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USING THE TRADITIONS OF THE EASTERN DOCTRINE IN THE LESSONS OF ENGINEERING GRAPHICS AND BUILDING ARCHITECTURE

Madiyarova Raushan Rizabekovna
Karakalpak State University, Department of Architecture

Abstract

The article discusses the use of Eastern educational traditions in the classes of engineering graphics and construction architecture, the development of students' spatial thinking, the presence of mutual cooperation in the educational process, the teacher encourages the student to independently perform graphic work and encourages students to be creative. information is provided about the

Keywords: Architecture, drawing geometry, education, expert, student, spatial thinking.

The analysis of socio-economic changes in the country, the sharp developments in society, is increasing the demand for mature individuals who can solve life problems in unconventional ways. In situations such as setting a goal and finding a solution, modern youth are required to have the skills to make independent decisions. Therefore, the task of educating the student's personal activity and developing creative qualities is one of the main problems in the education system. It requires the development of various educational ideas and technologies aimed at developing the creative capabilities of the growing generation, as well as their application in pedagogical theory and practice, in harmony with the innovative process taking place at the modern stage of the direction of modernization of education. In order to find a solution to this task, the role of higher education institutions is very important, which serves to increase the knowledge of students, develop their initiative and independence, show creative activity, form practical skills and abilities, educate their artistic tastes, and awaken their unique features such as fantasy, imagination, and sense of existence.

Creative activity develops as a result of effective use of creative activity of students in the organization of the educational process, assimilation of the system of knowledge, qualifications and skills in accordance with certain psychological and pedagogical conditions. The quality of professional training of future specialists depends on their creative activity, such as the demand for knowledge, the breadth and variability of their thinking, the pursuit of creative achievements,

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the effectiveness of creative activity, the development of various methods for finding a solution to a task depending on changing conditions, and the ability to anticipate the development of activity.

The sense of beauty develops and is brought up from childhood. This education begins even before school, in the family in the process of communicating with nature, books, and continues at school in other educational institutions, where a deeper perception of beauty is formed. The beautiful exists not only in nature and art, but also in life and work. However, art has made the beautiful the subject of its comprehension, research acquaintance with the basics of fine literacy, with the history of fine arts begins at school lessons.

The success of teaching fine arts depends on many conditions. Encounters with art at every lesson is teaching the younger generation to see the beauty in life and art, the active creative activity of each student, the general joy for what has been done in the classroom - this is the main distinguishing feature of the educational process. The little man looks at his teacher with trusting, wide eyes. His sensitive heart at any moment is ready to respond to the beautiful, colorful world, which he saw in the fine arts in a new way.

The earliest traces of the human mind can also serve as a means for a comprehensive, including scientific education and spiritual education of the younger generation. So rock graphic images of primitive people have survived to our times. Such images can be seen on the banks of the Yenisei River, Kazakhstan, Altai and in some cities of Uzbekistan. The scientist and educator of Central Asia, Abu Raykhan Biruni, applied the projection method in his scientific works and widely used it in practice when making drawings.

It is known that he paid great attention to projections (views) in the drawings and came to the following conclusion: “An animal mentally placed inside a cube has six main views - front and back, right and left, top and bottom.” Drawing tools Abu Rayhan Beruni himself made according to his own drawings and used them to carry out his scientific research. In the Middle Ages, when classical culture went into a stagnant period, image methods also ceased to develop. And only in the fourteenth and sixteenth centuries, during the Renaissance, a new era in the development of image methods came. The discipline "Descriptive geometry" consists of four parts: orthogonal projection, axonometric projections, projections with numerical marks, perspective. In addition, for a more perfect image, shadows are used. A radical historical turning point in the development of

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the theoretical and practical aspects occurred towards the end of the 18th century.

The great French scientist Gaspard Monge, having generalized the existing laws of projection, developed the method of orthogonal projection of figures on a plane and the method of projection onto two mutually perpendicular planes. In the process of the study on the organization of classes using the traditions of Eastern teachings in the lessons of engineering graphics and building architecture, the following positive results were achieved:

- The direct connection between memory and attention increased;
- Development of spatial thinking of students;
- In the learning process there is mutual cooperation;
- The teacher determines and evaluates the level of knowledge;
- The teacher directs the student to independently perform graphic works;
- The teacher calls for independent work;
- The teacher encourages students to be creative, study special literature, teaching aids, electronic textbooks and use modern information technologies.

Joint work in the course of classes gives the student the opportunity for an individual approach to the study of knowledge and events. It is proved that the activation of students' activity, increasing their spatial thinking on the basis of the traditions of oriental architecture in the classroom on the subject of descriptive geometry effectively affects the learning process. It is known that a lot of ancient fundamental handwritten works of scientists and educators of the East have not yet been fully studied. The study and analysis of these works that have come down to us opens up unlimited opportunities for the education and training of highly professional personnel.

Pride in the masters and their creations that have come down to us is embedded in our mental mind. Having studied the heritage of the masters of the great past, future specialists will master deep and lasting ones. With the modern rapid development of science and technology for solving problems in descriptive geometry, the use of digital technology, the performance of various graphic works, the use in practice of such a discipline as descriptive geometry in various fields of science, increases the efficiency of the task.

Training highly professional and competitive experts in their field is our main goal. For example, the image of objects requires knowledge regarding the spatial representation of this object, methods for the graphic execution of drawings. Without this knowledge, a person will not be able to translate his ideas on paper.

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The application of the traditions of oriental architecture in the classroom on descriptive geometry considers the following tasks:

• The study of the theory and practical application of the projection of spatial objects onto a plane.

• Reading construction drawings (images).

• Teaching methods for solving spatial and constructive problems and depicting them on a plane.

• Development of spatial thinking in students.

In the process of learning the traditions of oriental architecture, such qualities as patriotism, love for the motherland, pride, respect for the rich heritage of our ancestors, masters and educators, who have made their invaluable contribution to the development of national and world culture as a whole, develop.

Another example of the uniqueness of national architecture is that the study of some domes of ancient monuments from a biogeometric point of view: .... when building the domes of the famous monuments of Samarkand, Bukhara and Khiva, it can be assumed that the architects of antiquity took these forms from nature.

References:

1. A.G. Zhuravlev, L.A. Bolotina. "Initial technical modeling". "Enlightenment" M - 1982
2. M. Makarova. "Perspective". Education. Moscow, 1989
3. A. Abdurakhmanov. "Perspective". Rotaprint TDPU named after Nizami. Tashkent, 2006.
4. B.V.Nig‘monov, K.G‘.Malikov, R.R.Jabborov “Arxitektura elementlarini loyihalash” – methodical manual Tashkent 2012.
5. E.I.Ruziev, A.O.Ashirboev T., “Fan va technology”, 2010.