Research Paper

Codification of Procedural Concepts of the Urban Design Process and the Study of Their Application in Iranian Urban Design Projects

Seyyed Ali Nouri *

Department of Architecture, North Tehran Branch, Islamic Azad University, Tehran, Iran

Abstract

Cities today face complex problems that the current urban design process is unable to address; hence, many urban designers are looking for knowledge that can guide them in how to navigate the process and legitimize the product of the urban design process. Therefore, the purpose of this study is to identify the concepts affecting the substantial and procedural evolution of the urban design process and to evaluate the application of these concepts in Iranian urban design projects. So by referring to the procedural theories, the basic concepts are extracted in the conceptual framework. This framework, in addition to explaining all the practical concepts that guide the process, describes how these concepts are applied in stages of the urban design process. In this way, obscure and sometimes abstract concepts are applied practically. Also, it allows the evaluation and analysis of the urban design process of Iranian projects using the directional qualitative content analysis method in the next step. The evaluation results show that, respectively, the concepts of public interest, power relations, and public participation are the lowest, and the concepts of multilevel intervention, contextualism, problem orientation, and flexibility have the highest application rate in Iran's urban development projects. These results represent the prevailing strategic approach, at both theoretical and practical levels, in Iran's urban design discourse.

Keywords: Procedural theory, Urban design process, Evaluation, Qualitative content Analysis, Iranian urban design projects.

INTRODUCTION

Today, the controversy over the dual theory-practice interaction is one of the most controversial issues in urban discourse. These topics mainly emphasize the need to form reciprocal relationships between different forms of knowledge in the formation of the urban knowledge cycle; A cycle in which theories shape the discourse of what the situation is and should be by analyzing the results of the action and practice of professionals, and by correcting inadequacies and developing theoretical knowledge in accordance with real-world actions, they guide the practice of urban planning (Alexander, 2010). The study of the evolution of urban design knowledge also shows that the scope

---

of application of this concept has been continuously refined and polished in parallel with the development of theoretical and practical knowledge in this field. In other words, urban design as a dynamic phenomenon has always experienced a process of change, evolution and different patterns, and a wide range of ideas about the nature of urban design, and the basic dimensions and components that govern it (Madanipour, 1996, 2006; Kreiger, 2003; Lang, 2005; Carmona, 2014). This change in the nature of urban design and its dominant content, with different emphasis on visual, spatial, and social aspects (under the influence of the dominant paradigm in different periods), has directly influenced the urban design knowledge procedures and consequently the processes required to achieve the goals and products of urban design (Madanipour, 1996). Despite the impact of content and procedure and their role in the formation of comprehensive knowledge of urban design, the study of theoretical literature shows that the discussion is often done in the field of urban planning knowledge (Faludi, 1983; Friedmann, 1987; Forester, 1993; Innes, 1995; Healey, 1996; Allmendinger, 2002; Hoch, 2007; Alexander, 2010), and is less explicitly discussed in the context of urban design knowledge. Most urban design theories focus on the content and quality of urban space, and the procedural issues and the impact of its concepts on how the urban design process is conducted have not been considered (Lang, 1987, 2005; Carmona, 2014; Banergee, 2011; Cuthbert, 2011). According to Lang, "designers have a hard time lacking a theoretical foundation for navigating the process".

Therefore, this study tries in the first step, on the one hand by examining the evolution of urban design, in different time periods and under the influence of the paradigms and epistemological principles that govern it, and on the other hand, by using theories of procedural knowledge of urban planning, examine the concepts affecting the evolution of urban design and, consequently, the content and procedure of urban design processes. The method adopted in this step to achieve the goal is the method of chronological analysis of theoretical foundations, which examines the evolution of content and the procedure of the urban design process on a time axis. In the next step, as researches show, so far no research has been done to review and analyze Iran's urban design projects and governing processes and to assess their compliance with the theoretical knowledge of design processes, criteria, and indicators affecting the content and procedural changes of the urban design process are extracted and compiled in the form of an evaluation framework. The evaluation framework provides the possibility of reviewing, analyzing, and evaluating the urban design process in practice, and by using the method of directional qualitative content analysis and appropriate statistical methods, it answers the main question of the research, namely, the application of theoretical knowledge concepts of the Iranian urban design projects.

LITERATURE REVIEW

An overview of the evolution of urban design shows that most of the theories of urban design in the early topics focused on the physical and aesthetic dimensions and considered only artistic creativity as what can form the main foundations of urban design (Golkar, 2003; Lang, 1987; Steino, 2003). The process of urban design in such an approach is mostly intuitive and solution-oriented, and although it encourages divergent and productive thinking, and achieves innovative designs, but it increased the Possibility that the original problem would be confused with another problem and solved; Because in this approach, the designer's goal of the design is not based on solving urban problems, but based on creating new shapes in the city based on artistic principles and does not consider external factors affecting the design (Steino, 2003). Accordingly, since the

design product is based on the designer's choice and mental processes, any objective and value judgment about the content and procedure of the process will be futile and clearly irrelevant to the design plan. Hence, the product of this form of the design process is more the judgment of professional designers and architects than the subject matter of the actors involved in the urban development process and the users of the plan (Inam, 2002). The non-realization of any proposed urban design plans in this period led experts to investigate the causes of this problem and the accuracy and efficiency of traditional design thinking about complex systems such as contemporary cities, which Jacobs (1994) introduces as a complex, organized problem. This led to a shift from solution-oriented approaches to problem-oriented approaches in urban design.

Model of Urban Design Process based on the Rational Problem-Solving Approach

In the late 60s, problem-solving approaches, which sought to correctly identify and define urban problems (including political, economic, social, aesthetic, functional, etc.) and solve them in ways similar to the nature of the problems, were taken into consideration. As a result, in addition to changing the content of urban design, urban design practice is also modeled based on scientific methods due to the dominance of positivist epistemology based on the rational paradigm. In the context of such circumstances, urban design is considered an action that should be done in a world that is completely rational and away from politics and the interests of power. And it derives its unique legitimacy only from scientific ideas and principles, technical skills, objectivity, and neutrality. Accordingly, the first models of the urban design process are largely based on rational decision-making models in other disciplines and are considered a general model of decision-making (Lang, 1987). By accepting the urban design process as a rational

decision-making process, the urban design process is introduced as a set of actions including status assessment (data collection and analysis), formulation of goals, developing general solutions, detailing solutions, evaluation of solutions, The translation and transformation of solutions into policies, plans, instructions, and executive plans, which occurs in sequential linear order (Shirvani, 1985).

Accordingly, the process of comprehensive rational urban design begins with the stage of recognizing and analyzing information, because based on positivist epistemology, the designer must be neutral in the face of the subject and face the subject under investigation without any prejudice. Therefore, the stage of data collection is done in a comprehensive and non-selective manner and in all dimensions, including social, economic, and physical, with completely scientific methods. Also, since the results of the study and understanding of the current situation are expected to define and explain the goals and formulate solutions, the stage of cognition in the comprehensive rational process forms the basis of the various stages of the process. So goals and solutions are determined with the utmost simplicity from the perception and analysis of the status quo without the participation of low-level actors and their needs and interests. Accordingly, the elitism and lack of participation of citizens and users of the plan in the decision-making process have turned the process of rational urban design into a process neutral to value judgments and independent of power considerations. Also, because in the face of the decision-making environment, the assumption of a comprehensive rational approach is on the stability of the decision-making environment and ignoring the conditions of environmental uncertainty (Forester, 1989, p. 38), the plans that are prepared based on this approach are completely static and physical designs (blueprints) that depict a desirable and definite future for a certain period; Accordingly, design practice is defined as a

technological process, regardless of the actual facilities and implementation tools, and has limited feasibility and adaptability (Hillier, 1972).

Model of Urban Design Process based on the Strategic Approach

In the face of the shortcomings of the comprehensive-rational urban design process, and the widespread criticism of its comprehensiveness, certainty, and technocratic processes in dealing with the changing conditions of urban areas, in the 1970s urban design as an integrated whole based on rational, scientific, elitist and technocratic methods is criticized and the knowledge and practice of it tend to short-term, gradual and participatory processes. In this period, referring to the theories of other fields, especially urban planning, urban design is assumed as a system of guidance and control that manages the city system through a continuous and multilevel process, and In the framework of general city planning (while maintaining the priority of planning over design) is considered as a decision-making environment and deals with a larger framework of public policy, the public sphere and public interests (Hall, 1989). This new and dynamic approach in urban design and consequently the process of urban design, which was introduced as strategic urban design, considers aesthetic and functional considerations as only part of decision-making and introduces a framework for policy-making and guidance to improve the quality of the environment built at different levels and scales and in accordance with the social, political and economic conditions, and different and conflicting demands of stakeholders and influential people as the main goal (George, 1997).

Among the urban design processes that have been inspired by a strategic approach, Cliff Moughtin's model can be mentioned. Moughtin presents the urban design process in the form of a cyclical diagram, which, unlike the

comprehensive rational process, begins with the stage of setting or assuming goals (preliminary vision). In the Moughtin diagram, simultaneous attention is paid to the design, implementation of the plan, and constant monitoring and continuous correction of decisions, which is a feature of the strategic approach (Moughtin, 1999). Cremona et al. also propose a process for urban design that, given its inclusion in the framework of a comprehensive upstream program and the need to take advantage of these guidelines and agenda, begins with the preliminary visioning phase, and the analysis establishes the definite goals and vision of the project and its other stages (Carmona, 2003). After performing the analysis stage, it leads to the establishment of the goals and the definite vision of the project and its other stages (Carmona, 2003). Formulation of a preliminary vision at the beginning of the design process, in addition to familiarity with the role that upstream plans design for the space and directly affects the content of the preliminary vision, is a reflection of the expectations and desires of actors involved in the design (Carmona, 2014). Accordingly, the urban design process defines decision-making as a strategic action in which competing actors seek to achieve their goals and create a balance of power. Such a vision serves as a guiding framework for other actions and steps in the design process; Because of the topics to be studied and the extent of their study in the cognition stage, and consequently, how information is analyzed and design goals and policies are formulated, depend directly on the preliminary perspective and priorities based on it. On the other hand, the process of strategic urban design with reference to the theory of discrete incremental (Lindblom, 1959) and mixed scanning (Etzioni, 1967) introduces a multi-level intervention in the sense of covering all spatial and temporal scales from the macro-level (long-term planning based on effective topics and goals) to micro (operational and short-

term planning) to navigate the process. In addition to accepting the limitations of cognitive possibilities, this prepares the process for dealing with multiple uncertainties, thereby providing a degree of feasibility for its actions. Providing a multilevel framework of decision-making, in addition to negating the comprehensive model and formulating realistic goals based on contextual conditions, provides the possibility of transferring some of the decision-making tasks to local institutions and provides the basis for the realization of participatory concepts and attention to the demands of lower power actors. By accepting the presence and participation of rival actors and their role in providing resources and contexts for project implementation, evaluating solutions is also an output of the trade-off process between actors involved and their consensus, not technocratic and bureaucratic decisions; In such a process, the designer is an inventory with strategic rationality, which allows analysis, judgment, and persuasion of the parties to the discussion to achieve the desired goals and select the superior option. Emphasizing on multilevel intervention and participation of stakeholders and influential groups, the output of the strategic urban design process is a multi-level document consisting of goals and guidelines that allows different plans to be coordinated at different scales and time horizons by different people, and there is a constant and cyclical monitoring of the urban environment and contingent decisions about unforeseen situations and correction of directions (Carmona, 2003). Accordingly, the designer in the strategic process simultaneously designs, implements the plan, and evaluates and continuously modifies the decisions after execution in the design process and by avoiding rational authoritarianism and scientific elitism in the urban design process, leads the design process towards participation and wisdom, contextualism, and realism.

Model of Urban Design Process Based on the Communicative Approach

With the reform and completion of the strategic approach as well as the use of social and philosophical developments in the 1980s, urban planning and consequently urban design, with a critical approach, tends to attract social, moral, and participatory theories (Punter, 1991; Alexander, 1984). During this period, the reorganization of urban design, based on the concept of place and critical reading of it intensifies, and ideas about the close relationship between design and physical context, on the one hand, and on the other hand, attention to human experience, urban space, and how people perceive and expect space as the main users, are included in the scope of urban design (Alexander, 1971; Relph, 1976; Rapoport, 1990). In addition to changing the content of urban design, in this period, the communicative approach based on the critical paradigm, By denying objective perceptions and getting rid of the value of the position of proving belief, introduces social reality as the product of processes of social interaction, In which the actions of different actors are coordinated through communicative behavior, that is, through language and the attainment of mutual understanding (Habermas, 1985; Friedman, 1987; Sager, 1992; Campbell, 1996; Healy, 1996; Innes, 1995). Also, this approach, with concern about inequality in the distribution of power in society and its importance in the feasibility and effectiveness of decisions, tries to combine different forms of knowledge based on three types of instrumental, strategic, and communicative rationality, and provides a comprehensive concept of basic urban planning knowledge (Albrecht, 1986). This means that proponents of the communicative approach recognize the political and valuable nature of the urban planning profession and believe in its ability to articulate the values of rival discourses, and try to bridge the gaps by combining

Habermas's communicative rationality (Habermas, 1985) and Foucault's theory of power (Forster, 1989, 1993; Healy, 1996; Flyvbjerg & T. Richardson, 2002; Allmendinger, 2002; Hoch, 2007 Innes, 1995;). Accordingly, if the concepts of communicative approach are used to define the urban design process, it can be said that each of the actors involved in the process presents its specific discourse in a collective decision-making. Finally, the form and content of the urban design process is determined by a set of competing discourses and interactions between them, which emerge in a process of communicative and strategic action. Although achieving consensus and conciliation based on communicative action (interaction and communication) and strategic action (bargaining) poses problems and threats to the process, it can still be assigned to the urban designer that uses his / her interdisciplinary knowledge to increase the actors' understanding of their interests and responsibilities in problem-solving in a way that maximizes the common ground and overlap of the interests of rival discourses. In such a situation, a combination of different discourses results in an integrated discourse. In other words, the understanding of urban design as a purely technical and intellectual practice from top to bottom changes to bottom-to-top urban design and as knowledge arising from consensus and interpersonal communication based on communicative rationality.

Accordingly, in the first step of the communicative process, stakeholders and influential groups are identified as partners of the design team, and the degree of involvement of each partner in the decision-making process is determined. After clarifying the organizational structure of the process and obtaining the agreement of the partners about the structure and how they cooperate, the designer tries to be aware of the interests of the parties involved through communicative methods and clarify the vision of the process on design issues through a linguistic interaction and intersubjective communication. Therefore, in addition to common design techniques, designers must also learn communicative methods; Methods based on a form of Friedmann's social learning process in which designers and other actors are considered equal and reach a consensus about their interests and goals through dialogue and sharing different forms of knowledge (urban technical knowledge along with citizens' empirical knowledge) (Friedmann, 1987). Finally, the process of communicative urban design can be defined as a process consisting of two intertwined chains. In one of the chains, the general decision-making process is followed as a scientific-technical category, and in the other, in interaction with the first chain, a communicative process is followed that through the application of negotiation and consensus-building skills, special attention is paid to multilateral dialogue, mutual learning, capacity building and launching various partnerships in order to make projects feasible (Golkar, 2011).

What distinguishes a communicative urban design process from a strategic process is not the process steps but the content and how the urban designer processes the process; How to go through the communicative process only by technical tools and relying on obtaining information from the place, has not been successful but this process requires the presence of all the discourses involved, not just technologists and formal powers, in the urban design process. The presence of stakeholders and influential groups at different levels of power, and their participation in formulating goals, designing and evaluating design options, in addition to securing the rights and aspirations of different social and political groups, emphasizes the impact of pressure groups and power inequalities in the design process and provides the process's feasibility from the beginning.

Accordingly, the evolution of the conditions and paradigms governing the time and its impact on urban design and the product expected from it,

changes the procedure and how to achieve urban design products, and with a process approach instead of purely intra-mental methods, it recognizes, analyzes, predicts, and guides and controls the development of the city. In the process approach, the tool for dealing with complex, organized problems, such as the city, is assumed to be an urban design process in which a chain of activities makes a logical connection between a design problem and its corresponding solution. But the logic of how the problem and design solution are related has changed with the

evolution of the nature of urban design and the concepts that govern the dimensions of urban design procedures, and has led to the formation of new patterns of the urban design process. In other words, in the evolution of the concept of process, major changes are observed that the scope of its fluctuation can be examined and analyzed in the form of three approaches of rational problem solving, strategic approach, and communicative approach. Figure 1 shows a comparison of the evolution of content and the procedure of the urban design process based on these approaches.
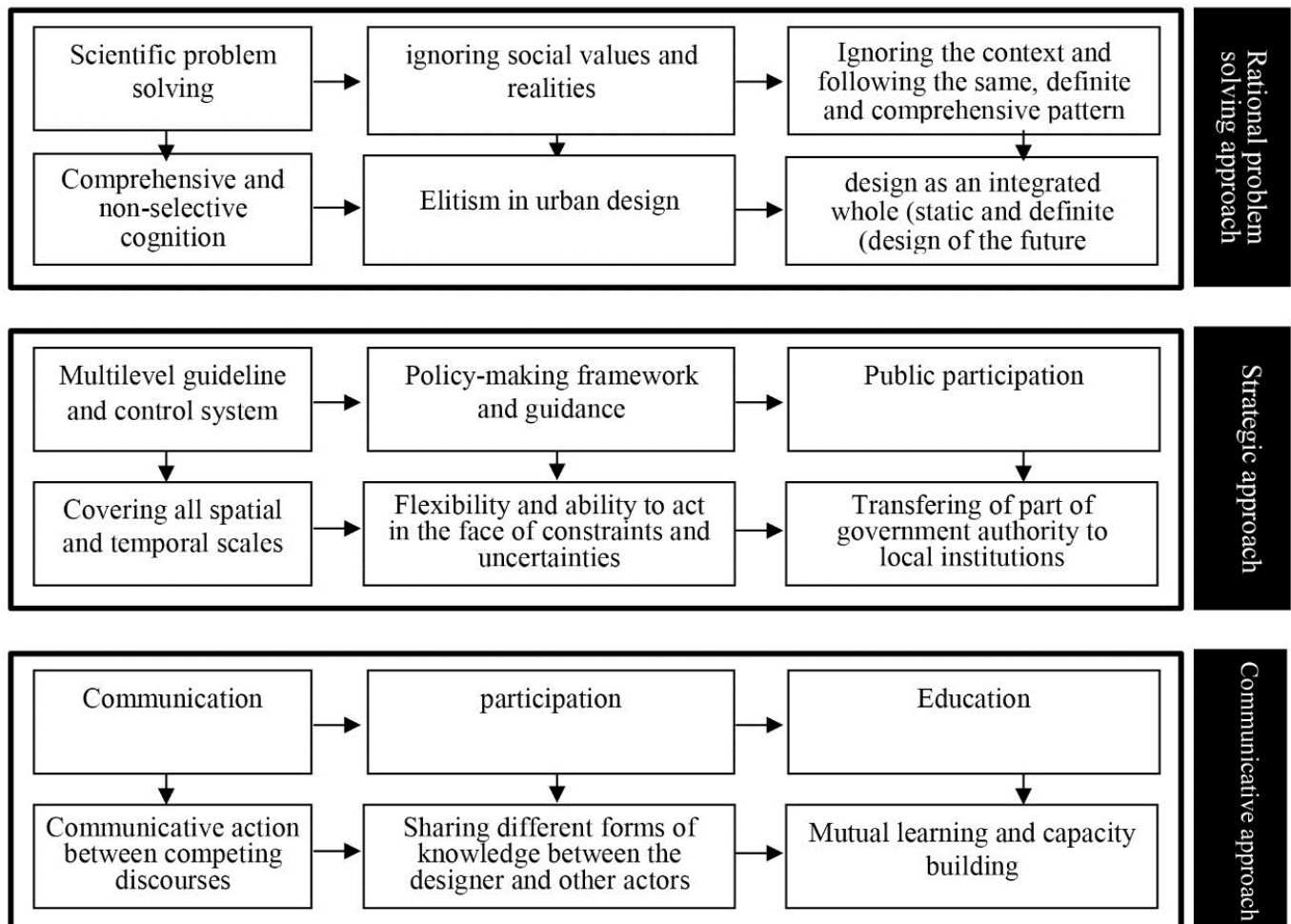
Fig 1. Content and Procedure Evolution of the Urban Design Process Based on Three Approaches

The Conceptual Framework

The results of reviewing the theoretical literature show the impact of epistemological foundations and basic concepts of approaches that, in different periods, changed the nature of urban design and consequently the process of urban design, according to the requirements of the time. These concepts, which have influenced the nature of urban design by referring to the three approaches of rational problem solving, strategic approach, and communicative approach, are based on the change and evolution of the governing content. So, rather than relying on changing the steps of the process, these concepts rely on changing the content of the process and its impact on how the process is navigated. Accordingly, in order to overcome the shortcomings of the comprehensive rational decision-making process, and with reference to the concepts of strategic approach, the process of urban design is a recurring cycle based on the stages of visioning, status assessment, goal setting, policy formulation, designing options, options evaluation, design, implementation, and post-implementation monitoring, which simultaneously emphasizes design, implementation, and post-implementation monitoring. Such a process is a process of problem-solving and rational decision-making based on strategic rationality, which defines a multilevel and guiding framework for the physical development of the city, based on the conditions and requirements of the context, rather than a detailed and accurate design of the environment. This definition of the urban design process, in addition to "problem orientation" as the main criterion of rational decision-making processes, specifies the need to pay attention to criteria such as "contextualism", "flexibility", and "multilevel intervention" in navigating the process.

In addition to the proposed components, how to go through the process steps, unlike the rational decision-making process, is not determined solely by scientific and technocratic methods; rather, referring to the concept of Habermas' Communicative Action, dialogue and communication are the keys to solving social problems, including urban design problems (Habermas, 1985). But since exploring the urban design process only on the basis of communicative action is not possible in the real world, a world full of conflicts of interest and complex power relations, it seems that using Foucault's proposed concepts (Foucault, 1980), in particular The two key concepts of discourse and power, and the definition of strategic action alongside communicative action, can help fill the gap. Accordingly, how the process is navigated is determined by a set of competing discourses at different levels of power and the interaction and participation between them, which emerges in the process of communicative and strategic action. However, achieving such an Integrated discourse poses problems and threats to the process, However, it is possible to increase the understanding and responsibilities of the actors involved in solving problems by relying on a mutual process, based on continuous and face-to-face training of actors (designers and citizens) through dialogue and mutual learning resulting from this dialogue, to maximize the scope and the overlap of the interests of rival discourses. Such a process involves the presence and consideration of criteria such as "power", "public interest", and "public participation" in the decision-making process.

Considering the new concepts that have been considered by experts and thinkers in different periods, a framework can be proposed to evaluate the application of theoretical knowledge content in urban design projects. The evaluation framework develops the indicators governing the criteria affecting the content and procedure changes of the urban design process based on the steps of the process. Then, using the qualitative content analysis method with a directional approach, it is possible to review, analyze, and evaluate the urban design process in urban design projects (Tables 1-A, 1-B).

Table 1-A. Evaluation Framework (A: Rational Approach, B: Strategic Approach,
C: Communicative Approach)

Public participation	Public interest`	Power relations	Visioning
27- Recognizing the influential groups and the necessity of their presence (B, C) *28- Developing the participation process of stakeholders and obtaining their agreement on the structure and manner of cooperation (B, C)* *29- Emphasis on the participation of actors involved in explaining values, needs, and possible desirable outcomes (B, C)*	*21- Avoiding formulating the initial vision based on the designer's mental pattern, his/her organized ideas, analogy, simile or intuition (A)*	*1- Paying attention to power relations by identifying stakeholder and influential discourses and their status and position in terms of (C)*	
	2- Paying attention to the values and interests of influential groups as actors of high levels of power (C) *3- Emphasis on the transfer of power to the local community, taking into account the values and expectations of residents and users of the plan (stakeholders) as actors of low levels of power (C)*		
4- Emphasis on a process based on communicative and strategic action, in order to reach a consensus between the interests of rival discourses (B, C) *5- Emphasis on capacity building and social education by sharing different forms of knowledge between the designer and the actors involved, in the framework of a process of mutual learning (C)*			

Public participation	Public interest	Power relations	Survey and analysis
6- Avoiding purely scientific analysis of information and emphasizing on reviewing issues from the perspective of actors who are practically involved in the action (B, C) *7- Determining priorities in the allocation of resources and activities based on the wishes and participation of the actors involved and the approved rules of multilateral decision-making (B, C)*			
30-Paying attention to the special place of public participation in the process of cognition and also relying on global experiences in this field (B) *31- Participation of actors involved in gathering information and identifying issues and capacities (B)* *32- Emphasis on capacity building and social education through the sharing of various forms of knowledge between the designer and the actors involved, in the context of a process of mutual learning (C)*		*8- study of power relations in the form Organizational-executive environment (C)*	

Public participation	Public interest	Power relations	Setting goals
9- Avoiding elitism and optimistic trust in the capacity of the designer in formulating goals (B, C)			
13-Consultative participation with stakeholders on the goals and proposals of competing plans (B, C)	*10- Formulating goals based on the values, priorities and desires of the actors involved in different levels of power and beyond bureaucratic process (C)* *11- Emphasis on strategic action among rival actors (B)* *12- Formulation goals based on creating consensus between competing discourses through communicative action (C)*		
22- Providing key information for designers to formulate design goals and options through ongoing and face-to-face communication with actors involved in a process of mutual training and learning (C)		*13- Consultative participation with stakeholders on the goals and proposals of competing plans (B, C)*	

Public participation		Public interest	Power relations	
14- Developing design options based on the values, interests, and priorities of competing discourses at different levels of power (C)				**Setting alternatives**
33- Participation of competing discourses in proposing plans and programs (C) 34- Encouraging participants to find practical ways to achieve goals, not just list goals and agree on them (C) 35- Participation of actors involved in the development of design alternatives, through attendance and participation in local design workshops and mutual training and learning in an exchange process (C)		23- Emphasis on social norms along with rational norms in formulating design policies and solutions (B, C) 24- Developing procedural policies in order to protect the interests of all actors in the plan (B, C)	15- Possibility of participating in different social and political discourses and proposing competing plans (C)	

Public participation	Public interest	Power relations	
16- Evaluating solutions as an output of the process of dialogue, trade-off and consensus between the interest of the actors involved, not technocratic and bureaucratic decisions (B, C)			**Assessment**
36- Providing the opportunity to critique by participants to evaluate options and provide alternative analysis, relying on communicative rationality and the resulting learning (C)	25- Evaluating design options based on social norms and priorities of the actors along with scientific methods (B, C)	17- Awareness of political decisions and the impact of power inequalities on the evaluation of options (C) 18- Emphasis on the strategic rationality of the designer in order to analyze, judge and convince the actors to achieve concurrence and consensus (B) 19- Evaluating options according to the position of the decision maker in the power hierarchy (C)	

Public participation	Public interest	Power relations	
37- Participation of stakeholders in the design and development of proposals, by attending and participating in local design workshops and providing key information to guide designers (C)			**Design**

Public participation	Public interest	Power relations	
38- Forming a management organization, planning and launching the participation process in the implementation and financing phase (B, C) 39- Awareness of the participatory group including the people and the investor about the areas of participation and how to participate) (B, C) 40- Providing effective strategies for attracting private and public sector financial contributions (B, C) 41- Building trust and attracting people's participation by forming selected groups of owners and their trustees in the form of a facilitation office (B, C) 26- Continuous monitoring of the urban environment and contingency decision-making about unforeseen situations and correction of orientations based on the level of satisfaction of the actors involved (B, C)	20- Determining executive priorities, investment, guaranteeing participation, guiding and controlling the executive plan, removing legal obstacles, ... (B, C)		**Implementation and monitoring**

Table 1-B. Evaluation Framework (A: Rational Approach, B: Strategic Approach, C: Communication Approach)

Multilevel intervention	Flexibility	Contextualism	Problematicism	
2- Paying attention to the values and interests of influential groups as actors of high levels of power (C) *3- Emphasis on the transfer of power to the local community, taking into account the values and expectations of residents and users of the plan (stakeholders) as actors of low levels of power (C)* *99- Compilation of introductory questions according to the vision of the strategic area and the role of the area in the local area (B)* *100- Limiting the scope of study and determining the axes of development by formulating a preliminary vision (B)*	*65- Paying attention to the mechanism and power relations in the design process by identifying the vision of the interested and influential groups and the normative values related to them (B, C)* *66- Examining the superior plans and specifying the the role that these documents have for the area (B)* *67- Emphasis on the existing space structure, achievable facilities and framework of superior projects (B)*	*42- Reviewing theoretical literature and global experiences (A, B, C)* *43- Researching the problem based on the vision of the actors in the process of mutual learning (C)*	*42- Reviewing theoretical literature and global experiences (A, B, C)* *43- Researching the problem based on the vision of the actors in the process of mutual learning (C)*	**Visioning**
	42- Reviewing theoretical literature and global experiences (A, B, C) *86- Developing the process of participation of influential groups and accompanying them in different conditions (B, C)* *87- Emphasis on communicative and strategic action, in order to achieve consensus between rival discourses (B, C)*		*44- Avoiding formulating the initial vision based on the designer's mental pattern (A)* *45- Emphasis on preliminary knowledge of the current situation, in order to determine macro orientations in dealing with problem (B)*	
Flexibility	Multilevel intervention	Contextualism	Problem-orintation	
46- Multi-level knowledge of space based on suoerior plans and consultant field perception and awareness of the impact of different levels on each other (B) *47- Analyzing and evaluating the current situation, and explaining the opportunities for exploitation, and explaining the internal and external threats and limitations, and considering the necessary measures to eliminate them (B)*				**Survey and analysis**
68- Focus on dynamic cognition of social processes as opposed to the rational approach (B, C) *88- Utilizing theoretical and practical internal and external experiences related to the project topic and extracting appropriate and usable points in the design process (B, C)*	*48- Collecting information selectively (limiting the topics and the amount of their study based on the issues involved and vision priorities) (B)*			
	101- Comprehensiveness in assessing the situation by conducting hierarchical studies based on procedural and substantive dimensions (B)	*68- Focus on dynamic cognition of social processes as opposed to the rational approach (B, C)* *69- Determining priorities in the allocation of resources and activities based on the participation of the actors in decision-making (B, C)* *70- Participation of actors involved in gathering information and recognizing issues and capacities of the area (B)*	*49- Examining the problem by comparing and evaluating the current situation with the theoretical literature and thematic and local expectations from space (B, C)* *50- Needs assessment and definition and refinement of the issue based on the views of stakeholder (B, C)* *51- Reviewing issues by sharing different forms of knowledge and mutual learning from it (C)*	

Multilevel intervention	Flexibility	Contextualism	Problem-orintation	
52- Emphasis on establishing a logical relationship between the developed vision and the result obtained from surveying studies with the stage of formulating objectives (B)				Setting goals
102-Emphasis on comprehensiveness in the sense of covering all spatial and temporal scales from long-term planning and short-term planning (B)	53- Not formulating goals in an ideal, exogenous and unrelated to background issues and limited financial and time resources, etc. (B) 54- Formulation of goals beyond bureaucratic and technocratic goals, and based on the values, priorities and desires of actors involved in different levels of power (B, C)			
	55- Reviewing the theoretical literature and global experiences related to the issue and benefiting from, and what can be the scope of the project according to the available examples? (B, C) 89- Consulting with stakeholders and influential groups on the goals and decisions taken by experts, and proposing competing plans and programs (B)		55- Reviewing the theoretical literature and global experiences related to the issue and, and what can be the scope of the project according to the available examples? (B, C)	
	90- Hierarchical formulation of goals: a combination of higher level basic goals (macro goals and indicative of basic directions), and incremental strategies and policies (which provide the basis for the implementation and achievement of basic decisions) (B)			

Multilevel intervention	Flexibility	Contextualism	Problem-orintation	
72- Adopting possible solutions in the framework of goals and compatibility with existing strategies and policies (B) 91-Policy-making at different levels of decision-making and presenting a hierarchy of decisions based on providing short, medium and long term solutions (B)		56- Formulation of solutions according to the results of stages before (B) 57-Avoid relying on the mental and scientific capacities of the designer and ignoring the interests and priorities of competing discourses at different levels of power in formulating design options (B, C) 58- Paying attention to the context and not offering the same and definite solutions at different times and places, regardless of social issues (B)		Setting alternative
103- Developing an urban design framework that describes and illustrates design policies and principles at the scale of direct intervention (B) 104- Determining the required details and emphasizing the key issues and goals (B, C)	92- reduce the complexities and conflicts of the decision-making environment through the participation of different social and political discourses and proposing competing programs, critique and argumentation for alternative analyzes in the face of changing conditions (B, C) 93- Not designing detailed solutions due to attention to the conditions of uncertainty in the decision environment and emphasis on key issues and objectives (B)	71- Possibility of participating in different social and political discourses and proposing competing plans (B, C) 72- Adopting possible solutions in the framework of goals and compatibility with existing strategies, policies and plans (B) 73- Providing spatial synthesis of the plan based on spatial opportunities and environmental forces (B)		

Multilevel intervention	Flexibility	Contextualism	Problem-orintation	Assessment
105- Attention to the production of executive programs without totalitarianism (B)	59- Evaluating solutions as the output of the trade-off process and consensus between the interests, issues and desires of stakeholders and influential groups, not technocratic and bureaucratic decisions (B, C)			
94- Priority of choice in the framework of existing plans and policies (B)	*60- Evaluating and analyzing the strengths and weaknesses of the options according to the results of the survey, goals and objectives (B)*			
	74- Awareness of controversies related to political decisions and power relations and the impact of pressure groups and power inequalities on the evaluation (B, C) *75- Evaluating options according to the necessary strategies for their implementation (C)*		*61-Evaluating based on the degree of response of solutions to the problems and demands of the plan and the goals based on them (B)*	
		76- Belief in insufficient mental, informational, financial and time capabilities, and evaluation based on selection of the best action according to the available conditions and resources (B) *77- Analysis of weaknesses and strengths according to the results of locometry (B)*		

Multilevel intervention	Flexibility	Contextualism	Problem-orintation	Design
62- Providing an urban design framework in the form of a document consisting of a set of goals and guiding policies (guide, framework, agenda, .. design) instead of detailed design, which allows different plans to be coordinated at different levels and times and by individuals. Provides different (B)				
95- Development of general and specific criteria in the form of guidelines and agendas instead of blueprint design (B)		78- Emphasizing the necessity of compatibility of the option with the proposals of superior projects and observance of legal requirements (B) 79- Presenting design patterns in order to conform the design to design policies (B)	63- Avoiding presenting blueprints that depict a desirable and definite future for the long term (B)	
	63- Avoiding presenting blueprints that depict a desirable and definite future for the long term (B)			

Multilevel intervention	Flexibility	Contextualism	Problem-orintation	Implementation and monitoring
106- Determining the zones and priorities of intervention according to the time horizon of the plan (B)	*96- Economic studies (accurate knowledge of the market and the forces governing supply-demand relations, marketing and sales development, competitive prices, comparative advantages of competitors, etc). (B)*	*80- Paying attention to managerial and legal facilities as resources and facilities required for development (B)* *81- Determining the areas and priorities of intervention according to financial resources and how to invest (B)* *82- Reviewing the laws of related institutions and identifying legal opportunities and investment facilities (B)* *83- Carrying out all stages of handover and construction within the framework of the legal system of the municipality (B)* *84- Development of executive mechanism including structure of executive organization, coordination system of agencies involved in implementation, decision-making and planning system (B, C)*		

MATERIALS AND METHODS

To answer the main research question and evaluate the application of the concepts governing theoretical knowledge in selected projects, the research method of directional qualitative content analysis has been chosen. Since the studies in this section are based on the results of theoretical foundations and the evaluation framework, this method allows the researcher to analyze the content beyond the apparent message and delve into the hidden themes or patterns within the texts. In qualitative content analysis, the researcher uses criteria and indicators derived from theoretical foundations, along with inference and judgment, to describe and interpret the hidden content of texts. Therefore, the focus is not only on the apparent content but also on uncovering deeper, less visible meanings. In the data interpretation stage, quantitative methods are employed to compare the differences between theoretical foundations and the results of the analysis units, which helps in supporting the findings of the qualitative analysis (Mayring, 2000).

Data Analysis Process

In this study, after qualitative analysis of the content of selected projects, the use of each indicator is developed separately for the criteria, and the projects are examined as a whole. Subsequently, based on the Likert scale ranging from very low to very high scores, the highest percentage of frequency within each Likert spectrum is determined according to the stages of the urban design process. Finally, the highest number of scores is identified and percentageed. The highest percentage obtained indicates the status of the application of the criterion in selected urban design projects. It should be noted that in this section, the Likert spectrum is equated from very unfavorable to very favorable.

Sample Selection and Criteria

To achieve the research objectives, the statistical population includes urban design projects prepared in Iran by domestic consulting engineers. Preliminary studies of the statistical community show that projects prepared until the early eighties do not have an urban design process or theoretical content that can be used to study and explain the relationship between theory and practice in the urban design process. This gap could adversely affect the results obtained from the project review. Therefore, the statistical population of the research is limited to urban design projects prepared and approved within the last 15 years (period 2005-2020).

The sampling method in qualitative research is purposeful (Smith & Shinebourne, 2012; Creswell & Poth, 2016). Therefore, after determining the statistical population, the samples were purposefully selected. The projects selected for this study have been carefully chosen to meet the following criteria because they align with the research objectives and provide a representative sample of urban design practices in Iran:

– **Defined Projects based on the Strategic Urban Design Process:** The projects chosen showed a clear strategic urban design process, as defined by different stages that are coherent with the framework of the theory of urban design. This has ensured that the projects are comprehensive and representative of the whole design process, from conceptualization to execution.

– **Projects from Iranian Metropolises:** The projects are predominantly from large Iranian cities (metropolises), including Tehran, Mashhad, Isfahan, Shiraz, Karaj, Qom, Tabriz, and Ahvaz. Special priority was given to the projects related to Tehran as the largest metropolis, because of its pivotal role in the urban development system, and the

generalizability of the findings to other cities in Iran.

– **Projects Prepared by Qualified Consulting Engineers:** All projects selected were prepared by consulting engineers with recognized expertise. These ranged from grades one and two in urban planning, and grades one, two, and three in urban design. This criterion ensures that the projects meet professional standards and are supported by well-established consulting practices.

– **Projects Whose Title Explicitly Mentions "Urban Design":** The projects were selected based solely on the inclusion of "urban design" in the project title to ensure that the projects deal with the study of processes and theoretical frameworks related to urban design, not simply city planning or construction.

– **One Project Per Consultant:** When several projects were prepared by the same consulting engineer, only one was selected to be reviewed. This is in line with the fact that different projects by one consultant are likely to follow similar design processes and conceptual approaches. Thus, there was no need to select more than one project from one consultant.

– **Importance of Projects for Urban Development:** First of all, the projects were selected based on their significance, identified by both the employer and the consultant. These are projects with a key role in urban development and even urban design theorization. Such projects will be more likely to show new cutting-edge practices and have the largest impact on the urban environment.

– **Local Projects Related to the Structure of the City and Key Urban Spaces:** The selection was done based on those projects that deal with the very structure of the city and its most essential spaces, such as public squares, streets, and landmarks of key importance. This criterion is important because it ensures that projects are central to the urban fabric and address important components of the urban space. Availability of the Project Documents: The project documents were available for review and analysis for the selected projects. In this way, it is guaranteed that the researcher will have all the information relevant to the evaluation of the application of the theoretical concepts in the projects.

– **Project Documents Availability:** The project documents were readily available, enabling a proper examination and analysis. In fact, their availability ensured that the researcher had access to all information that was relevant for the application of theoretical concepts in the projects.

Sample size was determined by the principle of theoretical saturation, one of the established approaches in qualitative research. By definition, theoretical saturation means that sampling and data collection continue until the researcher encounters new insights and concepts (Bloor & Wood, 2006; Morse, 2015). Considering the nature of this qualitative content analysis study, the sample size of 10 projects was deemed sufficient to achieve saturation. This sample size was adequate to analyze the key themes and patterns comprehensively while maintaining focus and manageability.

After determining the purposeful selection criteria, the selected samples were selected (Table 2):

Table 2. Final Selection of Research Samples

Final selection of analysis units
1. Quality-based design of 17Shahrivar Street, Tehran, 2011: Tehran Zibasazi Organization.
2. Urban design of Ahmad Abad Street, Mashhad, 2007: Mashhad Municipality.
3. Urban design of Chaharbagh Street of District 22, Tehran, 2010: Deputy of Urban Planning and Architecture of Tehran Municipality.
4. Urban design framework of Chitgar Lake and Chaharbagh Street, Tehran, 2010: Technical and Civil Engineering Deputy of Tehran Municipality
5. Urban design framework of Delavaran Street, Tehran, 2009: Deputy of Urban Planning and Architecture of Tehran Municipality.
6. Urban design of Lands of Abbasabad, Tehran, 2010: Deputy of Urban Planning and Architecture of Tehran Municipality.
7. Urban design of Imam Khomeini Street, Tehran, 2010: Deputy of Urban Planning and Architecture of Tehran Municipality.
8. Urban design of Moradaab public space, Karaj, 2015: Karaj Municipality.
9. Local plan with urban design approach of west of Shohada Square, Mashhad, 2013: Deputy of Urban Planning and Architecture of Mashhad Municipality.
10. Urban design of Pilgrimage-Cultural Street, Qom, 2008: Qom Municipality.

Data Analysis and Coding Process

The evaluation framework and indicators from the theoretical concepts were used to analyze the content of the selected projects. The indicators were matched with the project content very carefully in order to assess the application of theoretical knowledge in urban design. Specifically, the appropriateness of each indicator within the framework to the content of the projects was defined through the detailed categorization-comparison process in which each project was analyzed for how well it reflected the theoretical concepts within the framework. For example, the "public space design" indicator, within the framework, was analyzed in conjunction with parts of the project dealing with restructuring urban space to provide access and promote social interaction, per concepts of "contextualism," "flexibility," and "multilevel intervention." For the project Ahmad Abad Street in Mashhad, analysis showed that "public participation" was considered in the design through the inclusion of areas for people to get together, using the communicative approach. This communicative approach focuses on a

dialogue in which citizens are taken seriously in a decision-making process, which was reflected in the design of the public space to be more interactive and inclusive.

Furthermore, Maxqda was used to support the coding process. This software supported the organization and management of data and helped in identifying the patterns and themes across the projects more efficiently. Also, a second coder, trained in the research framework, was used to independently code a subset of projects to ensure the reliability of the coding process.

RESULTS

In this section, in order to answer the main research question, the degree of interaction of knowledge used in the urban design process of selected projects with a research evaluation framework, based on the criteria and indicators, is examined. In the first step, after qualitative analysis of the content of the projects, and based on the method presented in the research methodology section, the application or non-application of indicators in each project, separately according to the criteria and stages of

the urban design process, review and Points 1 (indicator use) or 0 (indicator non-use) are assigned to each of the indicators. Then, the use of each indicator in the total projects is calculated and categorized from very low to very high based on the five Likert spectrums, and the percentage of frequency and the highest percentage of frequency of each spectrum, in total, are determined based on the indicators governing each stage of the urban design process according to the studied criteria. The obtained percentages show the level of attention and application of the indicators governing the criteria studied in each stage of the urban design process of the projects (Table 3). This table represents the application of key urban design criteria, such as Contextualism, Public Participation, Power Relations, and... each associated with sub-criteria in different stages of the urban design process. In every cell of this table, the percentage of each criterion separately based on its sub-criteria is determined according to a Likert scale, from very low to very high. Table 4 shows the interaction of theoretical knowledge and project knowledge by criteria.

Table 3. Application of Criteria in the Stages of the Urban Design Process Based on the Likert Scale

Very high	High	Moderate	Low	Very low	Process steps	
33%	0	0	0	67%	assessment	Problem-orintation
100%	0	0	0	0	design	
-	-	-	-	-	Implementation	
0	0	0	0	100%	monitoring	
67%	16.5%	0	16.5%	0	visioning	contextualism
33%	33%	0	0	33%	Survey and analysis	
67%	0	0	0	33%	Setting goals	
67%	0	0	0	33%	setting policy and alternatives	
33%	0	0	0	67%	assessment	
100%	0	0	0	0	design	
20%	40%	20%	20%	0	Implementation	
0	0	0	0	100%	monitoring	
29%	14%	0	14%	43%	visioning	flexibility
50%	25%	0	25%	0	Survey and analysis	
50%	0	0	0	50%	Setting goals	
50%	0	0	0	50%	setting policy and alternatives	
25%	0	0	0	75%	assessment	
67%	0	33%	0	0	design	
0	0	0	100%	0	Implementation	
0	0	25%	0	75%	monitoring	
50%	25%	0	25%	0	visioning	multi-level intervention
50%	0	0	25%	25%	Survey and analysis	
100%	0	0	0	0	Setting goals	
50%	25%	0	0	25%	setting policy and alternatives	
100%	0	0	0	0	assessment	
50%	0	50%	0	0	design	
-	-	-	-	-	Implementation	
0	0	100%	0	0	monitoring	

Very high	High	Moderate	Low	Very low	Process steps	
0	20%	0	20%	60%	visioning	
0	0	0	33%	67%	Survey and analysis	
0	0	0	0	100%	Setting goals	
0	0	0	0	100%	setting policy and alternatives	power relations
0	0	0	0	100%	assessment	
-	-	-	-	-	design	
0	0	0	100%	0	Implementation	
-	-	-	-	-	monitoring	
20%	20%	0	20%	40%	visioning	
0	0	0	0	100%	Survey and analysis	
0	0	0	0	100%	Setting goals	
0	0	0	0	100%	setting policy and alternatives	public interst
0	0	0	0	100%	assessment	
-	-	-	-	-	design	
0	0	0	100%	0	Implementation	
0	0	0	0	100%	monitoring	
0	16.5%	0	16.5%	67%	visioning	
0	0	20%	20%	60%	Survey and analysis	
0	0	0	0	100%	Setting goals	
0	0	0	0	100%	setting policy and alternatives	public
0	0	0	0	100%	assessment	participation
0	0	0	0	100%	design	
0	25%	50%	25%	0	Implementation	
0	0	0	0	100%	monitoring	
50%	0	0	0	50%	visioning	
28.5%	0	28.5%	0	43%	Survey and analysis	Problem-orintation
50%	0	0	0	50%	Setting goals	
67%	0	0	0	33%	setting policy and alternatives	

Table 4. Application of Theoretical Knowledge in Projects by Criteria Based on the Likert Scale

Application of criteria						
Very high	High	Moderate	Low	Very low		
Very favorable	Favorable	Moderate	Unfavorable	Very unfavorable	Condition	
						Criteria
43%	0	0	0	57%	Problem-orintation	
54%	17%	0	0	29%	contextualism	
37.5%	0	0	12.5%	50%	flexibility	
78.5%	0	21.5%	0	0	multi-level intervention	

| Application of criteria						
very high	High	Moderate	Low	Very low	Condition	
						Criteria
Very favorable	Favorable	Moderate	Unfavorable	Very unfavorable		
0	0	0	17%	83%	power relations	
0	0	0	14%	86%	public interst	
0	0	12.5%	0	87.5%	public participation	

DISCUSSION

- Power Relations: In the criterion of power relations, 83% of the indicators are in a very unfavorable situation in terms of their application in the studied projects, and 17% of the indicators are unfavorable (Table 4). Especially in the stage of setting goals and alternatives, and assessment, the rate of application of power indicators is zero. None of the indicators have been considered (Figure 2) Accordingly, if in the analysis of power, the goal is to reclaim the decision-making power of the people from the institution of power through communicative methods, both the people and the institution of power as stakeholders try to expand the scope of overlap of their interests in a discourse process and work together to change the space. But the results show that this trend is formulated differently in the studied projects, in which the institution of power, by deciding and configuring space during the design process, placing it in its own relations network, and activating it to its advantage, conquers the spheres of power of lower-level actors and increases its power. Although in most cases the goal of the power institution is to make changes to increase the quality of space and the feasibility of the plan, what is clear is the absence of low-level actors in the decision-making, so their satisfaction and commitment to the project pose enormous challenges.

Public Interest: In the public interest criterion, 86% of the indicators are in a very unfavorable situation, and 14% are in an unfavorable situation (Table 4). A look at Figure 3 shows that 100% of the indicators of this criterion in the stages of status assessment, goal setting, development of policies and design options, evaluation of options, and post-implementation monitoring, in none of the projects are considered. On the contrary, in accordance with the theoretical foundations, there are several actors in the process of urban design, whose mutual understanding of the limits of each other's expectations and preferences paves the way to a satisfactory solution. In such a context, common techniques in communicative action, such as trying to achieve the ideal conditions of dialogue, mediation techniques, negotiation, consensus building, and mutual learning of actors, are of particular importance. In other words, the understanding of urban design as a purely technical and intellectual practice and the pattern of urban design top-down, changes to the model of urban design bottom-up and as knowledge arising from consensus and communication based on communicative rationality. Studies show that, unfortunately, such knowledge has not been used in selected projects and consequently in the approved projects of the country.

Public participation: the bottom-up urban design model provides a mechanism through which diverse communities can make their own development decisions instead of referring the decision-making process to specialist designers. Such a process requires more than just questionnaires and interviewing space users; A process that emphasizes the presence of actors involved in local design workshops and their participation in identifying issues, providing satisfactory solutions, key information to guide designers, and participating in funding, construction and development of the proposed project. This form of participation, which is considered citizen power, is the closest approach to the presence of society in building the future, so that members of the community and representatives are not only active in providing information and consulting participation, but also in making key design decisions with the consent and vote of the majority. However, the results of the study of the indicators governing the criteria of public participation show that more than 87% of these indicators were in a very unfavorable situation (Table 4), and only in the stage of visioning and Surveying the current situation (partial participation) and in the implementation stage due to the emphasis on participation in
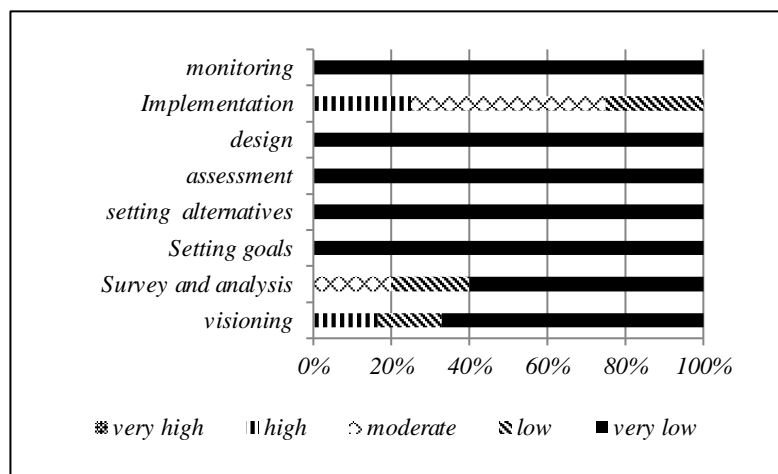
project financing, the indicators have been considered and applied (Figure 4).
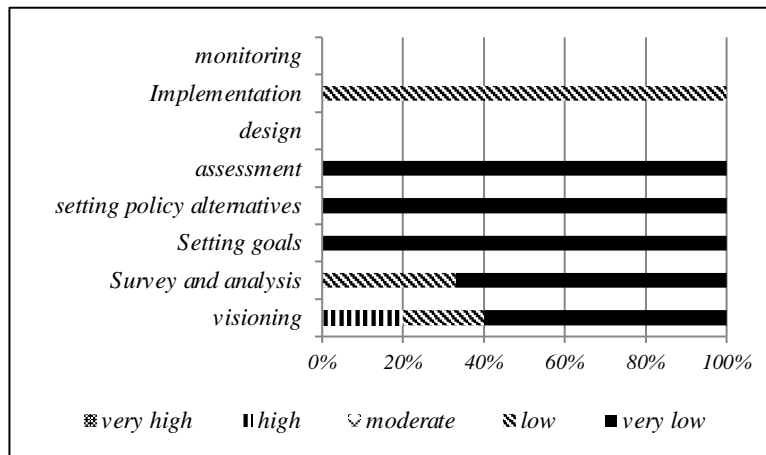
Fig 2. The Use of Power Relations Criteria in the Process Stages
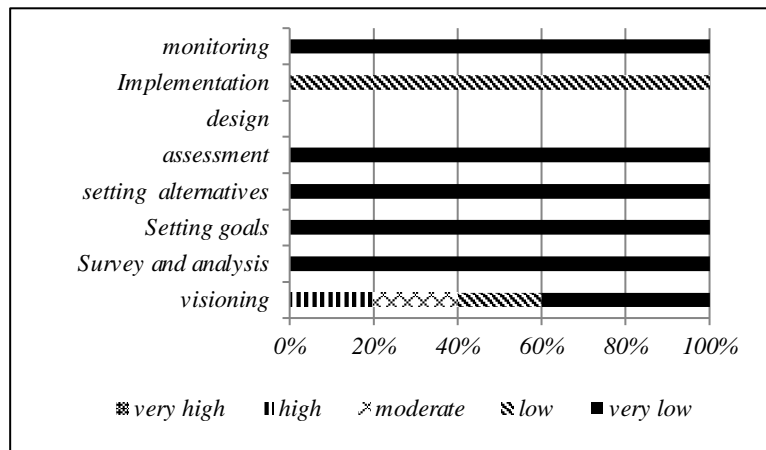
Fig 3. The Use of Public Interst Criteria in the Process Stages

Fig 4. The Use of Public Participation Criteria in the Process Stages

Problem-orientation: In the criterion of problem-orientation, however, there is a dual situation. According to the results, 57% of the indicators are in a very unfavorable situation, and 43% of the indicators are in a very favorable situation (Table 4)! A look at the defining criteria of the problem-orientation criterion and the extent of their application in the studied projects shows that all projects in defining and refining the problem based on the results of information provided by the employer, reviewing the superior plans, Field studies, and data analysis using the SWOT method, formulation of design goals and options based on the result and information obtained from topometric studies, and avoidance of static and physical designs (blueprints) that give a favorable and definite future, have succeeded. Therefore, in 43% of the indicators, they have a very favorable situation. But in identifying and refining the issue from the vision of the actors involved, paying attention to their values and desires in reviewing the issues, prioritizing and limiting the issues that need to be reviewed, evaluating the solutions, and monitoring and correcting the orientation, based on the issues, they are in a very unfavorable situation (Figure 5).

Contextualism: The results of problem-orientation criteria are also true for the results of the study of the indicators of contextualism criteria. The very favorable use of 54% of the indicators, in contrast to the very undesirable use of 30% of the indicators of this criterion, can be justified by the analysis performed for the problem-orientation criterion (Figure 6).
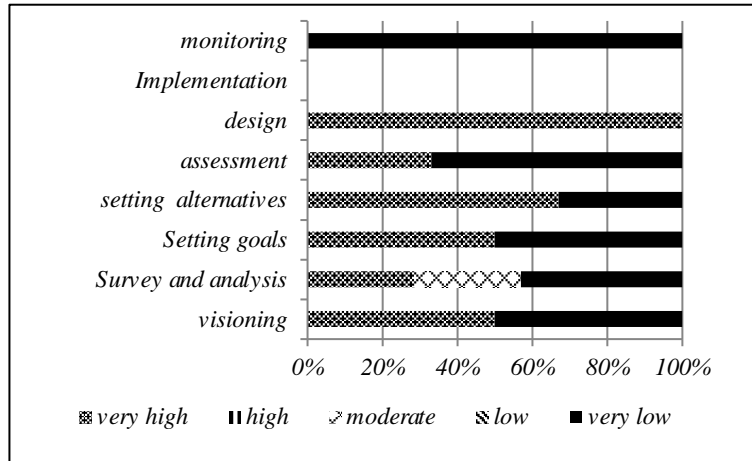
Flexibility: In the flexibility criteria, the results indicate the very unfavorable and unfavorable application of more than 60% of the studied indicators (Table 4). A look at how the indicators of this criterion are used shows that in the stages of surveying the current situation, formulating design goals and alternatives, and design, more than half of the indicators are in a very favorable situation. This is due to the

emphasis of the process on multi-level cognition and the study of the impact of different levels on each other, and on the other hand, the definition of design goals and alternatives is in the form of an urban design framework. The design framework for dealing with the various conditions of the decision-making environment, before confronting the direct design of the environment, defines the guiding and policy-making framework through which the physical development of the city is realized; A framework that allows different designs to be coordinated at different levels and at different times by different people, thus modifying changing environments. However, due to the very low use of more than 60% of the indicators of the visioning stage, and more than 80% of the indicators of the assessment, implementation, and post-implementation monitoring stages, the overall status of the criterion is very unfavorable. This despite the fact that Theoretical studies have emphasized the ability of the process to cope with the unstable conditions of the decision-making environment, and by enabling the participation of different social and political discourses, the final product of the process is the result of confronting competing plans, and evaluating both their values and interests and trying to critique and present strong arguments for alternative analyzes in the face of the complexities and conflicts of the decision-making environment. This has not been considered in the studied projects (Figure 7).

However, the results of the multi-level intervention criteria, unlike the results of other criteria, show that more than 78% of these indicators are in a very favorable situation (Table 4), which shows the attention and application of indicators in most stages of the urban design process of the studied projects (Figure 8). In the multilevel process, decision-making is done in such a way that the relationship between the whole and the relationship with the smaller components is always considered in the

stages of cognition, analysis, and prescribing. Accordingly, the multilevel guidance and control process, on the one hand, considers the interrelationships between different levels of decisi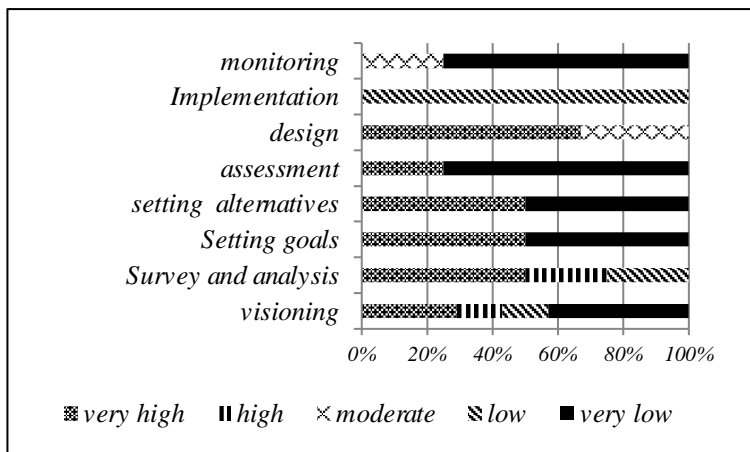on-making, and on the other hand, by emphasizing a gradual process, focuses its attention on the main issues and resources and avoids engaging with a lot of details. It leaves some of the decision-making tasks to the local level.
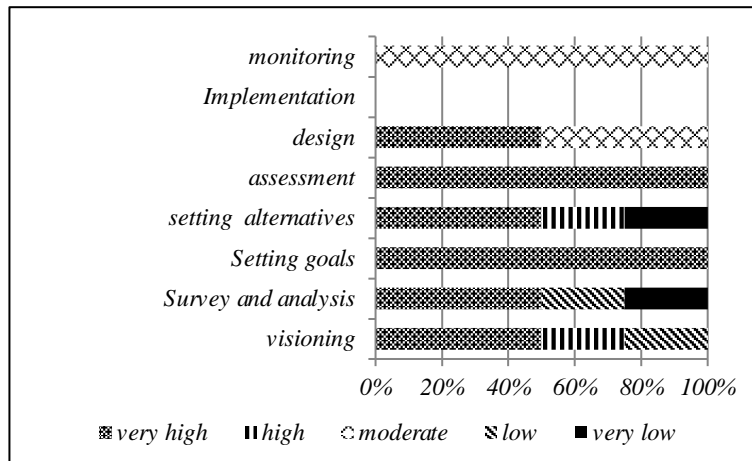
Fig 5. The Use of Problem-orientation Criteria in the Process stages
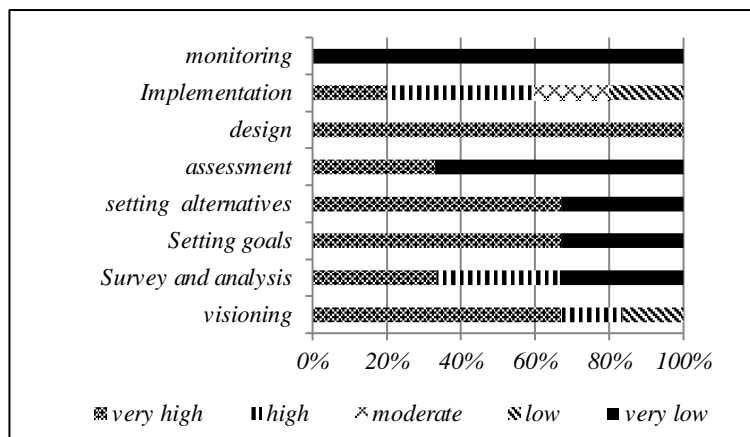
Fig 6. The Use of Contextualism Criteria in the Process Stages

Fig 7. The Use of Flexibility Criteria in the Process Stages

Fig 8. The Use of Multi-level Intervention Criteria in the Process stages

CONCLUSIONS

Urban design is a dynamic and evolving field of knowledge that has experienced significant theoretical evolution. This theoretical evolution is two-dimensional and includes the substantial and procedural aspects of the field. Procedural evolution changes urban design's orientation from product to process, and therefore, instead of purely intuitive and intra-mental methods of dealing with urban issues, with a process approach, in which a chain of activities between the design problem and its corresponding solution creates a link, identifies, analyzes, predicts, guides, and controls the development of the city. But what has changed the urban design process, in different periods and under the influence of dominant paradigms in each period, rather than relying on the steps of the process, has emphasized how to navigate the process and the concepts affecting it. Concepts based on the paradigms that govern each period, which can be extracted and pursued in the framework of procedural theories. However, due to the lack of theorizing of procedural issues in the context of urban design knowledge, the present study has tried to refer to the theories of procedural knowledge of urban planning, and examine it in the context of urban design evolutions, to examine and analyze the substances and

procedures of the urban design process and its underlying concepts. Power relations, public interest, public participation, problem orientation, contextualism, flexibility, and multilevel intervention are the concepts that this research, with reference to the three approaches of rational problem solving, strategic approach, and communicative approach, has compiled and described as an evaluation framework. The evaluation framework, in addition to providing indicators to refine the concepts and determining how to apply them in the urban design process, also provides the possibility of evaluating the application of theoretical knowledge in urban design projects.

The results of qualitative data analysis of selected projects, based on the research evaluation framework, show that more than 70% of the criteria are in a very unfavorable situation. Among these, the indicators related to the criteria of power relations, public interest, and public participation have the lowest level of application, and the indicators related to multilevel intervention, contextualism, problem orientation, and flexibility have the highest level of attention in projects. By generalizing the results to all approved urban design projects in Iran, these projects are in a very unfavorable situation in terms of the application of theoretical knowledge. Accordingly, if the status of practical

23

urban design projects in Iran, in the period under review, compared to the three approaches studied, the process of strategic urban design has entered the discourse of urban design in both theory and practice. Although some criteria and indicators explaining the strategic approach have not yet been properly implemented in the projects, this approach has undoubtedly strongly influenced the procedure and substance of the urban design process of Iran's projects and involved concepts such as contextualism, flexibility, multilevel intervention, and public participation. Contrary to the strategic approach, the very unfordable application of concepts such as power relations, public interest, and public participation in projects indicates that the concepts of the communicative approach, at the practical level, have not entered Iran's urban design discourse; Because the communicative approach basically relies on the participation of citizens at different levels of power in the decision-making process, and part of the efforts of urban designers is to inform and empower the community about their interests and expectations from the plan and how to pursue and provide it in the form of a process of social learning. Accordingly, despite the introduction of the concept of public participation in the urban design discourse of Iran, due to the lack of a social learning process and lack of attention to the concept of power and its undeniable role in guiding the urban design process, the communicative approach has faced major challenges in application in the Iranian urban design projects. About this, especially with the problem-orientation and contextualism criteria, a duality occurs with both very desirable and very undesirable percentages. For example, 43% of indicators in problem-orientation are very favorable; problems were identified using data from employers, SWOT, and topographic studies. At the same time, 57% are very unfavorable because it was not possible to involve actors' views, define priorities, or monitor whether the design proposals were aligned with the problems identified.

In contextualism, the respective value is 54% very favorable, but 30% of the indicators are very unfavorable, indicating that many projects lack integration of context-sensitive approaches. This duality underlines a conflict between technocratic, strategic, and participatory approaches. Thus, inasmuch as the technocratic approach successfully solved the technical problems, it largely excluded public participation and social learning in a top-down approach to decision-making. The duality found for these criteria, therefore, reflects the contrast between top-down versus bottom-up urban design approaches; even when theoretical frameworks for participatory design were available, not all of them were applied in practical processes, resulting in gaps regarding public participation and power relations indicators. This underpins the challenging task of fitting social learning and the public interest into technocratic decision-making within urban design. This highlights the necessity of future research into the challenges of applying theoretical concepts in Iranian urban design projects.

Besides these findings, these results have significant implications for the future of urban design education and practice in Iran. Realizing genuine participation and paying attention to power relations requires a change in the urban planning system, regulations, and methods of consultants. It is essential that urban planning education emphasizes participatory approaches and methods of involvement of social actors. Planning systems should shift from top-down approaches to more collaborative community-based processes. Finally, consultants have to focus on collaboration with local communities and introduce participatory planning and social learning into their practices. These changes are necessary to be in line with Iran's urban design and theoretical framework that emphasizes participation and power relations.

REFERENCES

Albrecht, J. (1986). Development, context and purpose of planning (3, 2). University of Illinois.

Alexander, C. (1971). A Timeless way of building. New York, oxford university press.

Alexander, E.R. (1984). After Rationality, What? A Review of Responses to Paradigm Breakdown, *Journal of the American Planning Association*, *50*(1), 62-69. https://doi.org/10.1080/01944368408976582

Alexander, E.R. (2010). Introduction: Does planning theory affect practice, and if so, how?, *Planning Theory, 9*(2): 99-107. https://doi.org/10.1177/1473095209357862

Allmendinger, P. (2002). Planning Theory, Planning Environment, Cities. Macmillan Education UK.

Banerjee. T, and A. Loukaitou-Sideris, eds. (2011). Companion to Urban Design, London: Routledge.

Bloor, M., & Wood, F. (2006). Keywords in qualitative methods: A vocabulary of research concepts. Sage.

Campbell, S; Fainstein, S. (1996). Introduction: The Structure and Debates of Planning Theory, Readings in Planning Theory, Blackwell Publications Massachusetts.

Canter, D. (1977). The psychology of place. Landon: architectural press.

Carmona, M. et.al. (2003). Public Places, Urban Spaces. London: Architectural Press.

Carmona, M. (2014). The Place-shaping Continuum: A Theory of Urban. Design Process. Journal of Urban Design, 19(1), 2-36. https://doi.org/10.1080/13574809.2013.854695

Creswell, J. W., & Poth, C. N. (2016). Qualitative inquiry and research design: Choosing among five approaches. Sage publications.

Cuthbert, A. (2011). Urban Design and Spatial Political Economy. In Companion to Urban Design, edited by T. Banerjee, and A. Loukaitou-Sideris, 84– 96. London: Routledge.

Etzioni, A. (2016). Mixed-scanning: A "third" approach to decision making. In Administrative Leadership in the Public Sector (pp. 319-328). Routledge. Faludi, A. (1983). Critical Rationalism and Planning Methodology. Urban Studies 20: 265-278. https://doi.org/10.1080/00420988320080521

Flyvbjerg, B. & T. Richardson. (2002). Planning and Foucault, in Search of the Dark Side of Planning Theory. Routledge.

Forester, J. (1989). Planning in the face of power. Berkeley, CA: university of California press.

Forester, J. (1993). Critical Theory, Public Policy, and Planning Practice. State University of New York Press.

Foucault, M. (1980). Power/ Knowledge: Selected Interviews and other Writings, 1972-1977, edited by Collin Gordon. New York: Pantheon. Books

Friedmann, J. (1987). Planning in the Public Domain: From Knowledge to Action. Princeton University Press, Princeton, New Jersey.

George, V.R. (1997). A Procedural Explanation for Contemporary Urban Design, journal of urban design, 2(2): 143-161. https://doi.org/10.1080/13574809708724401

Golkar, K. (2003). From birth to adulthood Urban design. *Scientific-research Journal of Soffeh, 36*, 8-23.

Golkar, K. (2011). Urban design, process or processes?, Scientific-research Journal of Soffeh, 52, 99-134.

Habermas, J. (1985). The Theory of Communicative Action: Vol. 1: Reason and the Rationalization of Society. Boston, Mass: Beacon Press.

Hall, P. (1989). Urban and Regional Planning. London: Unwin Hyman.

Healey, P. (1996). The Communicative Turn in Planning Theory and its Implications for Spatial Strategy Formation. Environment and Planning B: Planning and Design 23/2(3): 217-234. https://doi.org/10.1068/b230217

Hillier, B., Musgrove, J., & O'Sullivan, P. (1972). *Knowledge and design. Environmental design: research and practice, 2*, 3-1.

Hoch, C. (2007). Making plans: Representation & intention. *Planning Theory, 6*(1), 15-35. https://doi.org/10.1177/1473095207075148

Inam, A. (2002). Meaningful Urban Design: Teleological/Catalytic/Relevant. Journal of Urban Design 7 (1): 35–58. https://doi.org/10.1080/13574800220129222

Innes, J. (1995). Planning theory's emerging paradigm: Communicative action and interactive practice. *Journal of Planning Education and Research 14*(3), 183–189. https://doi.org/10.1177/0739456X9501400307

Jacobs, J. (1994). The Death and Life of Great American Cities. London: Penguin.

Krieger, A. (2003). Where and how urban design happen? Published in "Alex Krieger and Williams Saunders, urban design, university of Minnesota press", 113-120.

Lindblom, C, E. (1959). The science of muddling through. *Public administration review, 19*(2), 79-88.

Lang, J. (1987). Creating Architectural Theory: The Role of the Behavioral Sciences in Environmental Design. New York: Van Nostrand Reinhold.

Lang, J. (2005). Urban Design, A Typology of Procedures and Products. Oxford: Architectural Press.

Madanipour, A. (1996). Design of urban space: an inquiry into a socio-spatial process. John wiley & son.

Madanipour, A. (2006). Role and challenges of urban design. *Journal of urban design, 11* (2), 173-193. https://doi.org/10.1080/13574800600644035

Mayring, P. (2000). Qualitative content analysis, from http://www.qualitative- research. net/ fqs-texte/2-00/02-00 mayring-e.htm.

Moughtin, C., R. Cuesta, C. Sarris, and P. Signoretta. (1999). Urban Design: Method and Techniques. Oxford: Architectural Press.

Punter, J. (1991). Participation in design of urban space, landscape design, 200(1), 24-27.

Rapoport, A. (1990). History and precedual in environmental design, New York, plenum press.

Relph, E. (1976). Place and placelessness. (Vol. 67, p. 45). London: Pion.

Sager, T. (1992). Why plan? A Multi-Rationality Foundation for planning. Scandinavian Housing &planning Research, 9, 129-147. https://doi.org/10.1080/02815739208730300

Shirvani, H. (1985). The Urban Design Process. New York: Van Nostrad Reinhold.

Smith, J. A., & Shinebourne, P. (2012). Interpretative phenomenological analysis. American Psychological Association

Steino, N. (2003). Vision, Plan and Reality: urban design between conceptualization and realization. PhD thesis of Aarhus School of Architecture.

Morse, J. M. (2015). "Data Were Saturated...". *Qualitative Health Research, 25*(5), 587–588. https://doi.org/10.1177/1049732315576699

AUTHOR (S) BIOSKETCHES

S. A. Nouri., *Department of Architecture, North Tehran Branch, Islamic Azad University, Tehran, Iran*
Email: sa_nouri@iau-tnb.ac.ir