut out the facing pattern. There will be a circle with two strips extending from opposite sides. Cut off one of the extensions; the other is the lining for the keyhole opening.



Step 3

Draw a line down the center of the extension to indicate the cutting line for the keyhole neckline. Do not cut this out. It is just a measurement for marking your facings.



Step 4

On the back opposite end of the facing pattern, measure in 1" and mark lines on both sides of the pattern. This indicates where the facing should lie in relationship to the shoulder line of the tunic on which it is placed.

INSETTING GORES

Insetting gores can be easy. I recommend setting the point by hand and then stitching the gore by machine

Step 1

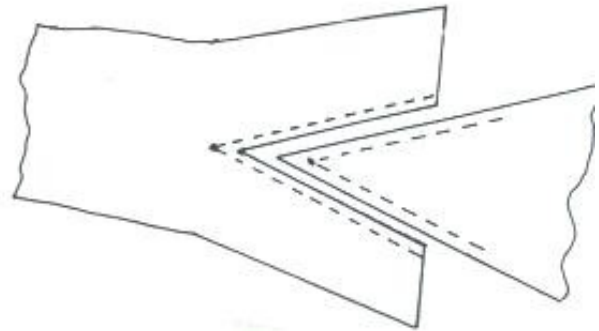
Mark a line with chalk up the center of the front and back body the distance from navel to hem of costume.

Step 2

Cut the center slit about 2 " shorter than the gore piece. On the centerline, mark a spot with a pin 1/2"to 1" above the slit.

Step 3

Find the center point of the gore by extending and crossing the seam allowances.

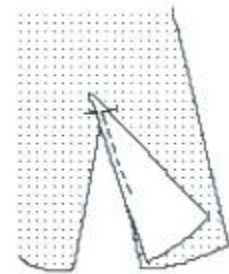


Step 4

With right sides together, lay the gore on top of the slit, aligning the center points and holding them in place with one pin.

Step 5

Start sewing about six inches from the top of the slit, sewing up to the pin. Bring the needle down into the fabric and keep it there. Take out the pin.



Step 6

Turn the whole piece so the main body piece is at right angles to the needle. Make sure the needle STAYS in the fabric. Use sharp pointed scissors to clip the main piece almost up to the needle. You'll only have a few threads unclipped.

Step 7

Keeping the needle in place, swivel the gore section 180°. Take one stitch.

Step 8

Turn the gore again to align the remaining edge with the other edge of the slit and stitch a few inches. Go back and sew both sides with the sewing machine.

The trick is in the notching, and turning the pieces so they lay flat as you are stitching. If done properly, the gore will have an almost imperceptible top – just that one stitch.

INSETTING GUSSETS

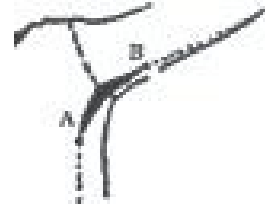
Gussets under the arm are necessary when the garment is tightly fitted either in the sleeves or in the chest or both. They allow some give to keep the underarm seam from ripping out. Usually gussets are placed in the garment during construction, but they can be added after a gown is already constructed.

Step 1

You will need a small piece of material that matches the garment. Cut 2 squares of material 3" x 3". These are the gussets.

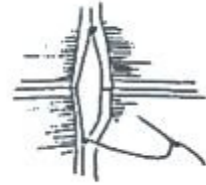
Step 2

Take a razor blade and cut the seam threads under the arms of the garment for 2" above and below where the sleeves join.



Step 3

Back stitch or tack the seam on the wrong side to keep it from raveling.



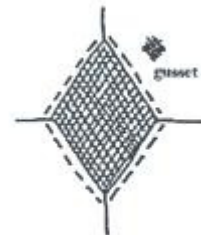
Step 4

Baste the seam allowances down.



Step 5

With the right side of the garment toward you, lace the gusset piece underneath the hole formed. Match one of the corners of the gusset with the top at the slit. Allow 1/4" to 1/2" seam allowance. Pin in place. Do the same with the opposite corner.



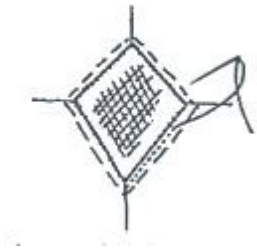
Step 6

Now hold the garment as shown and the gusset will form a triangle between the main garment and the sleeve. Pin the other two edges of the gusset and baste in place



Step 7

Slip stitch the garment to the gusset and then take another line of stitches $1/4$ " from the edge of the gusset. Trim the inside of the gusset to finish.



To insert this type of gusset into a new garment, follow the same steps except leave a space for the gusset insertion instead of cutting the seam allowance.