

## Collection of women's blouses - from the idea to the realization

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### Professional paper

*The article presents the entire process of creating a women's blouse collection, which begins with the elaboration of ideas that are translated into sketches. After three models were selected from the collection, the creation of the basic cut in size 40 was started for the complete realization. The basic pattern was then shaped according to the model's sketch using modeling techniques. In the experimental part of the article, all processes from idea development, construction and modeling to the creation of selected models of women's blouses are described in detail.*

**Key words:** *women's blouse; clothing construction; clothing modeling*

### Stručni rad

*U radu je predstavljen cjelovit proces izrade kolekcije ženskih bluzi, koji započinje razradom ideja pretočenih u skice. Nakon što su odabrana tri modela iz kolekcije, za potpunu realizaciju, pristupilo se izradi temeljnog kroja u odjevnoj veličini 40. Zatim se postupcima modeliranja temeljni kroj oblikovao prema zadanoj skici modela. U eksperimentalnom dijelu rada detaljno su prikazani svi postupci od razrade ideja, konstrukcije, modeliranja do izrade odabranih modela ženskih bluzi.*

**Ključne riječi:** *ženska bluzi; konstrukcija odjeće; modeliranje odjeće*

## 1. Introduction

Nowadays, a women's blouse is an essential item of clothing for women of all ages. It is worn for various formal, business and festive occasions, but also for numerous informal occasions. In the past, it stood for modesty and simplicity and was worn rarely, on informal occasions or as part of various traditional costumes. For many years, the women's blouse was not a popular item of clothing. For a while it was considered part of women's underwear, then it became the dress of the aristocracy [1]. In the 1950s, French fashion designer Coco Chanel introduced a white blouse with a silk bow collar and made the blouse an extremely popular and sought-after item of clothing. In the years that followed, styles, fabric types and processing techniques changed, but the blouse was always a part of modern clothing. Today, blouses come in many different cuts and a wide range of fabrics, and clothing manufacturers are always interested in creating new styles [1, 2].

## 2. Historical overview of wearing a blouse (shirt)

Throughout the history, a blouse (shirt) was worn directly on the body until the advent of underwear. With the advent of underwear, it began to be made in different cuts and according to purpose (women's, men's, nightgowns, children's shirts). In the Middle Ages, a long, flat-cut shirt made of coarse linen was worn, and shirts made of softer linen appeared at the end of the 15<sup>th</sup> century. Women's shirts, which were usually slightly longer than men's but had the same straight cut, were made of better linen and decorated with embroidery. A straight-cut shirt with long sleeves, which was usually embroidered around the

neck and at the length of the sleeves, was part of the traditional costume. In the 16<sup>th</sup> century, shirts with embroidered long sleeves and decorated collars were produced in various forms, Fig.1 and 2.

From the 17<sup>th</sup> century onwards, shirts for men and women began to differ considerably, and since then each of them has had its own fashionable characteristics. At the beginning of the 18<sup>th</sup> century, women wore straight shirts, and half a century later, corsets and shirts that followed the body line were made in Paris [2].

At the end of the 19<sup>th</sup> century and especially in the 20<sup>th</sup> century, women's shirts take on different shapes with details that correspond to fashion trends, and cuts, materials and patterns are chosen according to purpose, Fig.3.

## 3. Experimental part

The experimental part of the work began with the development of ideas, the creation of sketches, the women's blouses that make up the collection and the three selected models that were fully realized. Then the ready-to-wear size 40 was chosen for the basic cut and the main body measurements were determined, on the basis of which the construction measurements were determined by mathematical calculations, Tab.1 [6, 7]. The basic construction of the front and back of the women's blouse was made and the construction of the sleeves in the ratio 1:5 are shown, Fig.4.

### 3.1. Sketch and description of Model 1

Model 1 is a women's blouse consisting of two front pieces with a single-breasted closure and pockets. The shoulder seam is lowered on the front of the blouse.



**Fig.1** An example of a woman's blouse from the 16<sup>th</sup> century [3]



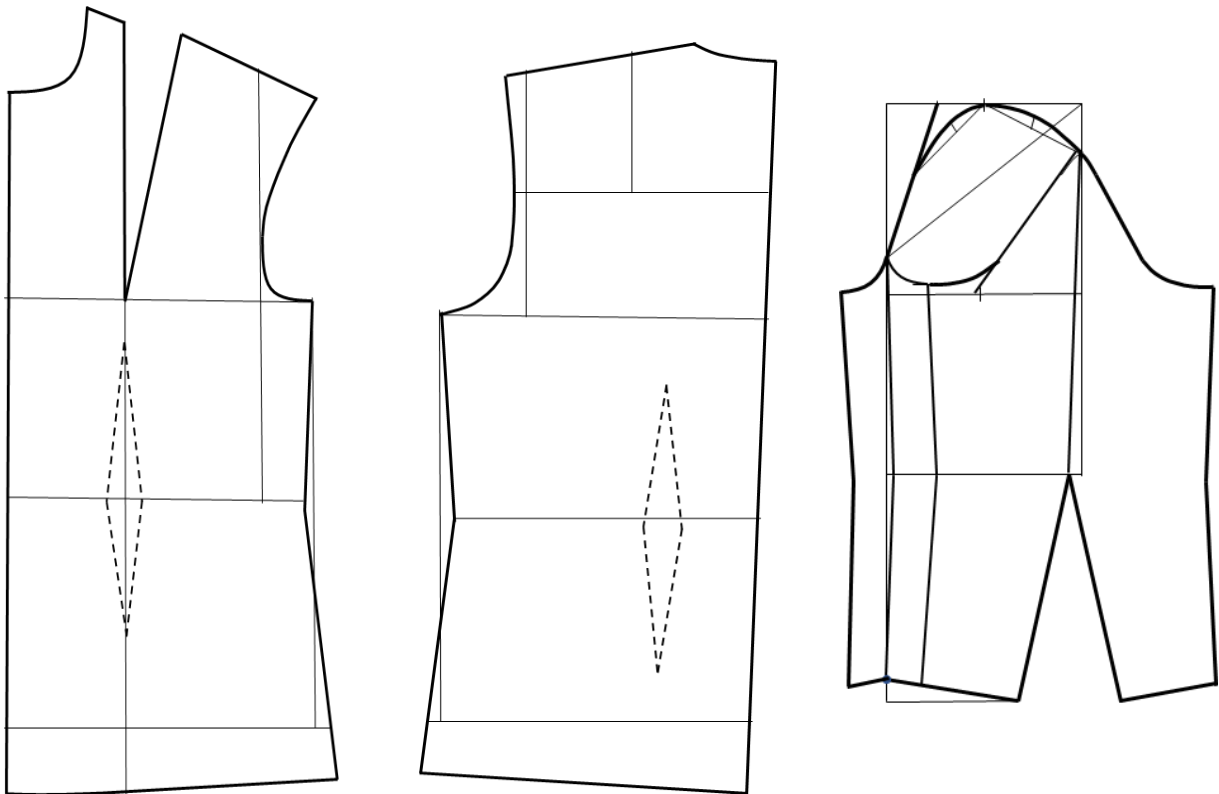
**Fig.2** A blue linen shirt embroidered with silk for men from the 16<sup>th</sup> century [4]



**Fig.3** An example of a woman's blouse from the 19<sup>th</sup> century [5]

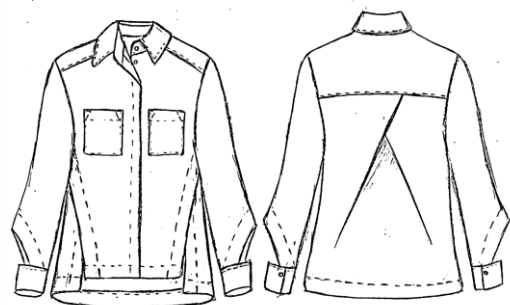
**Tab.1** Main body measurements and construction measurements for making the cut of a women's blouse in clothing size 40

| Main body measurements   | Construction measures for making the front and back of a women's blouse  |
|--|--|
| <b>Bh</b> (body height) = 168 cm<br><b>Bc</b> (bust circumference) = 92 cm<br><b>Wc</b> (waist circumference) = 74 cm<br><b>Ob</b> (hip circumference) = 98 cm | Sd (scye depth) = $1/10 Bc + 10.5 \text{ cm} + 2 \text{ cm} = 21.7 \text{ cm}$<br>Bl (back length) = $1/4 Bh - 1 \text{ cm} = 41 \text{ cm}$<br>Hd (hip depth) = $3/8 Bh = 63 \text{ cm}$<br>Kl (cut length) = $Hd + 5 \text{ cm} = 68 \text{ cm}$<br>Nw (neckline width) = $1/20 Bc + 2 \text{ cm} = 6.6 \text{ cm}$<br>Hfp (height of the front part) = $Bl + 1/20 Bc - 0.5 \text{ cm} = 45.1 \text{ cm}$<br>Bw (back width) = $1/8 Bc + 5.5 \text{ cm} + 1 \text{ cm} = 17.5 \text{ cm}$<br>Ws (width of the sleeve) = $1/8 Bc - 1.5 \text{ cm} = 12 \text{ cm}$<br>Brw (breast width) = $1/4 Bc - 4 \text{ cm} + 0.5 \text{ cm} = 19.5 \text{ cm}$ |
|  | <b>Construction measures for making sleeves</b><br>Hsn (height of sleeve neckline) = 39 cm<br>Ac (arm circumference) = 43 cm<br>Sl (sleeve length) = $3/8 Bh - 3 \text{ cm} = 60 \text{ cm}$<br>Hsc (height of sleeve circle) = $1/2 Hsn - (2/10 Osw + 0.5 \text{ cm}) = 16.5 \text{ cm}$<br>Osw (oblique sleeve width) = $1/2 Ac - 0.5 \text{ cm} = 21 \text{ cm}$<br>Ols (overall length of sleeve) = 26 cm  |



**Fig.4** Basic construction of the front and back of a women's blouse and a one-piece sleeve

The back consists of 2 parts, a bodice and a lower part on which there is a double-folded, sewn pleat. The back of the blouse partially merges into the front at the side seam. The sleeves are one-piece and elongated, and there are cuffs along the length. An integral part of the style is the collar, which consists of 2 parts, a standing and a folded part, Fig.5.



**Fig.5** Sketch of the front and back of Model 1

### 3.2. Modeling the basic cut of the blouse according to the sketch of Model 1

The basic cut of Model 1 was extended in the waist area, in the side seam. The waist slits on the front and back were also used to extend the blouse model. The back was enlarged in the side section so that it can be folded over the front of the blouse, where there is a slit. The sleeves were enlarged by lowering the curve below the bust line and the shoulder seam was lengthened by modeling the bust buttonhole, Fig.6a. The necklines are slightly lowered and the shoulder seam is lowered by 4 cm at the front and, together with the hem, forms a pattern piece of the blouse. The lower part of the back is widened at the intersection with the waistband to create a double pleat, Fig.6c. There are two pockets on the front of the blouse in the chest area. The basic construction of the sleeve was also adapted to the model using a modeling process. The sleeve was extended and then the sleeve curve was reshaped, Fig.6b. There is a cuff along the length of the sleeve. Model 1 was made at a scale of 1:5 and then the basic pattern was modeled at a scale of 1:1, Fig.6c.

### 3.3. Sketch and description of Model 2

Model 2 is a women's blouse consisting of four front sections. The blouse has short raglan sleeves with a single pleat sewn onto the front. The back of the blouse consists of four parts.

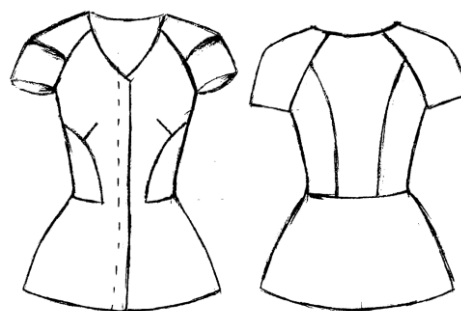


Fig.7 Sketch of the front and back of Model 2

The lower part of the blouse, from the waist to the length of the cut, is further extended. There is an eyelet in the bust area, Fig.7.

### 3.4. Modeling the basic cut of the blouse according to the sketch of Model 2

When designing this women's blouse, the breast buttonhole was closed by moving it to the center front. This made it possible to design a raglan sleeve, which was both lengthened and shortened during further patterning, Fig.8. In addition, a new pattern piece is marked on the front, starting at the waist, where the buttonhole is, and ending with a curve in the side seam area. Then the eyelet from the center front area was converted into an eyelet, which was moved to the area of the new (side) pattern piece.

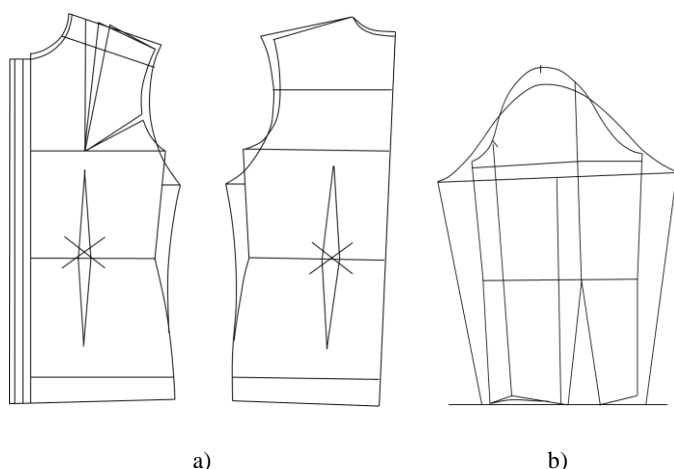
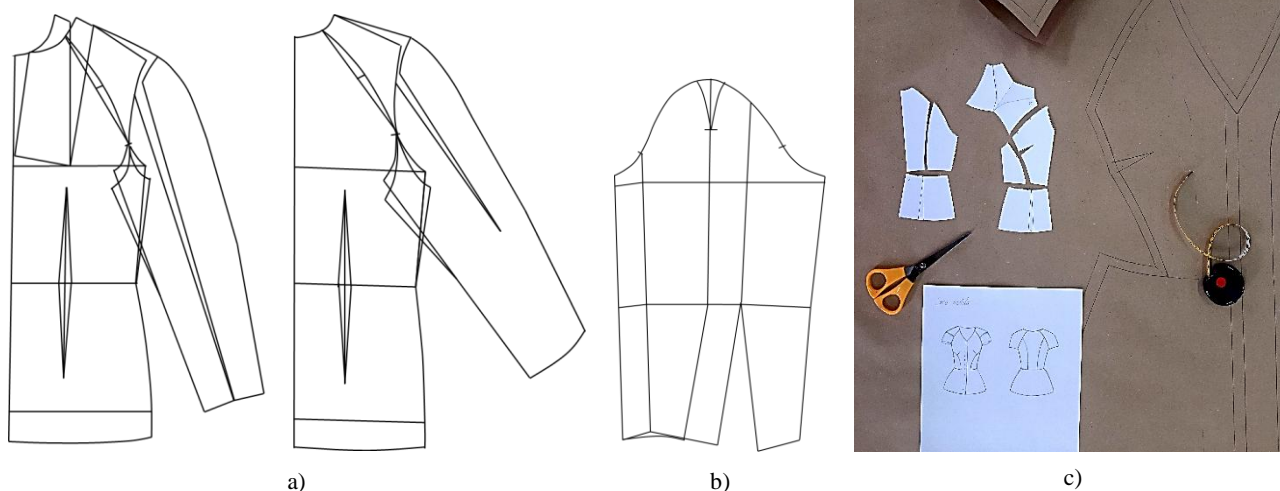


Fig.6 Modeling the basic cut according to the sketch of Model 1: a) adjusting the basic cut of the front and back of the blouse, b) adjusting the basic cut of the sleeves, c) modeling the given model of the blouse in a ratio of 1:5 and 1:1



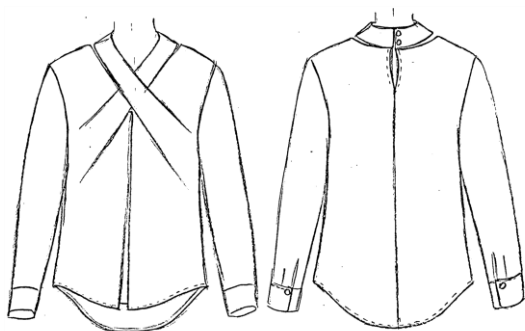
**Fig.8** Modeling of the basic cut according to the sketch of Model 2: a) Adjustment of the basic cut of the front and back of the blouse with attached raglan sleeves, b) Adjustment of the basic cut of the sleeves, c) Modeling of the given model of the blouse in a ratio of 1:5 and 1:1

The neckline is deepened and reshaped according to the pattern sketch. The lower part of the front is lengthened by closing the eyelets at the waist.

In the further course of the modelling, a 1:5 scale model of the blouse was made and then the basic pattern was modelled on a 1:1 scale, Fig.8c.

### 3.5. Sketch and description of Model 3

Model 3 is a women's blouse with a one-piece front and a two-piece back. The front part is pleated in the chest area, and between the two pleats there is an elongated cut that ends in the neckline at the center back of the blouse. There is a double folded, sewn-in pleat in the center front of the blouse. The blouse has no eyelets in the waist area at the front or back. The sleeves are one-piece with offset cuffs, Fig.9.



**Fig.9** Sketch of the front and back of Model 3

### 3.6. Modeling the basic cut of the blouse according to the sketch of Model 3

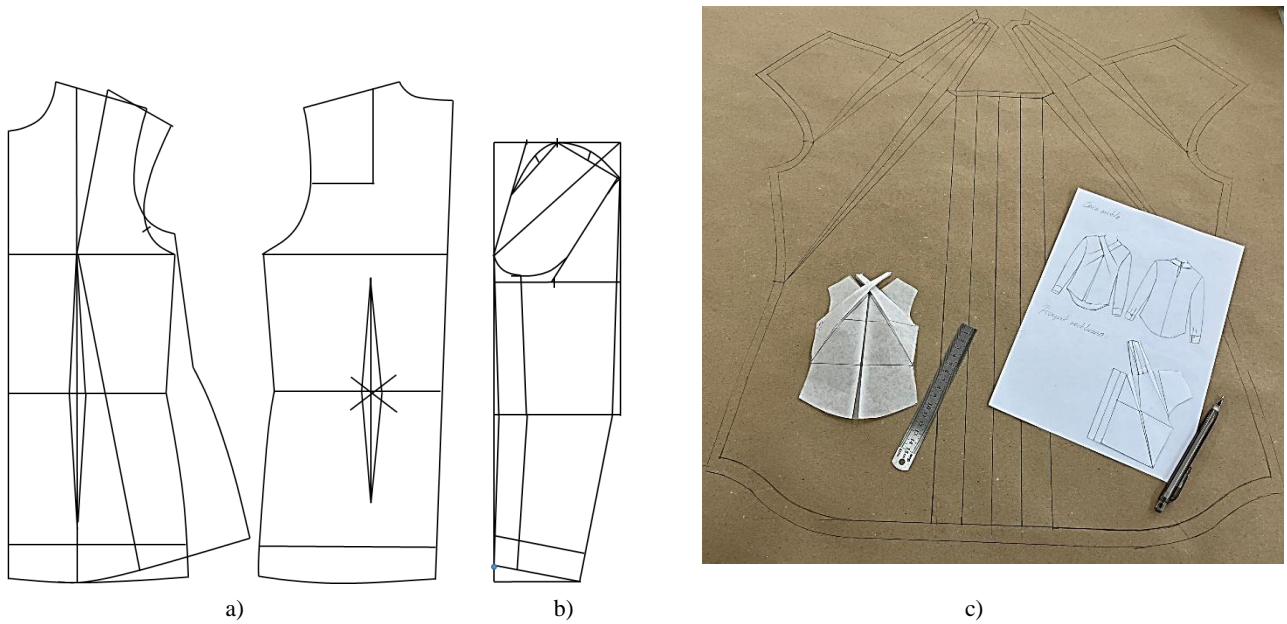
During the shaping of the basic cut, the bust placket is reshaped by closing it to increase the length of the blouse, Fig.10a. There are pleats on the front part in the chest area, which were created by slitting the shoulder seam in the area of the sleeve curve and the side seam, and the basic cut is widened at the slit points.

After the pleats have been formed, a section of the front piece is extended in the neckline area, which ends in the center back of the blouse. In the center front area, the basic cut is extended to create a double box pleat, Fig.10c.

The length of the blouse is rounded.

The cuff was cut off as a separate cut piece when creating the sleeve, while the upper part of the sleeve remained unchanged in relation to the basic cut, Fig.10b. The blouse model was also modelled at a scale of 1:5 and then at a scale of 1:1, Fig.10c.

Seam allowances of 1 cm were added to the modelled cut pieces for all three models, with the exception of the length of the cut, where the seam allowance is 2 cm. The pattern pieces prepared in this way were transferred to the fabric from which the women's blouses were to be made.



**Fig.10** Modeling of the basic cut according to the sketch of Model 3: a) Adjustment of the basic cut of the front and back of the blouse b) Adjustment of the basic cut of the sleeves, c) Modeling of the standard model of the blouse in a ratio of 1:5 and 1:1

#### 4. Results and discussion

After the experimental part, in which the construction and modelling methods of women's blouses were described and all pattern pieces were provided with sewing accessories, the presentation of the results follows. Raw cotton fabric was used for the production of all three models, and the sewing was carried out in the Technological Laboratory for Clothing Technology Processes at the University of Zagreb Faculty of Textile Technology. The results are shown in Figs.11-14.



a)



b)

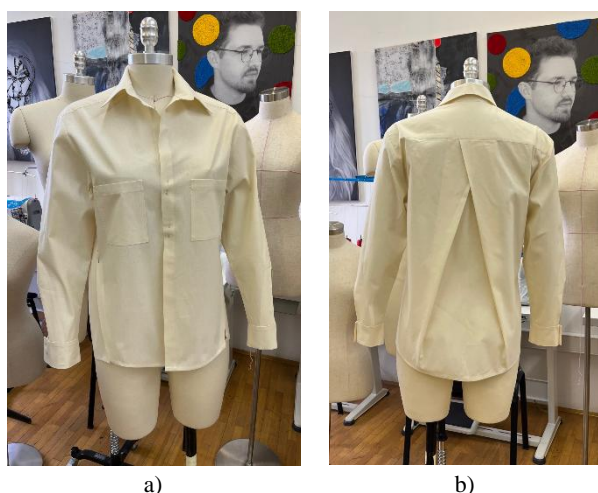


c)



d)

**Fig.11** Production of models of women's blouses in the Technological Laboratory for Clothing Technology Processes: a) Modeling of a woman' blouse on tailor's paper, b) Joining of the cut parts on a JUKI DDL-5550-4 universal sewing machine, c) Model 3 of a woman's blouse on a tailor's dummy, without sewn-on sleeves, d) Model 1 women's blouse using the interphase ironing method



**Fig.12** Women's blouse on a dressmaker's dummy (Model 1):  
a) front part of the blouse, b) back part of the blouse



**Fig.13** Women's blouses placed on a dressmaker's dummy:  
a) Model 2, b) Model 3



**Fig.14** The author of the collection dressed in one of the blouse models

After all three women' blouses had been made on the dressmaker's dummies, it was established that the modeling processes had produced the desired model from the collection in full.

It was also established that the fit of all models was achieved in relation to the body measurements, as evidenced by the selection of dressmaker's dummies with measurements corresponding to the ready-to-wear size.

## 5. Conclusion

Women's blouses will certainly continue to be the focus of interest for designers and clothing manufacturers as they are one of the most sought-after items of clothing. Therefore, the women's blouse was also the inspiration for the design of the collection model in this article. Based on the sketches of their own collection, they wanted to select three models for the complete realization, which should differ from each other as much as possible. A wider model was therefore chosen (Model 1), one that follows the shape of the body and sits at the waist (Model 2) and one that has been widened by redesigning the eyelets but retains the shape of the body by being waisted in the side seam area (Model 3). The models differ in collar; one has a collar and a closure on the front (Model 1), the second one has a lowered neckline and the blouse is without a closure (Model 2), and the third one has a reshaped neckline to obtain pleats, and considering that the front part is made of one piece, there is no closure accessory (Model 3). The models also differ in the position of the pleats. In one model the pleat is on the back (Model 1), in the second model, the pleats are on the sleeve (Model 2) and in the third model the pleats are on the front of the blouse (Model 3). The differences are visible in the sleeves. For example, the sleeves of one model are elongated and reshaped at the seam with the cuff (Model 1), the sleeves of the second model are short raglan sleeves with pleats (Model 2) and the sleeves of the third model correspond almost completely to the basic cut, but with a separate cuff (Model 3). All processes from the idea to the construction of the basic pattern, the modelling and finally the assembly of the pattern pieces to the desired garment involve numerous knowledge and skills that must be applied in order to achieve the best aesthetic and functional components of the finished garments.

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