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### **Creative design methods in garment modeling with artistic embroidery**

**Abstract.** This article investigates the application of creative design methods –such as associations, analogies, neology and bionics – in the creation of fashion sketches for garments adorned with artistic embroidery, within the context of the course "Garment construction and design with artistic embroidery". The author provides a detailed analysis of the step-by-step design process, emphasizing the importance of delving deeply into the historical and cultural background of the selected creative source. Requirements for each stage of the assignment and key aspects of the process are discussed. Theoretical insights are substantiated by examples of student work, illustrating how sensory experiences, analogous forms, ideas inspired by domestic or international designs or elements derived from nature can transform into modern garment designs incorporating artistic embroidery.

**Ключевые слова:** garment modeling and design, artistic embroidery, creative design methods, embroidery.

Modern education in the field of traditional art crafts demands graduates possess not only technological expertise but also developed imaginative thinking, innovation capabilities and profound understanding of cultural and historical contexts. Within the curriculum of the subject "Garment modeling and design with artistic embroidery", under the section "Artistic fashion design", bachelor-level students undertake a comprehensive task titled "Creation of an artistic sketch using creative design methods" when designing women's clothing patterns. The objective of the assignment is to synthesize technical knowledge and artistic creativity through the lens of creative methods: association, analogy and neology<sup>26</sup> and bionics<sup>27</sup>. These methods serve as tools enabling not only structured creative exploration but also imparting necessary analytical depth [3, pp. 3-6; 4; 8, pp. 187-191; 13, pp. 448-478]. As correctly noted by educators T.V. Golovkova and S.V. Kon'kova from the Sergiev Posad institute of toy – a branch of the Russian university of traditional art crafts – these techniques elevate design beyond spontaneous creativity into conscious professional activity [7, p. 140].

The process of completing the assignment "Creation of an artistic sketch using

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<sup>26</sup> "The method of neology is a technique of creative thinking that involves utilizing and reinterpreting advanced domestic and foreign design ideas" [3, p. 17].

<sup>27</sup> "The bionics method in garment design entails borrowing principles of shapes, textures, patterns and structures from living nature to create new models" [11, p. 223].

creative design methods" is built according to the principle of ascension from abstract concepts to concrete ideas and consists of four interrelated stages, each of which implies research work by the student.

The first stage: drafting a technical specification for the product, "which serves as a starting point for further model development and contains the following information: purpose of the product, operating conditions (climatic zone, season, duration of continuous stay in clothes), gender, age and size group" [1, p. 126].

The second stage: studying fashion trends and determining the dominant styles of the season [1, p. 123], which allows the future project to remain relevant and modern.

Third stage: selection of a creative inspiration source. "Sources of creative inspiration include artistic styles in art, historical and folk costumes, works of masters of fine arts, various ornaments and types of artistic embroidery, literary and musical works" [1, p. 124; 11, p. 215]. This is a central, fundamental stage characterized by distinct historical and cultural features.

Students independently choose a creative inspiration source and justify its relevance in accordance with prospective fashion trends and the specific focus of their training profile in garment design with artistic embroidery. After defining and researching the creative inspiration source, students immerse themselves in studying the source depending on the chosen method: an artistic or musical composition (for the association method), a historical or folk costume (for the analogy method), natural forms (for bionics) or ideas from domestic and foreign design practices (for neology) [3, pp. 13-19; 5, pp. 31-37; 11, pp. 207-211]. This stage directly correlates with the method of "immersion in environment" described by B.G. Barkhin [2, p. 45].

Fourth stage: Study and application of creative methods (association, analogy, neology and bionics) for structural and compositional development of preliminary sketches (fore-sketches) and an artistic sketch of a new model on A3 or A4 sheets of paper. Fore-sketches illustrate the stage of artistic search where transformation occurs from sensual experience, mood and impression of the original source into visual characteristics such as form, color, rhythm and line dynamics [4; 5, pp. 10-12; 11, p. 231; 13, p. 454]. Work on the artistic sketch comprises the following steps:

- determination of the geometric outline of the model shape in fore-sketches, proportional relationships and points of intersection between horizontal and vertical divisions: seeking a plastic solution for the future costume composition [11, pp. 72-75];
- detailed elaboration of the model, including construction details and determination of the costume's compositional center, where artistic embroidery plays a pivotal expressive role [11, pp. 75-91]. Ornamentation and type of artistic embroidery are selected in alignment with the chosen creative source;
- creation of a colored artistic sketch of the model.

The criteria for successful completion of an educational task by a student are the speed, depth and solidity of mastering the studied methods, while the main result is not the developed sketch variant but rather the formed creative approach to product design.

*The method of associations* is a technique for generating ideas and creating new products based on establishing connections between the object being designed, its properties, as well as emotions, feelings and images [8; 11, p. 123; 13, p. 464]. Mastering this method helps students find inspiration in their surroundings. Musical and literary works can be chosen as sources of inspiration. The teacher provides guiding questions that help determine the direction of thought processes and record them in fore-sketches [2; 12; 11, pp. 205-206]. Development of the idea proceeds step-by-step: first, an image arises, then it takes shape in the form of a silhouette, proportions are determined and decorative elements are added.

Students work through the construction and details of the item, pausing at each stage to identify the optimal option for the imaginative and compositional structure of the costume.

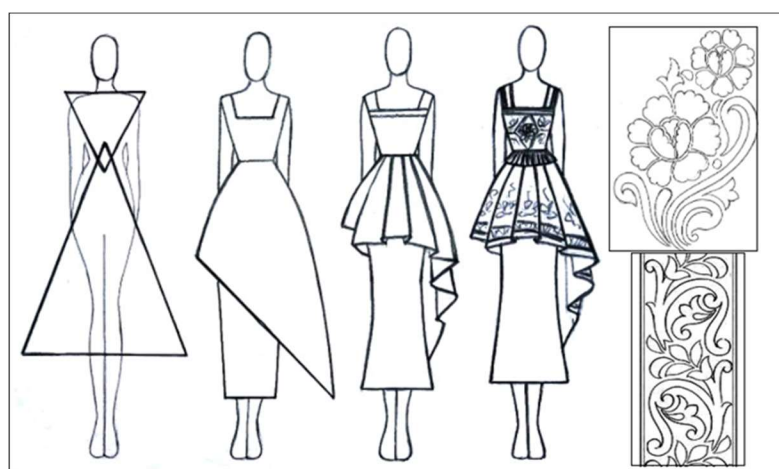


Fig. 1. O.A. Arkhimandritova, third-year student.

Fore-sketch designs for structural and compositional development of costumes using the association method. Creative source: P. Mérimée's novella "Carmen".

Instructor: E.A. Balandina

To create an artistic sketch of a women's ensemble, third-year student O.A. Arkhimandritova chose P. Mérimée's novella "Carmen" as her creative source (Fig. 1<sup>28</sup>).

Through the process of establishing a logical connection between the creative source and the design object, she developed a women's ensemble consisting of a red dress and a dark fitted sarafan.

"Each of her faults corresponded to some virtue <...> it was a strange, wild beauty, a face that initially surprised, yet could never be forgotten... Her gaze especially struck one, simultaneously sensual and wild" – these words from Mérimée [9, p. 40] evoked the initial association with a nipped waistline silhouette that conveyed the image of a gypsy whose "...grace is deceptive and beauty dangerous..." [9, p. 41]. In searching for proportional relationships and locations of horizontal and vertical divisions within the silhouette, the student aimed not only to embody the character but also to align with contemporary fashion trends.

<sup>28</sup> Figs. 1, 2, 4, 5, 7-11. Photos by the author of the article.

Thus emerged the idea of a costume composed of a figure-hugging dress and a nipped-waist sarafan with a voluminous skirt, where the asymmetry of the skirt evokes an image of a flapping gypsy scarf tied at the waist. A square neckline widens the shoulders, creating a corset-like effect that emphasizes Carmen's strength and independence. Detailed refinement of the model included creating soft pleats on the sarafan's skirt and adding a small basque at the waistline, which imparts femininity and gracefulness to the overall look.

The final stage of structurally-compositional development of the "Carmen" costume using the association method involves decoration with artistic embroidery. Bright embroidery on the sarafan, executed in the technique known as "Vladimir stitch", serves as the semantic and compositional centerpiece of the ensemble. This technique shares similarities with traditional Spanish folk embroidery, adding uniqueness and depth to the image.



Fig. 2. O.A. Arkhimandritova, third-year student. Artistic sketch of a woman's ensemble created using the association method

Preliminary fore-sketches served as the foundation for creating the artistic sketch on an A3 sheet of paper. The color palette of the costume, built on the contrast of black and red colors, creates a recognizable image associated with a gypsy woman. Working with P. Mérimée's novel "Carmen" using the association method demonstrated the universality of the approach, enabling the creation of sketches directly linked to the creative source (Fig. 2).

*The analogy method* is a way of thinking and scientific research that is based on identifying common traits among different objects and phenomena [3, pp. 13-15; 13, p. 462]. In clothing design, the analogy method consists of finding and transforming a creative source into an artistic sketch [5, pp. 22-28], utilizing elements borrowed from both traditional and modern analogues such as historical and ethnic costumes, as well as works by contemporary designers [11, p. 222].

When creating sketches, students reproduce the details of these analogues, aiming for expressiveness and original artistic solutions. To achieve this, they analyze the creative source, highlighting and reinterpreting its key components: shapes, color schemes, decorative techniques, specific tailoring features, textures and material qualities. Folk costumes are characterized by their ornamentation, bright colors, rhythmic patterns and simple cuts. Historical costumes feature complex forms, rich finishes and diverse decorations [11, pp. 13-20].

Work on a new garment begins with gathering information about the era, cultural artifacts and lifestyle of the wearer. Analyzing stylistic characteristics, proportions, decorative treatments and materials allows identification of distinctive features and determines their compatibility with current trends, serving as the basis

for innovative products.

A practical assignment involving the use of the analogy method includes selecting an analogous costume, analyzing it, synthesizing ideas, developing preliminary sketches and creating an artistic sketch of the garment.

For the sketch created by third-year student E.A. Kuznetsova using the analogy method, the creative source was a woman's outfit from the early twentieth century (Fig. 3<sup>29</sup>). By processing the analogue of a historical costume, preliminary sketches were developed for the structural-compositional search of the model's form and an artistic sketch of the ensemble.

The oval-shaped mantle of Eastern style was taken as the basis for the silhouette of the costume. Next, proportional ratios and points of intersection of horizontal and vertical sections were defined (Fig. 4). Maintaining an elegant silhouette, the costume was divided into two harmonious parts: a blouse and a dress. Diagonal lines intersecting on the blouse form not only the neckline but also the hemline. The close-fitting dress, emphasizing the figure, combined with a blouse featuring wide set-in sleeves, creates a striking contrast of volumes and enhances the overall silhouette. Draping along the bottom edge of the blouse, starting from the central fastening, not only accentuates the oval outline but also adds softness to the form. Completing the image is a broad turned-down collar and a central closure decorated with a fabric flower. Voluminous embroidery executed in the technique of goldwork embroidery on the detachable part of the collar becomes the compositional and semantic focus of the costume.



Fig. 3. Creative source (analogue) – evening dress and mantle.  
Fashion house  
Laferriere, 1910

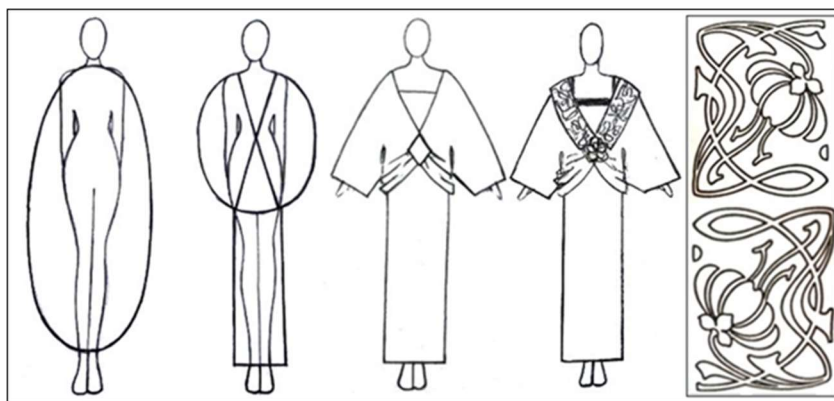


Fig. 4. E.A. Kuznetsova, third-year student. Fore-sketch designs for structural and compositional development of the costume using the analogy method

<sup>29</sup> Fig. 3. History of fashion from the 18th to the 20th century. Collection of Kyoto costume institute: [album]. – Moscow: ART-RODNIK, 2003. – p. 364. – ISBN 5-9561-0016-8.

The artistic sketch, drawn on an A4-sized sheet of paper, was developed based on preliminary fore-sketches. The costume's color palette is based on pastel tones, which, despite the contrast, blend harmoniously together, giving the image softness and tenderness. This example demonstrates that the analogy method is not blind copying but a creative reinterpretation of the source (Fig. 5).



Fig. 5. E.A. Kuznetsova, third-year student. Artistic sketch of a women's ensemble

The search for a new form in designing a product using the *neology method* proceeds through transformation or rearrangement of the original. The design process in the field of fashion is characterized by active borrowing and reinterpretation of existing concepts. Sources of inspiration include avant-garde ideas from domestic and foreign design, artworks including architecture, archaeological finds, scientific studies and digital technologies [3, p. 17; 11, p. 223].

The task for students within this assignment is to independently discover and interpret a creative source that will serve as the basis for further work, create fore-sketches demonstrating the structural and compositional solution of the costume and finalize an artistic sketch of a new product reflecting the creative concept.

Third-year student M.A. Kanayeva used the image of the Cathedral of Our Lady Mary in Brasilia as the prototype for her women's ensemble (Fig. 6<sup>30</sup>). Based on the creative source, she developed fore-sketches that helped define the structure and composition of the future

model.

The unusual hourglass shape typical of architectural structures mirrors one of the most common female clothing silhouettes – the cinched waist. During subsequent work on the dress, carefully preserving the cathedral's compositional features, the expanding section with gussets took the form of a full skirt, while the narrower section with soaring peaks became an exquisite decorative corset. In the fore-sketches of the dress, this manifested itself in a complex spatial form (Fig. 7).

Tambour embroidery forming a lace-like three-dimensional grid and smooth peaks highlight the architectural expressiveness of the lines, giving the dress sculptural clarity. To complete the look, a headdress and boots adorned with artistic embroidery were also designed. The completed artistic sketch exemplifies the creation of a new visual identity in costume through integration of ideas from another art form (Fig. 8).

<sup>30</sup> Fig. 6. Cathedral of Our Lady Mary in Brasilia / LiveJournal. – URL: [livejournal.com. https://sergeyurich.livejournal.com/1172992.html](https://sergeyurich.livejournal.com/1172992.html) (accessed August 15, 2025).



Fig. 6. Ó. Niemeyer. Cathedral of Our Lady Mary in Brasília (Brazil). Source of creative inspiration

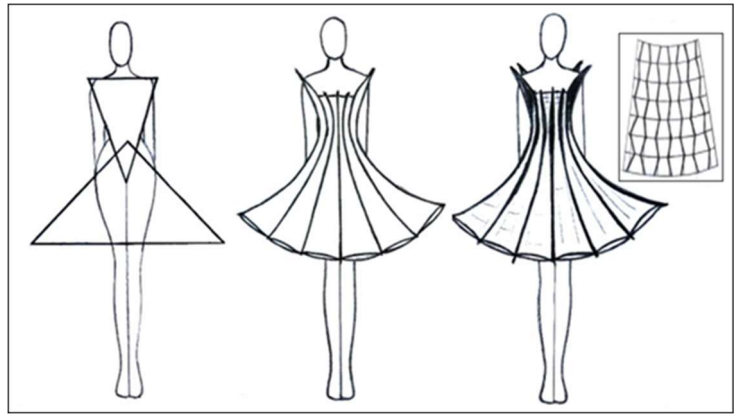


Fig. 7. M.A. Kanayeva, third-year student. Fore-sketch designs for structural and compositional development of the costume using the neology method

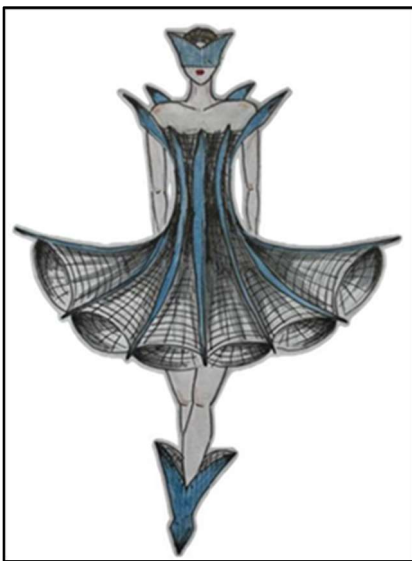


Fig. 8. M.A. Kanayeva, third-year student. Artistic sketch of the ensemble

*The bionic method* enables finding unconventional constructive and decorative solutions, new surface textures, fabrics, and color combinations [6, p. 4; 11, pp. 216-218]. Nature remains an inexhaustible source of inspiration [10].

Designing based on the bionic method implies both direct replication of external elements of natural forms in decorative embellishments, specifically in artistic embroidery, as well as their profound transformation, stylization and adaptation to meet the requirements of the model.

An educational assignment focused on studying the bionic method involves selecting an expressive natural source,

analyzing it, creating a mood board, fore-sketches and a model sketch.

In the project sketch, third-year student K.R. Khanbekova utilized not only direct reproduction of external elements in the form of embroidered exotic flowers like orchids but also transformed and stylized floral forms in the costume composition (Fig. 9). The starting point was the cala lily flower, which was transformed into the silhouette of the model: its rounded bud became the base of the upper part of the costume, while the straight stem inspired the skirt design. During the structural-compositional development, the upper part of the costume was designed as a corset with an asymmetrical inner detail reminiscent of a lily flower. Detached shoulder elements emphasize the roundness of the calla



Fig. 9. K.R. Khanbekova, third-year student. Moodboard. Creative source – exotic plants

lily. The fluidity of the skirt lines is visually enhanced by repeating the outlines of stems and leaves (Fig. 10).

Artistic embroidery on the corset, executed in Russian satin stitch technique depicting orchid flowers, complemented the model's appearance.

Based on preliminary sketches, an artistic sketch was created on an A3-size sheet of paper, retaining the natural color palette of calla lilies and orchids: green stems and yellow-pink blooms. The bionic method enabled the creation of an original and dynamic form inspired by nature (Fig. 11).

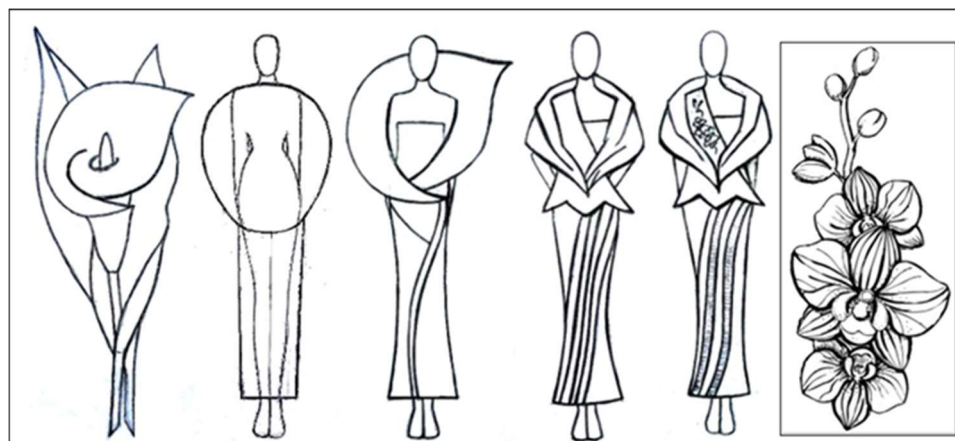


Fig. 10. K.R. Khanbekova, third-year student. Fore-sketch designs for structural and compositional development of the costume using the bionic method



Fig. 11. K.R. Khanbekova, third-year student. Artistic sketch of a dress

The results of the conducted study demonstrate that applying creative methods in designing clothing sketches with artistic embroidery in the educational process of future embroidery artists is an effective tool for developing not only professional but also general cultural competencies of students.

Engaging with these methods enables students not only to find original solutions but also to systematize the design process and adapt to rapidly changing industry demands. Each method guides thoughts in a particular direction: associations lead towards emotional and sensory perception, analogies toward cultural and historical contexts, bionics into the realm of natural harmonies and neology into avant-garde ideas from domestic and international design practices.

Mastery of creative design methods in clothing modeling empowers future embroidery artists to create unique artistic pieces and develop an individual style essential for successful creative and professional realization.

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