**Original Research Article** 

# An Investigation of the Evolution of Approaches to Dealing with Urban Gardens from the Pathology of Destruction

(Case Study: Tehran, 1979 - 2020)\*

Ph.D. in Architecture, Department of Architecture, Islamic Azad University, Sciences & Research Branch, Tehran, Iran.

### Iraj Etesam\*\*

Professor, Department of Architecture, Islamic Azad University, Sciences & Research Branch, Tehran, Iran.

### Azadeh Shahcheraghi

Associate Professor, Department of Architecture, Islamic Azad University, Sciences & Research Branch, Tehran, Iran.

Received: 21/01/2023 Accepted: 06/03/2023 Available online: 21/03/2023 Abstract | The ways how urban gardens need to be dealt with have been a challenging topic in architecture and urban planning. In the metropolis of Tehran with about 7 there are gardens scattered across some urban areas. Their management has been detailed in master and development plans. This research aims to examine the evolution of gardens in Tehran, and their classification based on different criteria as well as their benefits, and beneficiaries. Additionally, the study focuses on three different periods to investigate how the management of these gardens has evolved and scrutinize their impacts on the benefits. The literature and background of the subject have been reviewed to inform this research. This research draws upon architectural and urban interventions to seek strategies and offer integrated solutions to a variety of groups of stakeholders. It hopes that the strategies and solutions guarantee the protection of Tehran's garden values. Architectural and urban planning intervention refers to building construction rules and regulations, how to use land plots, land use plans, and related issues. In terms of "nature", this research is "qualitative", the "developmental or applied" type. The sample included experts and stakeholders. The experts were purposefully selected through a non-random and snowball sampling technique. The stakeholders with private interests in Tehran gardens refer to two main groups: owners and investors. The stakeholders of public interest, in general, stand for the citizens, and the city as a whole. This research also examines the conflicts between private interest and public interest from different legal, managerial, economic, technical, cultural, and social aspects. In conclusion, this study shows that the greatest conflicts between the general public and other stakeholders have been in economic and managerial factors, while the greatest conflicts between private stakeholders have been in cultural and social factors. There is no conflict of interest in economic factors.

Keywords | Garden, Tehran gardens, Protection, Beneficiary, Private benefits, Public benefits.

Introduction The history of Tehran's urban developments is an authentic document describing how life is experienced in this human habitat. Rereading and analysis of historical texts, research, aerial photographs, maps, and contemporary

documents on Tehran show that we are facing a city that "used to be a residential garden and not buildings decorated with a few trees". Tehran has gone through some physical changes over different periods, and such physical development has been affected by many factors. Currently,

<sup>\*\*</sup>Corresponding author: +989121256344,i.etessam@srbiau.ac.ir

actions associated with the physical intervention in gardens and their protection have been subject to the rules and regulations of urban plans as well as special laws, rules, and regulations. In reality, despite the historical and cultural importance of the protection of gardens and the preventive laws, the gardens have continuously been constructed. The challenges of conservation and development are among the main challenges facing cities. Such challenges have taken on newer and broader aspects with the advancement of conservation knowledge and the expansion of related concepts. Despite the approval of a significant set of laws, rules, and regulations, a brief overview of the process of the disappearance of Tehran's gardens shows that construction has taken place in a significant part of the gardens, and construction has been carried out rapidly and intensively. Under some rules and regulations that allow construction in gardens, the profitable construction market has been hot in recent decades, and the process of destroying gardens and building in them has intensified. It can be said that a significant part of the city's gardens has been destroyed and placed with high-rise buildings. The concern of the study is that in the destruction of gardens and replacing them with buildings, the financial interests of the owners and investors are often fulfilled, and due to the profitable construction market in recent decades, there has been a lot of intensity in terms of speed and frequency of the destructions. On the other hand, regarding the general wealth of the city, what has been neglected are the long-term interests of the city and the general citizens and stakeholders who can benefit from the wealth. The point is that inner city gardens are among the pieces of land in the middle of the city that apart from their owners, other citizens and the city also establish a relationship with to gain benefits. In other words, beyond the owners as direct stakeholders, there are always other interest groups present in the city scene who can be considered stakeholders in the existence of each of the city's gardens. These stakeholders are numerous and diverse, as this benefit is not the same and can have financial or nonfinancial aspects. If the owners are the direct stakeholders of the gardens under their possession, naturally, the main part of their benefit is the financial benefit. In this case, for the general citizens who look at these gardens as one of the public assets of the city, this benefit will not necessarily be financial. Therefore, the necessity of developing strategies for the protection and integrated development of Tehran's gardens to secure the interests of the stakeholders has been taken into account more than in the past, and strategies are being sought based on which, as much as possible, the interests of multiple stakeholders with different interests are balanced. Sometimes opposites are brought together and aligned. The strategies are proposed based on some kind of physical intervention in gardens; in other words, their centrality is based on architectural interventions in gardens. For this purpose, the current research aims to pave a suitable ground for designing the doctrine of those who believe in endogenous development by examining the different layers of value in gardens that provide different interpretations of management change and guidance based on the knowledge of citizens. In addition to that, at the levels of policy-making and drafting urban management regulations and guidelines, this study attempts to take advantage of the flexibility and comprehensiveness of this approach to focus on tangible and intangible values and use the knowledge of the citizens of each region and community-oriented protection to determine the limits of changes and introduced them as a basic index in the process of planning and designing urban documents. Therefore, the main question of this research is: what optimal model can maintain and develop inner-city gardens while protecting the interests of the stakeholders? To answer the main question, this research seeks to find answers to these questions: "Who benefits from the process of protection and integrated development of gardens in Tehran?" What factors cause the conflicts of interest among the stakeholders of Tehran Gardens? How have the rules, and regulations governing the way of intervention in Tehran's gardens intensified or limited the conflicts of interests?"

### **Research Methodology**

In terms of nature, this research is qualitative and developmental or applied. The qualitative method attempts to understand individual or group meanings in issues related to society or the human individual. The research process includes the emergence of questions. The data is usually collected in a collaborative process with the participants in the research and interpreted using inductive reasoning, and the researcher interprets the meanings in the data. The final report has a flexible structure (Norouzborazjani, 2018, 77). To find the answers to the research questions, first, the data was collected from three experts in cultural and natural heritage protection. special conditions were selected as research samples for interviews (descriptive answers to questions). The interviews were transcribed and analyzed using qualitative content analysis. Among all the interviews conducted, half covered the most diversity among the proposed codes. Then the obtained textual data were summarized and categorized using "open coding". Following that, similar concepts were aggregated into more general categories using "axial coding" (Fig. 1). Based on these codes, two questionnaires were developed and approved by the experts, and the first one was returned to the experts to complete. The second questionnaire was given to the group of stakeholders. They were asked to select their answers on a Likert scale. Coding is mainly used in field research (questionnaire, card, observation, and interview) (Hafeznia, 2007, 155). Data analysis was carried out manually. This means that the researcher prepared special tables for each

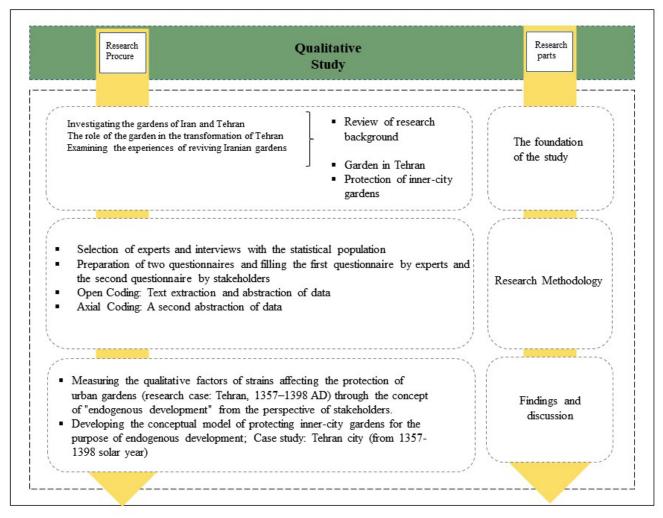


Fig. 1. Research methodology. Source: Authors.

question in the questionnaires, checked each question and answer in all the questionnaires, tabulated the data, and reported the frequency and tables for the distribution of the answers. Then, the summarization was used, and answers similar to each other were categorized under a more general category, the answers were reduced to the minimum. Then the frequency of each was added together.

### Sample and sampling technique

The data was collected from two groups of samples. The first group included experts with specializations in urban planning (various economic, social, and geographic trends), urban design (architectural trends, restoration, etc.), urban management, and urban sociology. Urban (according to the definitions of the country's laws) should be covered. The second group was stakeholders. First, research questions were given to the experts, and they were asked to answer them descriptively. In total, 30 experts answered the questions. In the sampling of experts who answered the questions, the sampling continued to the point that the answers were no longer different. The interview and coding were stopped when words and statements were recurring

and we reached theoretical saturation in this field. The second sample consisted of stakeholders who were selected purposefully and semi-randomly. The sampling method was the snowball type (Goodman, 1961,148-170).

### **Research Background**

This research is interested in the subjects of Iranian gardens, specifically Tehran gardens, the conservation view of the garden, and the development ratio of Tehran city and its gardens. Literature related to these topics was collected and reviewed. Numerous studies have focused on the gardens of Iran and Tehran. In addition to some historical texts, extensive research has examined this phenomenon from different points of view. One of the oldest texts that provides information about Tehran and its gardens is "Mojam- ol-Boldan" by Yaqut Hamavi (2001). He is an Arab geographer and historian of Greek descent from the 6th and 7th centuries A.H. In the 7th century AH, the geographer and historian Zakariya Qazvini confirmed and supported Yaqut Hamavi's claims about the gardens of Tehran using several terms. In his book, "Persian Gardens and Garden Pavilions

" which was translated and published in Farsi in the last years of the 1940s, Wilber (2006) explains many detailed descriptions of Timurid and Safavid gardens, and presents the gardens of the Caspian coast during the Safavid period and after, the royal gardens of Tehran, and also investigates the relationship between the garden and heaven from Iranian perspectives. Efforts have been made to classify some physical elements of the garden and examine the designs of the pavilions, and old pictures and miniatures have been used. The book "Tehran: Capitale Bicentenaire" under the supervision of Adle and Hourcade (1992) refers to the history of Tehran's urban development and the role of gardens in its development. The collection of articles from the First International Conference on Iranian Gardens examines the Iranian garden from different perspectives and includes topics such as the basics of the Iranian garden view, the sources of its identification and provenance, the course of evolution, physical structure, protection, restoration, and sustainable development of the Iranian garden. The book "Pavilion-Gardens in Iran" by Motedayen (2020) presents an analytical, conceptual, and typological historical perspective on the evolution of Iran's gardens and its pavilions. The book "Revival of the Pattern of Iranian Gardens in Today's City: Theoretical Foundations of Five Experiences of Prototyping Today's Iranian Gardens" by Mansouri, Radaei and Mohseni Moghadam (2020) examines the subject of the garden from an angle that has been less researched so far. The book "Paradigms of Paradise" by Shahcheraghi (2016) explains the necessity of re-creating the Iranian garden and examines the related paradigms and the process of re-creation. The book "Tehranography: A Bank of Maps and Place Names of Old Tehran" researched and edited by Shirazian (2016), presents a remarkable collection of pictorial documents of historical maps of Tehran in which one can trace urban developments related to urban gardens. In addition to published books, several articles have been published or presented in scientific journals and at prestigious scientific conferences on this subject. Among them are "Tehran's Gardens and the Impact of Their Transformation on the City" by Bahrami and Akbari (2016), "Persian Garden of Tehran A Creative Landscape by Integrating Tradition into Modernity" by Atashinbar, Mortazi Mehrabani and Vahidian (2015), "Iranian Worldview and Axial Pattern in Persian Garden" by Barati, Alehashemi and Miniatour Sajjadi (2018), "The Persian Garden of Dampezeshki; A new reading of Persian garden for today's life" by Mansouri et al. (Mansouri, Zahedan, Teymouri, Alehashemi & Goodarzian, 2016), "The Cultural Landscape Continuity; Reconstruction and Revitalization of a Historic Garden" by Shahsavargar (2012), "Preface; Four Consecutive Generations of Urban Parks" by Mansouri (2010), "The Principles of Garden Design in the Qajar Period (Based on Mefâtih-āl-Râzaq)" by Jamal. al.din (2018), Jayhani (2013) "Europeanization in Persian

Garden, Transformations of Tehran Gardens in Decades of 1300 AH" by Jihani, , "A Window to the Persian Garden" by Etezadi (2014), "Effects of Persian Garden's Aesthetics in Social Sustainability of Contemporary Urban Parks in Tehran" by Masnavi et al. (Masnavi, Mohseni Moghadam & Mnasouri, 2019), "Causes of Appearance of Iran's Historical Gardens" by Motedayen (2011), "A Qualitative Study of the Factors Affecting the Destruction of Gardens in Tehran with an Approach Based on Foundational Data Theory" by Rafiepour et al. (Rafiepour, Dadashpour & Taghvaei, 2017), and "The Role of City Garden in Shaping Behavioral Setting, Case study: Tehran" by Zandi (2015).

### **Theoretical Foundation**

Motedayen (2011), classifies the goals and motivations of creating Iranian gardens into two general categories, "common and general factors" and "specific reasons for the formation of gardens". In this article, the first category includes the fruitfulness of the garden, the creation of beautiful spaces based on the art of horticulture, the interest in flowers and flower arrangements among the sultans, the introduction of non-native plants, the export of native plants, and the desire of the rulers to increase the crops, the creation of medicinal gardens, and the love of creating straight and orderly lines in planting old gardens. Also, the category of special reasons for the formation of gardens comprises creating a garden for religious reasons; creating a garden as a place for recreation (summer gardens, hunting gardens, special pleasure gardens); creating a garden for government political reasons (creating a garden next to government squares; creating a garden to show giving government power; creating people's gardens. The table presented in this article presents the above-mentioned classifications and their examples, some gardens in Tehran. The author believes that Sahibqraniye, Kamraniye, and Saadabad gardens are seasonal government gardens; Dushan Tepe garden is a hunting garden; Nagaristan and Ishratabad gardens are also special pleasure gardens (all for fun and recreation); Also, Golestan's inner garden toward Shams-ul-Amara was built as a government square garden, and Mashakh Square National Garden as a people's garden (for government political reasons). An Iranian garden is a cultural, historical, and physical phenomenon in the land of Iran, and it is usually an enclosed area where plants, water, and buildings are combined in a certain architectural system and a favorable, safe, and comfortable environment for humans is created. It is brought; it is made. In the great Islamic encyclopedia, in the explanation of the word garden, it is stated: "an enclosure, often enclosed, made by man using flowers and plants, trees, water, and special buildings, which is based on geometrical rules and beliefs" (Shahcheraghi, 2009, 40). Also, "the Iranian garden is an auspicious combination of beauty and usefulness" (Pirnia,

1994, 9), and "it is an existence that speaks of needs that are every day, practical, synonymous, and abstract" (Flamaki, 2004). Also, "the Iranian garden is defined as a space of peace and comfort and a place of meditation and contemplation" (Mirfenderski, 2004, 10).

#### • Gardens in Tehran

One of the oldest texts that provides information about Tehran and its gardens is Mojam-ol-Boldan by Yaqut Hamavi (2001). He is an Arab geographer and historian of Greek descent from the 6th and 7th centuries A.H. He stated that he lived in Ray and did not visit Tehran, and he described the village of Tehran as follows, quoting one of the people of Ray: "Tehran is a big village built underground, and no one can enter the houses of its residents. Access, unless the residents themselves want it... In Tehran, some many intertwined gardens and groves prevent the sudden rush of invaders." In the 7th century AH, Zakariya Qazvini, a geographer and historian, confirmed and completed Yaqut Hamavi. According to Zakaria Qazvini's writings, after a few decades of the Mongols' attack on Ray, Tehran was considered a large and densely populated village, and all kinds of premium fruits were grown in its abundant gardens. In the book series "Essays on Tehran, the capital of two hundred years", an article entitled "Tehran: Capitale Bicentenaire" by Adle and Hourcade (1992), is about Tehran and its gardens before it became a capital. Before the Shah Tahmaseb Safavid period, Tehran did not have a fence around it. The reason for this can be found in the structure of Tehran at that time. Tehran's special urban planning, which is a combination of enclosed gardens and underground houses with multiple atriums (such as a mouse's nest), is the main reason why Tehran is not fenced. If we see that Tehran was without towers and ramparts until Shah Tahmasb Safavi built its first fence and bazaar, it is because he did not need them. After all, it has been impregnable." In another article of the said collection titled "Tehran within the Walls: From the Safavid Period to the Beginning of the Pahlavi" written by Moghtader & Sarvghad Moghadam (1998), the era of Shah Tahmasb Safavid is interpreted as the birth of the royal city. Although the city of Tehran was formed on the bed of gardens, with its gradual formation, growth, and development, gardens, and plantations were built inside it, and in the historical analysis of this matter, for example, it is possible to refer to the detailed research work of Madanipour (2002) entitled "Tehran the Making of a Metropolis", which writes that "after Shah Tahmasb Safavid, more buildings were built in Tehran. For example, by the order of Shah Abbas, a Chaharbagh and an orchard were built in the northern part of the city; this area was later separated from the rest of the city by a wall and became a citadel. During the Safavid dynasty, Tehran grew and served as the temporary court for the Safavid kings. Towards the end of the Safavid era, despite Isfahan being the capital, the king and courtiers mostly stayed in Tehran.

Agha Mohammad Khan Qajar made Tehran the capital after entering and choosing it in the 1200 lunar year. Although Tehran was once a residential garden, it gradually became a royal city enclosed within the Tahmasbi fence, preparing it for its role as the capital during the Qajar period. However, our knowledge about the history of Tehran gardens is mostly limited to the ones after the Qajar era until today. Some gardens in the city during the Qajar era can be identified in the first historical maps of Tehran. Although the city of Tehran was a residential garden in the past, with the gradual formation of the royal city enclosed within the Tahmasbi fence and the gradual preparation of this city to accept the role of the capital at the beginning of the Qajar period, our information today about the history of Tehran gardens is in continuity. It is very little to the city garden of Tehran. The gardens of Tehran, which are mentioned, are related to the years after Qajar until today. In the first historical maps of Tehran, which are related to the Qajar era, some gardens of this city can be identified.

### Protection of urban gardens

Over the past decades, the protection of inner-city gardens has been among the important topics in architecture, urban planning, and urban management. Among the few studies that evaluate and examine the issue of the disappearance of Tehran's gardens, although from a different point of view, is the scientific article on the role of inner-city gardens in the formation of behavioral settlements; case example: Tehran city (Zandi, 2015). In this research, the author raises the question, "Which unique subcultures of the city of Tehran will be removed or replaced by non-native subcultures?" He also pointed out that "Tehran's gardens are one of the special elements in the city; they have been mentioned in most of the political, governmental, and literary writings about the city of Tehran, most of these writings are descriptive, and this superficial view of the gardens has prevented people from being classified as official gardens." The author further points out the important point that "Tehran's inner-city gardens, although they may not be considered very strong in terms of visual organizations and based on the ideology of the Iranian garden, are a very rich behavioral basis for the formation of inter-neighborhood feedbacks". The author of this article believes that the formation pattern of urban gardens in Tehran is influenced by three factors, among which we can refer to the following: "the presence of five important rivers and valleys in the main building layer of the city", "water resources of the city as the origin of civilization" and finally, "the "model of the social textures of the city". Then, in the conclusion of the article, he argues that "In the urban landscape of Tehran, before the first Pahlavi period, productive and non-productive gardens used to be one of the components of the local scale... the emergence of large government gardens with aristocratic mansions of Western design... in the second period of the Naseri rule and after

that, laid the groundwork for the creation of urban parks full of the city's slow development process. Third, with the beginning of the sudden changes in the first Pahlavi period and an emphasis on the urban society, modernity was formed in Iran, which is contrary to the endogenous modernity of the society. Western society was not formed based on gradual changes in the cultural structure of the society, and the result of this process was the phenomenon of physical and cultural separation instead of the integration of inner-city forces. And it was replaced with construction masses." With the expansion of the volume of construction in the cities and the significant amount of urban economy focusing on construction, the gardens of Tehran were faced with a wide threat, and apart from the few gardens that were removed for legal reasons (such as registration in the list of national works), They were immune to the possibility of destruction or damage, while others were always under the shadow of destruction due to the dominance of an economy based on construction. In another article titled "Qualitative study of the factors affecting the destruction of gardens in Tehran with an approach based on the foundational data theory" (Rafiepour, Dadashpour & Taghvaei, 2017) employs a pathological perspective to examine the factors affecting the destruction of gardens in Tehran. The author believes that "surveys in the city of Tehran during the last three decades show that, despite the emphasis of the law on the preservation and expansion of green spaces in the cities, agricultural lands, and gardens in the city of Tehran have been destroyed and changed in various ways. The spatial study of the green lands in Tehran during the past three decades shows that the green lands in Tehran have gradually lost their initial coherence and have become more scattered and smaller, to the point where many of the famous neighborhood gardens are all that are left except for a few scattered spots. In the research findings section, the author examines three groups of conditions that have led to the destruction of gardens in Tehran including causal conditions (garden as a commodity; aristocracy and luxury; instrumental attitude towards nature), background conditions (mismanagement, speculative urban economy), intervention conditions, and causal conditions (weakness of monitoring and lack of sensitivity in law enforcement, the crisis of environmental ethics, disappearance of the stigma of violating environmental laws, chaos and invalidity of law, preservation, and expansion of urban green space, lack of judicial-punitive institutions in the mentioned issue).

### Findings

In the period of four decades from 1979-2020, the gardens in Tehran can be classified based on the following criteria.

• Inner-city gardens of Tehran after the revolution based on the time of creation and construction Based on the time of construction, the inner-city gardens of Tehran after the revolution can be classified into two groups: newly built and old.

### • Inner-city gardens of Tehran after the revolution based on ownership

In this classification, inner-city gardens are divided into three categories, which are:

- a) private gardens: those gardens that are owned by private, government, or quasi-government owners.
- b) public gardens or some urban parks and green spaces: those gardens and green spaces used by the public that are either newly constructed or have been purchased from the owners for public use by the non-governmental public institution of urban management and now belong to the city. Among them, we can mention the Iranian Art Garden and the Veterinary Garden.
- c) The gardens that have been transformed into a garden tower, according to Appendix No. 3 of the Tehran Comprehensive Plan approved in 1386 by the Supreme Council of Urban Planning and Architecture of Iran, have been turned into a set of apartments with multiple owners, and a part of the garden remains as a common yard, remained.

## • Tehran's urban gardens through the lens of exploitation

- a) Gardens and green spaces that are used by the general public under the management of non-governmental public institutions and are part of the city's public territory.
- b) private gardens with semi-public and semi-private uses, such as the gardens of galleries, halls, clubs, and...
- c) Gardens that have been converted into garden towers, and the remaining part of the garden is being exploited by the owners.

### Examining the concept of benefit and the groups of stakeholders of the existence of the garden

the gardens in the city are among the pieces of land in the middle of the city that, in addition to their owners, other citizens and the city also establish a relationship with in terms of gaining benefits. In other words, beyond the owners as direct stakeholders, there are always other interest groups present in the city scene who can be considered stakeholders in the existence of each of the gardens in the city. "Beneficiary" refers to individuals and groups that affect or are affected by the achievement of the organization's goals. In the context of the urban green space legal system, the organization is a mechanism that results in the protection and development of the urban green space (Souzanchi, 2017, 73). These stakeholders are numerous and diverse, as this benefit is not the same and can have financial or nonfinancial aspects. If the owners are the direct stakeholders of the gardens under their possession, naturally, the main part of their benefit is the financial benefit. If the general public sees these gardens as part of the public wealth of the city, this benefit will not necessarily have a financial aspect.

At a glance, the stakeholders of Tehran's gardens can be divided into several main groups: owners, investors, general citizens, civic and media activists, and environmental and heritage organizations. From the authors' point of view, "beneficiary" is a social and economic concept that can be defined in terms of the social dimension related to public benefit and the economic dimension related to private benefit. The stakeholders of private interest in Tehran gardens are the two main groups of owners and investors; the stakeholders related to the public interest are the general public, consisting of civil rights activists, environmental and heritage organizations, and the media.

• Three periods, three views on the concept of benefit (different dimensions and angles of the issue of Tehran's gardens, from the Second Council's approval (Garden tower) to the Fifth Council's approvals and their results)

It is the responsibility of the Islamic councils of the cities to identify the garden based on the relevant and current laws and regulations. The question raised here is: what happens to the plots, which are voted to change to gardens, and what happens to those plots that get non-garden votes?

In this research, three approaches have been identified in the studied time frame to face the problem of protecting urban gardens based on the laws, rules, and regulations (Fig. 2).

#### - First period

The owners of immovable property, including gardens, have the right to occupy their property in any case, based on the rule of subrogation. This rational rule has been assigned and limited by the legislator in some cases. Until 1975, the policy of dividing the land and determining its type of use was in the hands of the owner. In 1345, by adding articles 98, 99, and 101 to the municipal law, municipalities were given the authority to determine how to use land within the city limits. In this way, the rich interests in the field of construction caused the profiteers to use every opportunity to separate and destroy the green spaces and gardens located within the legal limits and privacy of the cities. The legislative bodies also faced this issue by establishing special regulations. However, the stakeholders were able to confront the new restrictions by filing a lawsuit with the general judicial authorities and complaining to the branches of the Administrative Court of Justice (Ghasemi Hamed, 2009, 123). Therefore, it can be said that during this period, the possibility of construction in the garden was very limited. The buildings were allowed to have two floors and 7.5% of the occupied area of the garden on each floor. However, drying and destroying trees was one of the common methods used by owners to make construction possible.

### - The second period

what was known as 'Garden tower' and from the perspective of typology, it turned into a new type that emerged in the literature of urban management and to some extent architecture, regardless of its legal aspects. It was formed based on the idea that garden plots should be built in a smaller area than the plot of land owned (compared to non-garden plots), and the decrease in occupation level should be compensated by increasing the number of floors (ten, eleven, or more). Article 13 of the resolution that was notified to the Tehran Municipality on the 2nd of Khordad Hashtaduse by the Islamic Council of Tehran, says: "To preserve, maintain, and restore gardens and wooded lands,

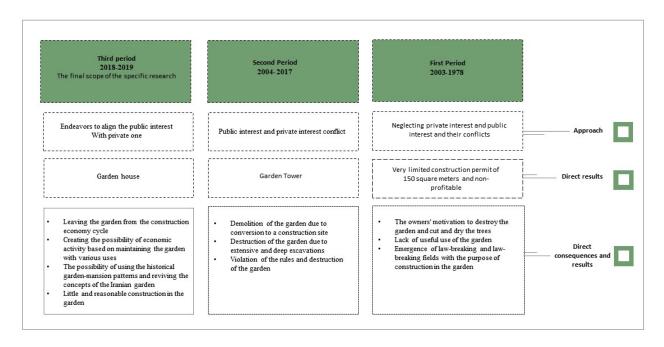


Fig. 2. Three periods and three views on the concept of benefits of protecting gardens. Source: Authors.

the level of occupation of buildings in such properties and lands must be equal to 30%." The allowed construction area and density must be 20% more than the regional residential density for non-garden properties and lands (adjacent similar properties and lands). At first glance, this idea seemed to be an efficient way to maintain gardens. In the past, drying and destroying trees was one of the common methods of owners to make construction possible, and now it seems that with this initiative, at least 70 percent of every garden under threat will remain as the courtyard of the garden tower that is being built is maintained. The compilers and approvers of this resolution thought that the idea could save Tehran's gardens from destruction while responding to the constant pressure of the owners with an economically profitable proposal, and in practice, there would be a set of tall buildings, each occupying 30% of the garden's surface, protecting other 70%, with the will and satisfaction of the owners. But in practice, it did not happen. If we observe the fourteen years between 1983 and 1996 in the satellite images, we don't need much statistics to find out that many green surfaces have gradually turned into building masses. Investigations show that a significant part of the green spots in the aerial images, which have turned into gray spots, were the results of the so-called garden tower resolution. Why did this resolution, despite the attractive and pleasant initial idea, find a function contrary to the intention and desire of the designers and approvers?

- A) Garden or construction workshop
- b) Development of a 30% occupancy level in basements
- c) Violation of the rule

### - The third period

In this period, which begins in 1997, the rule of the garden tower is suspended and a rule with the concept of "mansion gardens" is put as the criterion of action. Based on this, the building density, the number of floors, and the occupation level of the garden building are very limited but instead, there are economic privileges. For example, it can accommodate a diverse list of activities and users. For example, tourism, catering, recreational, cultural, educational, and service activities can be formed, and owners can be given special privileges in the discussion of taxes. In other words, the current economy in the gardens will not be based on construction but will be based on the activity that takes place. This view is based on incentive policies. From the points of view of the designers of this regulation, we can see that this policy is based on several propositions:

- 1: Tehran's gardens should be removed from the economic cycle of construction.
- 2. Only economic activities can be carried out in the garden that strengthens the natural or historical identity of the garden.
- 3. Construction in the garden will be allowed to a small

extent to create a platform for various activities compatible with the protection and maintenance of the garden.

4. The acquisition of valuable gardens, which are part of the historical and natural heritage of the city, should be prioritized by the city management.

By reviewing the laws, rules, and regulations governing the way of physical intervention in gardens, it can be seen that the way of dealing with this issue has undergone changes and transformations in different periods. At some points in time, any intervention in the garden has been completely prohibited, and the owner, according to the rules and regulations, has not been allowed to physically intervene. At some points in time, due to the freedom of action in issuing building permits in the garden, construction has been done within the framework of the rules and regulations in the gardens with considerable speed. In other words, it seems that what has happened is that in the profitable construction market, with the construction of buildings in Tehran's gardens and as a result of their destruction, the financial interests of the owners and investors have been secured, but the interests of other actors in the city scene have been ignored. Therefore, the main goal of this research is to achieve the optimal model of maintaining and developing inner-city gardens with an emphasis on protecting the interests of the stakeholders.

### **Data Analysis**

### Analysis of the questionnaire answered by experts

In the first questionnaire, the benefit of the stakeholders and the type of benefit of the stakeholders from the endogenous development of gardens in Tehran (from 1979-2020) were given to the same group of experts to be completed. The questionnaire included 7 sections, where the factors of conflict between stakeholders were measured from the experts' perspectives. In this study, the group of citizens means civil activists, environmental-heritage organizations, media representatives, etc. The analyses in Figs. 3- 11 show the answers given by the group of experts to the first part of the first questionnaires.

- •The biggest conflict between the interests of private owners and general citizens has been over managerial and technical factors. Conflicts of interest in legal and economic factors are placed next. Cultural factors have been the last priority in the conflict between these two groups from experts' perspectives.
- The greatest conflict between the interests of investors and general citizens has been a result of a significant difference in economic factors. Conflicts of interest in management factors with differences are placed next. Technical and legal factors are the third priority, and cultural factors are the last priority in the conflict between these two groups from the point of view of the experts.
- The conflict between the interests of private operators and general citizens has been marked by a significant difference in

economic factors and, in the next stage, management factors. Technical, legal, cultural, and social factors with significant differences and close to each other have been the next priority of the conflict between these two groups of interest experts.

- The greatest conflict between the interests of private owners and investors has been caused by significant cultural and social differences. According to experts, the next priority of the conflict between these two groups has been economic, technical, and managerial factors with significant differences and proximity. The conflict of interest has not been seen in
- The greatest conflict between the interests of private owners and private operators has been due to a significant difference in cultural and social factors. From the point of view of interest experts, economic and managerial factors with a significant differences and proximity to each other have been the next priorities in the conflict between these two groups. Conflict of interest has not been seen in technical or legal factors.
- The greatest conflict between the interests of private operators and investors has been due to cultural and social factors. Management and legal factors are close to each other in the

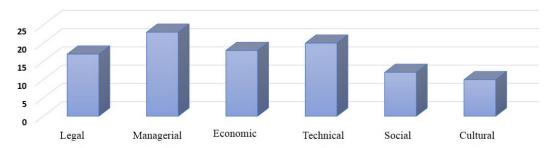


Fig. 3. Conflicts between the interests of private owners and general citizens (including civil activists, environmental-heritage organizations, and media representatives) from the endogenous development of Tehran's gardens (from 1979-2020) from the expert group's perspectives. Source:

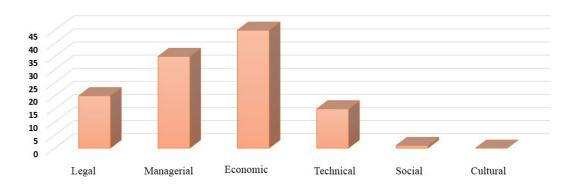


Fig. 4. Conflicts between the interests of investors and general citizens (including civic activists, environmental-heritage organizations, and media representatives) from the endogenous development of Tehran's gardens (from 1979-2020) from the expert group's perspectives. Source: Authors.

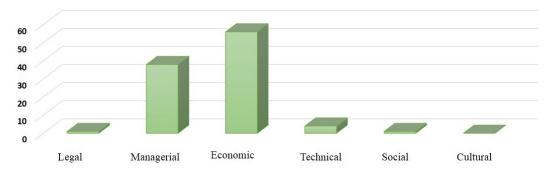


Fig. 5. Conflicts between the interests of private users and general citizens (including civic activists, environmental-heritage organizations, and media representatives) from the endogenous development of Tehran's gardens (from 1979-2020) from the expert group's perspectives. Source: Authors.

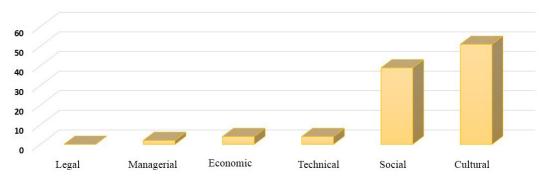


Fig. 6. Conflicts between the interests of owners private and investors from the endogenous development of gardens in Tehran (from 1979-2020) from the expert group's perspectives. Source: Authors.

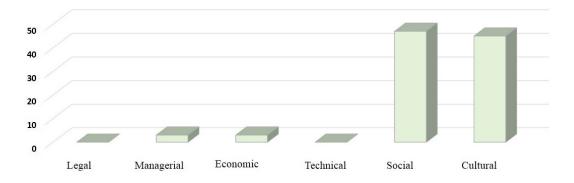


Fig. 7. Conflicts between the interests of private owners and private users of the endogenous development of Tehran's gardens (from) from the expert group's perspectives. Source: Authors.

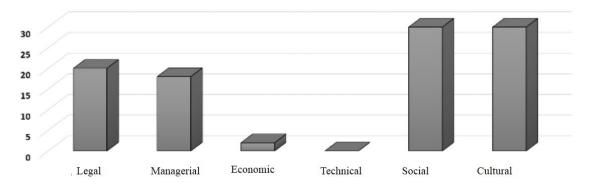


Fig. 8. Conflicts between the interests of private users and investors from the endogenous development of Tehran's gardens (from) from the point

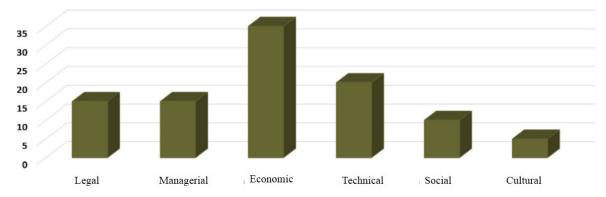


Fig. 9. Conflicts between the interests of private and public stakeholders in general from the endogenous development of Tehran's gardens (from 1979-2020) from the expert groups' perspectives. Source: Authors.

	The garden identification criteria need to be revised	The garden identification criteria need to be revised including the garden lands in a ploproved urban documents and plans and criteria Reviewing the determination of legal authorities to determine the nature of the garden based on both technical and legal qualifications Amending the rules and regulations and criteria for determining the nature of the garden
	Laws, rules, and regulations should be strict regarding the amount of construction in the garden, but lexible regarding the way the garden is used	Establishing a prime requirement in the approved documents of urban development plants by applying the restrictive approach to the amount of construction in the inner-city gardens of Tehran Establishing a prime requirement in approved documents of urban development plants by applying a flexible approach to choosing the use and activities in inner-city gardens in Tehran
Legal	stakeholders do not have a role in the intervention process in Tehran's inner-city gardens, decisions that are taken against	Developing policies to align public and private interests  Exercising the will of the people in determining the legally competent authorities to determine the nature of inner-city gardens in Tehran  Exercising the will of the people in determining competent technical authorities to determine competent technical authorities to determine policies, laws, rules, and regulations on how to intervene in inner-city gardens in Tel Establishing a mechanism to take advantage of the views of non-accommental oranalizations
	the public interest need to be avoided  It is the right of all citizens to decide how to deal with each of Tehran's inner-city gardens, not just private stakeholders	and urban activists in the field of public interest.  Developing effective policies for aligning public and private interests.  Developing effective policies for aligning public and private interests.  Applying strategies to include people's representation in determining the legally competent authorities to determine the nature of inner-city gardens in Tehan  Applying strategies to include people's representation in determining competent technical authorities and determining policies, laws, rules, and regulations on how to intervene in inner-city gardens in Tehan
	The government benefits from the protection of inner-city gardens in Trehran The municipality benefits from the destruction of inner-city gardens in Tehran	Strengthening the mechanisms of government supervision and the supervisory role of government organizations responsible for the protection of inner-city gardens in Tehran The environment in the protection of inner-city gardens in Tehran Strengthening and organizing public supervision of the preservation of Tehran's inner-city gardens
Managerial		Strengthening the mechanisms of government supervision over the protection of inner-city guardens in Tehra.  Defining and compiling methods of financial benefit from the garden in a way that is compatible with the continuation of the garden's life  Preparing a short-term, medium-term, and long-term plan for the acquisition of inner-city gardens in Tehran by the municipality  Obtaining the maximum reduction of the financial benefit of the municipality from the construction of the inner-city gardens of Tehran by competent authorities  Reducing the permitted density of construction in inner-city gardens of Tehran
~	The role of the government in the protection of inner-city gardens is important	Strengthening the mechanisms of government supervision and the supervisory role of government organizations responsible for the protection of inner-city gardens in Tehran Strengthening the role of government agencies and organizations responsible for the environment in the protection of inner-city gardens in Tehran Strengthening and facilitating the activities of non-governmental organizations in the field of protection of inner-city gardens in Tehran
	The government benefits from the destruction of inner-city gardens	Elaborating the proposal to include the axis "Protection of urban natural heritage" In the general policies of the system "Elaborating the proposal to include the axis "Protection of urban natural heritage Approving the protective laws regarding urban natural heritage and inner-city gardens
Economical	Private owners should not suffer in the maintenance of the garden, and the municipality and the government should pay for the maintenance of the garden	Developing a support mechanism for owners in garden maintenance
	garden and its other blessings must pay for it	Reforming the system of payment of city fees by residents to maintain inner-city gardens  Establishing a prime requirement in approved documents of urban development plans by applying a flexible approach in choosing the use and activities in inner-city gardens in Tehran
丑		Establishing a prime requirement in approved documents of urban development plans by applying factorities to the process of t
rechnical	Flexible rules and regulations against the type of use of the garden guarantee the protection of the garden	Establishing a prime requirement in approved documents of urban development plans by applying an appropriate choosing the use and activities in inner-feir gardens in Table Developer and the propriate plant of the propriate plant propriate plant propriate plant propriate plant propriate plant

Technical	Strict laws, rules, and regulations against the amount of construction in the garden guarantee the protection of the garden	Establishing a prime requirement in the approved documents of urban development plans by happlying the restrictive approach to the amount of construction in the inner-city gardens of Tehran
	To protect inner-city gardens, limited construction should be allowed	Developing the necessary policies to determine the body system and activity in accordance with uses compatible with the garden Compiling a physical model suitable for limited construction in the inner-city gardens of Tehran- ((Garden house)
	Laws, rules, and regulations must recognize the historical patterns of building mansions in the garden	Developing the necessary policies to determine the body system and activity in accordance with a compatible with the garden Compling a physical model suitable for limited construction in the inner-city gardens of Tehran- (Garden house) Developing and support of scientific research and activities in the field of existing buildings in- Iranian gardens
	The development process of the city has inevitably caused the garden to disappear	Revising urban development documents with the approach of protection and development of inner-city gardens
		Strengthening public monitoring of social changes and physical interventions in inner-city garder in Tehran Strengthening the role of non-governmental organizations regarding interventions in- inner-city gardens in Tehran Developing specialized associations with the subject of continuous monitoring of the state of- gardens and regulations governing intervention in them
	The protection and development of Tehran's gardens is in accordance with the approaches of Iranian architecture and urban planning	Using the nature-oriented model in formulating urban development approaches
Social	The activities of non-governmental ,organizations, specialized associations and civil activists, as well as the formation of thematic campaigns, are effective in dealing with the destruction of gardens to protect inner-city gardens	Developing a mechanism to take advantage of the views of non-governmental organizations and urban activists in the field of public interests. Strengthening and facilitating the activities of non-governmental organizations in the field of- protection of inner-city gardens in Tehran
	One of the protection factors of Tehran's gardens is based on reactions and campaigns associations, and organizations. Tehran is based on reactions and campaigns associations, and organizations	Strengthening and structuring the supervision of the protection of inner-city gardens in Tehran Reforming the system of toll payment by residents to maintain inner-city gardens-
Cultural	One of the factors in the protection of gardens in Tehran is the historical and cultural belonging of garden owners	Raising awareness of the possibility of exploitation and activities in the garden in a way that is in line with the protection of the garden Increasing the sense of belonging of the owners and residents of the neighborhood towards the- garden through the promotion of cultural, historical, and natural values
	One of the factors contributing to the protection of Tehran's gardens is the sense of attachment of the city's residents	Raising awareness of the possibility of exploitation and activities in the garden in a way that is in line with the protection of the garden Increasing the sense of belonging of the owners and residents of the neighborhood towards the- garden through the promotion of cultural, historical, and natural values
	The protection of gardens in the city depends on religious belief	Drawing attention to the preservation of nature from a religious point of view

Fig. 10. A conceptual model of strategies developed based on the conversion of the six legal, managerial, economic, technical (urban planning and architecture), cultural, and social factors on the protection of inner-city gardens, case study: Tehran city approved by the "stakeholders". Source: Authors.

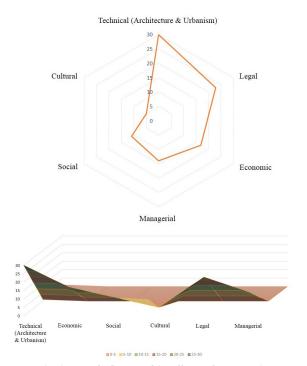


Fig. 11. The degree of influence of the effective factors on the protection of inner-city gardens, case study: Tehran city (from 1979-2020) from the point of view of stakeholders. Source: Authors.

next priority of the conflict between these two groups, from the point of view of interest experts. Conflict of economic interests has been the next priority of experts, and no conflict of interest has been observed in technical factors.

- The biggest conflict between the interests of private and public stakeholders, which are generally categorized, has been over economic factors. The conflict of technical interests is the next priority for the experts, and the close management and legal factors are the next priorities in the conflict between these two groups from the point of view of the experts. The conflict of social and cultural interests has been the last priority of experts. The questionnaire used to assess qualitative factors and forming variants included 11 legal items, 6 management items, 7 economic items, 11 technical items (urban planning and architecture), 3 social items, and 4 cultural items, for a total of 42 items from the experts' point of view. This questionnaire was distributed to and completed by a group of stakeholders. Then, each of the stakeholders was given a score according to their strength and benefit from the endogenous development of Tehran's gardens (from 1979-2020). The answers were measured using the Likert scale. From the assessment of the legal variants on the protection of inner-city gardens, case study: Tehran city (from 1979-2020), through the concept of "endogenous development" from the perspective of "stakeholders", results were obtained, which can be seen in Fig. 10. Other items either showed indifference of the stakeholders or complete and partial opposition of the group. In the answers given by the group of experts to the questionnaire, it was observed that:
- The biggest conflict between the interests of private owners

and general citizens has been over managerial and technical

- The greatest conflict between the interests of investors and general citizens has been a result of a significant difference in economic factors.
- The greatest conflict between the interests of private operators and general citizens has been due to a significant difference in economic factors, followed by management factors in the next stage.
- The biggest conflict between the interests of private owners and investors has been caused by a significant difference in cultural and social factors.
- The greatest conflict between the interests of private owners and private operators has been due to a significant difference in cultural and social factors.
- The biggest conflict between the interests of private operators and investors has been due to cultural and social factors.
- The biggest conflict between the interests of private and public stakeholders, which are generally categorized, has been over economic factors.
- · Also, from the assessment of the six legal, managerial, economic, technical (urban planning and architecture), cultural, and social factors on the protection of inner-city gardens, a case study of Tehran city (from 1979-2020) through the concept of "endogenous development" From the point of view of "stakeholders", results were obtained and analyzed, as was observed in the fourth chapter. The items that were fully approved by the stakeholder group with the majority of points (according to the most points and agreement) and also partially approved (according to the score of four and agreement) are very important in this research and will be used in the preparation of the conceptual model.
- Technical factor at 31%, legal factor at 24%, economic factor at 18%, managerial factor at 11.5%, social factor at 10%, and cultural factor at 5.5%, contribute to the protection of indoor gardens. The mediated city has the concept of "endogenous development" from the point of view of "stakeholders". In Fig. 11, the influence spectrum of these factors can be seen from the point of view of the stakeholders.

### Conclusion

This study analyzed the six factors (legal, managerial, economic, technical (urban planning and architecture), cultural, and social) contributing to the protection of innercity gardens, case study: Tehran city (from 1979-2020) based on the approach of "endogenous development" from the perspectives of "stakeholders". The results were summarized in the form of strategies and used in developing the conceptual model. The strategies in the Fig. 12 show that:

• Technical factor at 31%, legal factor at 24%, economic factor at 18%, managerial factor at 11.5%, social factor at 10%, and cultural factor at 5.5%, in order of the impact of the protection of indoor gardens. A mediated city has the concept

of "endogenous development" from the point of view of "stakeholders".

• In the answers given by the expert group to the questionnaire, it was observed that the greatest conflict between general citizens and other interested groups was in economic and management factors, while the greatest conflict between private interest groups was in cultural and social factors, and the conflict of interests in factors They have no economy. Today, after 40 years, Tehran has been problematized differently. For us, the issue is how to make the situation in Tehran not more difficult, if there is an idea of the possibility of such an action in our minds. Today's problem of management and urban institutions is how to solve the problems of Tehran, and in the daily attack of these problems, there is no room left for the question of where we want to take Tehran in the future ten or twenty years. In the continuation of the development of strategies, the conceptual model for the protection of inner-city gardens for endogenous development was drawn. The research case: Tehran city (from 1979-2020), which was another part of the purpose and question of the research, is given in Fig. 12.

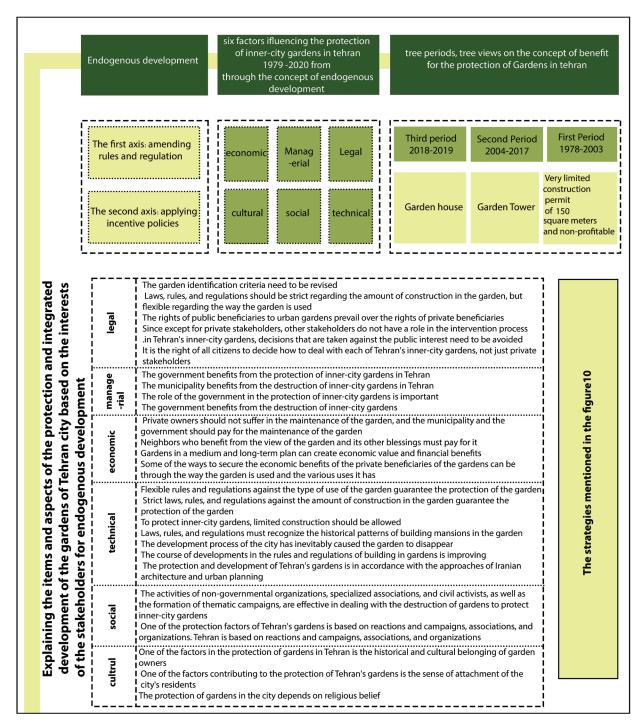


Fig. 12. Conceptual model of integrated protection and development strategies of gardens in Tehran. Source: Authors.

### Reference list

- Adle, Sh. & Hourcade, B. (1992). Tehran: capitale bicentenaire. Tehran: Institut Français de recherche en Iran.
- Atashinbar, M., Mortazi Mehrabani, E. & Vahidian, N. (2015). Persian Garden of Tehran A Creative Landscape by Integrating Tradition into Modernity. MANZAR, 7(31), 6-13.
- Bahrami, L. & Akbari, M. (2016). Bagh-ha-ye Tehran va tasir-e tahavol-e an-ha bar shahr [Tehran's Gardens and the Impact of Their Transformation on the City]. International Conference on Modern Research in Civil Engineering, Architecture, Urban Management and Environment, University of Tehran, Iran.
- Barati, N., Alehashemi, A. & Miniatour Sajjadi, A. (2018). Iranian Worldview and Axial Pattern in Persian Garden. MANZAR, 9(41),
- Etezadi, L. (2014). A Window to the Persian Garden. MANZAR, 5(24), 6-9.
- Falamaki, M.M. (2004). Ramz-o-raz-ha-ye Bagh-e Irani [The mysteries of the Iranian garden]. Mouze-ha, (41), 39-40.
- Ghasemi Hamed, A. (2009). Jaygah-e ghanoni-ye shora-ye eslami-ye shahr baraye shenasaii-ye bagh dar mahdode va harim-e shahr [The legal position of the Islamic City Council to identify the garden within the boundaries of the city]. Legal Research Quarterly, 12(50), 123-160.
- Goodman, L.A. (1961), Snowball sampling. Annals of Mathematical Statistics, 32(1), 148-170.
- Hafeznia, M.R. (2007). An introduction to the research method in humanities. Tehran: SAMT.
- Hamawi, Y. (2001). Mojam- ol- Boldan (A. Monzavi, Trans.). Tehran: Ministry Cultural Heritage, Tourism and Handicrafts.
- Jamal.al.din, Gh. (2018). The Principles of Garden Design in the Qajar Period (Based on Mefâtih-āl-Râzaq). MANZAR, 10(44), 6-17.
- Jayhani, H. & Rezaeiopour, M. (2018). Landscape design in Persian Garden. Tehran: Research Center for Culture, Art And Communications.
- Madanipour, A. (2002). Tehran the making of a metropolis (H. Zarazvand, Trans.). Tehran: Pardazesh va Barnamerizi-ye Shahri.
- Mansouri, S.A. (2010). Chahar Nasl-e motavali park-ha-ye shahri [Preface; Four Consecutive Generations of Urban Parks]. MANZAR, 2(10), 4-5.
- Mansouri, S.A., Radaei, S. & Mohseni Moghadam, M. (2020). Revival of the Pattern of Iranian Gardens in Today's City: Theoretical Foundations of Five Experiences of Prototyping Today's Iranian Gardens. Tehran: NAZAR Research Center.
- Mansouri, S.A., Zahedan, A., Teymouri, M., Alehashemi, A. &

- Goodarzian, Sh. (2016). The Persian Garden of Dampezeshki; A new reading of Persian garden for today's life. MANZAR, 8(34), 6-17.
- Masnavi, M.R., Mohseni Moghadam, M. & Mnasouri, S.A. (2019). Effects of Persian Garden's Aesthetics in Social Sustainability of Contemporary Urban Parks in Tehran. MANZAR, 10(45), 6-15.
- Mirfenderski, M.A. (2004). Bagh-e Irani chist? Bagh-e irani kojast? [What is an Iranian garden? Where is the Iranian garden?]. In International Congress of Iranian Garden. Tehran: Ministry Cultural Heritage, Tourism and Handicrafts.
- Moghtader, M. & Sarvghad Moghadam, A. (1998). Tehran daron-e hasar az Safaviye ta aghaz-e Pahlavi [Tehran within the Walls: From the Safavid Period to the Beginning of the Pahlavi]. Tehran: Institut Français de recherche en Iran.
- Motedayen, H. (2011). Causes of Appearance of Iran's Historical Gardens. Bagh-e Nazar, 7(15), 51-62.
- Motedayen, H. (2020). Pavilion-Gardens in Iran. Tehran: NAZAR Research Center.
- Norouzborazjani, V. (2018). Qualitative research methodology. Tehran: Yadavaran.
- Pirnia. M.K. (1994). Persian Gardens. Abadi, 4(15), 4.
- Rafiepour, S., Dadashpour, H. & Taghvaei, A.A. (2017). A Qualitative Study of effective Agents on the destruction of Gardens in Tehran Metropolis based on Grounded Theory approach. Motaleate Shahri, 6(23), 3-16.
- Shahcheraghi, A. (2009). Analysing the Perception Process of Persian Garden's Environment, According to the Echologic Psychological Theory. Hoviatshahr, 3(5), 71-84.
- Shahcheraghi, A. (2016). Paradigms of paradise. Tehran: ACECR.
- Shahsavargar, M. (2012). The Cultural Landscape Continuity; Reconstruction and Revitalization of a Historic Garden. MANZAR, 3(17), 54-59.
- Shirazian, R. (2016). Tehran negari [Tehranography: A Bank of Maps and Place Names of Old Tehran]. Tehran: Dastan.
- Souzanchi, K. (2017). Rahkar-ha-ye hoghoghi-ye hemayat az tose'ye kami va keyfi-ye faza-ha-ye sabz-e khososi v anime khososi [Legal solutions to support the quantitative and qualitative development of private and semi-private green spaces] (Research project report). Tehran: Tehran Urban Planning & Research.
- Wilber, D.N. (2006). Persian gardens and garden pavilions (M. Saba, Trans.). Tehran: Elmi va Farhangi.
- Zandi, M. (2015). The Role of City Garden in Shaping Behavioral Setting, Case study: Tehran. Bagh-e Nazar, 12(33), 117-128.

### **COPYRIGHTS**

Copyright for this article is retained by the authors with publication rights granted to Manzar journal. This is an open access article disributed under the terms and conditions of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/).



### HOW TO CITE THIS ARTICLE

E'ta, A., Etesam, I. & Shahcheraghi, A. (2023). An Investigation of the Evolution of Approaches to Dealing with Urban Gardens from the Pathology of Destruction (Case Study: Tehran, 1979 - 2020) . MANZAR, 15(62), 6-19.

DOI: 10.22034/MANZAR.2023.304714.2224

URL: http://www.manzar-sj.com/article\_168878\_en.html

