

Krolyikova A.A., teacher of the department of professional disciplines of the Institute of traditional applied arts – Moscow branch of the Russian university of traditional art crafts, 115573, Moscow, Musa Jalil str., 14/2., email: alina.krolikova@mail.ru

Transformation of natural forms in jewelry design

Abstract. This paper examines the process of creating jewelry inspired by natural motifs. It analyzes the main stages of designing such items, including plant selection, determining the type of jewelry, transforming plant forms into decoration elements and composing the final design. Thorough examination of the complex structures of plants facilitates the transformation of their forms into artistic jewelry projects.

Keywords: design, transformation, natural form, jewelry art, jewelry decoration.

Creation of jewelry begins with artistic design. The composition of the piece depends on its purpose. In the design phase, the jeweler artist conceives the appearance of the jewelry: its shape, silhouette and construction, selects the jewelry material (metal, precious stones), determines the quantity needed and chooses the color palette for the future piece. Most importantly, the jeweler selects the techniques that will be used to bring it to life.

There exist various jewelry techniques for artistic metalworking, such as engraving, enameling, filigree and different methods of stone setting. Jewelry creations are based on geometric, animalistic and floral forms. The diversity of the plant kingdom serves as inspiration for jewelry designers when conceptualizing jewelry pieces.

Why are nature-inspired motifs so prevalent in jewelry art? Firstly, because they provide readily accessible visual material surrounding the jewelry artist, allowing for thorough study. Secondly, the diversity of plants inspires numerous creative ideas due to their rich colors and structural variations. Thirdly, each plant possesses distinct geometries in its leaves, stems and flower petals, facilitating integration with the geometry of jewelry pieces.

When designing jewelry, the challenge for the jeweler lies in creating high-quality, aesthetically pleasing and ergonomically sound pieces.

"Jewelry design is a creative realization of scientific and technical achievements in the process of constructing and developing graphic-artistic projects for the manufacture of jewelry in material and the stages of project development express the technological sequence of design activities" [4, p. 172].

The composition of jewelry is created through the transformation of the forms of the main parts of a plant. Figure 1⁸⁵ shows an artistic-graphic project of a bracelet

⁸⁵ Figs. 1, 2, 7-11. Photos by the author of the article.

developed by Mereshko A.I., a student of the Russian university of traditional art crafts, whose composition consists of daffodil flowers and leaves.



Fig. 1. Mereshko A.I. Artistic-graphic project of graduation qualification work titled "Magic garden" (bracelet). 2018. Supervisor: A.A. Polyakov.

The characteristics of plant forms can manifest themselves in the silhouette of jewelry, which depends on the structural peculiarities of the plant (Fig. 2). Of great importance is the color solution of the artistic-graphic project, based on the interrelation of color tones harmonized with the diverse palette of plant color shades.

The artist starts working on a jewelry piece by analyzing the flower's form and identifying its characteristic botanical features, such as structure and coloration.



Fig. 2. Torosyan A.A. Artistic-graphic project of semester work "Bees over thistle" (diadem). 2017.

Instructor: A.A. Polyakov.

Let us consider several jewelry pieces whose artistic image emerged from transformations of forms found in plants such as physalis and cornflower.

Physalis is a berry plant characterized by bright orange fruits encircled by thin petals, giving it a lantern-like appearance (Fig.3⁸⁶).

Characteristics of physalis include airy rounded shapes, fibrous slender petals and a spherical fruit inside. These three main components served as the basis for the jeweler when creating the jewelry project (Fig. 4). At the center of the jewelry set consisting of earrings and a necklace, there is a spherical precious stone modeled after the physalis fruit, framed by lacy petals for which the author chose the jewelry technique known as "filigree"⁸⁷.

⁸⁶ Fig. 3. Physalis – Chinese lantern. Legend of physalis. // moyarozochka: [сайт]. – URL: <https://fotostrana.ru/public/post/349988/2632315083/> (accessed: March 13, 2025).

⁸⁷ Filigree / (French '*filigrane*', from Italian '*filigrana*', derived from Latin '*filum*' – thread and '*granum*' – grain) / – a jewelry metalworking technique involving soldering fine threads (wires) and small grains (beads), typically made of precious metals such as silver and gold, to create elaborate patterns [1, p. 230].



Fig. 3. Physalis



Fig. 4. Jewelry pieces made based on the physalis plant using the "filigree" technique

Cornflowers are wildflowers frequently used in jewelry compositions. They feature long-stemmed plants with proportionally arranged elongated leaves and prominent blue-colored blooms (Fig. 5⁸⁸).

The complex structure of the petals, vibrant hue, distinctive core and fineness of the leaves of the cornflower inspired the jeweler to create a unique custom-made piece (Fig. 6⁸⁹).

The brooch "Cornflowers" was created using the technique of "cloisonné enamel" and is inset with sapphires of blue color secured with a "closed setting". The stem silhouette is curved, and the leaf silhouette exhibits a narrow, elongated form.



Fig. 5. Cornflower



Fig. 6. Oleksevich V.A. Brooch "Cornflowers". Diploma work completed at the institution of continuing professional education "Russian academy of crafts"

⁸⁸ Fig. 5. How to care for pot-grown cornflowers? // Agronomist's blog. – URL: <https://keyless.cz/jak-se-starat-o-chrpy-v-kvetinaci/> (accessed: March 21, 2025).

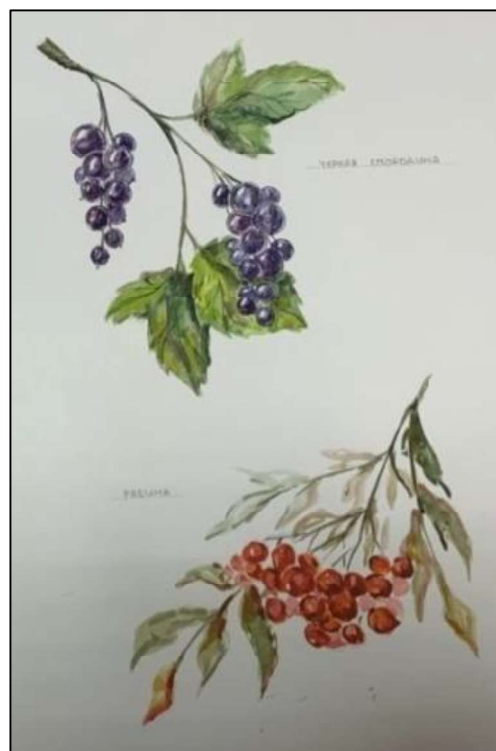
⁸⁹ Fig. 6. Brooches. Brief history of their appearance // Yarmarki masterov: website. – URL: <https://www.livemaster.ru/topic/3253494-article-broshi-kratkaya-istoriya-poyavleniya> (accessed: March 21, 2025).

Designing jewelry is a lengthy process that develops professional artistic skills for future jewelers. Student training in jewelry design builds upon knowledge gained from general composition courses, technical drawing, materials science and technology [2, p. 176]. Copying an existing piece or design by sample helps internalize its fundamental constructive and technological characteristics [5, p. 141].

When developing independent artistic and creative jewelry projects, it is crucial to carefully plan the stages of work. This systematic approach organizes the development process, ensuring high quality of the final product.

When designing jewelry inspired by living nature, the primary task is selecting a plant with expressive form and vivid color scheme. Let's examine the main stages of designing jewelry with floral motifs (Fig. 7, 8).

Stage one: idea search and plant selection. During sketching, it is important to meticulously draw the structure and volume of floral elements and select a suitable color palette.



Figs. 7, 8. Gulyaeva A.A. Plant sketches. Material collection for graduation qualifying work. 2025. Supervisor: A.A. Krolyikova.

Stage two: determining the type of jewelry piece and selecting geometric form for composition integration. Here, the chosen flower structure must be integrated with the jewelry type, arranging decorative elements appropriately on the item's construction. For instance, figure 9 depicts a sketch illustrating the compositional resolution of a brooch fitting into an oval shape.

Stage three: preparation of sketch drawings where the selected plant elements are transformed into jewelry details with technical calculations of all parameters.



Fig. 9. Krolyikova A.A. Sketch for graduation qualifying work on the theme "Summer dawn". 2024. Supervisor: E.V. Efremov.

"It is necessary to constantly search for graphic techniques since each composition demands its own approach to solving the image. When identifying the main image of the composition, one should not simply copy the motif of a natural form, but rather engage in continuous creative exploration of an image that achieves harmony and expressiveness in the interplay of black, gray and white, as well as in the plastic play of lines, planes and transitions from one color to another" [6, p. 29].

Stage four: arrangement of the color sketch and projections (side view, top view, frontal view) of the jewelry piece on a sheet of paper, which will then be transferred to an artistic-graphic project.

Stage five: execution of the artistic-graphic project for the jewelry piece (Figs. 10-11). The work proceeds in the following order:

- the composition of the piece is transferred using pencil and tracing paper onto toned paper;
- the outline of the jewelry is traced with a white contour brush (№0 or №1);
- elements of the composition are glazed with a thin layer of white gouache paint;
- elements are colored with hues selected for the piece, highlights are added to illuminated areas and all composition elements are outlined.



Fig. 10. Om A.Yu. Artistic-graphic project of semester work on the theme "Dandelions" (necklace). 2016. Instructor: A.A. Polyakov.

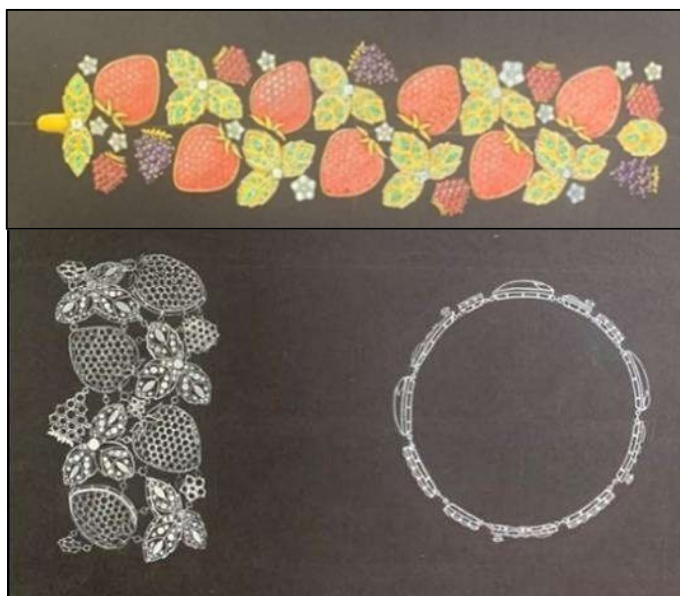


Fig. 11. Kleymenov A.N. Artistic-graphic project of graduation qualifying work on the theme "Sweet July" (bracelet). 2024. Supervisor: E.V. Efremov.

Following the described sequence of design steps, which reveal the particularities of transforming natural forms, it is possible to create a jewelry design project based on any plant.

Design of jewelry based on natural motifs is a creative process demanding profound knowledge, skills and capabilities from the jewelry artist. Choosing an expressive plant, determining the type of jewelry, transforming plant forms into decorative elements and forming the composition – all these stages are crucial for creating a high-quality and aesthetically appealing piece. Careful planning of work systematizes the design process and guarantees the excellence of the final product. The vast variety of the plant world provides jewelry artists with an inexhaustible source of inspiration for creating unique and original jewelry pieces.

References

1. Vlasov V. G. Illyustrirovannyj xudozhestvennyj slovar'. – Sankt-Peterburg : Ikar, 1993. – 272 s. – ISBN 5-85902-067-2.
2. Dronova N. D. Vzaimosvyaz' uchebnyx disciplin pri osvoenii proektirovaniya yuvelirnyx izdelij v vysshem obrazovanii / N. D. Dronova, I. K. Drakina, K. Zh. Amigrazin. – Tekst : elektronnyj // Tradicionnoe prikladnoe iskusstvo i obrazovanie : elektronnyj zhurnal. – Sankt-Peterburg, 2024. – № 3 (50). – S. 174-182. – DOI 10.24412/2619-1504-2024-3-174-182. – URL: https://dpio.ru/stat/2024_3/2024_03-19.pdf (data obrashheniya: 20.04.2025).
3. Marchenkov V. I. Yuvelirnoe delo : uchebnoe posobie dlya srednix professional'no-texnicheskix uchebnyx zavedenij / V. I. Marchenkov. – 2-e izdanie, pererabotannoe i dopolnennoe. – Moskva : Vysshaya shkola, 1984. – 192 s. – Tekst : neposredstvennyj.
4. Polyakov A. A. Osobennosti sodержaniya obucheniya proektirovaniyu yuvelirnyx ukrashenij v vysshem obrazovanii v sootvetstvii s trebovaniyami proizvodstva / A. A. Polyakov. – Tekst : elektronnyj // Tradicionnoe prikladnoe iskusstvo i obrazovanie : elektronnyj zhurnal. – Sankt-Peterburg, 2024. – № 2 (49). – S. 169-183. – DOI 10.24412/2619-1504-2024-2-169-183. – URL: https://dpio.ru/stat/2024_2/2024_02-25.pdf (data obrashheniya: 19.03.2025).
5. Churakova M. V. Specifika xudozhestvennogo proektirovaniya yuvelirnyx izdelij po zamy'slu v obuchenii budushhix xudozhnikov tradicionnyx xudozhestvennyx promyslov / M. V. Churakova. – Tekst: elektronnyj // Tradicionnoe prikladnoe iskusstvo i obrazovanie : elektronnyj zhurnal. – Sankt-Peterburg, 2021. – № 3 (38). – S. 139-145. – DOI 10.24412/2619-1504-2021-38-139-145. – URL: https://dpio.ru/stat/2021_3/2021-03-22.pdf (data obrashheniya: 29.03.2025).
6. Yakusheva M. S. Transformaciya prirodnogo motiva v ornamental'nyu dekorativnyu formu : uchebnoe posobie / M. S. Yakusheva ; Moskovskij gosudarstvennyj xudozhestvenno-promyshlennyj universitet im. S. G. Stroganova. – Moskva : MGXPU im. S. G. Stroganova, 2009. – 240 s. – ISBN 978-5-87627-059-7. – Tekst : neposredstvennyj.