

ANALOGIES OF THE FORMS OF MARINE FAUNA IN MODERN CLOTHING COLLECTIONS

MYKHAILIUK Olha¹, TERESHCHENKO Olha², SERKIS Victoria³

¹ Kyiv National University of Technology and Design

*Corresponding author: TERESHCHENKO Olha: e-mail kira1284@ukr.net

Abstract: *The work analyzes the clothing collections of modern designers, created using analogies of marine fauna. The artistic and compositional components of bioforms are singled out and characterized. Attention is focused on the relevance of the use of methods of forming various structures of marine fauna in the creation of new clothing models.*

Keywords: *clothing design, fashion, bionics, analogies, form.*

1. INTRODUCTION

Among the current trends in the creation of new clothing collections nowadays is the use of analogies of living structures of marine nature. The results of the study of the laws of biological formation have been used in clothing design for a long time, which in fact can be both an imitation and a creative interpretation of the structure and appearance of plants, animals, etc. On the basis of the analysis of natural analogues, the qualities of the form that are necessary to solve the tasks of the future product are identified. With the help of analogy, the designer reproduces the structure of a natural object, its shape and texture, the nature of color, etc.

2. SETTING OBJECTIVES

Scientific achievements of the 21st century greatly expand the possibilities of applying bionic methods in the creation of products. When designing clothing collections, designers often use methods of shaping various natural structures. The analysis of modern fashion trends proves that the design and modeling of suits based on the patterns and principles of marine nature is quite widespread. Therefore, the research of already existing analogies of forms in marine nature and designer clothing collections is relevant.

3. RESEARCH RESULTS AND THEIR DISCUSSION

It is known [1] that the study of the regularities of the formation of organisms with the aim of creating various artificial objects in their likeness is usually attributed to the field of bionics science. Bionics, as a scientific field related to biology and technology, which solves the problems on the basis of modeling the structure and vital activity of organisms, has existed since the fifties of the twentieth century. The use of the structure of natural forms, in particular in the design of clothes, does not lose its relevance in our time.

Analyzing bio-analogs of representatives of marine fauna, it is possible to identify the components that form the basis of the concept for the development of clothing. In addition, bionic research provides an opportunity to imitate the perfect expressiveness

of forms created by nature and allows to use the discovered regularities in the practice of a fashion designer. Often, fashion designers and brands are inspired by the analogies of the color palette, multi-layering and variety of textures.

For example, the designers of the fashion house "Rodarte" Kate Mulleavy and Laura Mulleavy when creating the autumn/winter 2008 collection chose the tropical freshwater species of fish "Betta splendens" as a creative source. The dresses created by them imitate the elegant silhouettes of an exotic bioform, and the color solution deepens the feeling of flight and imitation of fish fins [1].



Figure 1: Fall/Winter 2008 collection by designers Kate and Laura Mulleavy

The modern fashion industry meets the needs of the most demanding customers and offers highly aesthetic products. In particular, Prada and Marc Jacobs transformed the surface of the fabric, creating a fish scale effect [3], a textural solution that received the attention of fashion critics. Prada in its collection used monochromatic textures [2], and Marc Jacobs, on the contrary, used a gradient color [2]



Figure 2: a – Prada, b- Marc Jacobs

The color of exotic species of jellyfish was studied by the designer Valentino during the development of the autumn collection of 2010. The basis of the collection's color palette was cold red and light shades of purple [3]



Figure 3: Valentino collection

Designers Tomo Koizumi, Clare Waight Keller and Jill Sherman use the principles of bionic shaping of molluscs in the design of clothing collections. Volumetric structures, multi-layering and plasticity create bright images. The symbolism and texture of fabrics imitating the bioforms of molluscs create sophisticated images associated with lightness and volatility.[2]

A number of scientific works have been devoted to the study of marine bioforms, and for designers they are an endless source of inspiration, as for example in Tomo Koizumi's Fall 2021 collection on the Vogue Runway [4]. Clare Waight Keller and Jill Sherman create their signature collections using the texture and structural principles of marine fauna. Characteristic features of the visual solution of their collections are a variety of colors, a constructive solution and the brightness of the images as a whole. Clare Waight Keller combined the wavy lines of molluscs [4], Jill Sherman perfectly conveyed the texture of these amazing creatures [5].



Figure 4: a- Tomo Koizumi, b-Claire Waight Keller.



Figure 5: Jill Sherman

4. CONCLUSIONS

The variety of bioforms has long inspired designers to use the methods of forming various natural structures. Their constructivism, plasticity and ability to transform are always relevant. With the development of modern technologies, there are opportunities to create highly aesthetic art objects, clothes and jewelry. It is an unlimited source of inspiration for both young and established designers. As the research shows, today the use of analogies of the forms of marine nature in clothing collections is very popular and this trend is progressing.

5. References

1. Kuznetsova I.O., Doctor of Arts V.L. Zakharchuk, National Aviation University, Kyiv, Ukraine USE OF THE STRUCTURE OF NATURAL FORMS IN BIO DESIGN OBJECTS
2. O. Yu. Mykhailiuk, M. V. Kolosnichenko, N. V. Ostapenko, I. L. Gaiova, A. Yu. Antonyuzhenko. Generalized systematization of types of material textures for clothing design, Art and Design. 2018. No. 1. P. 103-113.
3. [online]. [accesat 15.03.2023]. Disponibil: <https://vseosvita.ua/library/embed/01008uep-f985.docx.html>
4. [online]. [accesat 15.03.2023]. Disponibil: https://www.livingly.com/runway/New+York+Fashion+Week+Fall+2008/Rodarte/Je_zIN3UPc3
5. [online]. [accesat 10.03.2023]. Disponibil: <https://patternobserver.com/2011/02/28/found-patterns-fish-scales/>
6. [online]. [accesat 07.03.2023]. Disponibil: <https://myonebeautifulthing.com/2015/01/23/jellyfish/>
7. [online]. [accesat 10.03.2023]. Disponibil: <https://vogue.ua/ru/collections/tomo-koizumi-vesna-letu-2021-8000.html>