SOME OPTIONS ABOUT DESIGN STUDIOS OF ARCHITECTURAL EDUCATION

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Abstract
Architecture is a discipline which creates healthy, livable and aesthetic spaces for the users using the opportunities of the natural environment to satisfy the needs and desires of the users within specific criterion. As it is the case in other design based disciplines, importance of theoretical and applied studio courses which bring the student design capability and creativity in architectural education is so remarkable. The most important facts that prepare the student for the profession and design process are the basic studio courses which basic design and space concepts are given. This study examines the working methods of students on a project design course and education process using examples.

Keywords: Architectural Education, Design Studios, Space

Architecture as a concept
One of the various definitions of architecture is “the art and activity of building, designing and organizing space and its surrounds, where functions and festivities connected with human life created as a community and individually are carried out.” At the same time there are also emotional approaches to the definition of architecture. In this regard one finds “a synthesis attained within a communal process that succeeds in attaining the level of civilization, includes subjective and aesthetic values and is completed with the achievement of a product” (İzgi, pp. 35-41). Architecture is tied to many aspects as one understands from its definitions and has become the subject of different evaluations from the point of view of concept, scope, professional duty, responsibility and education. The unity and the interconnected relationship of these definitions are unavoidable. When compared with other artistic branches, it is an activity that involves different directions and relies on intellectuality as all artistic activities do. During the design and action process, architecture in the broadest sense creates a new, artificial atmosphere by limiting and dividing the piece chosen from nature.
Architectural education

Those who resort to the accumulation of experiment register advances and, turning that accumulation into knowledge makes the worker a master (İzgi, p. 75). From the beginning of building construction until the present, master-apprentice created the educational model. This method that relies on application produced an education system in which the architect through experimentation possessed all the knowledge required of the profession. We see past examples of this in the archival records. In Ottoman history the “Imperial Architects’ Society” was an organization that included classifying masters and journeyman architects under the management of the chief architect. This organization that handled work for government and military purposes continued with architectural education. In Europe organizing that began in the Renaissance continued with the Fine Arts Academy that Vasari established in Florence and the Fine Arts Academy in Paris in the seventeenth century. The powerful developments in the West led to the creation of their like with the establishment of the Sanayi-i Nefise-i Mektebi Ali (High School of Fine Arts) under the leadership of Osman Hamdi Bey in the nineteenth century. This approach at the same time stressed the unity of the architect-art person. It can be explained as follows: The purpose of the type of creativity was organized so that architectural education was included under the roof of the fine arts. The Ecole des Beaux-Arts continued its tradition for many years¹ and experienced changes to its identity, status and program among educational organizations through the Industrial Revolution. (İzgi, pp. 75-79). The Bauhaus that followed the Ecole des Beaux-Arts was a school that relied on an educational foundation that included all the fields of architectural creativity with the idea of the basic unity in architectural education and began from zero under the supervision of a master. The foundation of the educational studios within the architectural discipline was laid with the educational program, the goal of which was to unite them. The aforementioned educational programs were applied in architectural education and included experimental studies to acquaint students with the basic principles of creative movements that lay at the foundation of the visual arts (Dikmen, p. 1511). One sees that the teaching method gained importance through the Bauhaus student-teacher (master-apprentice) interaction. An educational method was used that recognized the possibility of the student being active and developing freely and the possibility of learning while doing, discovering the fundamental characteristics of the means being used and free of moulds. In the Bauhaus

¹Assigning the same topic to all of those engaged in working for a diploma and setting up an award competition.
curriculum that developed with the theory of Gestalt\textsuperscript{2} perception, the student proceeds through the apprentice, journeyman and master levels during the educational process that includes all the necessary applications for the level of creative work and the scientific fields. The innovation that the Bauhaus principles brought to its form of architectural education in counter-distinction to that of the Ecole des Beaux-Arts was of the students being free and active instead of being classically prepared and accepting of passive and guided instruction (Dikmen, p. 1512). In Turkey architectural education was organized under the Council of Higher Education (YÖK). The university in the institutional and theoretical sense has to be an effective, obligated, complete and free organization in the fields of education, research, criticism and educating faculty.

**Design**

The meaning of the word design is as follow: it is a process that includes something being drawn and/or being built as a whole with its mass and its surroundings following criticism and documentation of the theoretical, functional, spatial, structural and actual characteristics of the whole building whose function has been altered in order to meet the requirements (Dikmen, p. 1514). In design’s basic principle, it is important to walk around every part of the aforementioned virtual space, think about contextual approaches and, in short, experience it. The process is an artistic phase and within it there is choice, decision making and responsibility. At the same time the documenting of every detail and data is essential in order to achieve further perceptions of the building correctly. During the design development process which is two dimensional at the beginning it generally reaches a three dimensional virtual appearance. Transferring a three dimensional abstraction into two dimensions is achieved using technical drawing methods. The perspective sketches that are prepared by various methods during the design process, the colored or black / white lines, models, photographs of models, animations and thoughts are useful from the point of view of fixing and transfer.

**Design studio**

Design studios are places in which students obtain basic knowledge related to architecture. One of the difficulties experienced in this process is not having the infrastructure which would prepare those students among the

\textsuperscript{2} The Gestalt Concept appears as a reaction to the “behaviorist concept” in which learning is only evaluated within the relationship of warning-reaction (W-R). Contrary to the behavior concept in which every W-R relationship is independently examined, it ensures that the intellect creates a tie between those warning.
ones who come knowing beforehand something about the profession of architecture. In other countries generally university preferences are clarified at the middle school level and educational opportunities provided that are directed at this. In Turkey the students are placed in departments related to the choice and placement tests after middle school. If the architectural students are placed in the aforementioned department that is outside their personal interests, they begin the process without any accumulation of professional knowledge.

One of the other problems met with during the period of architectural education is that the person comes to university education from different educational models. Among these one can find the teacher from the centrally molded education whom one doesn’t need to cross examine. In architectural education the one who can relay what he is thinking and produce endless solutions is the aforementioned centrally educated student. These types of approaches that reveal suitable strength at the same time reduce the output expected of the education.

In architectural education the studios are the places in which architectural design education is experienced. They rely on the principle of developing skills and sharing ideas. In the design studios the basic problem for the educational element and the student is that there isn’t a method that suits every student. The reason is that there are differences in individual creativity which is tied to the person’s perception of design and which is individual. In this situation the approaches that reveal creativity must concentrate on the ways of elucidating the problem, being able to create different and unusual solutions to the problems, being able to dream and relate this and achieving the skill of original thinking. There is the need for criticism of the concept that one thinks up in various languages of the preliminary sketch, model, perspective, etc. in order to develop the design and turn it into a finished product. If the design were an abstract concept, the way to approach it would include the exact opposite.

The healthy progress of the process and adding the active-creator-researcher brings a healthy result. In this process the critiques on the table create a multi-lateral atmosphere of rethinking and production. In the master apprentice relationship the goal is to develop the student’s design skills while accepting criticism. At this point it is expected that the teacher has the personality to direct the student to think differently, research and be cross examined. It is expected of the student that he will introduce himself with his own words in his own way, debate and create his own individual design rather than a repetition of the master. Jury evaluations that are assembled in the sense that different teachers offer critiques and the participation of guest jurors provide for the creation of a synthesis of different points of view for
the student. In this regard it mustn’t be forgotten that the design studio is a continually interactive area.

The impossibility of design if it didn’t exist – creativity

The concept of creativity is not to make something out of nothing but it must be evaluated as the vehicle and method used so something does exist (Dikmen, p. 1515). To approach the subject with different perceptions and points of view earns the individual the adjective of creative. In order for a different point of view to be achieved the student’s motivation has to be affected. During the design stage the appearance of creativity is not from books or repeating what has been taught; it comes as criticism of what the student produces and the production of new knowledge. For this reason design studios have to be organized in a way that can bring to life an imitator and a developer of a way of seeing and thinking and a model for attaining knowledge. The skill of being able to teach only quality creativity requires increasing the intellectual accumulation on subjects of research and skill. That every student has a different development process and style of learning necessitates the use of more than one method at one time. For this reason design methods are experimental change that has to happen with traditional methods.

Operating in design studios

The purpose in design studios is to provide that the problem given to the student is one to be thought of during the studio process and in daily life outside the studio. In studio education the way to achieve a talent for criticism and understanding through the entirety of experimental and conceptual knowledge is through an argumentative atmosphere and counter criticism. The basic structuring of studio education can be identified as follows:
- Student centered education,
- The possibilities of multiple solutions for the problem, and
- Programs that can change in accord with studio dynamics.

Of the factors that affect the learning level of the students who enter the architecture department is that they don’t have the same level of knowledge and concept. When this situation is observed, evaluating the dynamics which the differences have created well and providing support and motivation create an important process.

Problem identification

During the operational period of the design lesson the characteristics of the subject that will be done and detailed information should be given to the students verbally and in writing. Information such as the research,
production of ideas, preliminary sketch work, pre-scale model and final scale model and due date should be announced to the students on a time line. In critiquing the problem, identification of the problem should be clarified for the student by observing whether what is wanted during the project’s progress was understood or not. In situations where it seems necessary, the student’s better perception of the product can be ensured by identifying the problem on examples of three-dimensional models. Because identifying the problem correctly means that the solution has been transferred to the design correctly. What is expected of the student is the production of an effective design that suits the target (creating the assemblage-conceptualizing-stain work) and projecting this in a correct fashion. (See Picture 1-5)

Research
After the project has been introduced the program, target group and the research on sample subjects are requested from the students. Here the goal is to ensure that the students have enough information about the subject and to increase the speed of their perception. If design is thought of as a process, it could be thought that every bit of information learned would provide positive additions to them during the design process. However, during the research process it mustn’t be forgotten that internet and library searches aren’t enough and examining extant examples along with them is an important point. One can say that design samples made up to the present that suit the design wanted in the project can be examined by the students and the design critiques will be useful for observing how change or development occurred. Sharing the research carried out by the students with other students and educators in the studio atmosphere provides a positive addition to the production of ideas during the progress of the project.

Producing Ideas and Sketch Work
All the information which is acquired as the result of research carried out during the process of producing a solution to the project that has been taken up as the design problem should be transferred to the production of thoughts and ideas along with the effects of cultural life. This stage is one of education’s most important pieces of the design’s principal problems and the process of producing ideas. The development of ideas produced by means of sketches must always be a part of architectural education. In this regard the student must begin with the accumulation of all the field lessons to sketch the production of the creative idea which is wanted or can answer the need. At this stage the functional diagrams, the situational plan and the silhouette studies occupy an important place (See Pictures 5-14).

The affect of the sketches made with paper and pen which play an important role in the solution of the problem must be conveyed to the
student. The technology developed in our day and advanced programming techniques provide great ease at the design stage. The students who want to use this situation are skipping the work on producing ideas and sketches which we can characterize as the most important stage of the design process and directly begin their designs on the computer. But sketches give the student very important clues about what the design that appears should resemble. That other components like typology, color, images, materials and the use of the structural system are drawn in sketches is useful for the students approaching the project with different points of view as well as developing the process of producing ideas.

In the situation in which the design begun in a virtual atmosphere continues, the student is restricted by the limits on the skills of the program used and without noticing it permits the design to go in the direction of the program. In the situation in which several students work in this fashion perhaps producing designs that resemble one another could be discussed in terms of the program’s characteristics. While computers and tablets get between brain and hand coordination in the computer situation, in sketch work both brain and hand coordination are used together. In this way the production of ideas can be done freely multiplying without any reduction. The students become accustomed to working with sketches and undoubtedly after graduation it will provide positive additions to them as designers.

**Critiques, Modeling**

The critique brings together points of view about the student and teacher’s design process in the architectural design studios. When a short break is taken in the work for the critique process, it creates an atmosphere for sharing ideas. Critiques don’t have a single purpose or a clear format. They can be done in many various forms and the work process can expose very many different points of view.

Critiques have two important characteristics. The first is to put the entire attention on the student’s work and the process. The second is that the student shares his work with the educator and other students. As a result there’s an exchange of views that adds to the design process. At this stage the student would apply the corrections on the sketches in line with the design critiques made of the sketches. The critiques made ensure that the student is pointed in the right direction. Later on the student may apply the most suitable design solution to the drawing and bring the design to the final stage. After that the student prepares a three-dimensional preliminary scale model in the measurements wanted. The purpose in wanting the preliminary scale model is to ensure knowing how the two-dimensional design will be seen physically in three dimensions and being able to study it in relation to the environmental data. The presentation of the design applications done for
the solution of the problem is very important for the student and the educator. A successful solution can turn an unsuccessful situation through the application of a carelessly made scale model. For this reason the student should take pains over making the scale model to prevent situations like these (See Pictures 15-24).

Evaluation – solution

The completion of architectural education is documented with a diploma, etc. The process which results in the acquisition of the title of architect is the beginning of a new educational period. Architectural education must rely on the goal of a broad education aimed at acquiring a cultural level related to architecture. As a special section within this concept, by being evaluated and achieving a common level, one can reach a successful result. The teacher’s relaying information in architectural education that must rely on the free choice of the profession at the beginning and the method that relies on his logic in which correct mistakes are tied to formulas must always be questioned. Depending on the sources for the accumulation of information that the architectural candidate feels the need for through personal approach, observation and effort, his acquiring an accumulation of information must be supported and not remain within the boundaries of the organization. The sources that nourish this education, the students, teaching staff, professionals, bureaus and construction sites have to effectively contribute to the education, and the validity of the system of thought and development must be ensured at every level of the education.

Architecture has shown a development directed for a long time at expertise in various fields like design, construction and management. In this regard the students who make up the foundation of the education are the candidates who will take on the duty of being faculty members later on. For those who join education and management, it is just as necessary and useful as for organizations and faculty. In this process the candidate must be supported in order to possess a preparatory accumulation while being independent of the subject that he has chosen. Because architectural design education has a multi-layer and experimental atmosphere, the continuity of the flow of information among the disciplines must be achieved according to the view of the architectural candidate. Gaining the atmosphere of the assembled studio function has to be conceived not as a product but as a process that is focused and has to be focused. Today the ability of drawing what they dream of will become the acquisition of the unity of the concepts of technology and art.
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