

## THE USE OF PLEATING IN CLOTHING THROUGHOUT DIFFERENT HISTORICAL PERIODS

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**Abstract.** *Changes in trends and accents of the fashion industry occur constantly – it brings a lot of new stylish tricks and develops old ones. Pleating is one of those classic techniques often seen in fashion shows. This effect has been known since the times of ancient civilizations, but it is still relevant.*

**Keywords:** *pleating, fashion, design, clothing.*

### **Introduction**

Pleating (from the French plissée - "wrinkle", which is from the Latin plicare - "fold"; indo-european root plek) is a decorative element of clothing in the form of small, mechanically pressed, unstitched folds.

The folds can be one-sided, bow, combined, straight or tapered, e.t.c. In addition, the folds can be located both across the entire width of the garment, or in groups at certain intervals.

### **Results of the research**

The technique of pleating has been known since the times of ancient civilizations. During the Middle Kingdom, the Egyptians' clothing became more complex due to the layering. The silhouette expands downward, acquires a pyramidal shape. At this time, the production of embossed by pleating clothing items is widespread. Antique bas-reliefs, frescoes and other historical artifacts testify to the use of this technique by the ancient Greeks. There is a hypothesis that there were linen fabrics pleated with a hot metal rod in Ancient Greece around the 4th century BC. In ancient Rome, noble women wore a stola over a tunic - the majestic clothes of matrons. The bottom of the stola was trimmed with pleated frills. It is also known that in the city of Birka, the largest trade and craft center of the Swedish Vikings, was discovered a burial, which is one of the most informative sources for the study of Scandinavian clothing of the 9th-10th centuries. The artifacts found in it, indicate that the Vikings also wore similar skirts and dresses [2].

Fashion magazines of the XX century demonstrate flexible models of clothes with plated and corrugated elements (Figure 1). In 1907, a Spanish designer Mariano Fortuny y Madrazo created his famous pleated dress in a Greek style and named it "Delphos" (Figure 2 a). In 1909 Fortuny patented a method of pleating. Since then, the so-called Fortuny pleating has become popular. It is a very fine and frequent pleating of silk [3].

In the middle of the 20th century, pleating presses and verstats were used on an industrial scale in different countries [4].



**Figure 1. Examples of images of clothing models with pleated and corrugated elements in fashion magazines of the early XX century [3]**

In the 1980s, the prominent Japanese designer Issey Miyake carried out experiments in the technology of fabric pleating, and in 1993, appeared the Pleats Please technology (Fig. 2 a, b).



**Figure 2. Examples of using the pleating technique in a suit: a) "Delphos" dress; b) Pleats Please technique**

Usually clothes were cut from pleated fabric, but Issey Miyake presented an innovative way: his technological operations are in reverse order. Clothes sewn and cut several sizes larger are placed between sheets of paper and passed under a hot press. Clothes made by this method, have good folds, do not require ironing, easy to machine wash, aesthetic and comfortable. Nowadays a lot of methods of processing fabrics are known to obtain elastic folds that keep their shape. Methods of dry heat treatment and using steam, when the fabric is wound with a roll on a perforated tube remain classic [5].

Such types of fabrics as cotton, linen, viscose, crepe de chine, silk, chiffon, satin, guipure, fine wool, semi-wool, dense jacquard, and a lot of synthetic fabrics are used for the pleating technique. Shirred and pleated fabrics with synthetic fibers keep wrinkles and do not lose their shape after washing [6].

Pleated skirts of different lengths and cuts are becoming popular again in 2021 (Fig. 3).

In addition, other non-standard ways of using pleating have gained popularity: pleated collars, sleeves, panels, gathers and ruffles. (Fig. 4-7).



**Figure 3. Variety of pleated skirts**



**Figure 4. Sleeves made in pleated technique, AdoreWe, Moda operandi, Styleonme**



**Figure 5. Collars made by the technique of pleating, J. Crew, totokaelo**



**Figure 6. Ruffles and frills, made by the technique of pleats, Asos, Moda operandi, moonbaye**



**Figure 7. Pleated inserts, Styleonme, Georgia Hardinge**

### **Conclusions**

We can conclude that the pleating technique has been relevant for a long time and is very actively used in the creation of new collections of clothes of the XXI century. Different ways of using this technique in clothing are found in every decade. Pleating is one of the most popular methods of fabric decorating and it is used in various collections by many fashion houses, as it adds compositional expressiveness to products and contributes to the spectacular perception of the image. As a result of the research, the basic principles of using the pleating technique were identified, the evolution of its development was studied, and the most common use cases were identified.

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