

A Review on the Extent of Urban Design Intervention in Iran's Architectural Structures for Interaction with Architectural Innovation

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ABSTRACT: The intervention of urban design in Iran's architectural structures has been for many years a challenging issue for architects and urban designers over their professional realm. The preservation of architectural structures in Iran has always resorted to extremes. This control and direction has sometimes resulted in exclusion of architecture position and has sometimes, once faced with lack of proper direction, led to confusion in urban realm and environment. This study reviews the theoretical literature including issues such as context, urban design realm as well as urban design control and then investigates a number of case studies selected from urban design measures carried out in Iran in order to identify the weaknesses and the reasons behind them. In regard to the theoretical basis achieved through literature review and the current procedures in Iran and also an analytic framework research, it seems that through modification of the executive system, implementation process for projects, application of urban design review tools for projects controlling, attention to gradual enlargement of cities and lack of certainty in design predictions in urban design process, the current challenge in Iran among architects and urban designers can be minimized. So the results of this analysis will illustrate a new vision- a native one - for alternative policies in relation between architecture structures and urban design controls.

Keywords: Flexibility, Context, Urban Design Control, Creative Architecture, Urban Space

INTRODUCTION

Since the introduction of urban design as an independent major, the trace of the subject of this study is indirectly considered in some parts of the theoretical literature of urban design. For instance: within the studies which urban designers have conducted in order to determine the urban design realm, they have proposed a variety of different viewpoints regarding the position of architecture and the influence of urban design. (Stein, 1955, Barnett, 1982, Gosling et al., 1984)

In theoretical literature of design which deals with contextual architecture, landmarks and monumental architecture, a number of related issues can be found. Emphasis on the context and architecture's imitation of context or attention to it in designing single monuments of architecture in addition to defining the position of landmark architecture in the realm of urban environment is among this group of theoretical issues.

(Brolin, 1980, Cantacuzino, 1994, Kunibert et al., 2010)

Different perspectives in experiences and transcripts pertaining to urban design, which deal with issues related to urban environment, particularly visual control, indicate the significance of this subject in the scientific and professional circles of urban design.

(Scheer et al., 1998, Duany et al., 2000, Carmona, 2009)

Although there is no definite answer for this challenge in world theoretical literature, proposing this issue in different realms of urban design intensifies its significance. In Iran, the facts such as "urban environment is a new phenomenon, urban design is a new major and the confusion and irregularity arising from recent irregular construction" have resulted in the emergence of an uncertain atmosphere in terms of controlling and methods of controlling architectural structures which increased the challenge between architects and urban designers. Therefore, adding up the literature of this issue with the science of

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urban design in Iran can pave the ground to fill one of the shortcomings urban designers (who are typically architects themselves) face in their challenge with architects and in the process of designing an urban environment.

1.Literature Review

The literature review deals with three subjects of responsibilities of urban design and the extent of urban design intervention in the realm of architecture, context and its opposition with architectural innovation and urban design control tools, which constitute the related theoretical branches. At the end, a summary will be provided on this issue.

1-1.Urban Design Intervention in the Realm of Architecture

It is obvious that urban planners deal with the allocation of resources for future needs and architects just pay attention to the information on the basis of which single constructions can be built. However, there is a substantial middle ground between these two professions which cannot be filled by either one completely (Barnett, 1982). Therefore, urban design is a bridge between urban planning and architecture (Beckley, 1986). In addition, it is a part of the process of planning which deals with the environmental physical quality (Shirvani, 1990).

Determining the responsibilities and the realm of urban design intervention is an overwhelming task. Although the responsibility of urban design is to design the physical and spatial design of the built environment (Shirvani, 1990), there are two perspectives in regard to the realm of its intervention: one of the roles of urban design is the creator and the other one is urban design as the guide of urban environment and not its creator. The first perspective is clearer for the early theoreticians of this profession. The latter perspective, however, does not consider urban designers as the creators of the built environment and are confidence that they make decisions which enable others to create and establish a built environment. In fact, they set "the game rules" for architects and other related professions (Trieb, 1974) and these rules can be seen in the form of visions, guidelines, and standards. In urban design the intention is to show the built environment without designing the details (Shibley, 1982; Lai, 1998). Therefore, urban design is considered a higher order, in such a way that it is indirectly related to the subject of design and is one step away from design; thus it is regarded as a second order design.

1-2.Architects Creativity Opposed to Context

"Context is referred to as a number of general aspects of architecture, colors, repetition of components and physical components which exist on the edge of the streets and are considered as the factors of its unity and identity" (Zekavat, 2002). The establishment of new buildings in the available context and maintenance of available buildings as the context have become serious concerns. Some are of the conviction that contextualism is a reaction to post-war constructions

(Cantacuzino, 1994) and some others believe that it is a reply to the education that modern era architects have gone through (Carmona, 2009). In the historical path of the 20th century, three main approaches are clear in regard to the attention or absence of attention of architecture toward context:

The first approach emerged along with the beginning of modernism and attention to historical break. The architects in this period such as Le,corbosier and other modern pioneers supported this perspective. They believed in ignoring the context with the aim of establishing architectural contrast and creation (Brolin, 1976). This approach pays attention to the issue of architectural design as a pure art and believes in slight or lack of intervention in what a single designer or artist performs. They regard the further tyranny against the emergence of their creative art as being rooted in the context and restrictions that have been imposed on them (Carmona, 2009).

John Lang states that the majority of significant architectural works do not regard the role of the building they design in having good streets, unless they use the context as the background for a play. The majority of architectural critics support this issue. They regard building as artistic works. From this perspective, people have to live with some achievements under the name of art (Lang, 2005).

The second approach was formed with the fall of modern movement and the emergence of post-modern thoughts in the realm of architect believes in the priority of context to architecture. This group doubts the significance of creativity in urban environment (Carmona, 2009) and is of the conviction that the individuals or groups that can challenge the avant-garde by their designs are in fact moving towards another problem with their opposition against following the general rules. Defending art will result in an opposition with enjoyment of city (Lang, 2005). Based on this issue, giving priority to city and its landscape in contrast to individual creativity of architects, the priority of context to innovative architecture is emphasized (Brolin, 1976).

The third approach supports the interactive perspective which is manifested in the viewpoints of recent urban designers and has become manifested in the recent literature review by going through post-modern thoughts. The priority of architecture on urban environment is definitely not desirable; however, to get rid of the opportunity of avant-garde architecture is impossible. What is being constructed must be innovative and creative and go beyond the boundaries of art (Cantacuzino, 1994, Alexander, 2010).

1-3.Tools of Urban Design Control

The challenge faced by architects and urban designers reaches maximum when urban design attempts to control and guide architecture. In the urban construction of other countries, the controlling tool for urban design can be identified under the framework of urban design guidance and urban design review documents. The urban design system in other countries is mainly implemented whether separated or linked to planning

process (Carmona et al., 2003, Talen, 2009).

For instance, urban design control in the UK is totally separated from the planning process. In this country, in order to evaluate projects, urban design review is used at all levels from policy-making at beginning to request for issuing permissions (Hall, 1996). In Germany and French, strategic plans are provided for large projects and they are usually completed at the national level. In the strategic plan, urban design guidance has the controlling role; however, in some cases urban design review is being used (Carmona et al., 2003). In Asian cities, local governments attempt to add urban design controls to the zoning system but it has not been very successful in regard to enhancing environmental quality (Punter, 1999).

In line with minimizing the challenge between architects and urban designers, the flexibility of controls plays an important role. The prescriptive degree of the criteria or its flexibility depends on the desirable control level. Lack of flexibility in the guides or urban design review encourages the imitation and lightening the validity of location (Scheer et al., 1998).

The problems regarding urban design control can be categorized into four groups, including:

1. The controls which deal with superficial issues such as the color of protections which do not add the environmental quality.
2. The controls that go to extremes and try to make decisions for all design-related issues and thus result in acting according to a formula and make the designer architect's presence unnecessary (Scheer et al., 1998).
3. The controls which are used regardless of congruity or location.
4. The controls which focus on simple violations to achieve the desirable design.

All these issues are the result of reductions or lack of flexibility and will lead to lack of variety, excitement, and happiness in the urban realm. Therefore, instead of reducing the control's flexibility, it is better to review the efficiency and the issues related to it. In addition, if we pay attention to the fact that the formation of a city is gradual by nature and is not sudden (Alexander, 1987, Row, 2011); the necessity for lack of policy-making for all the components of a building and flexibility in policies will become clearer.

Therefore, the theoretical literature review is on the one hand the result of agreement in the perspectives of a large number of contemporary urban designers, dealt with by Varkki George, Trieb, Shirvani, Shibley, and Carmona who introduced the urban designer as a second-order agent in designing urban environments. On the other hand, in regard to context-related issues it refers to viewpoints of recent theoreticians who have interactive viewpoints on both sides of the matter, i.e. attention to the available context while maintaining the role and position of the original architect.

It is also based on Alexander's idea in regard to the nature of gradual formation of the city and advocates the fact that definite prediction of the impact of urban design intervention is

not possible in the majority of cases due to the gradual nature of urban development. Therefore, it is useless and unrealistic to set responsibilities for all the components of architecture.

2. Study and Evaluation of Current Trend in Iran

Based on the variety and complexity of urban design measures in Iran, this part of the study attempts to identify and categorize the measures, select a number of case studies among them and then identify and appraise the problems in the current trend of urban design measures in Iran using the results gained from the study and analysis of such cases.

2-1. Categorization Urban Design Measures in Iran and Selection of Case Studies

Identification and categorization of urban design measures in Iran is very complex given that urban design is a new major in Iran and on the other hand, most of the measures which are conducted under the name of urban and regional planning projects, environmental design, landscape architecture and even architecture are urban design by nature. In addition, most of the projects defined as urban design projects are different from the major. This part of the study is conducted to categorize the urban design measures in Iran with the aim of identifying selected case studies. It seems that urban design measures in Iran can be categorized based on the following criteria:

1. Implementaion.
2. Type of development including infill development (development inside the existing texture), annexation development (creating new development along with the existing texture) and new development (constructing a new urban area).
3. Actions scale which includes three levels of enormous, average and small.
4. Area of urban environment domination which is opened according to the significance and the service that the environment provides in the city.
5. Development on the basis of process-oriented or product-oriented perspective.
6. Urban design measures in which design is done by architectural teams or in which the design teams have the main responsibility.
7. Urban design measures which are not regarded as urban design but by nature deal with urban design.
8. Categorizing based on the product and result of the design process that includes text, 3 dimensional pattern or both at the same time.
9. Categorizing great integrated developments (in which the employer is the same as the project's architect) into two groups. One is formed based on an urban design project and the other lacks urban design.
10. The decisions taken as bylaws, decisions of expert and non-expert committees and their impacts on urban environments.
11. Perception and awareness of employers on whether

employers have command of the design process and formation of urban environments.

In order to introduce and analyze the case studies, on the one hand, it is important to categorize the cases on the basis of their distinguishing features and on the other hand it is not possible to consider clear and vivid boundaries for issues due to the significance of the study's quality. In addition, it seems that all different types of the existing urban design projects, no matter what the category is, are considered as a type of development in such a way that they are either new developments or infill development and annexation development.

After investigating 32 cases related to the subject of this study, 9 cases, which are more prominent and secure higher subject matter variety, were selected. Among the new development projects which have been constructed in Iran, three new cities of Baharestan, Parand, and Pooladshahr have been selected. Among the few annexation developments in Iran the three developments regarding Shoshtar No, Navab Safavi highway, and Saheb Al-Zaman streets have been selected. Among infill developments, three projects pertaining to Tehran's Inghelab Ave, Isfahan's Charbagh Abasi Ave. and Bam's Imam Khomeini Ave. are studied. Table 1 illustrates the status of the selected urban design projects as categorized according to the abovementioned urban design measures.

2-2.Results of Study and Analysis of Case Studies

The results obtained from studying the selected case studies indicate that there is a large challenge between architects and urban designers in country. Further investigation of the documents related to case studies led to identification of three

fundamental factors pertaining to this huge challenge; First, the challenge resulting from **weakness of the legal position of urban design in Iran's urban construction system** and its impacts on controlling single architectural constructions, Second, **the prescriptive controls** which are done regardless of the scale, type and nature of urban development, Third, the existence of **comprehensive control** to the extent of an architectural construction details.

The results of the weakness in the legal position of the urban construction system in Iran eventually results in the challenge between architecture and urban designers because in Iran's system, which is legally based on a comprehensive and detailed project, on the one hand, there is not a potential for identification, understanding and control of the quality-based aspects of the city and the result is priority of quantity-based aspects over quality-based ones in urban projects. In addition, this is due to absence of arrangement between legal and official tools of urban construction in Iran and the quality layers of the city as well as the application of quantity tools for quality control. This significant issue results in the fact that controlling single architectural construction moves towards a strict easy-going approach so to match it with quantity-based tools of control. This orientation is in contrast with creativity, which is an inseparable principle for architectural design. Consequently, the challenges will emerge.

On the other hand, the role of urban designers will be weakened in the realm of urban environment and it will result in the exclusion of interactive perspective. Even if this control is in the form of an integrated large architecture by architects (since everything is pre-determined in such projects), the position

Table 1: Identification of selected case studies among urban design measures in Iran Source:Authors

Type of development		New						Annexation		Infill	
		Parand new city	Pooladshahr new city	New Shushtar	Navab Safavi highway	Shohada Ave and Sq. in Mashhad	Inghelab St. in Tehran	Charbagh St. in Isfahan	Imama Khumeini st. in Bam		
implementation	implemented	✓	✓	✓	✓	✓					
	Un-implemented						Under construction	✓	Under construction	Under construction	
scale	Enormous	✓	v	✓							
	average				✓			✓	✓	✓	
	small					✓	✓				
Action area and domination	Enormous					✓		✓	✓	✓	
	average				✓		✓				
	small										

Table 1: Identification of selected case studies among urban design measures in Iran Source:Authors

orientation	product-oriented			✓	✓	✓	✓		v	
	Process-oriented	✓	✓					✓		✓
Result of the project	Text	✓	✓							
	3D pattern			✓	✓	✓			✓	
	Text and 3D pattern						✓	✓		✓
Profession of designers	architect	✓		✓	✓	✓			✓	
	Urban designer		✓				✓	✓		✓
Integrated large development	Without urban design	✓	✓						✓	
	Based on urban design			✓	✓	✓	✓	✓		✓

of innovative architecture will be removed, and this is what happened in New Shushtar and Navab.

The high level of prescriptive aspect in urban design controls in Iran, which is itself one of the main reasons behind the emergence of large challenges between architects and urban designers, has emerged due to different reasons. In Iran, the ending of the design process of an urban design project will be the ending of the activities of design team. This is while most of the events are manifested in the implementation phase of the project, which itself requires decision-making. Therefore, lack of trust in the executive system of the projects and its inefficiency in the majority of cases results in urban design control to become prescriptive and also a clear emphasis on the issues which might change the future of the project in the long-run. On the other hand, the low level of prescription might result in misuse of regulations and it will change the future of the project. This is while if certain grounds are provided in the process of implementing the projects, logical decisions might provide architects with the opportunity to have innovations and it will eventually enhance the quality of urban environment.

The undeniable impact of non-expert decisions on the face of cities, whether it is due to the intervention of non-expert employers or designing single constructions, enhances the excessive prescriptive controls on single architectural constructions. The examples are Bam's Imam Khomeini St., Mashad's Shohada Sq. and Mashad's Sahib Al-Zaman St. however it seems that reforming the factors affecting implementation process of projects, and this problem will be minimized.

The third is the effects arising from comprehensive controls, at the level of architectural details, which is the result of the absence of trust in the future of the project with regard to its current trend in Iran as well as doubts on the formation of architecture in line with the objectives of the project and the existence of large integrated projects that are the result of comprehensive control in all aspects and designing to the level of architectural details. Absence of attention to the nature of gradual growth in urban developments in Iran is one of the

other issues which results in comprehensive control. However, in urban projects it is necessary to pay attention to two factors of time and location and have the required flexibility for confronting the unknown and uncertainty in common predictions of planning. In addition, it should not be forgotten that the expectation of employers affects this issue as well. In the majority of urban design projects, the employer guides the project towards comprehensive control in all aspects. Therefore, reforming the current trend in Iran and providing the grounds are among the important factors which need to be taken into account in line with minimizing this challenge.

CONCLUSION

Regarding the findings of theoretical literature of the project, which is the key for establishing interaction and minimizing the challenge between architects and urban designers, they are categorized into three groups of urban designer as a secondary order in designing, establishing interaction between context and architectural innovation, and attention to the gradual growth of the city, the current condition in Iran dictates a number of issues which have propelled urban design towards excessive prescription of controls. It seems that in order to have better conditions for stimulating the innovation of the architects and enhancing the quality level of urban environment, it is necessary to establish reforms in the perception of creators of urban environment and in the country's system in order to establish interaction between architects and urban designers. Therefore, the results of this study can be summarized under three groups; context of urban design, controlling tools of urban design, and attention to the identity to urban design.

In Iran, the balance of perspective towards priority of context and creating opportunities for providing monument and out of context architecture and avoiding context imitation in architectural works, flexibility of controlling tool and attention to the quality of urban design in contrast to its quantity, reforming the system of implementation of the project using urban design tool review, enhancing the professional skills of executors, reducing the impact of people on the future of

Table 2: introduction and categorization of the findings Source:Authors

theoretical framework	issue	reforming the method of intervention of urban design	reforming the current procedure in Iran	
Urban design is first-order -design	context	attention to the type of context instead of controlling the appearance of the construction	reforming the absolute context-based vision in Iran	
		attention to the identity of location architecture instead of imitating context architecture		
		providing opportunities for introducing out-of-context and monument architecture		
	urban design control tool	correlation between urban design intervention and development scale	enhancing the legal position of urban design in the urban system of Iran	strengthening quality aspects in comparison to quantity aspects in control tools
		using flexible control tool	reduction of prescription level	using urban design review along with guidelines presence of design team in implementation phase
		reduction of prescription on controlling urban design	reforming executive system	enhancing the professional skills of the project's executors or substituting them with capable ones
Piecemeal urban growth	attention to substantial fact of city	attention to the process-oriented aspect of urban design	reforming the executive system	reduction of the effect of people (clients) on the process of urban design and substituting them with expert group changing the perspective of employers and attention to the aspect of uncertainty in design predictions
		urban design to the level of defining the small aspects of the growth changes	avoiding sudden decisions and avoiding large-scale and integrated architectural projects	

projects and forming expert teams in the execution body, avoiding large-scale and integrated projects are among the findings of this project. The following table illustrates introduction and categorization of the findings (see table 2).

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