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**Simulated architecture
and its impacts on education
The Case of Turkey¹**

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Abstract

The contemporary phase of modernity developed after the Second World War is based on the technological progress. The new technology has been the dominant factor for transforming man's life redefining the concepts of knowledge, space, time, materiality, reality, community, identity, culture and art. It affected the limits of the body and mind offering a new mode of materiality and spatiality. New representation techniques such as virtual reality and cyberspace, global communication networks, circulation of information worldwide influenced the architectural practise and gradually its education. Recent projects and the outcomes of the design studios in various architectural schools show that contemporary architecture obeys to the new technology. Architects seemed to have become obsessed with images and image-making by the possibilities of the computer technology and digital world. Architecture as the historical profession of 'place making' in relation to human senses and body is seems to engage itself to invent new complex spatial and surface forms by challenging the old tools of architecture.

As a result, computer technology is widely used in practice and education regardless of the local characteristics. Major schools of architecture in Turkey promote uses of digital design schemes for the name of being contemporary. This in turn creates a dependency on digitally produced design schemes and projects. The worldly experiences of space, awareness of traditional architecture and local environment has weakened. On the contrary it dictated students of architecture to see the design in terms of digitally produced visual representations. This paper will discuss the impact of digital representation techniques in the architectural design education in Turkey. The outcomes of this research encourage the author to argue that architectural education should be based on the man's world of lived experiences, of sensations, of perceptions and of needs rather than on hallucinations. It seems vital that architectural education needs to revise its task, objectives and responsibilities before the seductive digital, virtual environment replaces the worldly environment which is the original in which architecture was formed.

Changing Nature of Space

The extensive use of computers and adaptation of information technology in architectural practice and education are recent phenomenon. New means of design deeply affected the praxis in which *shape* has become the most prominent parameter of digitalized design. Cooperation with the most recent technology helped to generate an unusual look. Architectural design is criticized to be reduced to a superficial play of empty but seductive forms in the milieu of mindless con-

sumption culture (Leach 1999). But proponents of computer-aided architectural design presented this new *modus operandi* as a way of challenge to the canon of architecture discussing that utilization of computers in the last decade is not for designing the analogue space but also the digital space (Andia 2002). Space in modern society, for Foucault (1986: 23) is a stage of power and communal life. This view can be supported by Lefebvre's (1991) idea of abstract space, which is also defined on the basis of unseen, abstract but prevalent consensus on certain economic relations that generates space in capitalist society where it can be managed, dominated and produced. Space, once objectified have become the commodity of capitalism and spread its characteristics through the globe generating a universal quality for 'spaces' of business centers, airports, museums, vacation villages, touristic-historic towns, etc.

Abstract quality of modern space also allowed the mathematicians to translate it into their domain in which they recently *invented* spaces – non-Euclidian spaces, curved spaces, spaces defined by deformation or transformation, by topology, and so on (Lefebvre 1991: 2). Mathematical basis of new technology has generated a non-Euclidian geometry allowing identifying and reproducing morphogenetic and topologic shapes that are also the basis of recent architecture. The mathematical explanations are supported by philosophical approaches. Gilles Deleuze and Felix Ghuttari (1987) see the reason of space as the motion and action, which suggest non-static, expandable, continuous and homogenous shapes, which contradict to the modern architectural forms. Greg Lynn (1998:171) follows them and creates a topological morphology in which folds and “blobs posses the ability to move through the space” and that characteristic determines its form. He activates architecture to create ‘animated illusions’ which are only possible by the use of computer technologies.

New Reality

The technology of control and communication that is called ‘information technology’ helped to the development of the computer technology (Kumar 1995:7). Computerized design methods have made possible to establish a direct relationship between the technology and imagination and helped to circulate the mass-images throughout the Globe. However global computerization is more sophisticated than simply creating of a new tool and is a mode of transformation of the notion of technology itself (Grosz 2001:51). The new technology sets its own nature by refiguring the notions of knowledge, space, time, materiality, reality, community, identity, sciences and art. The new technology offers itself as the mode of futurity and affects the imaginations by its powerful devices and redefines the limits of the body and mind. It offers a new mode of existence beyond materiality and spatiality.

New representation techniques such as virtual reality and cyberspace, global communication networks, circulation of information worldwide are representing the future possibilities and also integrated into the daily life. Baudrillard (1994) comments that it is a culture of simulacra and simulation where the image represents a new reality having much more authority than the real. This, for him, led to the reduction of meaning but caused aestheticisation of the modern world. Fetishism of the image through its marketing forces helped to replace the reality.

Experimental space has been replaced by cyberspace based on the computer terminals and wires but spread globally and simultaneously. Cyberspace performs the global space of world community. It is operational but not real. It is placeless place, unreal and illusion of a real space. In the new notion of reality, as Deleuze (1989: 1) points out that 'real' are not a phenomenon to be represented but 'aimed' at. This encourages to invent the real rather than to decipher. Purely optical character of the invented images creates a virtual reality by which human senses split from the material stimulants. The computer-generated virtual image embraces visual and sensory perceptions and creates *lifelike* spatial sphere. Life and reality as great fictions becomes the material of virtual creations. Virtuality is understood as a new mode of reality in which there is no truths to be deciphered or reproduced but the creation of the new is the major task (Deleuze 1989: 146-147). Virtual creations promises to go beyond illusions and present themselves as the new type of experience in which the subject is the part of virtual matrix immersed in the image. Time and space, once the essential parameters of being, can be modified at will for a multisensory, interactive experience that overcomes physical distance and constrains.

The Impact of New Technology in Architectural Education in Turkey

Introduction of computers and information technology in design education reshaped the nature of architectural design studio culture in the last three decades. A dramatic shift in the traditional studio-based pedagogy has challenged the curriculum and content of the courses of architectural education. In many schools, students learn how to draw on the screen according to the guidelines of computer drawing programmes instead of using traditional means of architecture pencil and paper. The development of the paperless studios and virtual studio practices began to change the traditional studio atmosphere to computer laboratories. The information and computer technologies also challenged the way of acquiring the knowledge and skills that had gained at the school from the professors. Now global virtual environment of information on any subject is reachable. Professional design firms and information on the internet is seems more influential on the students rather than old design studio culture and number of courses in which the source of the knowledge and the critic was the same authority; the professor, the master. Variety of endless information available on the internet and abundant amount of pre-designed computer programmes for design, forces the students to *invent* rather than to see and *understand*. This time the process has been experienced almost simultaneously throughout the world regardless the regional differences.

Major schools of architecture in Turkey promote uses of digital design schemes that in turn create a dependency on digitally produced design schemes and projects. The worldly experiences of space, awareness of traditional architecture and local environment has weakened in the curriculum of the architectural schools. It dictated students of architecture to see the design in terms of digitally produced visual representations. The impact of digital world in the architectural design education in Turkey can be observed in the productions of architectural design studios and as a national outcome in the national archiprix competition which began in 1996 (Fig.1). Since the beginning an increasing use of computerized drawing schemes is called attention. The influence

of recent architectural praxis mostly experienced through internet or architectural magazines are evident on the flashing design projects of new graduates. The ideas for the design proposals are not originated from the place and use but rather from the time's conditions such as new technology, global influences and architectural praxis itself.

Conclusion

Computer technology is widely used in practice and education but it mostly used as a design tool for the representation of architectural work. However, developing virtual language of design and visual arts as well as the global communication systems point out the end of cultural borders, traditions and differences. Design is, now, free from its determinative factors such as place and culture. Designer is very much dependent on the technology that he/she has. The technological trends will determine the success in the future of digital architecture. Increasing accessibility to the global design means and sources will support to consume the diagrammatic architecture. This seemingly will lead architecture to globalize on the ways of producing design with a motivation to create seductive, non-standard and astonishing illustrations. This seems a great threat for the future architectural education and praxis and in turn for the built environment of Man who identify himself within the place rather than hallucinations.

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Notes

- 1 This paper is developed from the talk that has been delivered at the International Conference on Architecture and Identity, December 06-08 2004, Berlin, Germany, now with concern on the architectural education in Turkey.

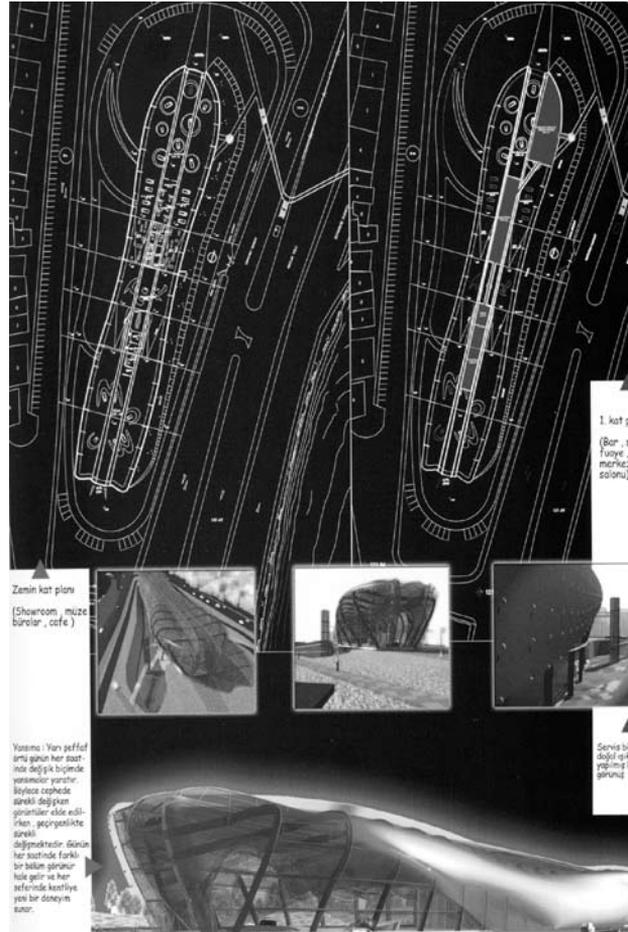


Figure 1-2
Archiprix 2005, 2. Prize, Showroom
Source: <http://www.archiprixturkiye.com>



#D1

#D2

