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THE INFLUENCE OF COMPLEX FOLDS ON THE SHAPING OF WOMEN'S DRESSES

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ABSTRACT:

Stable folds or creases have been used to decorate clothing details for more than a century. Today, they are widely used in the manufacture of women's and children's clothing. The range of these products is constantly expanding, which entails the need to develop high-performance methods of shaping and shaping folds on clothing parts made of various textile materials. Crease shaping is the process of transforming a flat textile material into a raised surface with stable folds. Depending on the purpose and application, the folds can have different shapes, sizes and structures. On the details of clothing, one-sided, two-sided, bow, fan pleats, pleats and corrugations are most common.

Details with pleats or corrugations are usually cut out of a single pleated or corrugated cloth. As a result, the folds are located over the entire surface of the part. In the case of single-sided, double-sided, bow-shaped and fan-shaped folds, their number and location on the details of clothing depends on the model features of the product. The process of their shaping originates at the design stage of the product's details. Designing the unfolding of product parts or developing its model design has its own characteristics for each type of fold. Let's look at the design differences using the example of the details of a women's skirt.

When processing materials in the field of textile finishing, the fabric is impregnated with a solution of chemical reagents, among which pre-condensates of thermosetting resins are widely used. These are chemical compounds that are quite soluble in water and usually have at least two active groups, most often methylene, with which these substances react either with the functional groups of the fiber, "stitching" macromolecules, or with each other, forming high-molecular compounds in the fiber - resins. These monomeric compounds are called pre-condensates of thermosetting resins, since the reaction of their transformation from monomers to resin and the reaction of interaction with the functional groups of the fibrous material take place only at elevated temperatures. After impregnation, the materials are dried under moderate heat conditions.

Transformative shaping is one of the fundamental phenomena in art and design. For a designer, the form acts not only as a solution to functional and technical problems, but also as an initial impulse in the creative process. In their designs, designers all over the world strive to advance towards new forms that would reflect a new worldview. Designers often look for inspiration in the continuity of traditions and their improvement in accordance with the modern paradigm of the world and the development of technology and technology. According to a study by Semkin V. V. The creation of objects with a transforming material structure has always been one of the essential directions in the creative shaping of the objective world. Transformable clothes have become firmly embedded in our lives like many transformer items [3]. Transformable clothing of an elementary cut is typical for the peoples of the ancient world: wrapping the body with skins, woven or knitted with a piece of cloth. The transformation was carried out according to the principle of adapting clothes, which are a single piece of fabric of various shapes to changes in the weather, anthropometry, situation, and social status of the owner. Thus, the same product could transform: change size, shape, expanding or changing its protective and social functions. The draped clothing of the ancient Greeks is widely known - the chiton, himation and chlamydia, the peplos, the cloak of the Etruscan order, the table and palla in Ancient Rome, the clothes of Ancient India, Indonesia, Southeast Asia: dhoti, sari, sarong, pareo. The headdresses of the turban and turban are also draped. Transforming and fixing elements were often used in draped clothing: fibulae, hairpins, buckles, ribbons, laces, webbing, belts, straps, etc., which became the prototypes of modern accessories.

When transforming clothes of a complex cut, only certain shapes of the product laid down during its design are obtained according to the author's concept. When transforming

products of an elementary cut, it is possible to obtain a wider range of clothing forms within one assortment group. However, this approach raises the question of a finite or infinite number of product shapes. Hence the need to develop a structure for transformable clothing of an elementary cut and refine its design methods.

The modern fashion industry is characterized by high dynamism, which directly affects seasonal changes in women's silhouettes and related design solutions. The periodic shift of dominant shapes – from oversize to fitted, from straight lines to asymmetrical and structural – requires constant adaptation of cutting and modeling technologies. Fashion in one sense or another spreads its influence not only on the appearance of people, but also on all spheres of human society. Economic life is tied to the sale and export of certain things and household items, the demand for which is determined not only by their functionality, but also by fashion trends. The political sphere is interconnected with the expression of the interests of various groups, such as nations. One of the ways ethnic minorities express themselves is through national ornaments and other decorative elements in their clothes. In the social sphere, the presence of certain "branded" items and accessories is an indicator of an individual's status. The relevance of the study is due to the need to systematize these changes and understand how fashion trends transform the constructive basis of products. This is important for designers, designers, and manufacturers seeking to create products that meet modern aesthetic standards, ergonomics, and technological requirements.

To achieve the desired shape, shaping techniques are used through the balance of patterns, transferring and extinguishing excess volumes inside the structure, as well as gluing individual zones so that the volume does not lose its intended contour. An example is cocoon coats or wide jackets, where the cut is based on the redistribution of fabric mass and precise work with the sleeve edge. The trend towards slimness and emphasized femininity requires completely different technologies. It uses precise calculations of the product's balance, complex modeling of darts, reliefs and undercuts, as well as the use of elastic materials that allow the product to repeat anatomical lines. Designers use the techniques of "anatomical cutting", when the shape is created not only by means of darts, but also by means of the directions of the fractional thread, providing the necessary degree of tension. In dresses and jackets with an accentuated waist, internal reinforcements are required, forming a silhouette and stabilizing lines. Asymmetrical seasonal silhouettes require specific modeling techniques. Since the load of the fabric is unevenly distributed, the cut is made taking into account offset axes, non-standard shoulder lines and asymmetric detail

sweeps. The technique of oblique cutting is especially relevant, as the diagonal arrangement of the thread allows the fabric to drape naturally and create soft, lively contours. Hidden corsage elements are used in one-shoulder products to ensure the stability of the silhouette. For the soft draped silhouettes typical of spring and summer collections, construction techniques are used with increasing the width of the details, laying controlled tails, fixing directional folds and using fabrics with high plasticity. The oblique cut, manual molding on a mannequin and precise wet-heat treatment play a key role in creating smooth flowing lines.

Oversized silhouettes cause the problem of a weighted product and a distorted fit: excessive increases and enlarged armholes often lead to sagging fabric, deformation of the shoulder area and the need for multi-layered reinforcement. Light flowing silhouettes, popular in the warm season, create the opposite problem: fabrics on an oblique thread stretch unevenly, which complicates the control of length, symmetry and stability of shape, especially after washing and wearing. Fitted and corselet shapes increase the requirements for cutting accuracy, as the slightest deviation in the tucks or reliefs disrupts the fit, and reinforcing the structure with gaskets increases cost and the risk of excessive rigidity. Asymmetrical silhouettes increase the burden on the model modeling: misaligned lines and unbalanced details lead to distortions, require careful balance checking and complicate mass production. Structural architectural forms face a contradiction between visual rigidity and comfort. To maintain volume, dense materials and complex technological operations are needed, which reduce the plasticity of the product and limit the size range. The rapid turnover of trends creates an additional problem – the costs of developing new patterns, reconfiguring equipment and training personnel often do not pay off if the silhouette is short-lived. All this leads to the fact that seasonal fashionable silhouettes not only shape the appearance of clothes, but also create a whole range of constructive, technological and production difficulties.

Any wardrobe item has a shape (volume) and a silhouette (planar projection). Several wardrobe items in the image create a costume ensemble, which in turn also has its own silhouette and shape. They depend not only on the shape and silhouette of individual wardrobe items, but also on the ways of packing and styling. All this together is a silhouette solution in the image. Effective work with seasonal silhouettes requires a combination of professional design, competent selection of materials and the use of modern digital technologies. The constant variability of fashionable shapes ceases to be a problem if the product creation process relies on adaptive basic designs, accurate modeling, and preliminary analysis of fabric behavior. The use of CAD, prototyping, and experimental materials allows you to anticipate possible defects in advance, stabilize problem areas, and preserve the designer's vision without losing the quality of the fit. This comprehensive technique not only increases the manufacturability of the product, but also optimizes production costs, facilitating the transition from one seasonal silhouette to another. As a result, a stable system of work is formed, in which fashion remains flexible, and the quality of the cut and fit is consistently stable.

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