

**USE OF CREATIVE METHODS AND UNTYPICAL MATERIALS  
IN THE DESIGN OF FASHION INDUSTRY PRODUCTS**

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The article is to highlight and substantiate the results of scientific practical research, to prove in a theoretical and practical way the possibility of using upcycling technologies and non-typical used materials for the manufacture of modern designer functional and decorative and decorative (interior) products for the production of products of this segment, increasing the demand for products of Ukrainian designers. Innovative types of materials, manufacturing technologies and decoration of products of the fashion industry have been studied and analyzed. The question of the possibility of using used non-typical materials in the creation of modern collections of products of the fashion industry has been investigated. It was determined that the fashion industry in Ukraine is developing and being updated. This creative experiment made it possible to create an innovative niche for the designer's vision of the world of fashion and aesthetics, which leads to creative experiments, the introduction of innovative materials and technology into the process of manufacturing products. Such creative experiments are necessary to emphasize the peculiarity and individuality of the designer, as well as to reflect his innovation and style. A sketch project of eco-style products has been developed. A collection of interior products for decorating rooms made of paper vines has been produced. A collection of women's clothing decorated with accessories and shoes in an eco-style was developed and produced from used non-typical materials for this segment of products.

Keywords: material, design, upcycling technology.

**FORMULATION OF THE PROBLEM**

According to the definition of one of the famous design theorists, S. Khan-Magomedov (1995), design is «...a sphere of creativity related to socio-functional and aesthetic problems of the formation of the subject-spatial environment...; one of the important areas of style formation, which has a growing influence on general form-forming processes and historical concepts» (Khan-Magomedov, 1995). The basis of the profession of a designer of any profession is the problem of forming a creative personality, a unique style and worldview. It is these factors that condition and shape the spectrum of creative approaches to the study of specific issues of form formation and the practical use of methodological approaches and concepts regarding the search for a creative idea, the development of a creative source, and the solution of the given task according to the principle «from idea to finished product» (Vasilyeva, 2011).

Paper is usually used to make models of future products. With the help of a sheet of paper, the design features of the product are reproduced down to the smallest details and forms, and the technology of modular or node-based binding of parts or form elements to each other is developed into a product (Babich and Vasyliieva, 2021; Bozhko, 1991).

Paper of various thicknesses and textures is a fertile material for creativity. With its help, it is easy to form and reproduce the external contour of a three-dimensional body, which in turn forms the potential of the structural elements of the product. With the help of paper models, you can achieve the desired fantasy or realistic shape, structure and functionality of the future product, by reproducing and working out in practice all possible variants of the system of folding and unfolding of the paper plane. Therefore, combinatorics and transformation of paper, in particular layout, is a visual method of creating a three-dimensional shape of a product. The world of product design of the

fashion industry, as well as fashion itself, is not yet sufficiently studied, diverse, unique, constantly new and innovative. Therefore, the task of this study is the analysis of non-typical materials, innovative manufacturing and decoration technologies for the purpose of their application in the design and manufacture of fashion industry products of various purposes and assortment.

### **ANALYSIS OF THE RECENT STUDIES**

Theoretical and analytical studies of questions and problems of form formation and the use of innovations in the design of products of the fashion industry from the time of Ancient Egypt to the present day is an interesting and relevant topic that is still insufficiently studied and covered in the scientific literature (Elam, 2014).

The question of creating a form and its transformation into products of the fashion industry is based both on the analysis of research in periodical and scientific information sources, and on modern research of historical prototypes and modern developments in the design of products in the subject area.

The history of the development of products as a whole is part of the general history of culture and humanity and its material aspect. Research of this heritage as a whole, concretized in products can become a foundation for innovative future developments (Chuprina, 2011).

The analysis of previous theoretical studies of the use of innovations in the design of products in the fashion industry allowed the authors of this study to analyze and systematize the main areas of application of innovations in the design and technology of products, the use of materials, decoration of products and their elements, and allowed to obtain fundamentally new aesthetic and functional properties of materials and products, which opens up new opportunities for the development of the fashion industry.

The purpose of the work is the research and use of creative upcycling technologies and used non-typical materials for the production of modern designer functional and decorative and producing ornamental (interior) products.

### **PRESENTING MAIN MATERIAL**

Due to the rapid change in living standards, the transformation of society and the transition to a new level of doing business, namely the production of goods and the provision of online services, as well as the struggle for the preservation of the eco system and the Earth as a whole, due to the rapid development of new technologies in the 21<sup>st</sup> century, more and more innovative design solutions, non-typical materials and technologies are appearing for the creation and manufacture of fashion industry products. Of course, these are not everyday things in use, but individual specimens that have a short podium or exhibition «life», but can take an honorable place in a museum, as a work of art and an example of the flight of designer's imagination.

Innovative proprietary technologies and non-standard vision of the designer make it possible not only to use various new and used materials but also to produce a product of the form and purpose that the designer intended (Torebaev and Myrkhalykov, 2014; Guseva *et al.*, 2016).

They can be both functional and interior. The more unique and unusual the shape and material of the product, the more chances that this particular product will be competitive in society.

For any person of different eras, it is of great importance to create a comfortable and aesthetic space around oneself, to surround oneself with beautiful things, to decorate clothes, shoes, accessories and one's own home with interesting decorative elements, etc (Shcherban *et al.*, 2018). One of the elements that helps a person turn bold ideas into reality and at the same time be on the «wave» of fashion is the use of classic and creative non-typical materials for the manufacture of products, taking into account the color and texture of the surface and elements of the product decoration.

All the conducted theoretical and analytical studies by direction led to the need to conduct experimental studies with the aim of studying the features and requirements for specific classical and non-typical materials at the stage of product design development and technological stages of materials preparation for the production of a certain fashionable product of the fashion industry, with the aim of making a modern ecological and a competitive product (Angelova *et al.*, 2017).

In the process of research, it was found that almost any material, new or used, can be used in this industry, the main thing is to know how and in what way to work with it correctly. Since the issues of environmental protection and waste reduction are urgent issues, it was decided to move in this direction and explore the possibility of using used materials as the main ones for creating modern design products.

Today, products made of paper vines are popular (Fig. 1), so paper is the basis of paper vines. Designers of various branches actively use this material to create masterpieces of their time (Babich *et al.*, 2020).



Figure 1. Visualization of design ideas of fashion industry products from different materials

Origami is a classic method of working with paper to create product forms. The purpose of this art is to create products by using a pattern of geometric folds. We, teachers, try to use this technique as part of a scientific circle for students studying in the specialty 182 – Technologies of light industry, the educational program «Fashion Industry» in practice for the development of creative potential, technical skills of working with form and material, and an aesthetic view (Babich *et al.*, 2021). Such classes give a young person the opportunity to transfer their ideas and dreams to paper and later to any other material and create a perfect, functional and aesthetically attractive product or collection of products from the fashion industry and bring them closer to the concept of industrial design.

After researching this issue, it was found that modern people use gadgets every day to obtain information, but there are still a sufficient number of people in the world who

use newspapers and magazines to obtain certain information, which they simply throw away after reading. Having analyzed the amount of printing products thrown away by consumers every day, we became convinced of the need to use these materials to create modern design products in an eco-style from them without spending money and prove the feasibility of this project. For this, a group of researchers collected a certain number of discarded newspapers, developed a design project, sketches, selected interesting technologies for the manufacture of products, and began work on their creation.

At the design stage, the developers decided that the products would be both interior and functional. Therefore, the following technological approaches were used:

- - weaving products from paper vines (making baskets, toys, New Year's decorations, shoes);
- - technology of modular assembly of product elements (making a dress);
- - paper origami (making accessories).

The visualization of the design ideas of the talented student Polina Bilous is presented in the form of sketches and finished products made in various techniques, but from the same material, namely from recycled materials – used newspapers (Fig. 2-5).

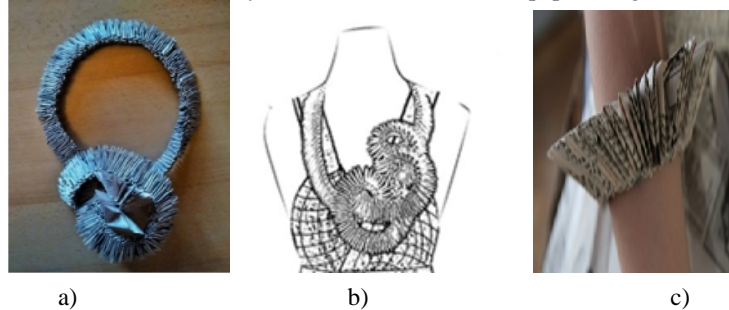


Figure 2. Visualization of the design idea of the manufacture of accessories using the «origami» technique (the author's collection of «origami» by student Bilous P. was presented at an international competition «Chestnut Constellation», Kyiv): b) – sketches; a, c) – finished product (necklace, armband)



Figure 3. Visualization of the design idea of shoe manufacturing: a) – sketches; b) – finished product

This technology for making competitive paper products can be implemented in the conditions of any creative fashion laboratory without re-equipment. The process does not require additional resources, investments and equipment. The economic feasibility of this

development consists in reducing the amount of waste and making exclusive interior and functional design products from them with their further implementation, as well as catwalk collections of products and accessories. At the moment, product samples have been produced, which take part in the international contests «Chestnut Constellation» and «Cave Chestnuts» (Ukraine, Kyiv). We are expanding scientific and creative horizons, and the presented collections of eco-style products will spread across the planet, finding their fans.

This project can be interesting as a way to create your own business for people with disabilities. Interior and collectible products have consumer demand and can be sold through online stores or design boutiques of decor and exclusive collectibles.

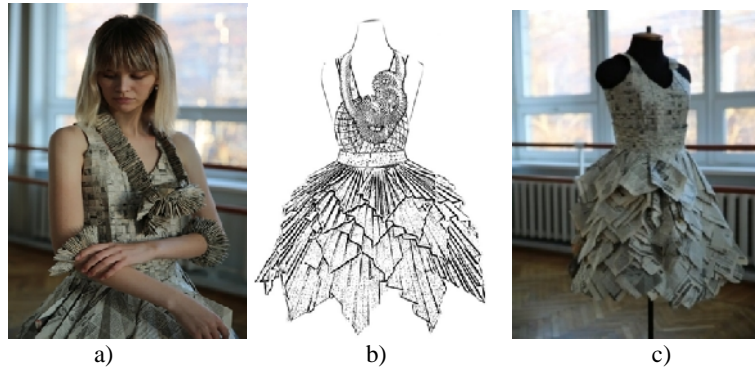


Figure 4. Visualization of the finished set of products, the design of the idea of women's clothing on the model (the author's collection «Breath» of student Bilous P. was presented at an international competition «Cave Chestnuts – 2021», Kyiv): a – visualization of the costume on the model; b – sketches; c – finished product.

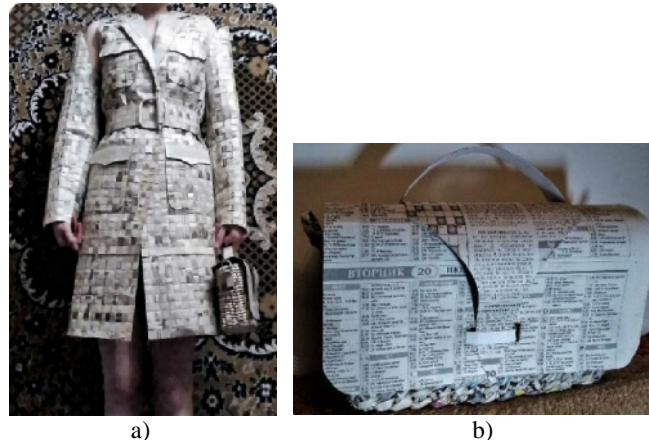


Figure 5. Visualization of the finished set of products, the design idea of the female image on the model (author's collection «Emancipe», student Bilous P. prepared for participation in an international competition «Cave Chestnuts – 2022», Kyiv): a – visualization of a coat and a bag on a model; b – accessories (handbags)

## CONCLUSIONS

The article researches and analyzes innovative types of materials, manufacturing technologies and decoration of products of the fashion industry. The question of the possibility of using used materials in the creation of modern collections of products of the fashion industry has been investigated. The issue of eco-design in products of the fashion industry has been theoretically studied and analyzed.

Collections of catwalk products in eco-style (clothes, shoes, accessories) and samples of interior products made of paper vines were developed and produced. The feasibility of this development has been proven theoretically.

The possibility of integrating innovations in the manufacture and decoration of products was demonstrated on the example of the student author's works of Bilous Polina under the guidance of experienced scientists-designers of the department of KTVSH (KNUTD). We consider this scientific project to be relevant in our time, because due to the use of innovative approaches and the embodiment of bold thoughts in catwalk collections, it contributes to the development and design thinking of a student, a young designer-beginner, the development of new constructive techniques by designers, the creation of modern technologies in the fashion industry, it provides an opportunity to diversify artistic and constructive-technological solution and expressiveness of the product.

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