

Towards Defining a General Process for Examining the Production of Urban Space

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ABSTRACT: This research seeks to answer what process should be done for a comprehensive analysis and study of producing urban space. The research method of the present study is influenced by the qualitative nature of the research question and to explain a conceptual framework. It has been prepared based on the analytical-descriptive method and sources. Data collection was done by documentary and library methods, and a three-step process was performed. In the first stage, document analysis and direct observation of urban spaces and review of some of the latest research and global experiences of urban space production have been used, which makes the reliability and validity of the research guaranteed by triangulation of evidence sources. In the second stage, an analytical framework related to producing and reproducing urban space, which includes four general layers, has been developed by summarizing and analyzing them. Then, in the third stage, the sub-layers of this framework with emphasis on power relations (influence) of related actors have been refined, and the proposed model of space production has been developed. The production and reproduction of space in the city consist of 4 layers. These four stages must be examined to study the production or reproduction of a specific area. 1-Geographical context (natural context), 2-Time, 3-Formal urban planning system, 4-Social organization or networks of actors (or stakeholders). In this study, a model for studying the production of different urban spaces has been proposed from the collection of findings and analyses.

Keywords: *Space production, Space production process, Urban space, Lefebvre, Space production layers.*

INTRODUCTION

Urban space has always been a place of many opportunities and challenges that people must constantly interact with its structures in their daily lives. These fundamental interactions raise various issues in urban spaces (Giroux, 2015, 1). According to (Shokri Firoozjah & Adabi Firoozjaei, 2020), it requires accurate knowledge of the phenomenon. Studies show that urban spaces within emerging economies have changed completely through political, economic, and cultural fluctuations by changing their organization and functions, as has happened in developed cities (Mandeli, 2019). Urban and public spaces and their personalities changed because they no longer acted as facilitators of social interactions and were merely dedicated to useful purposes. Thus, they lost their historical role as places where people could mingle (Hall, 2002).

On the other hand, the weakness of local management and the limitation of legal power caused the change of character of urban spaces and their deterioration. These have changed the socio-spatial context, lost the sense of local identity, created unusable urban spaces, and have raised major questions about how such spaces respond to people's needs and wishes (Mandeli, 2010). However, many authors agree that socio-economic changes can be understood through changes in the organization of urban space (Harvey, 1973; Lefebvre, 1991). According to Lefebvre, the method of production is important in determining how space will be seen (Asadi Mahal Chali, 2018, 19). Many of these ways of imagining, perceiving, and living in space reflect the unequal dynamics of human society. Space can be considered economically as a form of ownership, especially through the concept of land, as the strategic military issue of the earth, and it can be understood as a political conception of territory (Asadi Mahal Chali, 2018, 45).

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Examining the existing literature and researches and theories proposed by different thinkers of the world, the fact becomes clear that various elements are involved in the production and reproduction of urban space, and produced or reproduced urban spaces are constantly changing and evolving due to various factors in the dimensions of place, time and political factors and power structures and governance and economic conditions and capitalist, social and cultural factors and the environment. And the set of relationships between different actors causes different developments in these spaces. Therefore, the analysis and study of the production of urban space, which is a completely interdisciplinary subject with many different, complicated, and interrelated aspects, city designers must accept the fact that expert planning, as a fixed form of the physical dimensions of a place, cannot prepare the city development to address all possibilities (Wiese et al., 2014). Therefore, the study, discovery, and awareness of the relationships and currents that occur in these spaces, in other words, research in producing urban space, can have more effective and useful effects in planning and guiding these spaces. Given this issue, the importance of this point becomes clear that to plan and achieve urban production and development for all strata, it is necessary to study and explore the unique way of producing space and power relations of actors in each place and time. For this study, it is necessary to define and formulate a framework and basic indicators taking into account the set of factors influencing the production of space in the city to help planners analyze how to produce urban spaces and determine urban space development goals in individual areas.

It is necessary to move away from general and vague studies to understand these complexities. By focusing and highlighting an area of these dimensions in each research, finally, a more

complete and better understanding can be achieved. As a result, urban planning will have more desirable action, and the production of urban spaces will be more desirable, humane, and justice-oriented. Accordingly, this study seeks to provide a general framework for the study and analysis of all types of urban space in the next step, and it is focused on the field of urban space production actors and their power relations in that they are manifested as a result of their spatial reflection and influence in space. And it refines the proposed framework and completes it with the perspective that ultimately provides a model or pattern of production and reproduction of urban space to be used in the analysis and study of various urban spaces. Because, as Patsy Healey emphasizes, planning systems and actions play an important role in supporting local communities in managing their collective action, especially in achieving quality of life, social economy, and social equality. An environment in their common spaces (Healey, 2006), from this perspective, seems necessary to pay special attention to the process and manner of production of urban spaces. (Fig.1)

Research Background

Various researchers have conducted studies in this field in the conflict of production, reproduction, management, and guidance of urban space. One of the most important of these studies is that of Matthew Carmona. Carmona et al. (2008, 66-67) provide a conceptual framework of public space management that includes the four main components of "regulation," "investment," "maintenance," and "coordination." This framework provides a useful tool for analyzing public space management activities. But the disadvantage of this framework is that it does not explain the relationships of competing stakeholders in shaping public space. In particular,

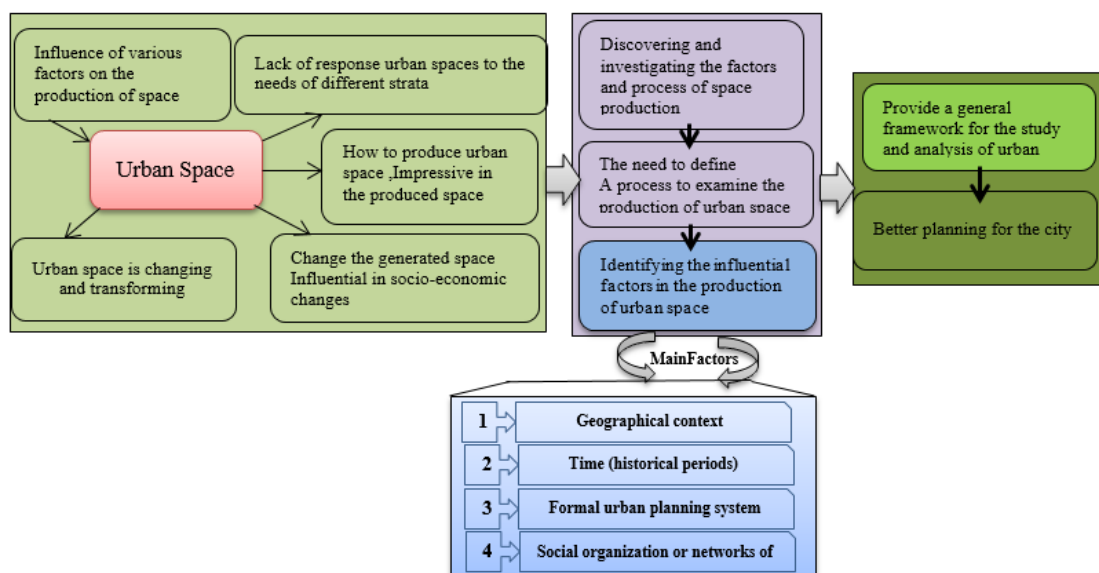


Fig.1: Theoretical framework of research

it fails to explain how the general public participates in the process. In addition, the role of different planning and design systems - an important determinant of how to create and use public space - is not well described in the framework. Carmona (2014), in another study on public spaces in London, introduced a new theory of urban design process called "continuity of shaping space." He based his theory on time and place, a continuous and dynamic process. Carmona argues that places are formed for use or formed through their use, meaning that even unconscious interventions such as those of ordinary users are part of shaping and transforming trends. The Carmona model has three layers power, politics, and place. It places great emphasis on contextual factors, history, and power relations. The Carmona model has three layers power, politics, and place. It places great emphasis on contextual factors, history, and power relations. This model (Carmona, 2014) shows four types of processes of shaping a place: "design, development, space (or place) in use and management" by emphasizing that these processes are circular and, in practice, they often overlap.

Patsy Healey, a Distinguished Professor in the School of Architecture, Planning and Landscape, University of Newcastle, UK, who is currently working on management transformation processes and the nature and function of strategic spatial planning, argues in her book (Planning Participatory: Shaping places in scattered communities), emphasizes the analysis of 4 items and pays attention to 1- context, 2- process, 3- approach to social theory and power, and 4- development of institutionalism (Healey, 2003). Eissa et al. (2019) address this issue in a study that how the remaining spaces are intervened through formal and informal processes. By taking a qualitative approach, the paper arrives at an analytical framework. The proposed framework examines the views of previous scholars through Lefebvre's point of view. The framework also tracks the allocated space-time factor in a three-phase interval representing the metamorphic acquisition process (Eissa et al., 2019). Shen et al. (2021) have theoretically and practically constructed an analytical framework called the Urban Reproduction Engine Model. The city government and the urban regeneration operator act as dual engines of urban regeneration. This dual-engine increases social capital in the reconstruction process and promotes government, companies, residents, social organizations, and financial institutions (Shen et al., 2021). Spyra et al. (2021) analyzes land cover changes related to peri-urban open spaces in the case study regions and, using their research results, provided recommendations for regional policy-makers who are willing to pay more attention to the protection of peri-urban open spaces (Spyra et al., 2021). research by Kheyroddin and Hedayatifard, aims to conduct the conceptual and methodological framework for the analysis of the exclusive space production as a social phenomenon in North of Iran with the help of critical realism perspective in discursive institutionalism approach. This could be a significant guideline for further spatial evolution in coastal urban areas (Kheyroddin & Hedayatifard, 2018). Lee critically examines

theories on the production of space by considering how urban forms are produced through socio-spatial processes.

The paper argues that urban design should facilitate assemblage thinking, addressing multi-layered significance and human value of space and a unified vision and socio-economic goals of cities (Lee, 2022). Ghulyan presents a comprehensive review of the applications of Lefebvre's artistic theories of space in Turkey. This paper maps related studies through intensive search and literature screening, research topic, geographical and historical scope, and the conceptual framework and concepts used in presenting Lefebvre spatial frameworks' general trends and application patterns. This article presents a comprehensive review of Lefebvre's theory of space production in Turkish texture. This scientific study is a "map" of applying Lefebvre theories of space in the Turkish texture (Ghulyan, 2019). The initial propositions of "space production" have been developed by a wide range of scientists (Brenner & Elden, 2009; Elden et al., 2003; Gottdiener, 1987, 1993; Kipfer, 2002; Merrifield, 2013; Shields, 2005; Soja, 1996; Stanek, 2011). Thus, today, Lefebvre's theoretical concepts of space have become the core of any research on the theoretical and practical aspects. With the popularity of Lefebvre's theory of space production in space and space research, especially in research that begins with the use of different Lefebvre concepts in specific cases, one can find a variety of interesting interpretations and contextualization related concepts. The theory of space production by Lefebvre (1991) consists of two main frameworks related to structure: the first refers to the periodicity of the space framework and includes absolute space, sacred space, historical space, abstract space, paradoxical space, and differential space, and the second refers to the three spatial frameworks which include spatial methods (perceived space), representations of space (imagined space), and representational space (lived space). It can be seen that the triple spatial framework is the most common reference to Lefebvre concepts (Baş, 2010; Çınar, 2014; Gegelioğlu & Aydınli, 2014; Karakaya, 2010; Turhanoglu, 2010; Batuman, 2003; Baydar et al., 2016; Ağlargöz, 2016; Yildiz, 2016).

Theoretical Framework

Production and reproduction of space: Production" has several meanings and definitions in various sources. But its relatively comprehensive meaning can be considered as follows: A process and the output of a process. These two aspects of production are relevant to many activities in such spaces because they often have a hidden and illegal side (Farabi-Asl et al., 2021). Reflecting on the concept of reproduction or reconstruction, basically, in any geographical space, natural and human processes and currents in it and outside causes dynamism and change (reconstruction) to become an intrinsic element of a space. (Shokouei, 2014, 213). Therefore, reconstruction is a qualitative change from one situation or pattern to another (Lashgari Tafreshi, 2017).

Historical time or periods (one of the main layers of the space production process): What is interesting and important in all

eras is that in each period, according to the time and conditions, new urban spaces of that period have been created and also the previous urban spaces have evolved. Combining the concept of space with these complexities has made thinkers unable to define it fully. It can be inferred that space is a relative and ambiguous concept whose boundaries of analysis are infinite. Space is a vast space full of various meanings, symbols, and signs. It can be said that space is a flowing and ever-evolving concept rather than something quantified and measurable (Rafieian et al., 2017; Tavassoli & Bonyadi, 2007). According to Harvey, human evolution has been nothing but the history of transforming the natural environment into an artificial environment. Hence any attempt (intellectual-practical), inevitably from "dialectical action" with -and- based on space and the generalization of "ontology," "epistemology," and "methodology," is in the context of the historical geography of the city. She presents such an understanding concept of incomprehensible language under the title of "dialectic of social processes - spatial forms" (Hataminejad and Shurcheh, 2015:1). Cities have undergone a fundamental transformation over time and following the economic and managerial conditions and derived from the ideology of the ruling system. In other words, in each period, different political, economic, and social forces, with a special mechanism, have influenced the organization and spatial structure of the city and have sought to produce urban spaces in line with their views and ideas (Tavakolinia & Zarghami, 2018). In other words, it can be said that the built urban environment is mainly the physical product of a social, economic, and political process (Munshifwa & Mooya, 2014).

In her attempts to link urban planning theories with action and what is happening in reality, Patsy Healey examines urban complexities, relationships and actions, and spatial strategies that coordinate with the time factor (Healey, 2018). On the other hand, it has a special emphasis on processes and their discovery and identification. In her famous book, Collaborative Planning, Healey argues that all planning activities involve some interactive relationships and a kind of governance process, and she states that in her work on policy implementation in the 1980s, she has identified different types of these "process forms" (Healey, 1990). This book aims to discuss process forms in economic, social, and environmental dynamics and translate them into institutionalized governance processes. She has tried to provide an approach to evaluate process forms in terms of material consequences and their possible effects on people's sense of themselves (identity) (Healey, 2003). The development of space created by different elements to meet human needs creates a continuous evolution of space over time. Therefore, this approach deals with individual and group experience, from physical and social aspects of public space. Individuals and groups share experiences and interpretations that share common social, cultural, and physiological characteristics and needs and should be reflected in the physical urban space inappropriate elements (Widiyastuti, 2013). Understanding the urban space during certain periods provides significant

information. Understanding this trend through important historical periods is important concerning the development of a city (Widiyastuti, 2013). Therefore, the study of historical periods and attention to the time factor are the main items in the analysis of urban space production.

Geographical context: Human societies' beliefs, thoughts, and actions combined with the natural context are the source of meaning and identity for a space. Thus the geographical ecosystem includes deformed space inhabited by humans and human institutions. These changes' direction, extent, and intensity are regulated, managed, and controlled by actors and decision-making institutions (Lashgari Tafreshi et al., 2017). In general, space results from the interaction of biological and natural foundations and political and cultural structures and the product of power, decision, and management. The influence of these components on each other is one of the sources of spatial differences. Therefore, the characteristics of the power governing space are one of the most important factors determining the performance and progress of a space (Lashgari Tafreshi et al., 2017). After examining eleven cities-regions in the world, Simmonds and Hack Conclude that the process and even the spatial organization form of the metropolitan area take on a specific and local form under the influence of two specific factors and constraints: Physical factors related to the natural context and political factors, or more precisely the prevailing governance culture in each metropolitan area (Simmond & Hack, 2000, 260-261).

Space production and its processes and relationships from Lefebvre's perspective (the most cited theory of space production in recent decades): It is very important to know and analyze space through the goals and processes that have consolidated it. These goals and processes are prepared and implemented by existing structures, laws, and institutions that greatly impact creating injustice (Rafieian et al., 2019). Thus, the production of urban space is a complex and multifaceted concept that has been the subject of various approaches and interpretations, the most central of which is Lefebvre's triple. Lefebvre links space production with time and politics and analyzes the social process of space production in three parts: spatial routine, spatial representations, and representation spaces (Table 1). Thus, he considers space a social product that arises from human relations with each other (Fanni & Mahmoudi, 2018).

Lefebvre's fundamental preoccupation with space analysis attempts to reconcile two distinct and competing perceptions: mental and physical space. In other words, from Lefebvre's point of view, space is neither purely mental nor objective, but rather it is a social reality that can be called a set of relationships and forms. His three concepts express the same attention. Space is the dialectical product of spatial practices, representations of space, and spaces of representation. Lefebvre argues that valid knowledge of space must address the issue of space production and therefore must consider both representational spaces and representations of space, but most importantly, must address

Table 1: Components of Lefebvre's theory of space production (Shiee et al., 2017)

Living space (representational space)	Imagined space (representation of space)	Perceived space
<ul style="list-style-type: none"> -The symbolic dimension of space -Refers to a superior power, logos, government, masculine or feminine principle -The mediator through which the body interacts with other bodies (Gottdiener, 1993, 131) -Community Relations -The matter is lived -Social memories -Spatial experiences 	<ul style="list-style-type: none"> Abstract space- -Paper space and three-dimensional drawings -Image of space -At the level of discourse and speech -Descriptions, definitions, and especially scientific theories of space Fields of architecture and geographical planning Corporate space, planners, politicians- 	<ul style="list-style-type: none"> -The material dimension of activity -Perception by the five senses -The objective and concrete aspect of space

their interrelationships and their connection to social practice (Lefebvre, 1991, 36; Zhelnits, 2014, 115-117). For Lefebvre, space is also a hegemonic tool that the ruling class uses to produce to reproduce its domination. Space is a social product. Therefore, the space produced in this way is also used as a tool of thought and action, and in the same way that it is a tool of production, it is also a tool of control and thus domination and power (Lefebvre, 1991, 41). For Lefebvre, space is not neutral and is produced by power processes. Mechanisms of power for the reproduction of social relations create segregation and hierarchy in urban spaces (Shalchi et al., 2016). Lefebvre believes that each community creates its own space according to its production method. Thus, each action society has a specific space that creates a specific space (Sharepour, 2014: 172), which means that spatiality is the objectification of social aspects. All the activities of different groups are part of the process of self-allocation. The level of agency and activity of individuals and the possibility of being present in each of the three spaces, which are essential components of space production, varies depending on the contexts provided by the mentioned spaces (Yazdani and Dadashpour, 2016). Lefebvre claims that the bourgeoisie and its political creature, the government, produced and took over urban space and then used it as the most important ideological weapon of power (Jacobs, 2008, 26), cited in (Khojaminee et al., 2016).

Classifying Urban Space Generation Data to Create an Analytical Framework: To understand many aspects of a complex world, we need to expand our conceptual frameworks to accommodate dynamic requirements and robustness (Mitchell, 2012). Complex realities simply require a complex intellectual apparatus. Cities are always in a certain place and at a certain time. (Radovic, 2016). The city is nothing beyond its spaces, so each city space is produced and reproduced in its own time, place, and geography. Until recently, many sciences have adopted "strategies involving reductive explanations to simplify many of the complexities of nature to understand them" (Radovic, 2016). The problem is, of course, even more apparent in studies of built environments because they involve both the complexities of environmental systems and the

relationships between human and social power. It is precisely this excellent quality that creates the layer that produces human context (Radovic, 2016). The human mind works primarily by trying to impose the meaning of the world through the use of cognitive classification and categorizations (Widiyastuti, 2013); in the case of urban space production, achieving a process with the categorization of influential factors can be helpful in the study, discovery, and recognition of urban space production, which is also the purpose of this study. As found in the research, one of the most important factors emphasized by thinkers, which is effective in the production and reproduction of urban space, is the factor of the geographical context. The next item emphasized by researchers and experts is the factor of time. On the other hand, in addition to these natural factors, human groups play a dynamic and ever-changing role in this cycle by taking advantage of the laws and under the banner of political and economic elements. Therefore, in general, the most important, general, and comprehensive items emphasized on the production and reproduction of urban space can be summarized in four items: 1- Geographical background or space 2- Time (or historical periods) 3- (official) planning system 4- Network of actors.

The important point in the item or layer of actors and the planning system that is often involved in politics, whether involuntary or not, is the issue of power and access to power. In access to power, power sources or tools of power are often variable rather than stable (Parent & Deephouse, 2007). Therefore, it is necessary to be constantly aware of the power relations between the actors concerning the actors. What happens in the background of power relations and structures is that without deceptive ideas, power relations and structures are not produced and reproduced. Without collective structures of power, these ideas, contrary to real needs and interests, will not be formed and disseminated (Lukes, 2014, 10). In other words, the proceedings and actions of the actors are done by using the sources of power available to influence and change the direction that is in line with the real needs of society. In the literature on the discourse of power, it is argued that there are three dimensions of power (Lukes, 1974:11). The first

dimension is what is visible; the second dimension includes the rules, modes, media, and methods that establish or provide a platform for what is visible; and the third dimension is deep social structures that are based on rules (Lukes,1974) cited in (Kivits, 2013). In this evolutionary trajectory of power, in the 1970s, the sociologist Steven Lukes, by emphasizing the role of ideas and beliefs in shaping the basic desires of others, presents the third face of power, and he highlights "real interests" as a radical concept of interests. Urban space-producing discourses are produced by urbanites with significant sociopolitical power in their respective fields who use distinctive discourse tools to enhance the usefulness and efficiency of discourse, Using their power and influence to have a hegemonic influence on urban public space development (Mullenbach, 2022), and this power does not come from wealth per se. Power resides in the ownership of space and control over spatial arrangements. Hence, the tenants do not have access to power even though they may have considerable wealth and cannot access the superstructure of community power (Suryanarayan, 2021).

MATERIALS AND METHOD

The present research method is influenced by the qualitative nature of the research question. To explain a conceptual framework, it has been prepared and adjusted based on the study of sources and the analytical-descriptive method. In other words, this research follows an exploratory-descriptive perspective by adopting qualitative research methods to deepen and imply the researched phenomenon (Marshall & Rossman, 2006). A multi-method approach includes library studies and brainstorming, semi-structured interviews with urban planners and experts to develop a framework for urban space production analysis. It has been developed through three consecutive, empirical steps (Fig 2).

Step 1: To collect the required information and in line with the explanatory purpose of the article, Library studies and study of global experiences in the production of urban spaces and direct observation of urban spaces done. And then, using brainstorming among experts, to identify the main factors influencing the production of urban space, a general list of key factors was identified. This attention ensures the reliability and validity of the research by triangulating the sources of evidence (Creswell, 2014:43). In other words, a multiple case study

of research orientation was adopted through data collection methods to ensure triangulation of different sources of evidence (Eisenhardt, 1989). Step 2: Interviews with selected urban management and urban planners were performed to complement the list of factors identified in Step 1. The interviews were semi-structured. The draft framework from step one and the three resulting questions identified through the brainstorming served as a basis for the questions to the interviewees as the interviewees had different backgrounds and experiences related to the production of space; consequently, the questions and follow-up questions varied. An analytical framework related to how urban space is produced and reproduced, including four general layers, was developed by summarizing and analyzing them. Step 3: the sub-layers of this model or framework, emphasizing related actors' power relations (influence), were examined. Triangulation of collected data (Mathison, 1988); Data from brainstorming, Semi-structured interviews, and conversation sessions were combined to the final framework, and the proposed model of space production was developed to facilitate urban planners to grasp the complex set of issues related to how urban space is produced in urban areas. It can be used to analyze and discover what is behind the production of urban spaces. Also, it can be used to better plan, manage and direct the reproduction of these spaces and make these spaces more responsive and efficient for different strata. The framework was validated by submitting the obtained results from the previous steps to the participants (20 experts) and obtaining final comments through virtual conversations (via WhatsApp and Skype messengers) and face-to-face conversations.

RESULTS AND DISCUSSION

By reviewing interior and foreign researches and examining the opinions of thinkers of different periods during the evolution of urban planning theories, as well as by considering and examining the processes of production and reproduction of several urban spaces in times and place, it is revealed that different factors are influential in the production and reproduction of space. Although, according to Harvey, the production of each space causes the production of space differently, it is not only the production method that affects the type of space but in the production of any space in the city;

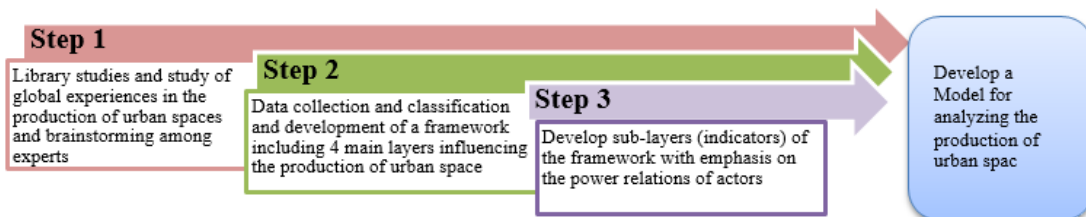


Fig.2: Research Methods

there are four main factors or layers that the overlap of these four layers creates its current space. This flow can be stated in the following process: to examine a particular area's production or reproduction, these four steps (Figure 3) should be examined as follows in that area. These influential layers are:

1. Geographical context (natural context): Each area, based on the geography of that area, has a form and characteristics. For example, a piece of forest or desert land or plain;
2. Time: Different historical periods, through their passage, have created changes in this area or, in other words, the existing context.
- 3- Formal urban planning system: The process of preparing the plan, approving the plan, and implementing the plan is done by specialized agents involved in urban planning and urban management under the existing macro-planning system of the country at a time.
- 4- Social organization or networks of actors (or stakeholders): During the mentioned processes, which means during the process of preparing a plan, approving a plan, and implementing a plan, various actors in different fields, by creating a network of interrelationships, influence the production or reproduction of the space of the desired area. These actors, with different powers, have different influences at different levels, and the relationships they form with each other fluidly transfer power (and, in other words, the ability to do what they want).

These actors use resources or tools or (according to Hillier) mediators to exercise their power according to their motives, interests, and benefits. These four layers are in a dialectical relationship, and none of them alone creates a space. As Harvey has pointed out, time and space cannot be understood independently of social action, and power relations and social and economic factors are embedded in spatial actions.

Therefore, we encounter the triples of these layers in a specific geographical space, and each of these four layers can be the subject of an independent study. (Figure 4) and (Figure 5) illustrates this process. As mentioned in the Theoretical Foundations section, examining the power relations of urban space production actors, these three levels of the urban planning system in Iran (plan preparation, plan approval, and plan implementation) can be considered similar to Steven Lukes's three-dimensional power model. Perhaps it is safe to say that the actor layer is the most important or effective layer of this 4-layer model of production and reproduction of space in the city because, in fact, each of the other layers also makes sense with this layer, and the slightest change in this layer, that is, a change in the type of change in the approach of the actors, will have a fundamental impact on the production method and the planning system in different periods. A review of the texts and opinions of contemporary thinkers shows that it is important that a fundamental change has taken place in the role and position of these space production actors. Among the main, powerful, and influential actors are the government in different periods. But gradually, and especially in the contemporary era, a change in the concept of power has emerged alongside the change in the concept of the state as an actor in power.

These four layers of space production can be considered in relative conformity with Lefebvre's triple view of space production (Figure 6); thus, the first and second layers are related to Lefebvre's first view, that is, the spatial routine, the third layer (formal planning system for preparing a plan-approval of design and execution) is related to Lefebvre's second view on space production, which is the representation of space, and the fourth layer (actors), is related to Lefebvre's third view, the space of representation.

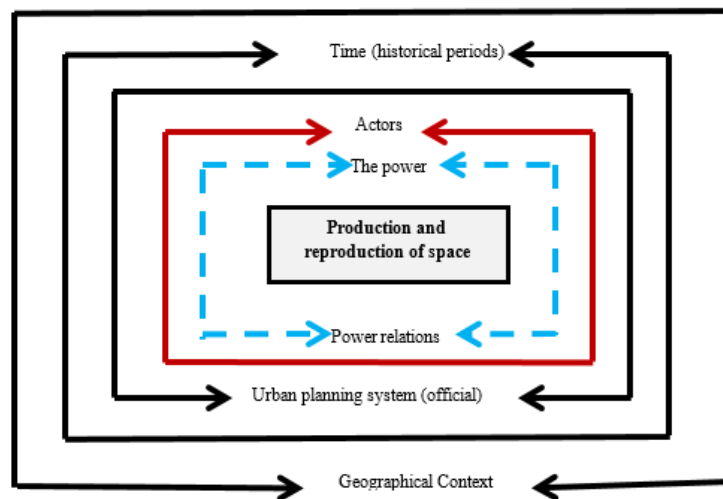


Fig. 3: 4layer process of space production under the influence of influential factors

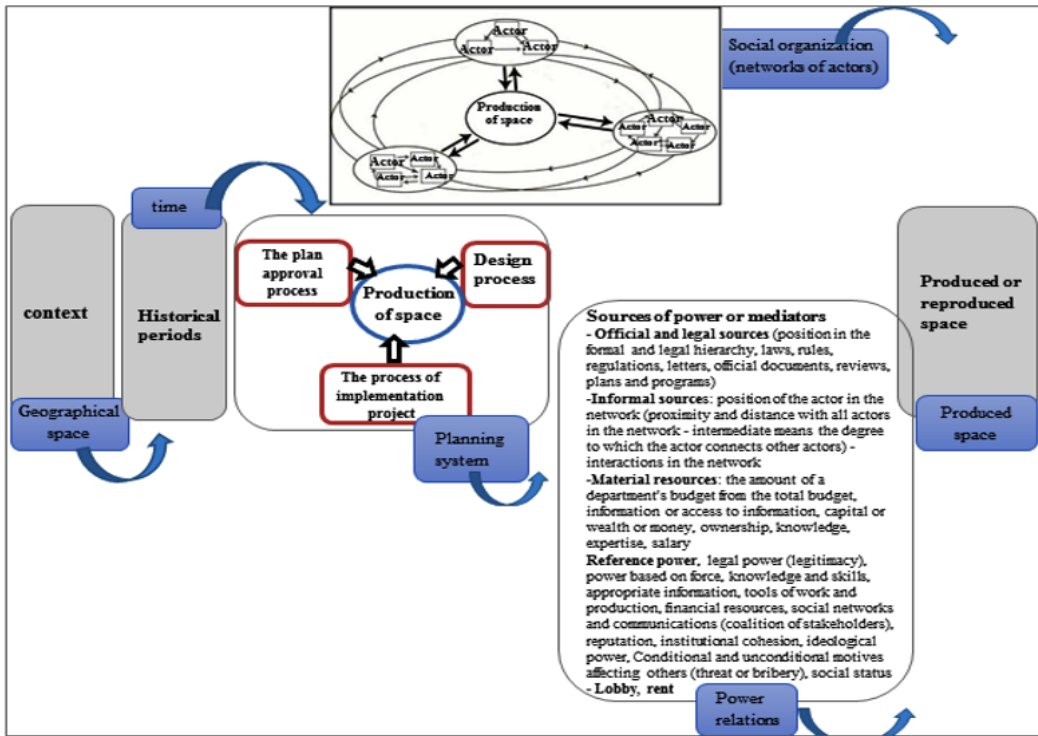


Fig. 4: The process of space production under the influence of influential factors

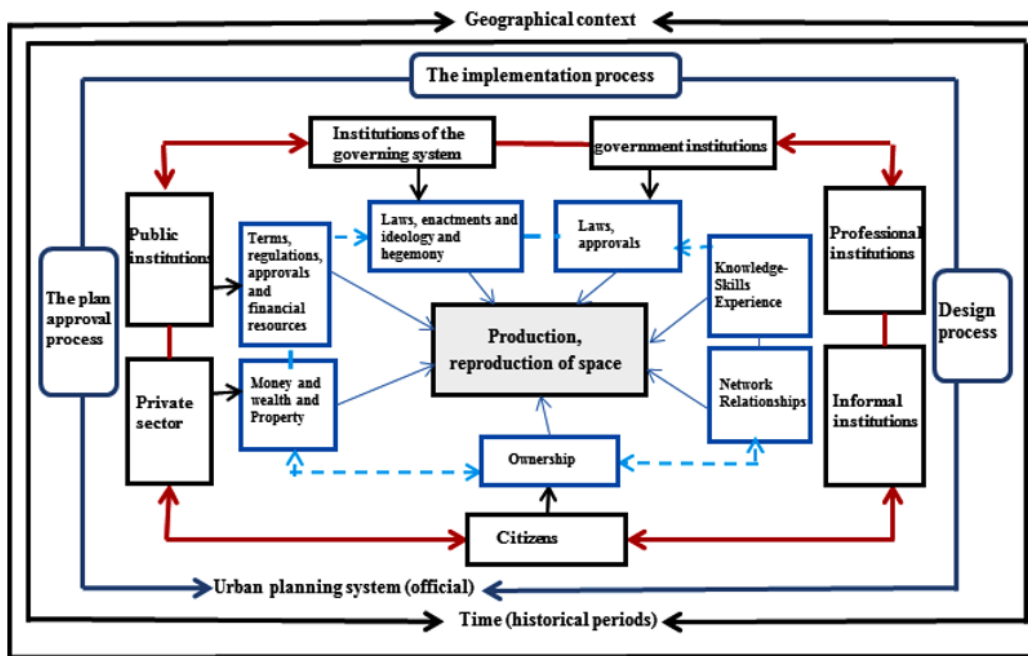


Fig. 5: Layers of space production under the influence of influential factors

Henry Lefebvre Triple Space Production		Coordinated or corresponding aspect	4layer process of space production (Influenced by influencing factors)	
The three dimensions of Lefebvre space production	Spatial practice (It is perceived to be physical)	←	First layer: geographical background	The layers of the overall examining process of the production of urban space
	Representations of space (It is thought to be subjective)	←	Second layer: Time (historical periods)	
	Representational spaces (Living is social)	←	Layer 3: Formal planning system (Preparation of plan - approval of plan - implementation)	
		Layer 4: Actors		

Fig. 6: Correspondence or relative alignment of the 4-layer process of space production with the triple space production of Henri Lefebvre

CONCLUSION

This should be considered that in previous research, a model for examining the production and reproduction of different types of urban spaces has not been presented from the perspective of this research. In this study, a model for examining the production of different urban spaces is suggested from the collection of findings and analyses. In other words, the four-layer process of space production, which was discussed in the previous section, is examined here with emphasis on the power relations of the actors, and sub-layers or sub-items are also discussed (Figure7). The proposed model includes four main components: 1- Geographical context 2- Time (historical periods) 3- Actors (stakeholders and influential people), 4- Governance structure and sub-components related to each. This model or framework places particular emphasis on underlying factors.

Over time, numerous stakeholders and influential people (actors) influence the production and reproduction of urban space. The power of actors in the production of urban space is manifested in their influence in the creation and formation of space. This influence occurs through the action of each actor. The action takes place under the influence of thought and approach and the actor's goals, interests, and benefits through (or using) tools or sources of power, including material, formal and legal sources and informal sources.

Explanation of the sub-indicators of the proposed model:

The tools or sources of power of the actors mentioned in this model are defined in the form of (Table 2), and examples of each are mentioned.

Urban space production actors are classified into three groups based on two criteria: "sources of power" and "legal and social status": 1- Government institutions (institutions of government

system, government institutions, urban management institutions including municipality and city council) 2- Private sector (capital owners and professionals) 3- People and civil society (citizens, informal institutions (NGO), mass media). It is worth mentioning that this classification that the Author has done and used in the present study summarizes the collection of literature and research of researchers and thinkers who directly or indirectly express themselves in the field of influential actors in the production of space. They have commented on the results of their work, and the Author has explained them in detail in her doctoral dissertation.

What is fundamental and very influential in urban space production is how the actors of these three classes participate in urban space production? Does a class or element of classes dominate the rest of the actors and exert more power and, in other words, does it have more influence in the produced space, or do they produce and reproduce space based on collective needs and desires in a balanced network of interactions? The type of this participation and the amount of presence and involvement of each of the stakeholders and influential people in this process are significant cases in reviewing the process done or being done in the relevant urban space. One of the main influential factors in this process, in the production of all urban spaces in the world, is the governance structure, which, in context, has a significant impact on how other actors act and how effective they are. The governance structure is rooted in contextual indicators such as political infrastructure and economic context. At any time and place, the government or system that governs society, based on its ideology and thinking in a way which it sees its benefits, controls and regulates the environmental behavior of people in society, which is done

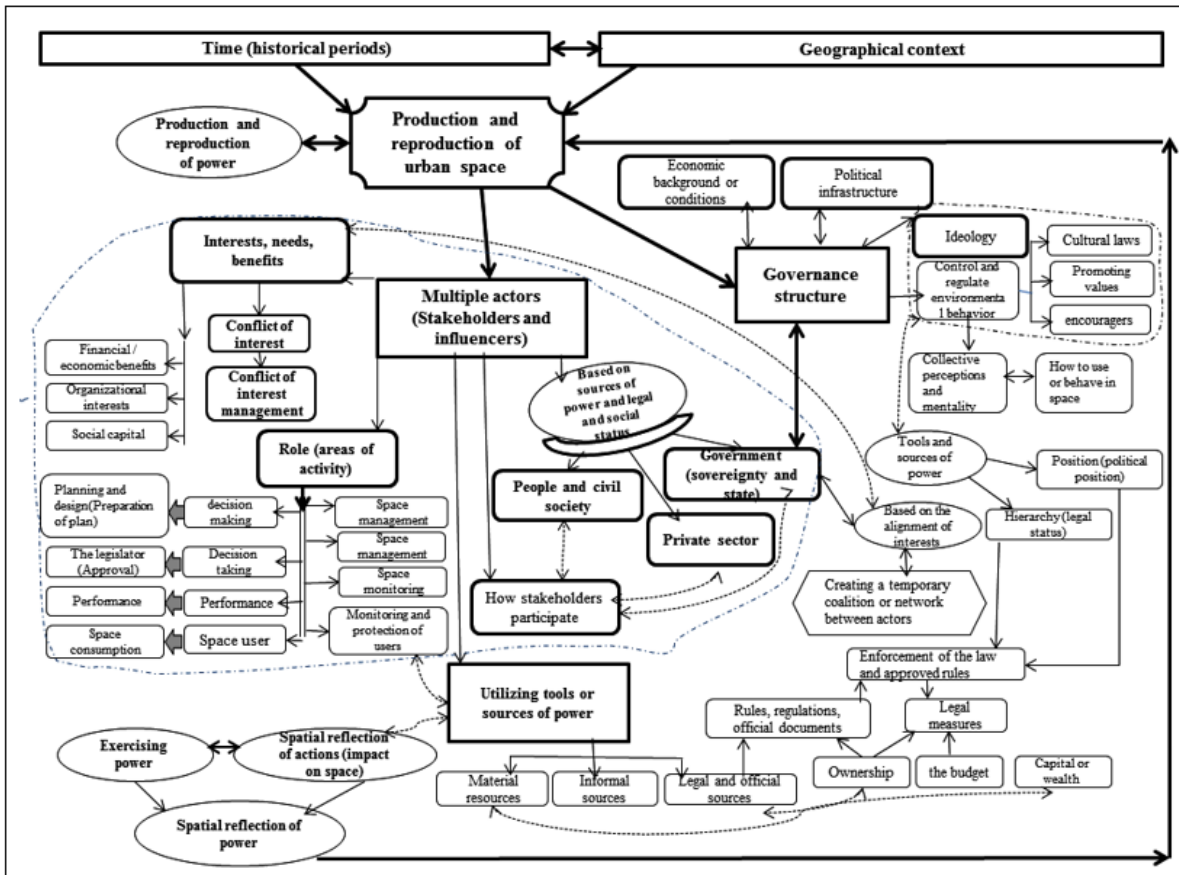


Fig. 7: Model or flowchart of production and reproduction of urban space (with emphasis on the power relations of actors)

by using tools such as cultural laws and promoting its values in line with its ideology. Sometimes it is accompanied by encouraging and providing incentives, sometimes by punishing in case of violation of cultural laws that dominate the space, and sometimes by promoting values. The mentality of citizens in society, or the collective mentality and perception of a space that arises under various factors, including the regulation of the behavior of individuals in society by the government, is a determining factor in how they use or behave in that space. It can be considered one of the tools and sources of governance power in producing urban space. Position (or political status) and hierarchy (or legal status) are among the main sources of power for the institutions of the system of government.

On the other hand, at some point in time, governing institutions form alliances with each other based on the alignment of their interests, or, as Patsy Healey says, joint ownership of results that can be agreed upon as much as possible. And within this network, they interact and cooperate in providing secure common interests. This alliance exists as long as its common interests and goal exist. However, after its elimination, the nodes (members) of the network and the relations between the network members disappear or change. Areas of action or

influence of urban space production actors include the following areas (Table 3). These actions result from the actors' interests, needs, and interests, including organizational interests, economic or financial gain, social capital, and commitment.

On the other hand, this conflict of interests between the actors creates conflicts and disrupts many logical affairs and planning with social and urban considerations. In many cases, it leads to adverse consequences for the city and its citizens. It is to the benefit of certain groups, and in some cases, to their detriment. This is where the importance of managing this conflict of interest becomes apparent. On the other hand, the urban planning system, or in other words, the managers of space production, to control and direct the production and development of urban space, use the formulation and approval of laws, rules, and official documents, which have been the source of power for actors in this structure. In implementing these laws and regulations, wherever there is a conflict of interest between actors, the law itself is circumvented by resorting to legal actions. Therefore, as a result of the use of stakeholders and influential people from the sources of power, of which ownership, budget, capital, and wealth are the main sources of power of the actors, these acts of power have led

Table 2: Tools or sources of power for actors

Samples	Definition	Power sources
Such as capital or wealth, budget, information, knowledge, tools and equipment, ownership.	Resources that are physically and non-physically available to individuals, organizations, and institutions and can be owned and transferred	Material resources
Such as rules, regulations, official documents, position, and hierarchy.	Customs and official authorities approve some sources.	Official and legal sources
Such as social networks, the actor's position in the network, social status, reputation, personal power, rent, lobbying.	Some sources do not exist in custom but are created informally and due to various factors	Informal sources

Table 3: The role or areas of action in the production and reproduction of urban space

Field Activists	The role of each domain	Areas of Activity
Consulting Engineers - Urban Designers and Planners	Planning and design (design preparation)	Decisions
Islamic Consultative Assembly - City Council - Supreme Council of Urban Planning and Architecture	Approval of the plan - the legislator	Decision making
Municipality – Contractors.	Operationalization and spatial reflection	Performance
Citizens and space users in general	Consumption or use of space	Space user
Tehran Municipality - Ministry of Interior-Environment Organization	Space monitoring and rehabilitation	Space management
Superior documents and rules and regulations.	Recovery and pathology of space and creating spatial coordination based on spatial development	Space control
The municipality and all relevant organizations based on the above documents and the implementation of existing laws		
Municipality-police force-guards	Training on the elements of implementation and observing the principles in the implementation	Space monitoring
Non-Governmental Organizations and Public Participation (Citizens)		
Article 7 Commissions - Article 5	Field visits and continuous monitoring of various violations and abuses of space	Monitoring and protection of land use
And implementation of the municipality and the Supreme Council of Architecture and Urban Planning.		

to the spatial reflection of these actions or the impact on space. And power itself is reproduced in a reciprocal cycle. The cycle of influence of the actors causes the production and reproduction of the urban space. It also causes the reproduction of the power of the actors in power (sovereignty).

The model or framework presented in Figure 5 shows a general process used in all urban spaces to analyze and evaluate how they are produced and reproduced. It can be said that this process is the result of a combination of formal and informal processes. In the formal sector, the main actors are the government, the government, and the private sector, which create the space from planning to physical development. Informal process, all activities, and actions performed by individuals and groups or families and social networks with actions based on individual motivations and strategies, the intensity or weakness of such actions in any society is to some extent influenced by the political context of that society. Thinking on this point that

the importance of paying attention to the process of urban space production and trying to formulate a model or model for studying and analyzing urban spaces in the field of urban planning knowledge is because the understanding of how actual action and processes have occurred or those which are in the process, helps the management of stakeholders and the conflict of their collective and individual interests. Therefore, the management of stakeholders and influential actors in producing a space managing that space knowledge of these issues will lead to more effective and efficient actions of planners, designers, and city managers.

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REFERENCES

- Ağlargöz, O. (2016). We are at this campus, there is nothing in this campus.: Socio-spatial analysis of a university campus. *Tertiary Education and Management*, 23(1), 69-83. <https://doi.org/10.1080/13583883.2016.1207798>.
- Asadi MahalChali, M. (2018). *The Impact of Power Relations on Humans and Urban Spaces*. First Ed. (Tehran: Armanshahr Publications. (Persian)
- Batuman, B. (2003). Imagination as appropriation: Student riots and the (re)claiming of public space. *Space and Culture*, 6(3),261-275.
- Baş, Y. (2010). Production of urban form as the reproduction of property relations morphogenesis of Yenişehir–Ankara (Unpublished master's thesis). Graduate School of Natural and Applied Sciences, Middle East Technical University, Ankara, Turkey.
- Baydar, G., Komesli, M., Yılmaz, A. & Kılınç, K. (2016). Digitizing Lefebvre's spatial triad. *Digital Scholarship in the Humanities*, 33, 6-20. doi:10.1093/LLC/fqw061.
- Brenner, N., & Elden, S. (2009). Henri Lefebvre on state, space, territory. *International Political Sociology*, 3(4), 353-377. DOI:10.1111/j.1749-5687.2009.00081.x
- Carmona, M., De Magalhães, C., Hammond, L. (2008). *Public space: The management dimension*. (1st Ed.). London. Routledge. <https://doi.org/10.4324/9780203927229>.
- Carmona, M. (2014). The place-shaping continuum: A theory of urban design process. *Journal of Urban Design*, 19(1), 2 –36. <http://dx.doi.org/10.1080/13574809.2013.854695>
- Creswell, John W.(2014). *Research design: qualitative, quantitative, and mixed methods approaches*. (4th Ed.), SAGE Publications, Inc., London.
- Çınar, Z. (2014). Beyond possibilities: Re-reading republican Ankara. *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, 8(4), 1137-1142.
- Eissa, D., Khalil, M.H., Gabr, A., Abdelghaffar, A. (2019). From appropriation to formal intervention: An analytical framework for understanding the appropriation process in residual spaces of Cairo. *Frontiers of Architectural Research*, 8, 201 –214. www.sciencedirect.com/journal/homepage/www.keaipublishing.com/foar.
- Elden, S., Lebas, E., Kofman, E. (Eds.) (2003). *Henri Lefebvre: Key writings*. New York, NY: Continuum.
- Gegelioğlu, A. F., Aydınli, S. (2014). Mimarlık Üretimi Üzerine Bir İç Hesaplaşma: Tüketim Dinamiklerinin Uzantısında Mimari Bir Duruş [An internal account of architectural production: An architectural stance in the extension of consumption dynamics]. *Tasarım +kuram*, 10(17), 54-72. DOI: 10.23835/tasarimkuram.239604
- Eisenhardt, K.M. (1989). Building theories from case study research. *Academy of Management Review*, 14, 532–550.
- Farabi Asl N, Rafeian M, Khatibi S M. Explaining The Power Relations of The Actors of Production and Reproduction of The Urban Space of Abbas-Abad lands in Tehran. *Haft Hesar Journal of Environmental Studies*, 10 (37), 99-120.
- Fanni, Z., Mahmoudi, L. (2018). Production of urban space. The growth of geography education.(120) 36-42. (Persian)
- Giroux, J., Herzog, M. (2015), *Urban Resilience: considering technical and social infrastructures in complex human environments*. Center for Security Studies (CSS), TH Zurich, from: www.css.ethz.ch/publications/pdfs/SKIFocus-Report-11.pdf.
- Ghulyan, H. (2019). *Lefebvre's Production of Space in the Context of Turkey: A Comprehensive Literature Survey*. SAGE Open, July-September 2019: 1 –14. journals.sagepub.com/home/sgo, DOI: 10.1177/2158244019870537
- Gottdiener, M. (1987). Space as a force of production: Contribution to the debate on realism, capitalism, and space. *International Journal of Urban and Regional Research*, 11(3), 405-416. DOI:10.1111/j.1468-2427.1987.tb00057.x
- Gottdiener, M. (1993). A Marx for our Time: Henri Lefebvre and the Production of Space. *Sociological Theory*, 11(1), 129-134.
- Hall, P. (2002). *Cities of tomorrow: An intellectual history of urban planning and design in the twentieth century*. Oxford: Blackwell Publishing. <https://doi.org/10.2307/201984>
- Harvey, D. (1973). *Social justice and the city*. London: Edward Arnold.
- Healey, P. (2003). *Collaborative Planning in Perspective*, University of Newcastle upon Tyne, UK, Planning Theory, Copyright © 2003 SAGE Publications,(London, Thousand Oaks, CA, and New Delhi), 2(2): 101–123, www.sagepublications.com
- Healey, P. (1990) 'Policy Processes in Planning?', *Policy and Politics* 18(1):91–103.
- Healey, P. (2006). *Urban Complexity and Spatial Strategies*, London: Taylor and Francis. <https://doi.org/10.4324/9780203099414>
- Healey P. (2018). *Urban Complexity and Spatial Strategies: Towards a relational Planning for our time*. (Translation: Hossein Reza Keshavarz Ghadimi).(1st Ed.).Tehran: Armanshahr publications.
- Hataminejad, H., & Shurcheh, M. (2015). *City and Critical Theory: Emphasizing the views and works of David Harvey*. Tehran: ParhamNaghsh Publications. (Persian)
- Jacobs, A.J. (2008). *Political Power, Collective Memory, and American Central Cities: The Discourses of the Conservative Elite's Counter-Memory of the City*. *The Open Urban Studies Journal*,1, 25-34.
- Karakaya, E. (2010). *Construction of the republic in city space: From political ideal to planning principles* (Unpublished master's thesis). Graduate School of Natural and Applied Sciences, Middle East Technical University, Ankara, Turkey.
- Kivits, R.A. (2013).Multi-dimensional stakeholder analysis: a methodology applied to Australian capital city airports. A Thesis submitted in fulfilment of the requirements for the award of the degree Doctor of Philosophy from Southern Cross University, Southern Cross Business School, MSc Engineering and Policy Analysis (The Delft University of Technology, The Netherlands).
- Kheyroddin, R., & Hedayatifard, M. (2018). Developing the Conceptual and Methodological Framework for Discursive-institutional Analysis of Coastal Exclusive Space Production: with Special Reference to Critical Realism Perspective. *International Journal of Architecture and Urban Development*, 8(2), 15-24.
- Lefebvre, H. (1991). *The production of space*. Oxford: Blackwell.
- Lee, J. (2022). *A multi-scale perspective on production of space: A*

- critical review of urban design. *Cities*, Volume 121,103497. ISSN 0264-2751. <https://doi.org/10.1016/j.cities.2021.103497>. (<https://www.sciencedirect.com/science/article/pii/S0264275121003966>).
- Kipfer, S. (2002). Urbanization, everyday life and the survival of capitalism: Lefebvre, Gramsci and the problematic of hegemony. *Capitalism Nature Socialism*, 13(2), 117-149.
- Khojamlie, A., Ahmadipour, Z., Hafeznia, M.R., and Pourjafar, M.R. (2016). Geopolitical explanation of urban landscape; the relationship between power and politics with urban symbolism. *Journal of Political Geography Research*, 1(3), 1-28. (Persian)
- Lukes, S. (2014). *Power: A Radical Attitude*. (Translation: Emad Afrough). (1st Ed.). Tehran: Alam Publications. (Persian)
- Lashgari Tafreshi, E., Rezaei, M. R., Kavianpour, G. (2017). Theoretical explanation of the functions of political power in urban space. *Geographical researches*, 32(2), 252-66. Doi: 10.18869/acadpub.geores.32.2.52 (Persian)
- Lukes, S. (1974). *Power: A Radical View*. (1 Ed.). New York: Palgrave Macmillan.
- Mandeli, Kh. (2019). Public space and the challenge of urban transformation in cities of emerging economies: Jeddah case study. *Cities*, 95. 102409. <https://doi.org/10.1016/j.cities.2019.102409>
- Mandeli, Kh. (2010). Promoting public space governance in Jeddah, Saudi Arabia. *Cities*, 27(6), 443-455. DOI:10.1016/j.cities.2010.03.001
- Merrifield, A. (2013). *Henri Lefebvre: A critical introduction*. London, England: Taylor & Francis.
- Mathison, S. (1988). Why triangulate? *Educ. Res.* 17, 13-17.
- Mitchell, S. (2012), *Unsimple Truths: Science, Complexity, and Policy*, Chicago: University of Chicago Press.
- Mullenbach, L E. (2022). Critical discourse analysis of urban park and public space development, *Cities*, 120, 1-14. <https://doi.org/10.1016/j.cities.2021.103458>. (<https://www.sciencedirect.com/science/article/pii/S0264275121003577>).
- Munshifwa, E.K. , & Mooya, M.M. (2014). Theorizing urban form in developing countries: Informal property markets and the production of the urban built environment. The International Society for New Institutional Economics (ISNIE) 18th Annual Conference. Duke University, Durham, North Carolina, USA.
- Marshall, C., & Rossman, G. B. (2006). *Designing Qualitative Research*. (4th Ed.). London: Sage
- Parent, M., & Deephouse, D. (2007). A Case Study of Stakeholder Identification and Prioritization by Managers. *Journal of Business Ethics*, 75(1), 1-23. DOI:10.1007/s10551-007-9533-y .
- Radovic, D. (2016). Learning, Thinking, and Living Tokyo. Doing urban research in cultures radically different to that of our own. *The Journal of Public Space*, 1(1), 35-42. DOI:10.5204/jps.v1i1.8 .
- Rafieian, M., Ghasemi, I., Nozari, Kamal. (2019). Spatial Justice Discourse Analysis in Urban Management Policy Document (Case Study: Tehran). *Urban Social Geography*, 6 (1), 89-71. Doi: 10.22103/JUSG.2019.1979. (Persian)
- Rafieian, M., Yazdani, A., Dadashpour, H. (2017). Critical Formulation of the Space Problem, with Emphasis on Public-Urban Space How is space produced and reproduced through the relations of forces? *Journal of Political Geography*, 8 (2), 79-108. Coi: JR_JPG-2-3_004. (Persian)
- Shields, R. (2005). *Lefebvre, love, and struggle: Spatial dialectics*. London, England: Routledge.
- Shokouei, H. (2014). *New ideas in the philosophy of geography*. first volume. (16 Ed.). Tehran: Gitashenasi publications.
- Simmonds, R., Hack, G. (2000). *Global city-regions, the emerging Forms*. (1st Ed). Spon Press.
- Soja, E. (1996). *Thirdspace: Journeys to Los Angeles and other real-and-imagined places*. Oxford, UK: Basil Blackwell.
- Stanek, L. (2011). *Henri Lefebvre on Space: Architecture, urban research, and the production of theory*. Minneapolis: University of Minnesota Press.
- Shen, T., Yao, X., Wen, F. (2021). The Urban Regeneration Engine Model: An analytical framework and case study of the renewal of old communities. *Land Use Policy*, 108, 105571, 1-11 , <https://doi.org/10.1016/j.landusepol.2021.105571>. (<https://www.sciencedirect.com/science/article/pii/S0264837721002945>).
- Spyra, M., Kleemann, J., Calo, N., Schürmann, A., Fürst, Ch. (2021). Protection of peri-urban open spaces at the level of regional policy-making: Examples from six European regions. *Land Use Policy*, Volume 107, 105480, ISSN 0264-8377, <https://doi.org/10.1016/j.landusepol.2021.105480>. (<https://www.sciencedirect.com/science/article/pii/S0264837721002039>).
- Suryanarayan, S. (2021). Of 'Paradise' and its underbelly: Spaces of power in the every day of a gated enclave in Urban India, *Asian Journal of Social Science*. <https://doi.org/10.1016/j.ajss.2021.09.013>.
- Sharepour, M. (2014). *City, space, and daily life*. Tehran: Tisa Publications. (Persian)
- Shokri Firoozjah, P., Adabi Firoozjaei, Kh. (2020), Spatial analysis of the physical resilience of Babolsar neighborhood with emphasis on urban land use. *Urban ecological research*, 21(1), 59-76. DOI: 10.30473/GRUP.2020.7472. (Persian)
- Shiee, A., Behzadfar, M., Namdarian, A.A. (2017). Development of a theoretical framework of urban landscape with the help of the theory of space production and forces affecting the urban landscape, *Quarterly Journal of Urban Studies*, 6(24), 94-81. (Persian)
- Shalchi, S., Shojaei, M., Farhangi, H. R. (2016). Urban reconstruction, the image of Tehran, and the experience of alienation. *Iranian Cultural Research Quarterly*, 9(1), 32-1. (Persian)
- Tavakolinia, J., & Zarghami, S. (2018). An Analysis of Triallectic Urban Space Production in Quasi-Capitalist Economics Case Study: Tehran Metropolis. The First Conference on Challenges and Presenting New Urban Management Solutions. Tehran. <https://civilica.com/doc/745675>. (Persian)
- Tavassoli, M., & Bonyadi, N. (2007). *Urban design; Urban spaces and their place in urban life and landscape*. (2th Ed.). Tehran: Iran Urban Planning and Architecture Studies and Research Center. (Persian)
- Turhanoglu, F. A. K. (2010). Spatial production of Ankara as capital city of republican Turkey. *International Journal of Interdisciplinary Social Sciences*, 5(5), 309-318. doi:10.18848/1833-1882/CGP/v05i05/51734.
- Wiese, A., Förster, A., Gilliard, L and Alain Thierstein, A. (2014). A spatial strategy for the production of place in two German cities - Urban design interventions as a driver for spatial transformation. *City,*

Territory and Architecture, 1-13. <https://doi.org/10.1186/s40410-014-0013-2>

Widiyastuti, D. (2013). Transformation of Public Space: Social and Spatial Changes, A Case Study of Yogyakarta Special Province, Indonesia, A dissertation submitted to the Faculty of Spatial Planning-Technical University of Dortmund (TU Dortmund).

Yildiz, U. (2016). "Precarity" of the territorialized state: Immigrants re-drawing and re-mapping the borders. *Journal of Borderlands*.

Studies, 31, 521-536. <https://doi.org/10.1080/08865655.2016.1174608>.

Yazdanian, A. Dadashpour, H. (2016). The problem of presence in space: spatial awareness and agency, with emphasis on urban public space. *Geographical studies of arid regions*, 7(26), 73-91. (Persian)

Zhelznits, A.(2014). *An Introduction to the Production of Henri Lefebvre Space*. (1st Ed.).Translator Aydin Turkmeh. Tehran: Tisa publications.

