

## **Re-thinking the Concept of “Space” in Interior Design Education**

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### **ABSTRACT**

This paper presents the new introduced education model in basic design courses of TOBB University of Economics and Technology Department of Interior Architecture and Environmental Design. With his model students analyze the concept of space from the written materials in a diverse historical perspective. The main aim of the study is to increase the awareness of “Space” with new context, concept, design tools and design methods. A medium for discussion is developed through the design problems and studio works. Design problems are enhanced with the conceptual and formal space experiences. In the content of the study new introduced basic design model with space centered model and the main acquisitions of the system will be discussed.

**KEYWORDS:** Space, Conceptual Thinking, Interior Design, Basic Design, Education

### **1 INTRODUCTION**

There has a great change in our living environments in the last decade. The change in the context of our living environments can be explained with the sudden changes in infrastructure and superstructure of some architectural and spatial concepts in the living environments. The formal and conceptual organizations that forms with changes in the architectural concepts, constructs some steps for the future of designed environments. As a consequent of the above mentioned developments, the numbers of “Interior Design and Interior Architecture” departments in Turkey are increasing day by day. Therefore, for a developed educational model in these departments, it is essential to understand and analyze the past and present educational attitudes in the field. In the content of the basic design course of TOBB University of Economics and Technology, Department of Interior Architecture and Environmental design a different educational model is introduced. Despite from the common tendency in the architectural and design education in the field, the design students in basic design courses in TOBB University of Economics and Technology faces with a new approach different from “bauhaus” school tradition.

The involved education model in basic design courses bases, on the re-thinking the concept of space starting from Platon to contemporary philosophers and theorists. Students analyze the concept of space from the written materials in a diverse historical perspective. With this study it is aimed to increase the awareness of “Space” with new context, concept, design tools and design methods. In the content of the study new introduced basic design model in TOBB University of Economics and Technology, Interior

Architecture and Environmental Design department will be introduced. The basis of space centered model and the main acquisitions of the system will be discussed.

## 2 THE CONCEPT OF SPACE

The concept of space is the basic working area for the design fields from different disciplines during the history. It is essential to bring the concept of space and its changing paradigms to the attention of design researchers, to introduce a conceptual framework to classify and clarify theories of space. Modern space will be discussed through concepts such as empathy, perception, abstraction, and geometry. A scientific approach will follow to study the concept of place through environment, event, behavior, and design methods. To analyze the theories of space during the history is a vital toll for interior architecture education. In the renaissance period it is considered only one of the new developments in which it resulted: anew conception of space. This conception was translated into artistic terms through the discovery of perspective. Henry Hudson Holly in 1876 underline the modern dwellings with their “construction, decoration and furniture” Richard Lucae present a lecture in 1869 on the meaning and significance of space in architecture. In 1908 mathematician Hermann Minkowski first conceived a world in four dimensions, with space and time coming together to form an indivisible continuum.”Up to 1910 architects tried many ways of arriving at a new feeling for space – the basis and the strongest impulse for original architectonic creation. They could never quite break through. Only the narrow gates of “fitness for purpose” and “rejection of historical styles” were open to such endeavors” (Heidegger,1971).

Around 1910 an event of decisive importance occurred; the discovery of a new space conception in the arts. Working in their studios and/or though in laboratories, painters and sculptors investigated the ways in which space, volume and materials existing for feeling. Contemporarily, the space definition is directly affected from the transition between inner and outer space. This approach is directly related with the projects which appear toward Borromini grouped. Where Borromini, lead the movement of a design through the space from the interior through the exterior space, anticipated a concern of modern architecture (Nesbitt, 1996).

The importance of concept of space in the design field started to be discussed by Auer with his essay “Built open the spatial insights of Gottfried, Semper and Conrad Fiedler. With this article he stressed on the space for the design and he became one of the important theorist who discussed space and spatial development. For Auer “space is the soul of the building”. On the other hand Wright treated the interior space as well as the exterior wall as a plane surface. The method of presenting spatial relationships which the cubists developed led up to the form-giving principles of the new space conception. Space in modern physics is conceived of as relative to a moving point of reference, not as the absolute and static entity of the baroque system of Newton. And in modern art, for the first time since the renaissance, a new concept of space leads to a self-conscious enlargement of the ways of perceiving space (Mallgrave, 2008).

In 1941 Sigfried Giedion published his most important book about space and architecture which is “Space, Time and Architecture”. The Bauhaus building was the only large building of its date which was so complete a crystallization of the new space conception (Giedion, 1967). Also Le Corbusier’s houses shows new identity about the space; which is called open plan scheme. From that period a new approach through space started to be discussed. The work after that period was based upon the new concept of space where it is developed from the art of cubism.

In 1948 Bruno Zevi published his book “Architecture as space”. The book initially returns to the old notion of architecture as “space” based of architectural approach (Zevi, 1993). In his work the comparison of the spatial quality of different interiors from different designers discusses. The concept of

space in three buildings by three important designers Le Corbusier, Mies Van Der Rohe, and Frank Lloyd Wright discussed from the architectural perspective (Zevi, 1993).

In his work, Christian Norberg-Schulz “Existence Space and Architecture” in 1971, introduced the idea of the space as a focal point of design. With this work He had can be considered as a fixture of modern “space” theory with Sigfried Giedion and Bruno Zevi. Schulz “is widely cited today and is considered the principle proponent of a phenomenology of architecture, which is a concern with the “concretizations of existential space” through the making of places” (Nesbitt, 1996).

Kenneth Frampton in 1974 with the work “On Reading Heidegger” re-bring the space ideas. For Heidegger, “Space is in essence that for which room has been made; that which is let into its bounds” (Mallgrave, 2008). For Zumthor, (2006) “The reality of architecture is the concrete body in which forms, volumes and spaces come into being.” Zumthor, (2006) also defines architecture as: “Good architecture should receive the human visitor; should enable human to experience it and live in it ...” On the other hand, architecture is a kind of space organization for Ching (2007). Ching, (2007) also discusses the relation of architecture and space. “Buildings consist of a solitary space. They are normally composed of a number of spaces which are related to one another by function, proximity or a path of movement.”

Where Rasmussen, (2000) touch the same idea, he claims that “Architecture is a very special functional art; it confines space so human can dwell in it, creates the framework around human lives.” Besides, Ching, (2007) defines architecture as: “Architectural form occurs at the juncture between mass and space.” Consequently, Rasmussen (2000) discusses the meaning of space “The same room can be made to give very different spatial impressions by the simple expedient of changing the size and location the openings.”

Ching,(2007) gives the similar idea for spatial meaning “In executing and reading design drawings we should be concerned with both the form of the mass containing a volume of space as well as the form of the spatial volume.” Ching (2007) also discusses the qualities of space related with the “form, proportion, scale, texture, light and sound ultimately depend on the properties of the enclosure of a space.” Architectural space, as a concept has been discussed through the last decade. It is accepted that the service of program and structure were not enough for the definition of architectural space. The overlapping of different design disciplines may have a great contribution to the concept of space and it enriches the meaning of space (Ching, 2007). In Table 1 a classification of 20th century space theories are summarized (Erk, Uluoglu,2013).

Table 1 A classification of 20th century space theories (Erk, Uluoglu,2013)

Space	Dominant Influence	Related Theorists	Period
Space	A new concept	Von Hildebrand, Schmarsow, Riegl,Wölfflin	1890-1900
Modern space	Architecture as art	Worringer, Spengler, Brinckmann, Frankl, Sörgel, van Doesburg, Gropius, Wright	1900-1930
Place	Architecture as science	Rossi, Alexander, Lefebvre, Norberg- Schulz, Rapoport	1960-1990
Digitally Supported Space	Architecture as technology	Rajchman, Virilio, Vidler	1990-Present

### 3 INTERIOR ARCHITECTURE EDUCATION

Space is the main working area of interior architecture profession so it is the essential concept during the education period. The Federation of Interior Architects/ Designers (IFI) defines the interior architecture / designer as follows:

1. Qualified by education, experience and applied skills, the professional Interior Architect/Designer accepts the following responsibilities:
2. Identify, research and creatively solve problems pertaining to the function and quality of the interior environment.
3. Perform services relating to interior spaces including programming, design analysis, space planning, aesthetics and inspection of work on site, using specialized.
4. Knowledge of interior construction, building systems and components, building regulations, equipment, materials and furnishings.
5. Prepare schematics, drawings and documents relating to the design of interior space, in order to enhance the quality of life and protect the health, safety, welfare and environment of the public (IFI,2013).

On the other hand it is approved that, designed interiors inherently uplift the human spirit while supporting and optimizing human behavior. These environments are imbued with meaning while providing context and relevance. Designers of such spaces intrinsically assume the responsibility to imaginatively envision and actualize places which are functional, well designed and successful. It is also agreed that these kinds of places need to become a majority (Caan, 2013). As it is indicated in the above mentioned expressions the concept of space is the essential working area of interior architecture.

Interior Architecture education and Interior Design profession is a combination of academic knowledge and practice. Knowledge transfer is essential in interior architecture education. To encompass its jurisdictional knowledge, so is the education necessary to prepare practitioners. Although this progress has been noteworthy, significant issues remain unresolved. Specifically, universal acceptance from allied professions regarding the value of Interior Architecture, and recognition of Interior Design as a discipline within the academy is apt to be reached (Baker, 2005).

A fundamental quality of interior design is its interdisciplinary value. Hasell (1993) is one of the many to acknowledge the contributions of academic disciplines such as “...history, behavioral studies, psychology, ecology, sociology, and architecture” to the design and study of interior space. Thus, to understanding aspects related to interior design discipline requires some understanding of allied disciplines, their theories and methods as well (Denise, 2004).

Interior Architecture is such a discipline that during the education process educators and practitioners, should work together. The partnership of design educators and design practitioners is essential to provide an ideal educational model. Such a partnership will transform Interior Architecture education into a state that can be utilized in the 21st century (Denise, 2004). This will prepare the future designers to practice with the breadth and depth of knowledge required to solve complex interdisciplinary problems of human behavior and design. This education must prepare future practitioners to implement evidence-based design criteria into the design process and thus improve the quality of the designed environment. Educators must be prepared to teach future practitioners the value of research that adds to the body of knowledge. Thus, the bridge between practice and education can be strengthened, in turn sustaining the profession and providing the foundation for an academic discipline (Baker, 2005).

On the other hand, interior architecture / design organizations have great contributions for a defined body of knowledge of interior design. This partnership appears to be driven primarily by the professional interior design organizations whose members are concerned with questions regarding regulation and licensing of the interior design profession (Kucko, 2005).

#### **4 BASIC DESIGN COURSE IN TOBB UNIVERSITY OF ECONOMICS AND TECHNOLOGY, DEPARTMENT OF INTERIOR ARCHITECTURE**

The case study takes place in the basic design course, the first year bachelor in TOBB University of Economics and Technology, department of Interior Architecture. Moving from the nature of the profession, application related tools as well as theoretical tools to address this multifaceted discipline of interior architecture. Theoretical knowledge, academic knowledge and the practical application are the important and essential spheres of the disciplines. In design studios it is essential to discuss the importance of beginning by converging theory and practice and to support interior architecture competence through the application of theoretical courses. The concept of space and the perception of space are the vital focused areas for the basic design courses of interior architecture education.

Factors that form the infrastructure of the Interior architecture education are also valid in basic design course of TOBB University of Economics and Technology. The academic background of the educational staff who are leading the basic design studio is important. They should be familiar with the learning behaviors of students who have been trained in this discipline. The main working area of the academic staff is also important, academic staff from interior architecture discipline will be more appropriate for the basic design course of interior architecture. Academic staff mainly focuses on using the new environments introduces new problems. There is a great probable danger that these environments may send the education away from original content and remain only as visual richness. Our current era, in which new technological advances are emerging, might be referred to as a 'show era', or indeed as, 'an era when ideology replaces cosmetics, reality is beaten by image, everything is presented in an entertaining manner and cleaned out, a terrible bombardment of information disintegrates people and makes them non-reacting, memory is lost, perception and the ability of reasoning decreases'.

In design schools, the design studios that make up the backbone of education bring different academics and students together and create a space for discussion, thought, implementation and review. The function of the design studios is to understand design, to reconfigure design problems and to research solution proposals. This approach may be used to provide the design studios with a dynamic structure that fosters inquiry, criticism and research rather than being static and monotonous. Basic design education, which is the first design studio experience in design education, is a significant process as it is the students' first project experience. In order to investigate this, the present study discusses the student-centered understanding of education in theoretical and practical design studios employed at TOBB University of Economics and Technology Interior Architecture course in basic design, through the example of a game. Because the workshop is composed of academics and students with different levels of knowledge and understanding, it is considered to be an efficient experiment environment for both groups.

Although the process and products of the basic design course are predetermined, design problems that would be discussed over a given academic period and sporadic studies that would provide the solution/discussion of the same problem may change within the academic period. The sporadic studies are used as a design tool in order to convey the student to the resulting end-product, and to create and maintain a lively discussion environment in the academic period. Effort is made to ensure that the basic design studio is a process wherein the students question themselves via design, rather than an environment in which their thoughts are developed and improved. In order to make the design studio an active learning experience academic staff -student relations are reconfigured, and organizational format and design problems are reworked in each courses.

Traditional basic design education methods and new educational methods are used together to develop the student-centered education. To improve the students way of thinking and to develop their perception of space with the features is essential. New introduced educational methods for experiencing space by playing, besides the traditional methods such as reading, listening, need to be incorporated into

education strategies. The basic design studio tries to ground its studies in developing the general design concepts, whereas those concepts are personalized, adopted and maintained by the students. The subjects of the studio works are selected to improve a discussion in the design studio between the academic staff and students although between the students. Actually the subject is just a toll to develop the discussion in the design studio while trying to solve the design problems. The subject is only used as a tool for understanding, configuring and discussing the problem. In the studio process, students are encouraged to think freely, fictionalize and then personalize the problem in order to address it according to their own skills.

In the design studio students learn by active participation to the discussions which are mainly about the concept of space and by making design exercises. The performance of an individual student reflects his or her own experiences and knowledge . Discussions mainly move from the reading passages about the space and the perception of space. The relationship between the space, concept and architectural form discussed moving from the design problem. Consequently, the relationship between concept and form is discussed such as: a single concept may be expressed through many forms, and likewise a single form may refer to many concepts. With the design problems in the design studio, form, space and the concept tries to be developed by a single structure that exists with continuous intersections.

The purpose of the design studio process is to foster an experience whereby the student may learn independently within a collaborative setting. It seeks to instill a love of the subject in new students, and to demonstrate that design should be a way of life and a continuous adventure. The important issue is to focus attention on the thought processes that lie behind the design. Students analyze the concept of space from the written materials in a diverse historical perspective. With this study it is aimed to increase the awareness of “Space” with new context, concept, design tools and design methods.

## **5 CONCLUSION**

In the content of the study, the concept of space as an area which has been discussed by various disciplines during history has been re-evaluated. Different approaches to the concept of space have been identified starting from the 19<sup>th</sup> century till the end of the 21<sup>st</sup> century. The concept of space and its changing paradigms have been placed in the center of attention of design researchers alas, these concepts were introduced as a conceptual framework to classify and clarify theories of space. With the changes in the formal and conceptual organizations of forms, architectural concepts, constructed beings and design approaches, new models in design education have become a necessity. The number of “Interior Design and Interior Architecture” departments in Turkey, have dramatically increased in the last decade. The necessity of developing a new education model in these newly founded departments has become an urgent requirement.

A new education model, to improve the students’ way of thinking and to develop their perception of space with the necessary visual features is essential. Moving from these ideas, newly introduced educational methods for experiencing space are for instance by playing, besides other traditional methods such as reading, listening, need to be incorporated into education strategies. In the basic design course of the department of Interior Architecture and Environmental Design in TOBB University of Economics and Technology; students are familiarised with a new approach rather different from the “Bauhaus” school tradition. The new model is mainly based on analyzing the past and present taking form and space into consideration. The space concept is tried to be developed from a single structure that exists with continuous intersections by playing a design game in the studio during the class. In the design studio, students learn by active participation to the discussions which are mainly about the concept of space and by performing design exercises. The final performance of an individual student reflects his or her own experiences and knowledge.

## REFERENCES

- Baker, A. 2005 “Knowledge in Interior Design” Journal of Interior Design Vol: 31 Nr: 1 pp: 13-21.
- Caan, S. 2013 “Think Development: Fundamental Design Knowledge” [http://ifiworld.org/presidents\\_update/#Homepage](http://ifiworld.org/presidents_update/#Homepage) 21.06.2013.
- Ching, F.D.K. 2007. “Architecture, Form Space and Order”, John Wiley and Sons Inc.
- Denise A. Guerin, D. 2004 “Interior Design Education in the 21st Century: An Educational Transformation” Journal of Interior Design Vol: 30 Nr: 1 pp: 1-12.
- Erk, K. G., Uluoğlu, B. 2013 “Changing Paradigms in Space Theories: Recapturing 20th Century Architectural History” Archnet-IJAR, International Journal of Architectural Research Volume 7 Issue 1 pp.6-20.
- Giedion, S. 1967 “Space, Time and Architecture: The Growth of a New Tradition” Harvard University Press.
- Heidegger M. 1971. “Poetically Man Dwells” Poetry, Language, Thought”, Harper&Row Publishers.  
IFI: International Federation of Interior Architects/Designers.  
[http://www.ifiworld.org/#Definition\\_of\\_an\\_IA/D](http://www.ifiworld.org/#Definition_of_an_IA/D) 21.06.2013.
- Kucko J., Prestwood,L. 2005 “The Consortium for Design Education: A Model for Internationalizing Interior Design Programs” Journal of Interior Design Volume 31 Nr 1 pp:25-42.
- Mallgrave, H.F, Contandriopoulos, C. (Ed.) 2008. “Architectural Theory Volume II An Anthology from 1871-2005” Blackwell Publishing.
- Neil P. 1994. “Televizyon Öldüren Eğlence” translated by Osman Akınbay. Ayrıntı Publications Istanbul
- Nesbitt, K. (Ed) 1996. “Theorizing a new agenda for architecture an anthology of architectural theory1965-1995” Princeton Architectural Pres, New York.
- Rasmussen S. E. 2000. “Experiencing Architecture”, MIT Press, Cambridge.
- Zevi B. 1993“Architecture as Space. How to Look at Architecture”, New York.
- Zumthor P. 2006. “Thinking Architecture”, Birkhäuser – Publishers for Architecture, Basel.
- Mitchell, J.W., Beckman, W.A. 1995. Instructions for IBPSA Manuscripts, SEL, University of Wisconsin, MadisonUSA.
- Plan, Z.A., Lin R.T. and Richer, J.A. 1989. Nanotechnology Devices in "The World of Nanotechnology," G.E. Good fellow and A.T. Mann, Eds., Butterworth Publishers, Boston, MA, pp. 61–67.