

METHODOLOGY OF TEACHING THE SUBJECT OF DESIGN OF MODERN BUILDINGS IN ARCHITECTURAL DRAWING LESSONS

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Abstract. The purpose of writing this article is to expand the worldview of students in the teaching of construction drawing (drawing course) in general secondary schools of our republic, to introduce the professions of architects and designers, to introduce construction drawings and their features, and to encourage students to read them. marked as teaching.

Keyword: architect, designer, plan, facade, cutting, builder-geodesists, graphic language, construction graphics, general construction.

МЕТОДИКА ПРЕПОДАВАНИЯ ПРЕДМЕТА ПРОЕКТИРОВАНИЕ СОВРЕМЕННЫХ ЗДАНИЙ НА УРОКАХ АРХИТЕКТУРНОГО ЧЕРТЕЖА

Абстракт. Цель написания данной статьи – расширить мировоззрение учащихся при преподавании строительного черчения (курс рисования) в общеобразовательных школах нашей республики, познакомить с профессиями архитекторов и дизайнеров, познакомить со строительными чертежами и их особенностями, а также поощряйте учащихся читать их, помеченные как обучающие.

Ключевые слова: архитектор, проектировщик, план, фасад, разрез, строитель-геодезист, графический язык, строительная графика, общее строительство.

Construction drawing is studied in-depth in appropriate specialties of general secondary education schools , and future drawing teachers should acquire sufficient deep knowledge and skills in reading and performing all types of construction drawings. . That is why in-depth knowledge of this knowledge is required in the professional activity of the future drawing teacher. In this section of the drawing course of public secondary schools, "Construction drawings. Plan of

the building. Trimming and facade", "Reading construction drawings", "Practical training on drawing a master plan" are given.

If we take into account the extremely limited time devoted to the study of construction drawings in schools based on the curriculum, it is difficult for students to master these topics at the intended level. Because, according to their nature, construction drawings are very different from technical and engineering drawings. The reason for this is that the objects being depicted are large in size; a large number of types of materials included in the structure; rules for placement of sanitary and technical equipment and their marking on the drawing; specific aspects of the plan, cut, execution of the facade; master plan drawings and conditional symbols on it, etc. This list can be continued. Considering these aspects, some Methodist pedagogues tried to prove that there is no need to teach construction drawing in general education schools. Is it really necessary to teach construction drawing in its current form in schools?

If we look at the educational materials in the program and the textbook from the point of view of the students' daily life and future work activities, it can be said that it is not so necessary. Because, in the future, students who choose professions in the field of architecture and construction will acquire knowledge in this field in the next educational institutions.

But it is also possible to organize construction drawing classes in general schools in a completely different form in terms of content and volume. We will give methodical recommendations about this below.

Everyone in the process of building a house, shopping, refurbishing a house or garden yard, placing furniture in a room or office, encounters the appearance of construction drawings to one degree or another. In addition, knowledge of the characteristics of the "graphic language" of architecture is one of the elements of general human culture and knowledge.

Before starting to teach this knowledge, information about the main parts of buildings (Fig. 1) and the sequence of construction works will be given very briefly. In this case, we advise you to mention the coordination axes of the building

determined by builder-geodesians and their importance in the construction of the building and the construction technology of the object.

After that, it is noted that all objects of industry and construction are described according to uniform standards (DST 305-68).

However, architectural-construction drawings have their own conditions and some differences in accordance with construction norms and rules.

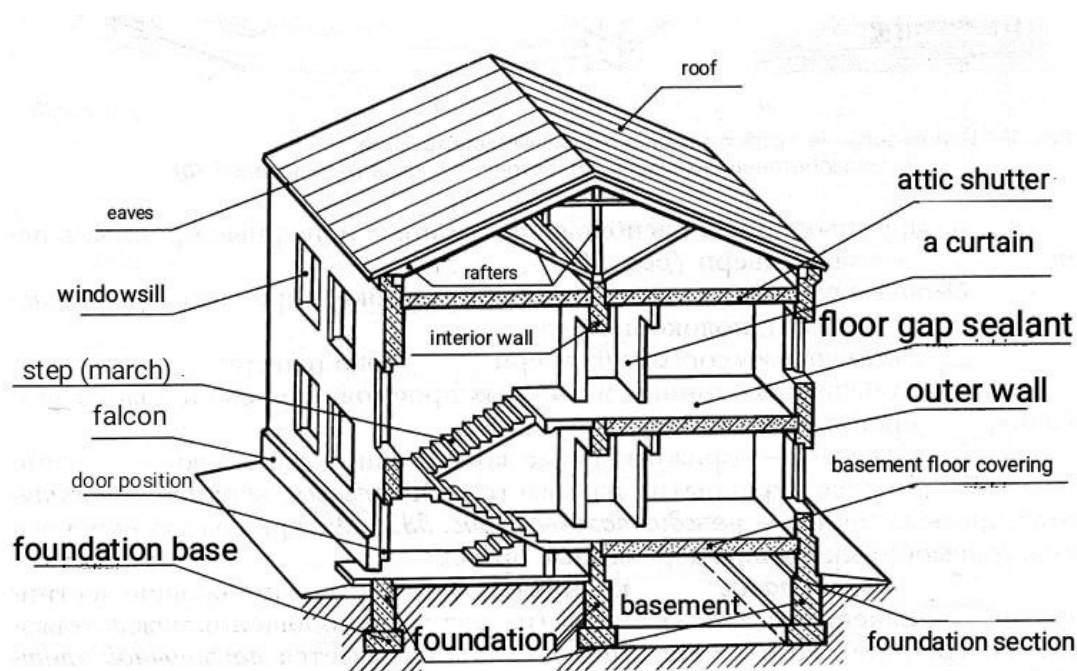


Figure 1

Here is an example of specific features of architecture-construction graphics. At this stage, when studying building elements (walls, windows, doors, stairwells, etc.), examples are filled with illustrations, and the concepts of plan, cut, and facade are studied. Emphasizing that in existing textbooks for general education schools, these topics of construction drawing are very short and given with some errors (in particular, old standards are used in conditional designations; age and interest characteristics of students are not taken into account in the examples of construction drawings presented, etc.). "We need our teeth." Therefore, it is recommended that the teacher choose familiar, simple and interesting examples for students when explaining the topic. In this way, the students become interested in architectural and construction drawings, and superficial knowledge about these drawings is not formed.

It is necessary to pay attention to the following features: "plan" in architecture and construction has its meaning: a) horizontal section of the building using a plane passed through the level of window and door positions; b) top view of building parts or place (territory) (roof plan, floor plan, master plan, etc.).

Building cuts are only in the vertical - transverse or profile direction. Clippings are architectural (contours shown) or structural (a drawing detailing the structural elements of a building).

The phrase "façade" means a basic appearance. The facade is open (facing the street), it can be viewed from the courtyard or viewed from the side.

In contrast to mechanical detail drawing, in construction drawing, the names of the architectural construction drawings are written above each image on the sheet of paper (for example, 1st floor plan; BB (1-1, 2-2...) cut; 1-7 facades; 1... 7 - bin o k o o rdina o nooks). Elements of constructions lying in the cutting plane in plans and sections S (0 - 1.4 mm) thick line, and those behind the cutting edge are drawn with $S/3$... $S/2$ thick line.

Cuts of walls and curtains on the plan are not drawn (here it is better if they are painted in a cream or watercolor). The facade of the building is painted in watercolor, and shadows are often shown in order to increase its clarity. The facade is made in strips 0.2...0.4 mm thick. Plans, cuts and facades are usually made in 1:100 or 1:200 scale. In construction and architectural drawings, the viewing direction is usually taken from the front (from top to bottom in the plan) and from right to left (in mechanical drawings, cuts from left to ten are often used).

with the types of architecture - construction graphics and general construction drawings, they can be offered the following tasks (they can choose according to their wishes):

1. Plan your home. On this scale (1:20;...) make models of the furniture and appliances in this room from thick colored paper and according to your taste and needs Place j o (Fig. 2).

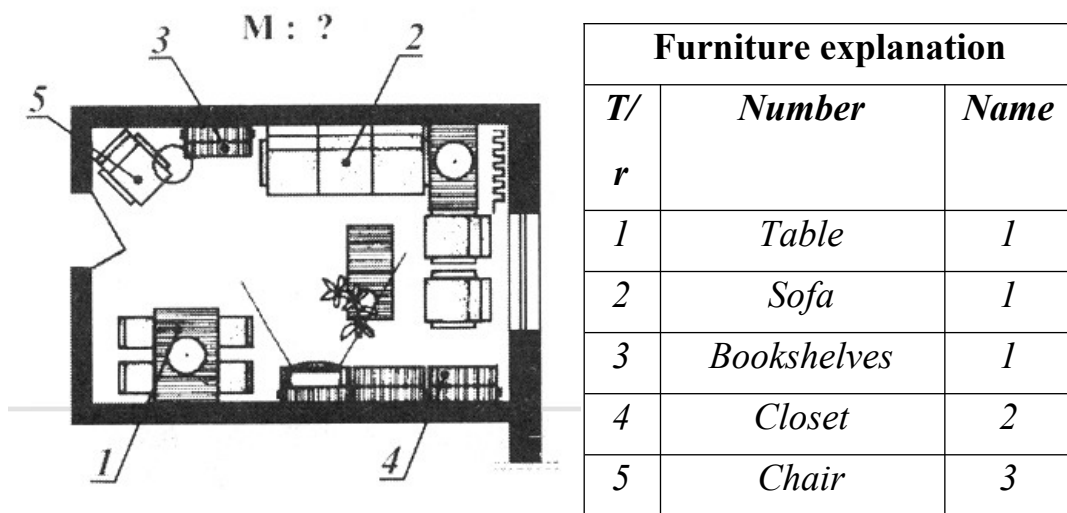


Figure 2.

- Based on the isometric projection of the interior, make a sketch of its plan with the placement of furniture (Fig. 3).



Figure 3. An example of an assignment to make a room plan drawing on the isometric projection of the interior and show the placement of furniture in it.

- Divide the surface of the apartment into functional zones using the example of zoning according to the plan given in Figure 4-5.



Figure 4 . Two-room apartment plan and placement of furniture in it



Figure 5 . Examples of dividing apartment rooms into functional zones

4. Improve the facade of the building shown in Figure 6.

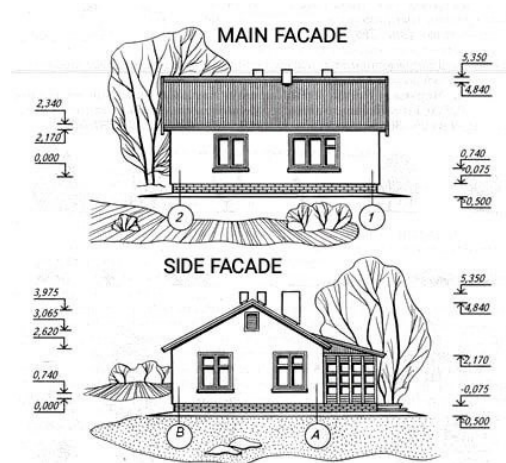


Figure 6 . An example of the task of improving the facade of the building shown in Fig

5. Based on the clear image of the garden yard, draw a) a sketch of its facade; b) make a sketch of the plan (Fig. 7).



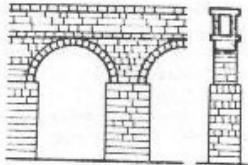

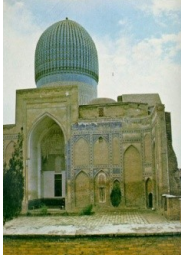
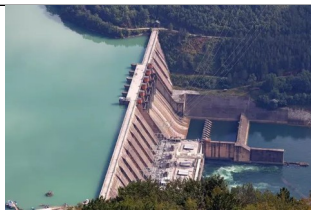
Figure 7 . Execution of the facade and building plan according to the clear image .


If the students are interested in the issues of interior design, in addition (in group classes), you can consider the options of interior design in color with them. If students are interested in construction drawing, they can organize a trip to the city and tell stories about the construction style of various buildings and the history of their construction. Architectural construction graphics can be used as an excellent resource when organizing workshops and other special courses.

Self-assessment (Charkhpalak) method

Based on the image of the architectural construction drawings presented in Table 1, it identify the names.

Table 1.

No	Illustration of construction drawings	Types of construction drawings						Correct answer
		The mausoleum	Bridge	Castle	Aqueduc	Dam	Modern building	
1								
2.								
3.								
4.								

5.												
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The above table shows the definition of its names based on images of architectural construction in the "Charkhpalak" technology.

With the help of this method, it is possible to divide not one student into groups and conduct a competition between them. Through this method, the teacher not only provides students with theoretical knowledge, but at the same time it is possible to determine their acquired knowledge.

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