

ARCHITECTURAL DRAWING AND ITS RELEVANCE IN THE STUDY OF ARCHITECTURAL DESIGN

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Annotation. The article discusses ways of teaching the basic techniques of architectural drawing and graphics, developed and applied at the faculty of Architecture and Urban planning at Yeoju Technical institute in Tashkent. Students’ works of 2020-2021 are used as illustrations in the text.

Key words: Architectural study; architectural graphics; study of architectural environment

Аннотация. В статье рассматривается практика обучения основным приемам архитектурного рисунка и графики, разработанная и применяемая на факультете Архитектуры и градостроительства в Техническом институте Ёджу в Ташкенте. В качестве иллюстраций, приведенных в тексте, использованы студенческие работы 2020-2021 гг.

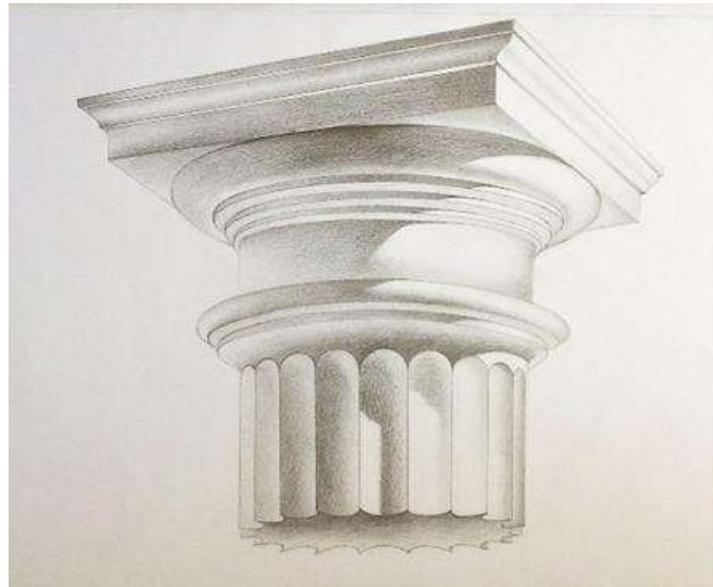
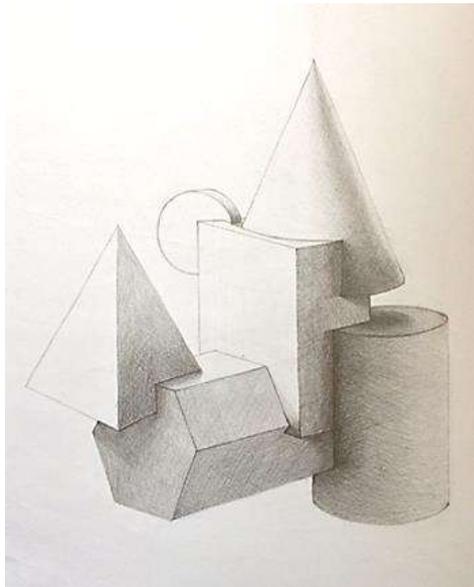
Ключевые слова: архитектурное образование; архитектурная графика; изучение архитектурной среды

Introduction

Drawing and architectural graphics are the special language of architects of all times. I would like to share the experience of teaching “Architectural Graphics” at Yeoju Technical institute in Tashkent.

The applicants of architectural specialties of almost all universities of Uzbekistan learn about the basics of drawing and graphics during the period of preparation for entrance examinations. In the 1st year the students learn about the basics of the picture. They learn drawing step by step: from simple geometric bodies to structural modeling of the shapes of capitals and architectural sketches. This lays the foundation for work in architectural graphics, which students cover in their 2nd year. Mastering this subject, architect-students create complex graphic works: images of architectural details and facades of architectural structures, graphic images of small architectural forms, graphic sheets with entourage and staffage, images of textures of building materials, landscape compositions, images of architectural and planning solutions, general plans of landscape design of individual houses. Bearing in mind the necessity for and value of such tasks, it is worth noting that currently more and more often we observe the tendency of transition to computer design of projects and “rejection” of pencil and marker. Traditional for

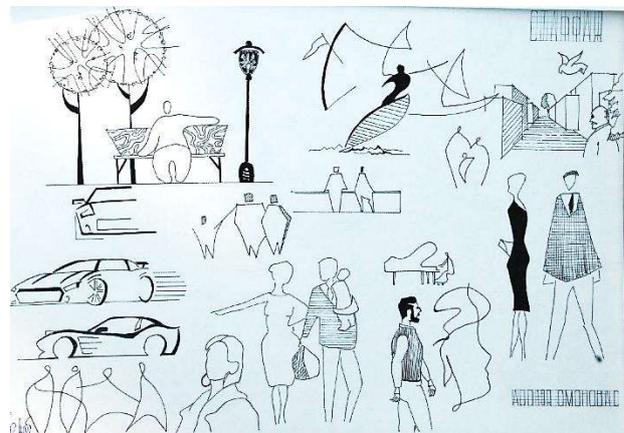
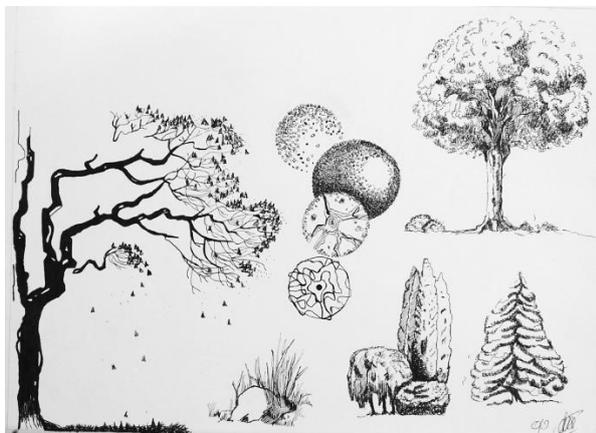
students of the Faculty of Architecture, in conditions of an acute shortage of time, computer graphics appears as a great temptation. [1]



Picture-1 and 2 Composition geometrical shapes and capitals

Apparently, with the use of computer technology, the efficiency of project activities significantly increases, which explains its success. Computer graphics is more productive, faster and significantly more economical than manual graphics. It means that, it is more modern.

And yet, as long as hand-drawn graphics remains a matter of aesthetics, it cannot become obsolete, because aesthetics, in my opinion, does not become obsolete. In fact, currently few people think that F. Gehry is better than A. Palladio. Despite the fact that the computer does not understand aesthetics, it is capable of performing millions of creative operations and visualizing outcomes at every stage. [1]



Picture-3. Graphic image of entourage and staffage

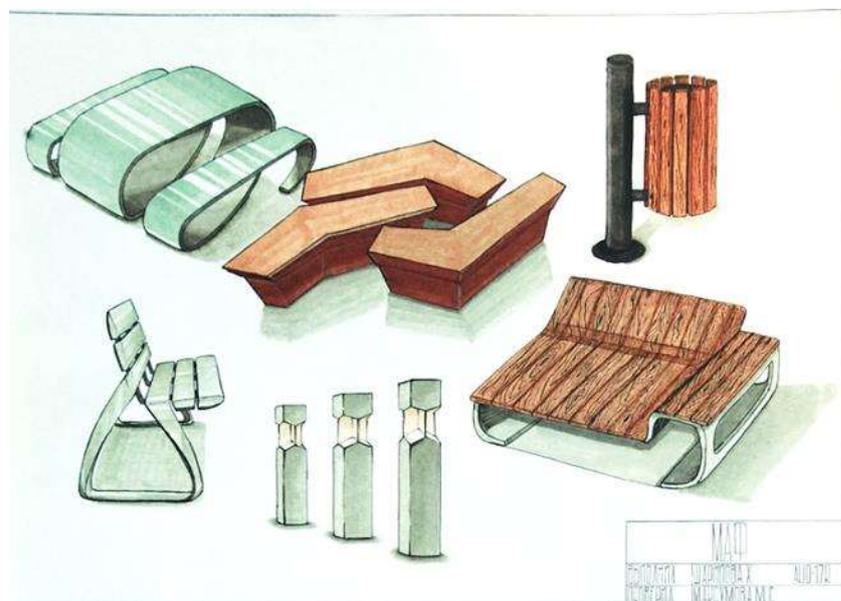
Now, there are no architectural firms and design bureaus left that would not completely switch to computer graphics, this is due to the fact that the computer is indispensable in detailed design. But, there is a big difference between working and

draft designs: a working drawing is needed only to convey information, and a draft design not only conveys information, but is also a fact of the creative process- it, like the architectural object itself, combines the functional and aesthetic sides.

Architectural graphics is the basis for the development of practical skills of graphic modeling of architectural or environmental objects among students.

With its help, students enhance spatial thinking, project fantasy and creative imagination. In the process of mastering the techniques of tonal graphics the ability to simulate the shapes, plastics and image of a future building or structure is formed.

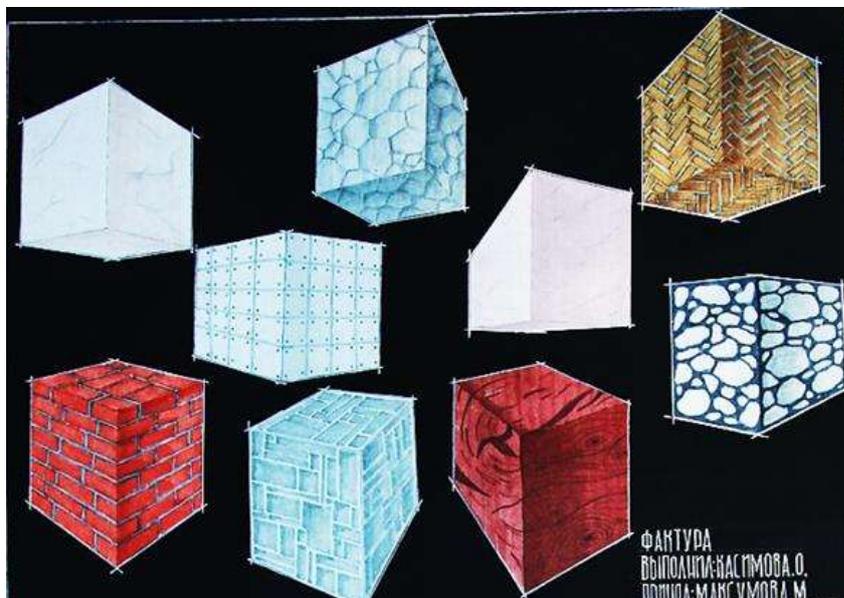
[1]



Picture-4. Graphic representation of small architectural forms

The techniques of using a brush, soft slate pencil, and ink are practised. Architectural graphic techniques such as shading, glazing, watercolor painting, pencil and markers require a lengthy mastering of a number of skills. The ability to

correctly choose and apply the available visual techniques, the means of coloristic images, proceeds from the development of a culture of the image. Without mastering this quality there can be no professional designer. This culture is formed in the learning process.



Picture-5. Graphic representation of textures

In addition, it allows the student to understand at which stages of graphic work it is



better to use sketch markers, crayons and watercolors. Color graphics is the main way to convey the color characteristics of an architectural form, as well as the environment and the surrounding of an architectural object. It is effective when the color reflects the objective characteristics of the architectural composition, environment, illumination of the subject environment, and so on.

Figurative forms of an architectural sketch are impossible without a drawing, which is aimed at the intended purpose of the image. If a drawing is a broad understanding of a drawn work, then a design sketch is a form of creative search for a design idea, from which the design process begins, a way of comprehending and improving the creative

idea of an architect. [2]

Picture-6. Graphic representation of an architectural urban environment

Sketching is a process that predicts the main features of the building's or structure's shape.



Picture-7. Graphic representation of planning solutions for apartments

Arranging the process of shape-generation depends not only on the individual creative abilities of the architect or the historical traditions of the environment, but also on the architectural school in which their personality was formed. [1]

Hence, the views on the meaning of the pictorial forms of the “sketching” process differ significantly.

Some believe that without a manual graphical search for the author's idea, further high-quality design is impossible. Others deny the need for sketching at all, believing that an image formed in the architect's mind is enough.

Still others argue that the search for the optimal solution should occur exclusively in the process of volumetric modeling on a computer.

Finally, some experts of the computer age believe that to express the architectural idea of an object, it is enough to build a virtual model of the object. [1]

Such different positions are due, on the one hand, to the peculiarities of the methodology and technology of modern architectural design, and on the other side, to the specifics of the organization of thinking of each individual person.

Some people are inclined to specific imaginative thinking and for them a sketch image of an object is a catalyst for the search and improvement of their ideas. Others are distinguished by abstract thinking. They reflect their fantasies either in

abstract formal models through volumetric prototyping, or in the form of virtual modeling of an object.



Picture-8. Graphic representation of the master plan's site

No matter how different the methods and techniques of forming a design concept are, most architects start designing with a sketch. «Sketch» as a professional term existing in architectural dictionaries of all countries, and all architects speaking about graphic search or sketching, easily understand each other.

Each teacher understands that sketching is a complex process with its own stages of learning. In our country, the following classification of the stages of sketching is adopted: sketch-idea – search for the main contours of the image of the future object; fore-sketch – an in-depth sketch development of the idea of the object; working sketch – sketch development of a 3D model of the project's entire composition; development of design drawings. The sketching process requires great dedication from the author, the utmost exertion of his creative forces and concentration. High-quality sketching is possible only when thoughts are recorded with the greatest freedom and emotion, when the author's fantasy is relaxed and uncompromising. The quality of the implementation of an architectural project ultimately depends on the depth of this human search. An architectural idea should materialize into an object intended for human life in all the diversity of its functional, constructive and artistic structure. Such a scale of tasks imposes on the architect great responsibility for the search of the best option- the sketching process. [2]

It is important to note that the further success of the student's work in computer studies largely depends on his successful completion of the course in drawing and architectural graphics.



Picture-10. Architectural sketch
During drawing, graphic modelling, construction and the graphic development of drawings by hand, a full awareness of form, volume and space develops. This is the basis of awareness for successful design using computer programs to build and design drawings, create high-quality visualizations.

In conclusion, it should be noted that hand graphics expresses the professional style of an architect. Despite the modern level of development of computer graphics and modeling, the ability to professionally and freely create a drawing is absolutely necessary for an architect to express his ideas at the stage of first reflections, sketching and forming a creative concept.

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