



e-ISSN: 2319-8753 | p-ISSN: 2347-6710

IJIRSET

International Journal of Innovative Research in
SCIENCE | ENGINEERING | TECHNOLOGY



INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

Volume 11, Issue 6, June 2022

ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA

Impact Factor: 8.118



9940 572 462



6381 907 438



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Design of Women's Top Dressing Design Project with Features of Hot Storage Materials

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ANNOTATION: This article will talk about the development of a women's top dressing design project with the emphasis on the features of hot preservation materials. The author, relying on cultural data and written sources, made clarifications on the basis of existing scientific and historical literature. Design of women's top dressing design project with features of hot storage materials.

KEYWORDS: Hot runner, materials, women's top wear, design.

I. INTRODUCTION

The costume is in relationship with a person, his subject environment and with society, being a product of his cultural and socio-economic activities.

The creation of a mass costume also belongs to the field of industrial production and requires a serious design approach. At the design stage, the main factors affecting the shape of the new smart suit should be taken into account. The properties of the materials used play an important role here.

This article describes the first attempt to implement the idea of replacing the traditional insulation with the down of the Orenburg goat as a warming padding material in the design of women's outerwear.

II. MAIN PART

Of the many varieties of fluff (bird fluff, rabbit fluff, camel fluff), the down of the Orenburg goat is the most suitable for our region as a heater. This valuable raw material is available in sufficient quantities on the territory of the Southern Urals. Downy goats are bred in the Orenburg region and some regions of Bashkiria. The down obtained from goats of the local breed has a number of unique properties, which were determined by the harsh, sharply continental climate. The Orenburg goat breed is the only one in our country that has the thinnest (14-16 microns) elastic down fiber that does not get coarser with age. This fluff is distinguished by its luster and silkiness, relative strength and natural monochrome coloring, low thermal conductivity and fiber length equalization.

Goat down is an environmentally friendly material that is absolutely safe for health. It does not cause an allergic reaction, and also does not provoke itching and unpleasant sensations on the skin when wearing products made of it [1]. This cannot be said about sintepons made using adhesive methods of binding fibers in the canvas. Goat down, unlike sintepon and other synthetic cohesive and non-cohesive insulation, absorbs up to 35% of moisture, has low thermal conductivity, and therefore the heat generated by the human body does not dissipate, but accumulates, warming the wearer of the down product for a long time.

This magnificent material is used as a raw material for the manufacture of Orenburg down shawls. Shawls and cobwebs made of Orenburg fluff have many advantages: fine and delicate structure, high strength and heat-shielding properties, artistic perfection and exquisite decorativeness based on the properties of this unique material. Orenburg down shawls have turned into a real and never-aging symbol of Russian national culture.

In the analysis of literary sources, mention was found of the use of down in the everyday clothing of nomads as a cushioning material. According to oral testimonies of residents of the hinterland (province, periphery), quilted vests and goat down jackets are still in use in some areas of the Orenburg region and Kazakhstan.

In this regard, the idea arose to expand the range of products with the use of goat down not only in traditional use, but also in mass-demand clothing manufactured by industrial methods. An attempt was made to approach the design of such a widespread and popular assortment as down jackets from a different point of view.

Down jackets have entered our lives for a long time and have managed to firmly consolidate their positions. Today, a down jacket is the most comfortable and practical winter outerwear. This collection is an attempt to take a new approach to the formation of the design of down jackets and the expansion of the range of outerwear in general.

To achieve this goal, a number of tasks were formulated and consistently solved:

1. To conduct a comparative analysis of the data on the properties of down of various animals and birds and aspects of its application in clothing;
2. To conduct a comparative analysis of the properties of down and artificial cushioning materials in the assortment of women's outerwear;
3. To develop a collection range of women's outerwear for a youth group of consumers;
4. To conduct an artistic and design analysis of collections and products using the down of the Orenburg goat;
5. To develop technological conditions and modes of manufacture of outerwear products with goat down insulation.

The listed points of the study of the initial data clearly outlined the main project task and the concept of the collection of women's outerwear, in which for the first time the replacement of the long-familiar insulation of the la – sintepon – with goat fluff was carried out.

Based on the tasks and fashion trends, a model range of women's outerwear was developed (see Figure 1).

The collection of women's clothing consists of five experimental art systems – sets. Since the set is an open set of clothes made of interchangeable elements, the products of the collection can be worn in almost any combination with each other. This makes it possible to implement the principle of capsularity of the developed collection in practice. The effect of a multivariate solution is enhanced by transformer parts.



Figure 1. Sketches of the collection "Snow..."

The collection, intended for the youth group of consumers, includes elongated parkas and down shorts, shortened jackets combined with skirts with an inflated waist, pelerines and capes of various lengths with and without hoods. In addition, the collection uses massive collars, which, if necessary, turn into hats resembling a headdress, as well as armbands and elongated gloves made with coarse knitting. The color scheme and style of the collection were determined by the fashion trends of the current autumn – winter season. The main shades of the collection are ivory, warm shades of brown and gray, which is also confirmed by the trends of 2013-2014.

The color scheme of the collection is based on a combination of related warm shades. Such colors create a feeling of comfort and psychologically "protect" in the cold season.

Thus, the law of nuance is used in the color scheme, and the law of contrast is used in the light solution. Particular attention in solving the color composition was paid to the proportional weighting of the sizes and configurations of color spots of different brightness both in each individual model and when looking at the lecture as a whole.

A significant compositional technique is a stitch made in the style of a traditional ornament used in a down shawl.

The first model is a light coat with a length slightly below the knee. The product is made without sleeves, which are replaced by a quilting cape, the importance of which as a compositional accent is emphasized by a light contrast. The set is complemented by long gloves and armbands. If the coat is used without a cape, you can wear a thick sweater with long sleeves under the coat (see Figure 2).

Model No. 2 includes a knee-length cape with a large hood and a central zipper closure. The neck is protected by a knitted shirt front. The set is completed with quilted down shorts (see Figure 3).

Model No. 3 consists of three separate but interconnected parts that can be used separately and in combination with other parts. The set includes a cropped jacket, a wide corset and a skirt. Joined together, they are a coat of a semi-fitting silhouette with a length below the knees. In the upper part there is an asymmetric clasp with 3 buttons. The middle part ("corset") is fastened with a zipper and has a front strap with buttons, continuing in the lower part of the "coat". The skirt in the lower part is asymmetrically decorated with finishing lines in the form of a stylized pattern of a down shawl (see figure 4).

Model No. 4 consists of a double shortened cape and a skirt with an inflated waistline. The skirt is decorated with quilted stitching. The side sections of the skirt are processed with a "zipper" braid. A large knitted "yoke" of large knitting can also serve as a headdress (see Figure 5).

Model No. 5 is a coat of noble "milk" color of a semi-fitting silhouette with a yoke on the shelves. A cape of the same color is sewn into the shoulder seams. On the wrong side, the cape is dark brown in color with a trim in the form of a decorative stitch, which is a stylization of the ornament of a down shawl. An unexpected light contrast occurs when the figure moves and gives a soft, calm compositional solution of the coat a peculiar dynamism (see Figure 6).



Figure 2. Model No. 1

(Performed by a student of the OSU Design Department

Koroleva Nadezhda, head of Yanshina M.M.) Photo Koroleva N. zhimov the manufacture of outerwear with insulation from goat down took place in several stages.

1. Determination of the upper fabric of the products.

III. RESULTS AND DISCUSSIONS

Goat down, like other varieties of down, has an increased penetrating ability. According to the recommendations for sewing down jackets, there should be a Teflon or film coating on the wrong side of the fabric. In retail, there are various types of fabrics (such as Oxford, Duso, etc.) that have a film coating on the inside, but their color range is limited to one or two colors. This is not enough to embody the idea of the author of the thesis project in the material.



Figure 3. Model No. 2

(Performed by a student of the Department of Design of OSU Koroleva Nadezhda, head of Yanshina M.M.)
Photo Koroleva N.



Figure 4. Model No. 3 Figure 5. Model No. 4

(Performed by a student of the Department of Design of OSU (Performed by a student of the Department of Design of OSU

Queen Nadezhda, head of Yanshina M.M.) Queen Nadezhda, head of Yanshina M.M.)

Photo Koroleva N. Photo Koroleva N.



Figure 6. Model No. 5

(Performed by a student of the Department of Design of OSU Koroleva Nadezhda, head of Yanshina M.M.)
Photo Koroleva N.

Tea – knitted fabric. It was she who, at the time of the creation of the collection, was represented by a sufficient number of colors. The adhesive coating prevents the migration of the insulation to the surface of the product, and the double-layer improves the heat-protective properties.

2. Determination of the quantity and quality of the cushioning material. Two types of fabric were taken as the basis of the cushioning material: – magpie (cotton + polyester); – chiffon (polyester).

Experimentally (sewing samples), it was found that to prevent the penetration of fluff, the magpie fabric should be laid from the inside of the product and from the lining, which is also due to hygienic requirements (breathability). But the use of 2 layers of cotton fabric significantly increases the weight of the product and reduces the drapery of the package. Therefore, as a cushioning in some products of the collection, chiffon was used as an external and internal gasket, as an external gasket to reduce the penetration of fluff on the face of the product, as well as to facilitate the package and reduce stiffness.

3. Determination of the thickness of the insulation layer. To determine the thickness of the down layer, 5 experimental models were sewn, in which the thickness of the insulating material (goat down) varied. In our case, three types of fluff were taken as a basis, differing in the amount of the guard hair, length and with different thickness of the insulating layer.

4. Design solution of the collection models. The preservation of the heat-protective properties of clothing occurs not only due to the insulating layer, but also with the help of a cut. According to all the same recommendations for sewing down jackets along the zipper, a strap must be stitched – we took advantage of this recommendation and kept the strap in the products. The collection presents a variant of the product with a warm detachable hood, which in the closed state protects the head and neck from the spine from the cold, and in the open creates additional protection for the upper part of the human torso. The use of pelerines also provides additional protection from cold and wind.

Based on the peculiarities of the climatic conditions of our region, designs of skirts with a length below the knee and an inflated waist were developed. The length of the coat varies up to the knee and below. To diversify the assortment group of clothes in the collection (based on the fashion trends of the current season), a set consisting of parkas and shorts is offered. To prevent the migration of fluff, stitches were laid in the products, the distance between which is 13 and 15 cm, both on the front side of some products and on the wrong side of the lining, which creates a certain variety of external surfaces of the models of the collection.

IV. CONCLUSION

In conclusion, it should be said that in the process of manufacturing the collection's products, the technology of connecting down with the product was developed, technological conditions and modes of manufacturing outerwear products with goat down insulation were determined. The variable thickness of the insulation layer made it possible to design products with different heat-protective properties. The products are designed to be worn at low temperatures in the range from 150 C to 300 C. The small thickness of the insulation layer and, accordingly, the small volume of the product allow you to place an internal additional removable insulation pad, which is necessary when wearing products at t_0 below 200 C. In some prototypes, the role of additional insulation pads is played by external removable covers (pelerines, belts, collars). The prototypes were tested with a sock and received good feedback not only from carriers, but also from potential consumers in the process of demonstrating the collection at events of various levels. In 2012, the collection "Snow..." was presented at the International Competition of Young Designers "Admiralteiskaya Igla" and received high marks from the jury, being among the 37 finalists from more than 150 participants of the competition.

The work in the direction indicated in the article will continue. Experimental models of women's homewear have already been designed and manufactured at home using Orenburg goat down, which provides an additional warming effect in areas of discomfort (shoulders and neck, joints, lower back, etc.). This clothing, in our opinion, along with traditional protective, utilitarian, aesthetic, has a kind of preventive properties that facilitate the well-being of people with neurological, rheumatic diseases or healthy people prone to colds, inflammation, etc. In addition, such clothing allows you not to deprive a woman's appearance of aesthetic appeal during an exacerbation diseases, since it does not require additional insulation of the chest and lower back with a scarf, shawl, scarf, etc. [2] Designed and manufactured a number of women's and men's clothing using Orenburg cobweb as decorative elements.

It is planned to design and manufacture several more collections of clothing with different use cases of goat down, on the basis of which then determine the possible range of its appropriate use.



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Impact Factor: 8.118



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