

# Variants of a Lady's Dress with 3D Transformations

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## Introduction

In fashion design 3D elements in details of clothing are used in creation of interesting models. Figures 1-3 present variants of a basic model of lady's dress with different types of 3D elements. A variant with bi-sided tucks, which are fixed in the left side seam, is presented in Figure 1. A variant with gathers, which are fixed in the left side seam, is shown in Figure 2. A variant of the dress with draperies, which are fixed in the left part of the waist, is presented in Figure 3.

The pattern making of the detail with the bi-sided tucks is shown in figure 1.1. A way of constructing of bi-sided tucks, which are fixed in the neckline, an opening contour, is presented in [1]. Figure 1.1 presents pattern making of tucks fixed in a seam contour, the side seam in the case. The top tuck is result of transformations of bust and waist darts of the constructional base. The follow both tucks are result of waist darts transformations and additional openings. The lowest tuck has only decorative role and is result of an opening. Because the tucks are fixed in a seam, the constructing of their fixing lines is very important. Fixing lines are results of double mirror images of the seam contours (the side seam in the presented model) toward outside and inside roll lines of the tucks. The sequence of the bi-sided tuck pattern making is show in <https://youtu.be/Afm4CuNh7uo>.

The pattern making of the detail with gathers is shown in Figure 2.1. The same openings like the openings for bi-sided tucks are constructed.



Figure 1: A dress with bi-sided tucks.

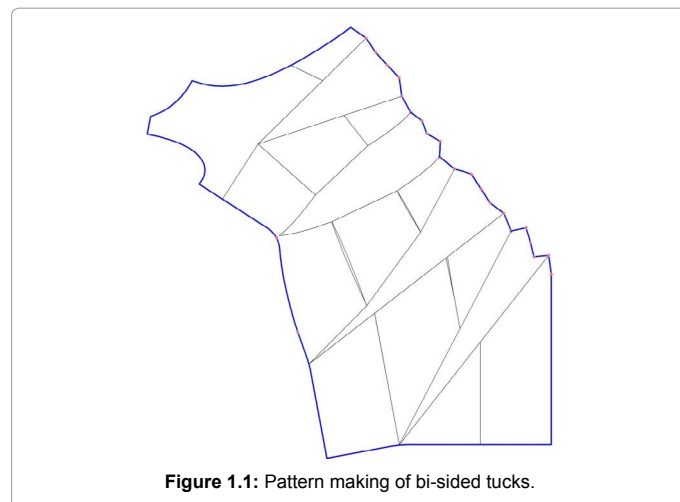


Figure 1.1: Pattern making of bi-sided tucks.

A curved line is drawn around openings for the forming of the contour of the gathers making. The gathers pattern making is presented in <https://youtu.be/i5PsP2ul27A>.

The pattern making of the fixed draperies is presented in figures 3.1 and 3.2. The pattern making is inspired by [2]. In Figure 3.1 two equidistant circles are drawn in the left part of the waist line. The bigger one is drawn with radius 2.5 cm and is used for the forming of the draped details edges, which are drawn around the circle. The smaller circle is with radius 1.25 cm and it is used for the lines of openings for draperies. These lines are tangents to the small circle. Figure 3.2 presents the pattern making of the bigger draped detail. The constructing of the smaller draped detail is the same. The opening for forming of the draperies in the upper part of the draped detail is result of transformations of the bust and waist darts of the constructional base and a small additional opening. The opening for forming of the draperies in the lower part of the detail is equal to the opening in the upper part of the detail and it is a result of the waist darts transformations and an additional opening. The both upper and lower parts of the draped detail are connected each other around a line with angle of direction of 45 degrees. The sequence of the fixed draperies pattern making is show in <https://youtu.be/YmZnUwdhMXc>.

The presented design and pattern making of 3D elements, including darts transformations, can be used for design of new models clothing

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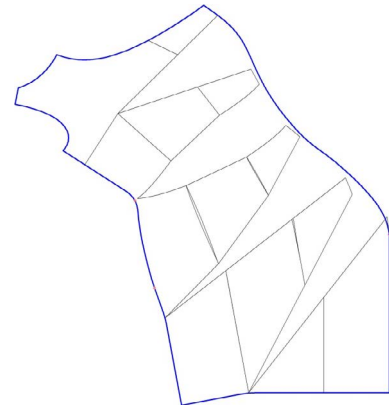
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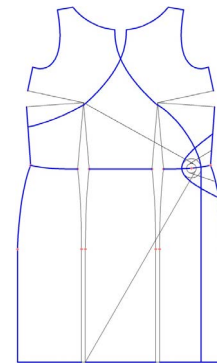
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**Figure 2:** A dress with gathers.



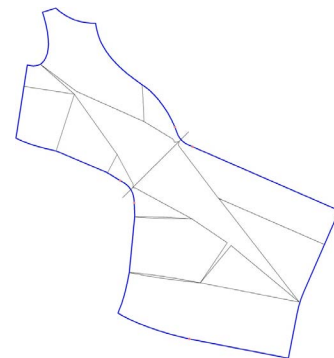
**Figure 2.1:** Pattern making of gathers.



**Figure 3.1:** Pattern making of fixed draperies.



**Figure 3:** A dress with fixed draperies.



**Figure 3.2:** Pattern making of fixed draperies.

on the base change of a type of 3D elements with other ones or creation of new models with a choice of the most suitable type of 3D elements according to the forms of details and other elements of the garments.

#### References

1. Kazlacheva Z (2015) A Way of 3D Transformation of the Bust Darts in Ladies Clothing. J Textile Sci Eng 5: 184.
2. Nakamichi T (2010) Pattern Magic. Laurence King Publishing, UK