PROBLEMS OF TEACHING COMPUTER DESIGN TO APPLIED DECORATIVE ARTS SPECIALISTS

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Abstract

The article talks about the problems of teaching computer design to experts of applied decorative arts. Based on the role of traditional hand drawing in the process of artistic design, the author revealed the importance of design-graphic work before the object is depicted on the computer. Special integrated methods of professional training of students and methods of teaching design and applied decorative arts are also offered.

Keywords: Applied decorative arts, design graphics, computer graphics, professional activity, design, artistic.

Introduction

Informatization of modern society has led to a change in the nature of professional activity based on the introduction of information and communication technologies. In this regard, the approach to training specialists in various areas of professional activity has changed. It should be noted that in the next period, with the introduction of information and communication technologies into the field of artistic activity and the emergence of new types of art such as interior design, web design, the professional activity of the future visual and applied art teacher some changes occurred in the composition. These changes create some new requirements in the higher education system [9, p. 95].

In this sense, the President of the Republic of Uzbekistan dated June 30, 2017 "On measures to fundamentally improve the conditions for the development of information technologies in the Republic" No. PF-5099, dated October 8, 2019 "The Supreme Council of the Republic of Uzbekistan Decree No. PF-5847 "On approving the concept of development of the education system until 2030" and "On measures to further increase the efficiency of the field of fine and applied arts" signed on April 21, 2020 The adoption of decision PQ-4688 indicates that special attention is paid to this issue.

According to the decision, modern forms and methods of teaching aimed at developing the knowledge and skills of talented young professional artists, effective pedagogical technologies, and ensuring the high level of the educational process with extensive use of electronic information resources; important tasks such as systematic improvement of curricula and

programs of retraining and advanced training courses, taking into account the wide introduction of modern pedagogical and information and communication technologies into the educational process [12].

MATERIAL AND METHODS

In the world, the object environment that surrounds a person is actively expanding and improving, ensuring the functional and aesthetic needs of a person. If at first the world of objects surrounding a person was created only by craftsmen or folk Masters, then at present the filling of this environment is carried out by specialists engaged in all types of design (industrial, graphic, artistic design, etc.), as well as the art of practical decoration.

It should be noted that the environment of modern sciences is very diverse, but at the same time it is the same. The increase in artificial materials, the computerization of the production of products and items, creates the need to prepare unique items created with the help of individual artistic labor in one copy. In addition, these objects and products are multifunctional and are intended only for interior decoration. At the same time, functional things should also be beautiful and aesthetically pleasing. "Currently, there is a great interest in the fields of design and applied decorative arts aimed at creating perfect aesthetic and practical properties of objects in the material environment" [1, p. 42]. From this point of view, it is worth noting the interpenetration of applied decorative art and design as a qualitatively new phenomenon of material culture. In particular, the artist-designer of decorative art, who regulates the development of concepts in the field of activity, has appeared on a wide stage.

Consequently, the requirements for the training of designers and artists of applied decorative art are changing radically. N.A. Koveshnikova states: "The training of students in universities specializing in art no longer corresponds to the dynamics of changes taking place in the profession: as soon as designers master the methods of system design, flexible production complexes begin experiments on the production of unique products sent" [2, 152 p.].

Undoubtedly, the goals and tasks of the designer's and artist's creativity of practical decorative art are different, and they are first of all expressed in the specific characteristics of the activity aimed at satisfying the specific needs of a person. The goal of object design is to find an aesthetically attractive, comfortable, reasonable, economical form. In applied decorative arts, the main goal is the aesthetic value of an object, which in many cases has a specific function as a design object, but the field of use of this object is not considered so important. Secondly, the process of materialization of things also creates changes, which disappear in the design activity, hide individuality and increase the level of dissatisfaction of the artist with the result of his work. Applied decorative art is carried out by only one person - a master artist, from the formation of objects and objects, the project to the final stage of material processing.

At the same time, based on the general principles of creating an object-spatial environment expressed in the unity of utility, strength and beauty, as well as in achieving common criteria for art, applied decorative arts and design have the same process and mechanism of designing a new object. "Design is a special process that precedes the actual production of a product and models it in symbolic form (drawings, layouts and models, explanatory notes, etc.)" [3, 16 p.]. This process includes pre-design research aimed at formulating a composite concept, looking

for artistic solution options, and developing various types of artistic activities, taking into account consumer demand, economic and ergonomic expediency. "In the process of artistic design, a figurative and technically sound idea is brought to a visible, artistically complete form. It should be organically combined with the content and the functional purpose of the product, and it is necessary to take into account the environment in which this product is produced, so that this product can be used" [4, p. 43].

However, due to the active development of digital technologies and general computerization, the process of artistic design in design and applied decorative arts has undergone significant changes, changing the established traditions of teaching these types of creativity. "The computer has become one of the leading tools of creativity and an effective assistant in creating objects. It also freed the artists of applied decorative art from regular mechanical work and made it possible to achieve a high result that gives the most complete image of the object" [5, p. 556].

Undoubtedly, the use of various computer graphics programs in the development of art design developments allows to achieve reliable results and speeds up the art design process, but at the same time, the enthusiasm for computer editors significantly reduces the interest in hand drawing. This ultimately affects the quality and culture of graphic presentation, leading to the loss of professional imaging skills. Students tend to avoid drawing by hand and doing exploratory sketches. Lack of knowledge of visual literacy and inability to master expressive graphic tools is manifested in low-quality presentation of visual material and limited ideas.

The lack of graphic skills significantly reduces the ability to effectively and clearly demonstrate your creative idea, as well as reduces artistic taste and does not help to form the imaginative and compositional thinking of future professionals. A.S. Khvorostov says: "As a result, they lose the necessary practice in this matter as an artist, and at the same time, their professional skills. And when they are separated from the computer, they feel helpless" [6, p. 337]. The existing contradictions in the artistic design activities of designers and artists of applied decorative arts require solving the problem of interdependence between academic and innovative methods of teaching design, taking into account their harmonious interaction.

The process of artistic design can be recognized as a unity of technical and creative components, which includes joint activities on the formation of a plan, its justification and the preparation of the necessary documents (calculations, sketches and drawings) describing the final solution of the future object. The formation of a compositional concept takes place by collecting various impressions through drafts, short-term works made in nature and etudes aimed at finding a compositional solution for a future design object or applied decorative art.

It should be noted that making sketches by hand was the main means of expressing the design ideas of designers and artists of applied decorative arts. At the same time, manual drawing technologies "are an additional method of communication in the process of communication with customers, which serves to present your idea to the customer without any interruptions, offer options, choose the shape or color of the object" [7 , p. 24].

RESULTS AND DISCUSSION

Drawing techniques used in artistic design will teach you to quickly create a large number of sketches, to express your thoughts using graphic tools, to change and combine different volumes, and to easily move from one idea to another. When drawing in a very simplified form in a short period of time, new ideas and original images are quickly formed. No time is lost in detailing a form that can be abandoned during the design process. The complexity and diversity of computer software tools reduce the possibilities of compositional search, and limit the artist's freedom of thought.

Therefore, in teaching art-design graphics to future applied decorative arts artists and designers, it is undoubtedly important that they master the basic principles of academic drawing "in order to achieve high graphic literacy". Academic drawing helps to know and master reality in various types of spatial and plastic arts, helps to acquire creative work methods in artistic activities, develops artistic taste, professional perception and creative thinking, provides the ability to think in composition, spatial objects of objects forms the imagination.

The main purpose of design graphics is to create an artistic image by changing real objects. The creation of images occurs as a result of the process of thinking through the perception of real objects or their graphic images. To draw an image that exists in the imagination, the student must have the ability to imagine any shape in different positions and depict it from the right angle. For this, it is necessary to clearly imagine the object, its details, shape and design, that is, to know nature. The analysis of the object allows to determine the most important elements that form the basis of the described object, its design, shape, spatial situation. In the process of pictorial activity, a general image emerges that requires further artistic generalization through transformation, interpretation and stylization based on the careful selection and study of individual facts. Plastic expressiveness and decorativeness of the image through artistic generalization form the basis of original and reliable design results in all types of design and decorative arts.

Knowing the basics of design graphics makes it easier to master computer graphics and allows to "solve more effectively the technical part of the design process using calculations, drawings and graphic representation, taking into account modern requirements" [8, p. 36]. In the example of creating a composite decoration on a plane, we will consider the relationship between traditional hand drawing techniques and computer technologies. At the first stage, a composition plan is drawn up, research is carried out, based on which the plan acquires an abstract form, concreteness and the concept of its implementation. Then the selection of expressive graphic tools, its color solution is found. The project concept developed in search sketches can be displayed in two forms in graphic editors:

−hand-drawn ornamental elements are digitized and reproduced in computer graphics programs, plane decoration is obtained;

−decoration creation is done based on a previously developed sketch by drawing repeating elements in full graphic editors.

Thus, design training includes traditional teaching methods as well as alternative methods (computer technologies). The combination of traditional hand drawing and computer graphics allows not only free movement in the environment of modern advertising, communication and

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production technologies, but also a competent presentation of various ideas, projects and results of the creative process, taking into account modern requirements. It helps to increase the speed of creating objects and accuracy in execution, as well as the ability to take into account the specific features of design objects and applied decorative arts technology in different materials. The uniqueness of teaching design in design and applied decorative arts requires the introduction of special methods of professional training. Therefore, it is appropriate that the methodology of training designers and artists of applied decorative art should be aimed at comprehensive training of personnel within the framework of engineering, technical and artistic creativity.

At the initial stage of teaching, the propaedeutic method is the most effective and covers a number of special theoretical and practical disciplines, it allows you to master the basics of visual literacy, decorative painting, compositional principles of life, memory and images of various objects, imagination, various means of expression.

The design method is of high methodological importance in the teaching of design and applied decorative arts, it involves the analysis of the design situation, the determination of the proposed product, material and production technology, the relevance of the creation of this object, the promotion of hypotheses and in the process of materialization requires the selection of the most ideal design option with subsequent verification. Together, all these methods should be based on a rational interaction between hand and computer drawing aimed at developing decorative perception, gradually becoming more complex during the learning process.

CONCLUSIONS

Thus, socio-economic changes in society have had a significant impact on the design field of professional education. The creation of new forms of object – material culture in harmony with the surrounding space puts new requirements on the quality of professional training of future designers and artists of Applied decorative arts. The genre variety of design and applied decorative art requires the introduction of special integrated professional training methods for students aimed at developing perception, imagination and thinking, gaining theoretical knowledge in the humanities, socio-economic sciences, and practical skills in artistic creativity. The professional-artistic training of future decorative art designers and artists is a complex process that includes knowledge and creativity. Forming the professional competence of future specialists in the field of design and applied decorative art is visual literacy, knowledge of the basic laws of applied decorative art, developed artistic perception and practical design of object-spatial environment products, both in hand drawing techniques and in modern graphic editors. it is appropriate to base it on the formation of skills.

Therefore, it is necessary to train future designers and artists of applied decorative arts based on the interaction of the disciplines "Designing in advertising and applied graphics", "Draftman" and "Design in computer graphics". Continuity of disciplines and close connection between them ensures the development of creative thinking in students, the gradual formation of design skills and culture. In the world experience, the artistic design of objects should be done on the basis of methodological principles, taking into account the professional competence of designers and artists of practical decorative art. This will provide the basic

principles that will be needed in the future in mastering artistic design methods related to design and applied decorative arts.

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