

**UDC 687.01**

□**I. N. Safronova, T. V. Balland\*** □

Saint-Petersburg State University of Industrial Technologies and Design

**WEDDING DRESS IN RUSSIA OF THE XX CENTURY: HISTORICAL ASPECTS AND MODERNITY**

The article examines the factors influencing the formation of figurative, compositional and stylistic solutions for wedding dresses in Russia throughout the twentieth century. The phenomenon of relevance of this special type of clothing and the reasons for the almost complete absence of wedding dresses in fashion magazines for decades are analyzed. The balance of traditions and fashion trends in the design of wedding clothing models is also considered.

**Keywords:** wedding dress, traditions, fashion trends.

**UDK 671.12**

**V. L. Zhukov, S. V. Zhukova, A. M. Smirnova\*, O. V. Pizhova**

Saint-Petersburg State University of Industrial Technologies and Design

**THE MYTHOLOGY OF SEMIOTIC REALITY IN DESIGN THEORY, REPRESENTED BY THE SEMANTIC NETWORK OF BIOSYSTEMS OF FLORA AND FAUNA OF THE TALES AND LEGENDS OF JACOB AND WILHELM GRIMM IN THE FORM OF THE PARURE “GLASS OF THE VIRGIN. IN VINO VERITAS “**

This work is devoted to the study of the influence of cognitive technologies on the morphology of flora and fauna of ontological and semiotic realities, when creating images of design objects in the cluster of improving the human appearance in the implementation of the fabulous creativity of Jacob and Wilhelm Grimm.

**Keywords:** biosystems, design, bindweed, calla lilies, symbolism, jewelry, semantic networks, metaphorical and tabular modeling.

**UDC 658.512.23: 681.5 T. V. Usataya, L. V. Deryabina\*, U. I. Mishukovskaya, D. Y. Usatyi, A. A. Deryabin**

Nosov Magnitogorsk state technical university

**TRENDS IN INDUSTRIAL DESIGN IN RUSSIA AND ABROAD**

At present, the concept of “industrial design” includes not only the aesthetic characteristics of the product. Industrial design is, first of all, creative design activity to create the entire subject environment of a person in accordance with consumer requirements, industrial design acts as a

means of increasing the competitiveness of the economy and is interconnected with modern production, science and technology. The article examines the basic trends in industrial design in Russia and in the world.

**Keywords:** industrial design, industrial design, design trends, industrial design trends, project activities.

**UDC 76.01 M. S. Kucherenko\***

Kuban State University

### **STYLING AS A BASIC TOOL IN THE PROJECT ACTIVITY OF A GRAPHIC DESIGNER**

The article deals with the topic of graphic stylization as one of the main tools of modern design creativity. The characteristic features of different ways and techniques of stylization are investigated. The special importance of the method of stylization is emphasized, both in design practice when creating an expressive artistic project image, and for creating their own unique artistic images in the personal creative activity of the designer.

**Keywords:** stylization, graphic design, visual image, shaping, modeling, designing.

**UDC 687.01 □ Yu S. Suravtsova\*, L. A. Tkachenko □**

Saint-Petersburg State University of Industrial Technologies and Design

### **GRAPHIC EXPRESSIVE MEANS AND TECHNIQUES IN THE DESIGN OF CHILDREN'S CLOTHING**

The article examines the graphic techniques used in the design of children's clothing, which precede the creation of the collection. The most common graphic expressions and techniques of sketching are analyzed. Patterns that contribute to the achievement of harmony and expressiveness in the graphic presentation of sketches of children's clothing models have been identified and structured.

**Keywords:** graphic techniques, sketch of children's clothes, computer graphics, monotype, waxography, vector sketch, design of children's clothes, color in the sketch of children's clothes.

**UDC 74.01/09 A. A. Tolstova\***

Saint-Petersburg State University

### **CONSUMER QUALITY ENVIRONMENT IN TERMS OF DESIGN: INFORMATION MODEL**

Scientific classifications of needs important for the design of the environment as an interdisciplinary

activity have been analyzed, the model of the research object as an information system has been developed and interpreted, and the level typologization is carried out according to quality characteristics. The result made it possible to clarify the professional interpretation of human needs, which are important for optimizing the process of artistic design.

**Keywords:** environment design, human needs, quality of environment, categorical-system methodology, information model.

**UDK 658.512.23: 681.5**

**L. V. Deryabina\*, T. V. Usataya, U. S. Antonenko, D. Y. Usatiy, A. A. Deryabin**

Nosov Magnitogorsk state technical university

## **SOCIAL ROBOT DESIGN**

The article discusses the main directions in the development of the design of social robots from a cultural and aesthetic point of view. The main attention is paid to the questions of the imagery of the robot: the influence of the image on human perception, the connection of the visual image with the functional load of the machine, the sphere of use and cultural traditions of our time

**Keywords:** robots, social robots, design, robot design, social robot design, social robot design aesthetics, social robotics.

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**Kh. Kh. Khaidarov<sup>1</sup>, N. T. Ismailov<sup>1\*</sup>, T. Mavlanov<sup>2</sup>**

<sup>1</sup>Namangan Engineering-Technological Institute, Republic of Uzbekistan, Namangan □ <sup>2</sup>Tashkent Institute of irrigation and rural development engineers, Republic of Uzbekistan, Tashkent

## **OPTIONS FOR THE PREPARATION OF NEW TYPES OF FABRICS FROM FLAX THREADS FROM FIBER WASTE IN BATCH TECHNOLOGIES**

The widespread introduction of the proposed technology will make it possible to organize the import of substitute fabrics in the republic, to provide various sectors of the national economy with high-quality, cheap products while solving the problem of utilizing indirect waste of natural and chemical fibers in the textile industry.

**Keywords:** yarn, spinning, linear density, quality, spinning method, rotor spinning machine □

**UDC 75.023 □**

**E. N. Tugolukova, L. T. Zhukova\*** □

Saint-Petersburg State University of Industrial Technologies and Design

### **IMPROVING THE TECHNOLOGY OF PASTEL PAINTING BY CONVERTING THE TRADITIONAL DRY FORM OF ART MATERIAL INTO A LIQUID FORM WITH THE USE OF WATER-SOLUBLE DILUENTS**

The article presents a comparative analysis of dry pastels of different brands and different ways of applying them to the surface using the example of red crayons to improve the technology of pastel painting when creating design objects.

**Keywords:** colorimetry, colour characteristic, dry pastel, painting, technique, technology, color, pigment, aqueous solution, imprimatura.

**UDC 685.34.03**

**O. A. Golubeva\*, A. S. Pogorelova, K. A. Serikova**

### **DONSKOY STATE TECHNICAL UNIVERSITY ANALYSIS OF THE QUALITY OF MODERN POLYMER PLANTAR MATERIALS**

Modern polymer plantar materials used in the casting of soles in the production of shoes are considered. A qualitative analysis of the composition of the trains used has been carried out. Positive and negative characteristics of the products received have been revealed. In the course of the analysis, a table has been created to compare the characteristics of the materials considered for optimal and effective selection of production material in the shoe industry

**Keywords:** shoes, polymer materials, molding soles, physical and mechanical properties.

**UDK 7.02 L. T. Zhukova<sup>1\*</sup>, I. V. Nikolaev<sup>2</sup>**

<sup>1</sup>Saint-Petersburg State University of Industrial Technologies and Design <sup>2</sup>SS «51 Central Design — Institute of Technology for Ship Repair»

### **STUDY OF SEMI-EXTERNAL COATINGS FOR PROTECTIVE AND DECORATIVE DECORATION OF THE OUTER DECKS OF SHIPS AND MARINE STRUCTURES**

A study has been carried out on the possibility of applying a semi-external coating for the outer decks of ships. A comparative analysis of the technological characteristics and labor intensity of the application process of existing and considered semi-evidence coatings has been carried out. The main pros and cons of this technology are considered. It is shown that polymochevina is an effective, promising, and in some cases economically expedient technology protective and decorative finishing of the decks of ships and marine structures, as well as their elements.

**Keywords:** polymer coatings, coating technology, protective and decorative decoration of ship decks and marine structures.

**UDK 677.494** □ **Y. A. Timoshina\*** □

Kazan National Research Technological University

### **INFLUENCE OF HF PLASMA UNDER PRESSURE ON THE HYGROSCOPIC PROPERTIES OF SYNTHETIC FIBER MATERIALS**

The dependence of the capillarity of ultra-high molecular weight polyethylene (UHMWPE) and polypropylene (PP) multifilament fibers on the parameters of plasma modification of a low-pressure high-frequency (HF) discharge has been established experimentally.

**Keywords:** ultra-high molecular weight polyethylene, polypropylene, polyolefins, fiber, modification, plasma, high-frequency capacitive discharge, capillarity

**UDK 677.12** **I. S. Mezentsev\***, **I. V. Krasina**, **A. S. Parsanov**

Kazan National Research Technological University

### **MODERN VIEW ON TECHNICAL HEMP IN LIGHT INDUSTRY AND PROSPECTS FOR ITS USE**

The article deals with the bast culture — hemp (technical / non-narcotic) and the products obtained from it. In the past, industrial hemp was already a leader, but was replaced by cotton. Today, society is again returning to growing this crop, taking into account its properties and characteristics

**Keywords:** industrial hemp, natural fibers.

**UDC 004.9:687.02** **A. A. Starovoitova\***, **J. A. Fot** University

### **STRUCTURAL AND FUNCTIONAL MODELING OF THE PROCESSES OF PRODUCTION OF THE WORLD FROM THE FREE**

Improving the efficiency of low-capacity garments is one of the most important challenges facing the Russian economy. A simple tool that allows you to gradually analyze the entire production process and solve problems to improve the efficiency of the company is the methodology of functional modeling IDEF0. The article analyzes the technological processes of the production of clothes from wallowed canvases. In the course of the research, models of technological business processes of making garments from the author's wallowed canvases, made in the technique of "nunoics" were built, in accordance with the requirements of making garments from the author's wallowed canvases, made in the technique of "nunoics" were built, in accordance with the requirements of IDEF0 notation functional-oriented modeling. Problems of implementation of automated design systems have been identified and the need to develop an information system to

improve the efficiency of small garment enterprises

**Keywords:** business process, process efficiency, functional modeling, clothing, rolled canvases.

**UDC 666.1.01 I. P. Kozitsin<sup>1,2</sup>, L. T. Zhukova<sup>1\*</sup>**

<sup>1</sup> Saint-Petersburg State University of Industrial Technologies and Design <sup>2</sup> Stieglitz Academy, Saint-Petersburg

### **TECHNOLOGICAL PROBLEMS WITH THE USE OF VOLUMINOUS GLASS MOLLING IN JEWELRY ART**

The article is devoted to the study of technological problems that prevent the use of the process of classical mollusk in the manufacture of jewelry. Process factors have been identified that prevent the use of reception in the manufacture of small

**Keywords:** mollusc, glass, viscosity, surface tension, crystallization.

**UDC 74.01 A. S. Izotov\*, B. a. Khrapovitskii**

Bauman Moscow State Technical University

### **DEVELOPMENT AND SHAPING OF THE EXTERIOR OF CARS IN THE PERIOD FROM 1991 TO 2001**

The article deals with the development and causes of the formation of the exterior of the iconic cars of the period from 1991 to 2001. One of the most important factors of shapes and volumes is the development of industry, the availability of new technologies for processing materials that were previously either expensive or inaccessible to the automotive industry. Significant aspects in this area are the processing of plastics, the achievement of increased transparency of glass products, and the integration of aircraft manufacturing technologies. New technologies are also considered in the promotion of the finished product by means of marketing to create demand among potential buyers.

**Keywords:** design research, design analytics, automotive industry, shaping, transport design, design activity.

**UDC 73.03 □ A. V. Rychkov\***

□ Saint-Petersburg State Institute of culture

### **CREATIVITY OF THE SCULPTOR O. M. MANIZER IN THE CONTEXT OF ARTISTIC TRENDS OF THE 1950–1980.**

The period of 1950–1980 in Russian culture is significant for the development of not only

sculptures, but also monumental art in general. During this relatively short period of time a huge number of monuments were installed in various cities of the Soviet Union. This period marks the years of fruitful creative activity of the sculptor Otto Matveevich Manizer. The article presents an overview of the main artistic trends in Soviet art, through carrying out art history analysis of the works of O. M. Manizer. The article also contains bibliographic data and information about the preservation of works made by sculptor.

**Keywords:** monument, work, composition, sculptor, plastic, image, trends, art.

**UDC 7.03**

**M. V. Mukhina\*, E. S. Bagryanskaya, S. V. Bulganina, A. E. Bulganina**

Minin Nizhny Novgorod State Pedagogical University

### **STUDY OF POINTILISM AS A LETTER MANNER IN THE WORKS OF FIELD SIGNAC**

This article raises the question of the need to study the creative manner of writing of famous masters for the formation of the creative individuality of young artists. A fundamentally new method in painting, pointillism, was investigated, its characteristic features and features were considered. An analysis was made of the manner of writing of one of the paintings of the famous artist Paul Signac

**Key words:** painting, art, Paul Signac, manner of painting, pointillism, neo-impressionism.

**UDC 736.2**

**E. A. Voynich, O. V Kaukina\*** □ Nosov Magnitogorsk State Technical University

### **THE PROCEDURAL APPROACH TO THE DESIGN OF JEWELRY WITH THE USE OF DIGITAL TECHNOLOGIES**

The article highlights the current issues of the design process of jewelry production. It is based on the procedural approach in the production of jewelry. The authors reflect the possibilities of three dimensional modeling of jewelry and using digital technologies in solving design problems that arise in the process of computer design

**Key words:** design, design process, procedural approach, digital technologies, computer modeling, jewelry production facilities, jewelry, information technology.

**UDC 687.01** □ **T. V. Balland\*, I. N. Safronova**

□ Saint-Petersburg state University industrial technology and design

## **COMPUTER GRAPHICS — AN EFFECTIVE MEDIUM FOR THE FORMATION OF PROFESSIONAL COMPETENCIES OF A COSTUME DESIGNER**

The development of digital technologies allows the process of developing clothing collections by means of computer graphics. The article discusses the relevance of performing a costume sketch using computer graphics, analyzes aspects of costume design in the CorelDRAW program

**Keywords:** computer graphics, costume design, costume sketch

**UDC 677.017**

**T. L. Akindinova\***, **N. A. Smirnova**, **S. V. Boiko**, **V. V. Lapshin**, **V. V. Zamyshlyeva**  
Kostroma State University

## **INVESTIGATION AND MODELING OF RELAXATION PROCESSES IN THE BENDING OF STIFFENING FABRIC**

The article considers the process of force relaxation in a sample subjected to bending to a certain value, which then remains unchanged for a certain period of time. Tissue studies are performed by an automated method that provides a graphical record of the bending and restoration processes over time and the creation of a digital database on the characteristics of properties that determine the functional purpose of materials. It is established that the process of relaxation of forces in the stiffening fabrics is satisfactorily described by a logarithmic function

**Keywords:** bending, force relaxation, automated method, simulation, stiffening fabrics.