Brownfield redevelopment, Approach to sustainable local development

Seyed Alireza Noofel, Parin Kolbadi(M.A)

Urban growth is considered nowadays as an inevitable, changing process. In this domain, one of the most necessary concerns is determining its suitable direction and suitable physical expansion in order for responding to both today and future necessities; owing to the fact that this subject affects not only urban-related policies, but also socio-economic and environmental scopes in many urban districts. Accordingly, with regard to limited land for growth, alongside with uncontrolled growth born problems, Smart Growth has attained attention as an important strategy; the growth which has the least harms to the environment and provides a safe city for living. One of the approaches in Smart Growth is having Brownfields in view. In such approach attempts are made to reusing polluted abandoned urban fields. Forgetting such lands leads to serious environmental, social and economic problems and consequently affects the whole city. On the other hand, Brownfield Redevelopment improves spatial and physical qualities of the city and, therefore, is a key element in moving toward sustainable communities.

In this research, using descriptive, procreative and case study method, objectives and advantages of Brownfield Redevelopment is scrutinized and managing such fields is determined. Afterwards, for acquiring deeper cognition we introduce a sample experience in England and explain how a Brownfield has changed to a sport complex which is in accordance with many sustainability criteria. In the end, a few actions are extracted in order to shed light on optimized reuse of such lands.

Key words:
Smart Growth, Redevelopment, Inner Development, Brownfield, Sustainability.

This paper has attempted to indicate the importance and negligence of the subject of environmental psychology as a lost ring in the education of architecture, where it should have a major role in the curricula of academic architectural education in this country.

Key words:
childhood, play-based learning, playing architecture, playable spaces.

The lost ring of environmental psychology in the education of architecture

Ali Namazian(Ph.D), **Fatemeh Gharooni(M.A)**

Are architects able to design buildings which their framework could improve creativity and help to reduce people's psychological and social disorders? The answer to this question requires to have a correct and rigorous understanding of issues that have a direct influence on the subject such as, being familiar with occupant's needs and their cultural and physical environments. This knowledge provides a suitable foundation for architects to design more suitable and appropriate buildings.

Because of interdisciplinary nature of the profession of architecture, apart from regular subjects in the architectural curricula subjects like social science, sociology and environmental psychology and arts have direct influence in architectural design courses. Therefore, not only the final product but also the design approach or process should be taken into serious consideration. In other words, between the development of design concept in the mental environment of the designer and final result or physical product must be a direct and appropriate correlation, although the distance between these two processes are not very close.

Throughout the history, the initial source of all inventions and innovations were based on the needs of individuals or societies, and in the course of time they usually have developed and evolved. Considering the population increase, pollution of global environment, limited natural resources and finally the social intricacy and complexity in the past decades have caused the development and application of environmental psychology in the profession of architecture unavoidable. Today environmental psychology is one of the important subjects in the well known universities in mostly developed countries. This discipline deals with the positive and negatives aspects of the built environment in relation to the people's behavior. In other words, the reaction of people's behavior in relation to the physical environments and vice versa. Consideration of these phenomena in the building design would improve the quality of the built environments.

Playability, A Design Strategy For Learning Spaces

Karim Mardomi(Ph.D), Sima Ebrahimi(M.A)

play-based learning is amongst the novel approaches towards learning in which, by regarding the concept of childhood, learning is defined as gaining experience trough different dimensions of playing. According to this approach playing is a mean of learning because learning is a relatively permanent change in behavior due to experience and for a child the most assured way of experiencing is playing. In addition, learning focuses on acquired aspect of development therefore the environment and its quality effect learning.

In this essay it is supposed by including appropriate components environment turns into an influential learning tool. The question is how the architectural quality of learning spaces reinforces learning objects of the space. This research focuses to find those qualities in architectural spaces which changes the shape of learning space to a motivator for the child. Since the majority of a child experiences are gained trough playing, it is most favorable the child receives those motivators through playing. The fact that today›s children are less interested in children›s games makes it necessary to encourage them to play providing the time and the appropriate hardware and software.

Reviewing the related literature extended the studies circle to visiting the cases of special learning spaces to analyze the space and their routine programs, studying the policies and objectives of the foreign organizations which encourage playing and searching the results of academic and executive centers› studies.

Having a look at the concept of playing, the outcomes of toy designing, play grounds and child-friendly urban spaces results in a quality in learning spaces which is named as playability.

Key words:
childhood, play-based learning, playing architecture, playable spaces.

Interaction design
The art of easily communication between human through product and service

Nasser Koleini Mamaghani(Ph.D.), Hasan Sadeghi Naeini(Ph.D.), Zohreh Erisian

Interaction design is an innovative and interdisciplinary new approach which refers to the relationship between people and products and services. This kind of design has been linked with many field of science, due to dedicated wide range of research activities. Previous studies indicated that this approach has been applied in various area of design such as industrial design, engineering design, service design and also the science related to the human computer interaction. In interaction design studies, there is a great emphasis on employing intangible characteristics related to user›s understanding of product in the form of interaction design. Also this approach is a perspective of many divers› components like culture, perceptual information, sensation, materials, function and feeling. On the other hand, today interaction design in not necessarily addressed to the interface design, but rather it is considered as an art to facilitate human interaction with products and services. Nowadays, the role and challenges of interaction design process in product design, is considered as a main identities factors in the living environments. Therefore in the present study, the role of interaction design in the urban furniture design has been investigated and used particularly in the public phone. The meaning topic in public phone has very important role in establishing communication between user and product. To this aim, while extended the implications associated with interaction design, data has been collected from library studies, observations, interviews and questioning. A –۵level likert scale was used in the current study. Results indicated that to provide and achievement the objective of this study, additional functions should be added to the exist public phones, such as: new services, using light under the phone numbers keys, nice and light sound during task performance, as well as new graphical and visual symbols.

Key words:
Interaction Design, Communication, Perceptual Information, Likert Scale, Public Phone.

Promote social interaction through the creation of safe pedestrian-oriented places

(Case study of Khaak-e Safid Neighbourhood, Tehran)

Sepideh Seyfollahi Fakhr(M.A), Taimaz Larimian(M.A), Amir Mohammad Moazezi MehrTehran(Ph.D)

The decline of social ties, has faced difficulties to residents of large cities such as loneliness and depression. In the opinion of social scientist, Solution of this problem is to rebuild relationships with strategies such as providing areas of interaction. Pedestrian-oriented urban spaces are places for the citizens and their participation in community life, addressing the qualities that make these spaces to maximize their vitality. The most prominent of these qualities, is security and safety. Unsafe places hamper the presence of people in the city as citizens of civil society.

Despite the great potential of Tehran pedestrian spaces for the presence of citizens, due to lack of proper definition of the territories, secret places, lack of proper lighting, etc., have become unsafe places with the chaos of the spatial and environmental pollution. Economic poverty, social delinquency, environmental pollution and lack of pedestrian-oriented spaces with insecurity in Tehran Khaak-e Safid neighborhood, are barriers of presence of people.

The main theory in this article is that security in urban spaces affect pedestrian movement, and during field studies in this area with CPTED techniques, reaches this conclusion that social interactions in pedestrian-oriented spaces can be strengthened through security Strategies.

Key words:
Pedestrian-oriented urban space, Social interactions, Safe space, Fuzzy AHP, Khaak-e Safid Neighborhood.

The effect of using interactive multimedia on improving the quality of education structures in architecture

Sara Soleimani(Ph.D)

Convey meaning in an effective and practical training to the students of architecture is the most important issues that almost all programs in architectural education face to. Currently, many school text books and lectures emphasizing architectural concepts and structures, are transferred from teacher to student, Many of the structural concept are abstract and invisible so when the materials are presented only as text, student's lack of knowledge of the concepts presented in the form of mental models and information are deeper trouble. Much of this knowledge be remain stagnant and inefficient Even so, when relevant issues are raised, are not available.

Acceptance of the need for structural understanding for architects, planners, architectural education, improving the technical preparedness of the students considered followed by the use of tools which provide opportunities for learning and knowledge transfer. Interactive multimedia tools that are new use computers and their abilities to enable to think in abstract concepts, In addition, students are able to be actively involved in their education. Instructional strategies that actively engage students more in the learning process are employed, have a positive influence on learning and knowledge transfer.

This paper presents more challenges about current educational structures and architecture students to help to improve education in the average level of the structures and concepts. In this context, the role and possibilities of educational multimedia in learning and transmitting knowledge to students of architecture structure has been studied.

Key words:
Structures of Education, Architecture, Learning, Knowledge Transfer, Educational Technology, Interactive Multimedia.

Investigation of factors affecting bicycle use in Isfahan

Ali Soltani(Ph.D), Samaneh Shariati(M.A)

The rapid increase of motor vehicles and car ownership rates in urban areas have lead to serious concerns such as increasing traffic congestion and air pollution. Several social, economic, environmental and physical consequences can be observed in Iranian today›s big cities due to paying non-significant attention to sustainable transport. Metropolitan Isfahan now is challenged with heavy air pollution, traffic noise and environmental degradation which make the whole region unsustainable in the longer term. Bicycle is one of most environment friendly mode which is suitable for this metropolitan area because of proper climate and topography conditions. Isfahan Municipality administration has established some 18 bicycle hiring stations recently throughout metropolitan area. This paper investigates the success and failure of this plan through a questionnaire field survey. The survey conducted in summer this year by asking bicycle riders to fill in the questionnaire (n=220). Using statistical analyses including bivariate correlation and binary logit regression, it was found that a mix of physical and socio-economical factors affect the use of bicycles. The current bicycle system is mostly used for recreational purpose rather than for a regular travel for varied necessary purposes. Furthermore, the overall evaluation of the users of the system is positive. The paper ended with giving some policy directions to improve bicycle facilities and standards to achieve higher share of bicycle use in Isfahan.

Providing a model to explain the meaning of place in educational environments
Case Study: Comparison of meaning of place in the school of architecture and non-architectural

Ali Akbar Heydari(M.A), Seyed Abbas Yzdanfar(Ph.D), Nazgol Behdadfar (M.A)

The inner stream of architecture is the human search circumstance to find existing base and to reveal concept through architecture symbols. Therefore, environment meaning perception and its composition trend and also dominant parameters influenced on it, can be effective in creating ideal environment which is the goal of architecture. This article attempts to obtain effective parameters for place meaning formation in educational environments. The participant of this study consists of 100 graduate students of different universities that include 80 architecture students and 20 technical courses students. Research tools of this qualitative study were open questionnaire and in-depth semi-structured interview in form of a mental sketch of students related to pre-determined optimal college definition. Also, they were asked to mention meaningful and significant places of their universities and also to describe reasons of place meaningfulness. Finally, this study represent a three dimensional model includes physical, educational and mental parameters and also claimed that effective factors of place meaning in educational environments follow this model. At last, it was provided how architecture and technical course students, percept and experience their educational environment using validity analysis.

Key words:
place meaning, architecture students, technical courses students, educational environment.

Assessing global experiences of transportation and intervention policies in urban old fabrics based on the pedestrian– oriented approach

Kayoumars Habibi（Ph.D）

Nowadays traffic challenges in cities and Air pollution caused by that have worst effects on people health and happiness and cause to death of cardiac and pulmonary sick. Development of public transportation, reduction of vehicle trips, cycling and walking have significant role in balancing these challenges and cause to improvement of people health. Regarding to public transportation, cycling, pedestrianization and restriction of private car entrance to urban space, can take apart main role in enhancing quality of urban spaces and citizen welfares. In this paper, in addition to introducing role, importance and problems of urban fabrics in some cities (such as Tehran) in relation to traffic and developing public transportation requirement, varied policies and solutions have been presented. These have been used in intervention pattern of urban old fabrics regarding urban planning and design of urban spaces especially in urban transportation. Then by comparing different renewal plans, level of the pattern usage will be showed in 16 different cities with geographic diversity in the entire world.

Key words:

Health, Public transportation, urban fabric, Intervention Method, Sustainability.

Evaluating criterions of urban space qualities on utility of tourist walking ways
(pioneering tourist walking ways in Esfahan city)

Mahmoud Mohammadi(Ph.D), Younes Changlavy(M.A)

Nowadays prosperity of cities in urban/place competitions has important relation to ability of presenting attraction image of themselves. Places and urban spaces as the most important factors taking that role have specific place in the structure of urban competitions. This paper with the main objective of considering one type of these places and urban spaces known as tourist walking ways is after introducing of qualitative factors of utility of these type of urban spaces, and with the focus on these criterions ranks chosen case paths. Therefore the analytical technique using in this paper is Fuzzy Analytical Process. This technique by having specific aim of research, criterions of tourist walking ways chosen from theoretical context and views of users, authorities and direct analyzing of places proceeds to consider of chosen alternatives. Case study indicates that Jolfa path is the top ranking tourist walking way related to utility of these paths based on criterions of tourist walking ways qualities.

Key words:
Tourist walking ways, Fuzzy Analytical Hierarchy Process, criterions of urban space quality.

Approach of sustainability in the design of ancient objects

Pardis Bahmani

The design of products, there are a lot of factors that affect the various stages of a particular design need. First, it requires the knowledge of the culture and aspirations of the community is the goal. The sheer volume and variety of products on the market has caused a great range of choice to be used in the analysis. His election was arguably the match of his beliefs and norms of various products in the environment will be. Objects and accessories that people use in everyday life and in particular in the study of culture has them. One of the design principles of sustainable social and environmental factors in the design of products.

In this paper, by introducing home-style dishes designed for the early centuries of Islam, the principles of sustainable design in building and shaping the ancient objects have been noted. In other words, the main goal of this article is to present the design approaches used in the design of the container is stable. It is in two parts: the aesthetic and meaningful elements offered .And For analysis of Gestalt analysis of macro and micro elements are used. Methods of historical research – a comparative case study used content analysis. First, definitions related to the design, creation and innovation, sustainable design is expressed. Then, in the early centuries AD typology of household utensils, tables using Gestalt analysis, design style is presented in this container. In the end. Sustainable design principles used in the design of the container is checked.

Key words:
Sustainable design, household utensils of ancient Persia, early Islamic centuries.

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