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# Comparative Analysis of Dolat Abad Garden, (Yazd, Iran) and the Taj Mahal, (Agra, India)

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**ABSTRACT:** One of the fundamental notions of realization of sustainable city within the framework of the theory of sustainable development is what affects the urban green spaces as well as the influence they may have. As the upshot of years' worth of experiences in the ideology of Iranian urban design, Iranian garden is of magnificently high position which possesses the potentials to act as the green space with a variety of functions to serve the promotion of sustainability in today's cities. Closely studying Dolat Abad garden as one example of the exquisite Iranian garden architecture in a comparative analysis, this study examines the role of gardens in the achievement of today's cities to sustainability within the frameworks of the theory of sustainable city. It will also attempt to prove the hypothesis regarding that Dolat Abad garden and the Taj Mahal have established themselves as sustainable elements in the two contemporary cities of Yazd and Agra, and will accordingly continue to remain so.

**Keywords:** *Sustainable city, Sustainable development, Iranian garden, Indian garden, Green space.*

## INTRODUCTION

Increasing growth of population as well as technological and industrial advancements across the globe have faced the equilibratory system of life with grave challenges in various economic, social, and environmental aspects. Once structured within the bilateral framework of production, consumption, and reproduction, the equilibratory system of life had thus remained for thousands of years with its balanced, effective circulation and relations. Nevertheless, this system is now experiencing transformations which lead in the disruption of the balance. As the focal point and axis (or subject) of this transformation, the thinking man became aware of the threat caused by such disruption, and made efforts to buffer its adverse effects. Meanwhile, the recent centuries have witnessed revolutions in the evolution of scientific approach towards this issue, the result of which was generation and completion of the concept of sustainability and consequently the notion of sustainable development.

Sustainability turned into a novel concept formed as codified scientific ideas in order to work out a cardinal solution to maintain the continuance of life and to reach bio-balance. Thus, the scientific and theoretical frameworks of this concept have been considered in the past decades in all aspects of life, and have resulted in the birth of the key concepts of sustainability in the balance between the city and the nature, the need for a more fair society, and considering of sustainable economy (Riddell, 2004; Jenks and Burgess, 2000). At this juncture, the concept of sustainable city versus unsustainable city came under the spotlight. in this respect, urban elements are presumed to play one substantial role in the sustainability of the city both as morphological and non-morphological elements; one of such elements, particularly in older cities, is the garden. The role of garden in cities and its design and architecture had once been decided and developed within the context of Islamic culture, and with regards to the local cultures of various countries. As a space of different capabilities and with particular emphasis on the historical heritage of any given land, garden are now of considerable significance in the advancement of cities in various aspects, some of the most important of which are increasing of sustainability of cities and achieving sustainable cities within the outlines of sustainable urban development. In this approach, considering the "requirements and demands of future generations", gardens (and especially such large-scale, well-known ones as Dolat Abad and Taj Mahal) are assumed to be the principal element as they play the catalyst in the realization of sustainable city in both Iranian and Indian urban designs. The present article studies the components of sustainable city and conducts a comparative analysis of Iranian and Indian gardens (with Dolat Abad and Taj Mahal as the case studies), and proposes gardens as the indispensible part of the process of achieving urban sustainability. This is in fact what highlights the main purpose of this paper. The hypothesis of the article has as well been formed based on the notion regarding that Dolat Abad and Taj Mahal gardens have established themselves as sustainable elements in the contemporary cities, and will continue to be so. Thus, based on the whole to part and part to whole logic, these gardens would play an important role in the realization of sustainable city. Meanwhile, there are questions with respect to the orientation of the hypothesis, for which this paper tries to find answers:

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Can garden function as a public element in urban environment and in the morphological and non-morphological sustainability of cities aside from its role as a tourist attraction or historical site?
What would be the role of gardens in the structure of contemporary and future cities?
Are the architecture and symbolic structure of gardens important in the realization of sustainable cities?

## MATERIALS AND METHODS

Descriptive research includes surveys and fact-finding enquiries of different kinds. The major purpose of it is description of the state of affairs as it exists at present. In social sciences and business research, the term "ex-post facto research" is often used instead of descriptive research studies. The main characteristic of this method is that the researchers have no control over the variables; they can only report what has happened or what is happening. Most ex-post facto research projects are used for descriptive studies in which the researchers seek to measure such items as, for example, frequency of shopping, preferences of people, or similar data. In analytical research, on the other hand, the researcher has to use facts or information and analyze them to make a critical evaluation of the material (Gauch, 2003; Kumar, 2005; Trochim, 2001).
The description is used for frequencies, averages and other statistical calculations. Often the best approach, prior to writing descriptive research, is to conduct a survey investigation. Qualitative research often has the aim of description and researchers may follow-up with examination of why the observations exist and what the implications of the findings are (Dawson, 2002; Kothari, 2008).
This article is based on using analytical - descriptive method, attempts to examine the role of gardens in the achievement of today's cities to sustainability within the frameworks of sustainable development. It will also attempt to prove the hypothesis regarding that Dolat Abad and Taj Mahal as have established themselves as sustainable elements in the contemporary cities and will accordingly continue to remain so.

### Sustainable Urban Planning

The word "sustainability" is derived from the Latin term "sustinere" meaning "to guard or to support" (Hornby, 2006). Also, Longman defines this word as ability to continue for a long time" (Fox, 2007), while it is elsewhere defined as having positive effects on the society, economy, and environmental conditions in future in other places (Cowan, 2005), In fact, "sustainability" seems to be a "process rather than a chain of related ideas, whose basic principles are deduced from the changes in conditions, ideas, and technological capabilities" (Sendich, 2006, 95)" In the meantime, it must be considered that in order to reach its objective, sustainability needs the local innovations" (Cuthbert, 2003, 235) to attain global goals. Globalization also calls for components which can be easily put together in the presence of sustainability; thus, urban spaces can improve cultural continuity, help with the survival and sustainability of the citizens, and add to the integrity of place and time (Lynch, 1978). Such elements are always considered within the scope of capacity and action in cities (Fig. 1), from which the conception of identity is derived by the citizens within the framework of urban branding, which would consequently result in the sustainability in time and place (Auge, 1992).
As a result, the goal of sustainability and achieving it would be noteworthy for urban planning which also deals with land use. Planners always take into consideration the interaction between the action and the capacity, and thus move in conformity with the concept of local innovations with global ideology in choosing the logic for sustainable urban planning. Therefore, sustainability is interpreted based on the conservation of environmental capital, which agrees on the equity among generations (with the emphasis placed on the capacity) and replacement of the capitals (with the emphasis placed on the action) (Alexander, 1992). Environment capital and its conservation call for planning, which is provided for by sustainable development and sustainability, which lead the planning process to an environmentally-led system (Blowers and Evans, 1997). This has been present in the urban planning as the theory of eco-city in the past years.
Thus, considering the aforementioned issues, the role of urban planners and their ability to reach sustainability is further highlighted in view of the characteristics of sustainability in the social, cultural, economic, and environmental life of the city. Here, using flexible models is a necessity, and sustainable urban development can be achieved seeing the global arena of sustainability.

### Sustainable City

The concepts of sustainable city and sustainable urban development are often interchangeably used due to their similarities. "To differentiate between the pair, it should be noted that the term sustainable development indicates a process through which sustainability occurs, while sustainability is a chain of conditions which continue through time" (Maclaren, 1996, 195). Sustainable city can therefore be defined as follows: "the basis of sustainable city is the general agreement regarding that the city we know and live in today brings about unsustainable environmental tensions, faces class divisions, does not possess desirable functionality, and would be costly to manage" (Frey, 1999, 39). Thus, to reach sustainable cities, theoretical approaches to sustainable urban development should be matched with practical and

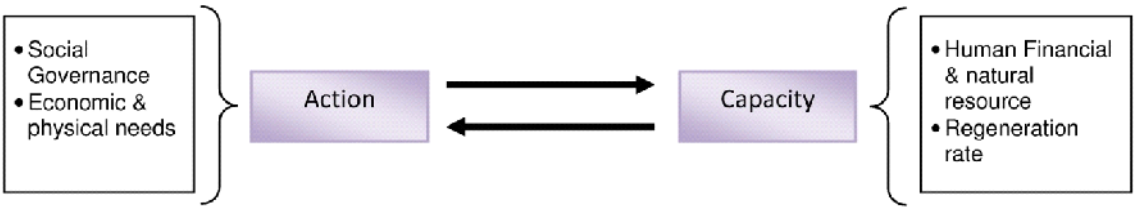



Fig. 1: The sustainability cycle (Source: Hallsmith, 2003)

executive concepts as well as local and national sustainable models for the future development of cities. For example, considerable research work has been conducted on sustainable urban types, the results of which indicate that there is no single perfect model of sustainable urban form to apply to all cities, and such model should be designed for each city (Williams et al., 2000). Sustainable city is something beyond mere geographical space, and includes economic, social, political, and environmental spaces as well, and is influenced by a wide span of national and international processes to be placed in the context of globalization (Drakakis-Smith, 1997; Pugh, 2000). Characteristics of such a city are decrease in energy consumption, improvement of energy management, improvement of quality and management of water supplies, prevention of use of lands and improvement of land management, decrease of consumption of goods and materials and improvement of their management, maintenance, protection, and increase of natural and constructed heritage; these are all taken into consideration by urban planners in their new processes of planning. Urban sustainability can be achieved through the development of human residences, and any given city can be more sustainable through decrease in the consumption of resources (land, energy, water, materials), lessening of pollutions, and improvement of environmental conditions (health, work, income, construction, recreational activities, accessibility, public spaces, and the community) (Cathbert, 2003; Girardet,1999).

To reach the concept of sustainability, sustainable city has certain features which are considered by the scholars of planning within the framework of sustainable development. The comprehensive conditions of sustainability in the sustainable city can be viewed in direct relationship with three components (Fig. 2).

Table 1: Objective for achieving sustainable city
(Source: Curwell et al., 2006)

| | |
|---|---|
| Ecological | To preserve and enhance heritage and to conserve resource<br>To improve the quality of the local environment |
| Economic | To ensure diversity<br>To improve integration |
| Social | To reinforce social life<br>To improve Social justice |

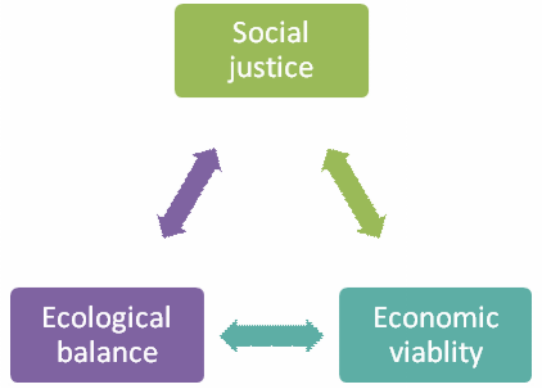



Fig. 2: Relationship between sustainable components

These components need micro-objectives in order to achieve sustainable city (Table 1).

Thus, sustainable city is formed in conformity with planning within the framework of the concept of sustainable development in various aspects, with systematic approach, and based on the expertise of urban planners. Attempts are always made so that such a city retains its sustainability in the time and place and in various aspects. The city being considered is always accompanied by a global approach and has environmental and heritage approaches towards its surroundings.

## Role of Garden in Reaching Sustainable City

The concept of sustainable development and sustainable city first came into existence in view of considerations for the environment and the future generations. Discussions considering the environment are still of considerable importance in achieving sustainable cities. Gardens and green spaces with heritage values at national and international levels are of equal importance. In the Oriental culture, garden is a symbolization of paradise which is materialized on earth. This has been ignored in recent years due to the process of modernization of cities, and has been realized in the notion of parks, which is a reflection of Western culture on the Eastern culture. The latter reached Iran in the 19th century and parks officially came into existence under the rule of Reza Khan Pahlavi (Motlagh Zadeh, 2002). The design of modern parks was completely disintegrated and disconnected from the philosophy of gardens in the Oriental culture. Gardens, however, still exist across Iran, and have today turned into heritage sites with the potentials to be players of international arena insomuch as several cities are known by the public by the names of the gardens they nest. Dolat Abad garden in Yazd and Taj Mahal in Delhi are examples of such spaces. The role of garden in reaching sustainable cities can be examined through three aspects: first with garden as an effective element in realization of eco-city, and environmental improvement of the city, increase of pollution, and safeguarding of urban landscape (Wiliams et al., 2000, 130). Second, with garden as cultural heritage, and a space based on historical identity of citizens; here, the garden is considered as urban space and public historical space. Third, with garden as a component of acceleration of the process of globalization; here, the garden is considered as the branding of the city, which may attract tourists and bring about sustainable economy for cities (Fig. 3).

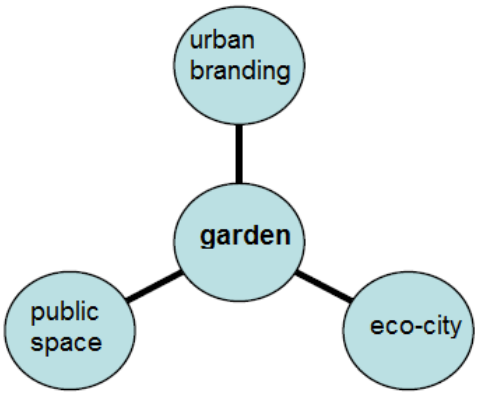



Fig. 3: The role of garden to achieving sustainable city

## RESULTS AND DISCUSSION

### Taj Mahal Garden

Taj Mahal, one of the 26 world heritage sites in India, was built by the Mughal emperor Shah Jahan (1628-1658) in the memory of his beloved queen. The mausoleum is located on the right bank of the river Yamuna at point where it takes a sharp turn and flows eastwards .Masons , stonecutters, inlayers, carvers, painter, calligraphers, dome- builders and other artisans were requisitioned from the whole of the empire and also from central Asia and Iran (Fig. 4, 5 and 6).

"The main purpose of the present publication is to illustrate the value and importance of Taj Mahal in Islamic architecture. Although this structure is outside of Iran`s present borders, it has been deeply influenced by Iranian architecture and may be looked upon as a part of our Iranian culture and architectural heritage" (Soltanzadeh, 1999, 85; Koch, 2006).

However, the change of design to a more environmental sustainable way is necessary for the local community. We must take into account the economic, political and environmental context of each site and, working from a site sensitive perspective, begin to plan for conservation for and present and future maintenance.

### Dolat Abad Garden

Built in a747 AD under the rule of the Zands, Dolat Abad garden is one the great gardens in Iran, similar to Fin in Kashan and Shazdeh (Shahzadeh) garden in Mahan. Its windcatcher is the tallest one known around the world, and it also has a magnificent vestibule. It is surrounded by many other gardens along all sides except for the east wing, which is flanged by some residential houses. There is a street along the west wing of the garden (Afshar, 1995; Akhgar, 2008). Dolat Abad has Iranian- Islamic architecture, which considers the morphology and environment at the same time, and has established a sustainable relation with today's city.

### Iranian – Indian Garden (Human and Inherent Interaction Between the Two Civilizations) on the Route to Realization of Sustainable City

Before the Industrial Revolution and the rapid growth of Muslim cities (and even earlier than that), the relation between man and natural or built environment would be established consciously. The religion in which the Iranians and Indians believed always tended to believe in the holiness of trees and verdure, and holiness would be realized in the

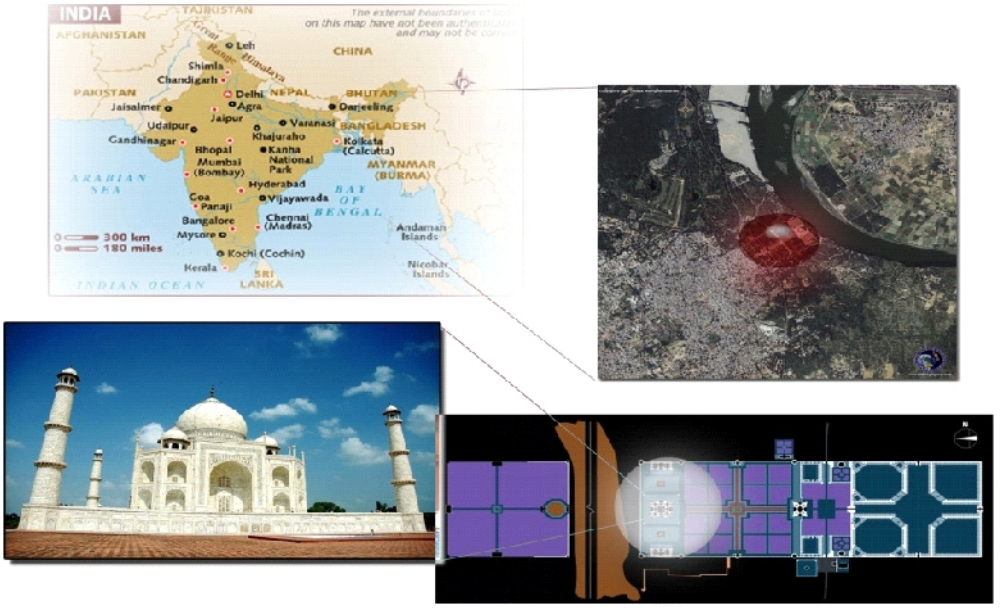



Fig. 4: location of Taj Mahal Garden in India
(Source: wikipedia, 2012)

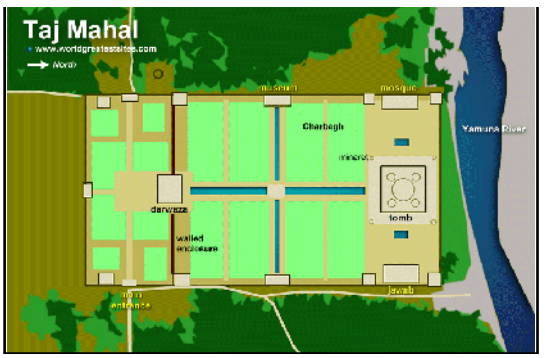



Fig. 5: plan of Taj Mahal (Source: wikipedia, 2012)

Fig. 6: Taj Mahal (Source: wikipedia, 2012)

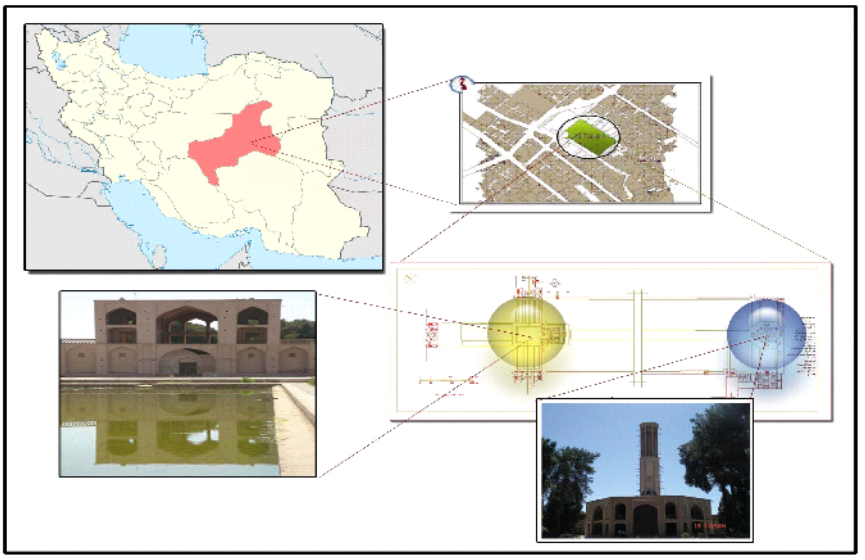


Fig. 7: location of Dolat Abad in Yazd-Iran

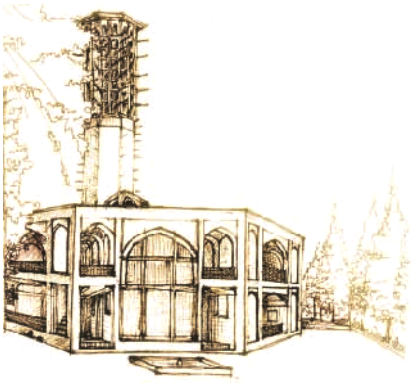


Fig. 8: The perspective of Dolat Abad

Fig. 9: The end part of Dolat Abad

morphology of gardens. “Taking into consideration all the four classical elements is well-rooted in the Iranian and Indian gardens: earth, water, wind, and air have all been employed in the morphology of gardens in a perfectly proportionate manner” (Dadabeh, 2004,32). It is through these elements that wise people discover the arena of being and hear the sound of existence (Bernard, 1994). The garden takes man in his journey from himself to God, because it is a place for contemplation with all its components having a nature of thinking. It is a pure, serene and tensionless space which leads man towards dreaming or contemplating (Ardalan and Bakhtiar, 2004). In this space, the body and mind simultaneously experience the inside and out, and discover the sound of water and birds, the texture of smooth tiles and wet soil, the taste of fruits which are grown and ripened in the sunlight, and the reflection of flowers in the mirror of water in the pools (Herdeg, 1990). Thus, the garden bridges between the man and God, and brings to mind the spiritual journeys in the evolutionary movement of the man from the mundane earth towards the metaphysics (Ascending), and this is how it express the pure Oriental wisdom and philosophy (Fig. 10 and 11).

The morphology of garden is shaped based on the rituals, and is inspired by both Iranian and Indian divine thoughts. “The pattern of Iranian garden (from the Islamic era on) is designed as a square or rectangle (the latter applied in Dolat Abad and Taj Mahal). The structure of Iranian garden is based on mandala shapes, with the division and leading of water in gutters” (Pirnia, 1994,40),and it is all divine concept on the backdrop of earth, and that is why the morphology of land is so important (Mirfendereski, 2004). This importance is reflected in the significance of slopes where the entrance is located down the plan and the pavilion is located in the higher areas (which is a symbolic depiction of man’s constant move from the lowest of the low to the highest of the highs, as well as an emphasis on the symbolism embodied in various morphological and non-morphological aspects of Iranian and Indian architecture). The water also flows in the direction opposite to that of man’s movement from the entrance façade towards the pavilion moving upwards (the ascending move) gives one the feeling of exploring and being motivated to move further up (the man inherently tends to move towards the objectives, or the tangible signs, and while doing so, he

Fig. 10: Presence of the four elements in the garden (Source: Maps of world, 2012)

Fig. 11: likening of Dolat Abad garden in Yazd to the gardens of Paradise

Fig. 12: Slope of the land at Taj Mahal (Source: Wikipedia, 2012)

Fig. 13: Rhythm of Shadows and the direction of slopes at Dolat Abad

often choses to go through the easiest route, and would not shift directions unless he is forced to (Matloch, 2000). Diversity (e.g. the move from shadows into the sunlight) and the rhythm of shadows also please man (Fig. 12 and 13).

Another key element in the gardens and in the Oriental architecture as a whole is the emphasis on holy numbers and their use in the morphology of structures. For example, number three was considered to be sacred in the ancient Iran and India, and has been decided as the number of domes of mosques, the guest house, and the stories of minarets at Taj Mahal, and as the number of doors at Dolat Abad; each of the uses in their particular position highlights the importance of the number in the space. Also, number eight, which is decided for the octagonal shape of the dome and the vestibule of the dome chamber (Soltanzadeh, 1999).The windcatcher (Badgir) at Dolat Abad garden and its plan are also octagonal, which further clarifies the similarities between the philosophies of architecture at the pair of gardens (Fig. 14 and 15).

Yet another point which is of importance in the design of gardens, and in the construction of any given ensemble is the principles decided for building them. Knowing about these principles is necessary in order to better understand the objectives in the design of the structure and ways of achieving them which are rooted in the ideology which rules the life and afterlife of the people who live in those lands. The Iranian and Indian gardens embody and depict such principles. One of these principles are the hierarchy of relations between the early man and the modern man (Norwich, 1990), which is established by the use of colors, materials, and the combination of forms in the building. Another principle is symmetry, which has always been employed in the construction of public and religious spaces since the ancient times, and lays the emphasis on the notion of balance. It is shown in the vertical and horizontal axes of the morphology of the garden (Crowe and Haywood, 1972). The principle of centralization is mainly derived from the uniqueness in the ideology of the architect, and the final result is the fruit of realization of such ideology. This is exemplified in the construction of a high or outstanding structure such as the wind catcher (Badgir) in Dolat Abad and the main dome at Taj Mahal. The principle of rhythmic repetition which is formed through repeating of a phenomenon based on an easily legible relation, in such a way that understanding of the relations between the elements calls for close and careful observation. Number of chambers, windows and trees are obvious examples of this principle at both Taj Mahal and Dolat Abad and their architecture (Petruccioli, 1994). The mentioned principles are plural in the contents and at the same time are in complete theoretical and expressional unity. As Sheikh Mahmood Shabestri[1] expresses:

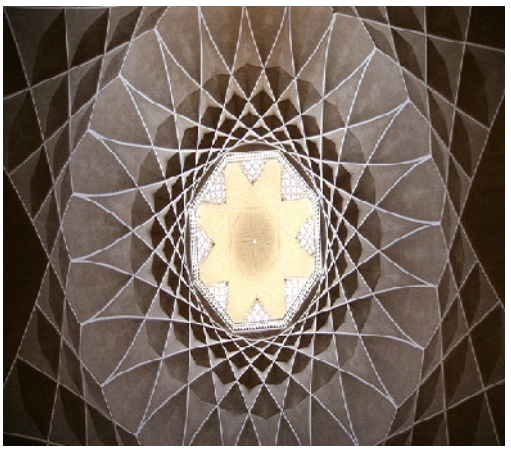


Fig. 14: Numbers at Dolat Abad (eight)

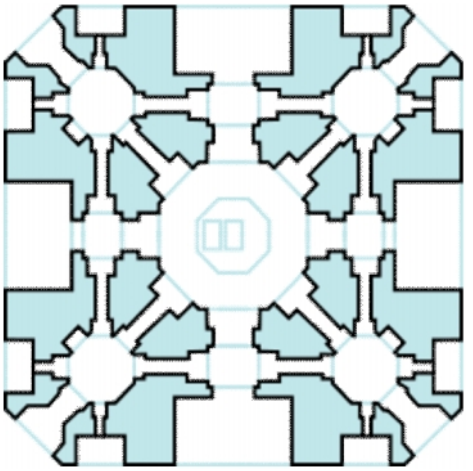


Fig. 15: Numbers at Taj Mahal (eight) (Source: wikipedia, 2012)

The world is like the eye, beauty-spot, the eyebrows, and other parts of face and everything is beautiful only in its true place. If the tiniest particle is taken away or relocated,
The whole universe would fall apart.
It should be noted that all the aforesaid principles are organized within the garden through a variety of organizations such as network, axial, focal, and introvert systems (Table 2).
Therefore, there are two general approaches in the idea of design, construction and maintenance of Iranian and Indian garden (Fig. 16):
Ecological environment;
Obligatory environment (Koch, 2006).
Finally, it can be said that garden should be seen as the prudent connection between the man and the godly nature. Understanding of the secrets of this connection is possible by a systematic approach and through the recognition of the authentic cultures of Iran and India, which are based on the rituals, beliefs, and the philosophy which rules these countries, and are concerned with meeting the man's requirements in both physical and metaphysical aspects. They can give the man a wider prospective, and help him reach God. Respect is also another value in various aspects of the structure, and is emphasized by the demonstration of various elements of the life Oriental man in the morphology of structures. Thus, the garden has always been closely related to the culture, and they have paired in backdrop of the surroundings to make sense. So, the Iranian and Indian gardens are designed and formed based on the theoretical and practical aspects of sustainability, which is realized in the time and place of the building.
Considering all the mentioned components, this study would examine the two gardens in view of sustainability of the city and sustainable development of the environment (Table 3).

## CONCLUSION

Study of the definitions and concepts introduced, expressed various components of sustainable development in different aspects, and showed that sustainable development is an all-inclusive, multidimensional concept. It also proved that in order to achieve comprehensive urban sustainability, all aspects should be examined and analyzed in interaction with one another. Sustainable development and urban sustainability have a process which is practiced in the city through a systematic approach and by considering various

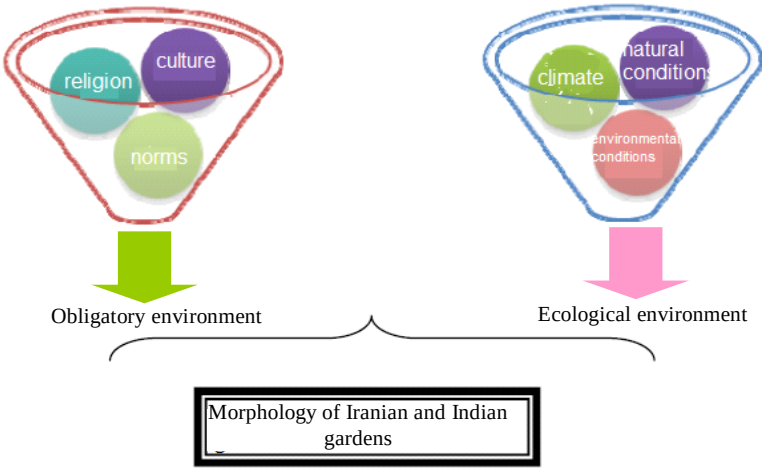
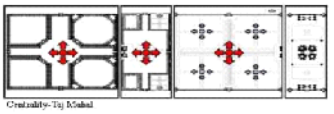
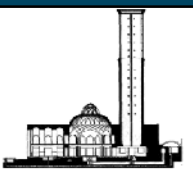
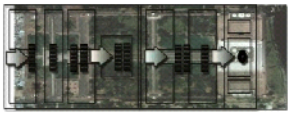
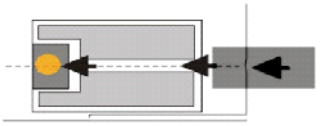
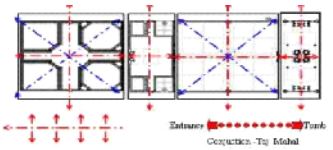
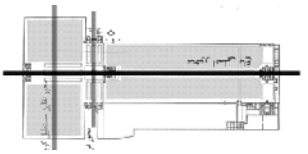



Fig. 16: the Main Components of the Morphology of Iranian and Indian gardens

Table 2: Depiction of Principles at Dolat Abad and Taj Mahal

| Taj Mahal | Dolat-Abad | |
|---|---|---|
|  |  | Centrality |
|  |  | Hierarchy |
|  |  | Symmetry |
|  |  | Rhythm |

capacities of the city. Thus, urban sustainability needs sustainable elements so it can establish relations with other elements in the urban system, and can provide for its own sustainability at the same time. The role of urban planning is vitally important as the means for realization of sustainable city. Urban planners should be capable of employing the local potentials rooted in the history of the land, organize the orientation towards the realization of sustainability objectives and eliminate the time disintegration.

The present paper studies the principles and components of sustainable development and sustainable city in relation to the Iranian and Indian gardens. The hypothesis would thus be proved regarding that Dolat Abad and Taj Mahal gardens have been able to establish themselves as sustainable elements in the modern city, and will as well continue to do so. They can accordingly play a role in the realization of sustainable city based on the logical system of part to whole and whole to part. This can be considered through three strategies which lay the emphasis on three aspects of sustainable city in the 21st century (Fig. 17).

The findings and results of the study can be summarized as follows in conformity with the main hypothesis and objective proposed:

Realization of the major part of social, ecological, and economic sustainability in view of the long time which has elapsed since the original construction of the gardens under study, which indicates the realization of sustainability based on the definitions of the basic concepts of sustainable development;

Observing the cultural and religious principles as the bases of achieving sustainability in the background of the environment and time, while observing the mutual respect of bio elements in the architecture of Dolat Abad and Taj Mahal gardens; considering the components of Islamic architecture such as symmetry, centrality, hierarchy, repletion, and diversity, which have worked to serve the sustainability of the structures;

Observation of environmental principles in the structures and creating variety in the city and its landscape, while increasing the balance with ecosystem in today's city, which indicates the sustainability of the city in environmental aspect

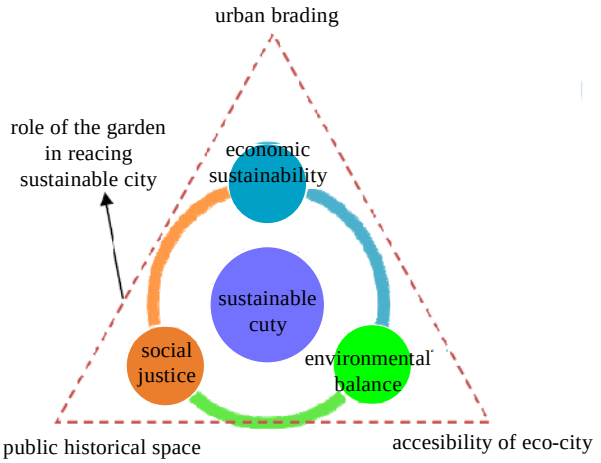
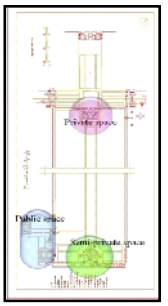
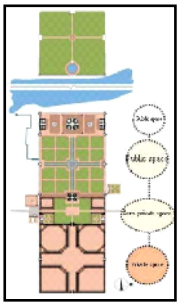
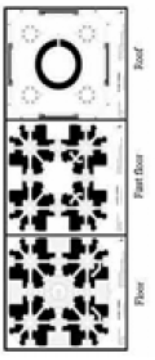
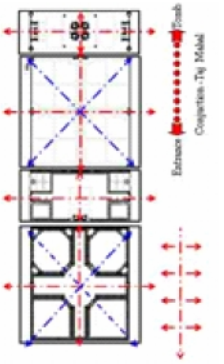



Fig. 17: Role of the garden in achieving sustainable cities

Table 3: Study of the role Dolat Abad and Taj Mahal gardens in urban sustainability

| Aspects of sustainability | Characteristics of sustainability at Dolat Abad and Taj Mahal | Pictures | |
|---|---|---|---|
| | | Dolat Abad | Taj Mahal |
| Social sustainability | Separation of spaces (public, semi-public, private)<br>Integration of religion, culture, and the morphology<br>Observing the respect and holiness, particularly at Taj Mahal which is designed as a tomb<br>Establishing relation with the modern city (chronicle sustainability)<br>Observing the individual characteristic of the garden and establishing the relation between the inner and the outer<br>Increasing the vitality of citizens<br>Employing the Islamic, Iranian and Indian design and architecture |  <br>  |  <br>  |
| Ecological sustainability | considering the irrigation system through proper positioning (water from qanats and rivers)<br>adding to the verdure and freshness of the environment<br>using of local materials<br>considering the role of garden in the improvement of living condition, particularly in the city<br>providing the possibility of breathing for the city<br>improving the health of citizens<br>improving the urban landscape<br>the gardens' being in accordance with the land topography |  <br>  |  <br>  |
| Economic and morphological sustainability | Establishing morphological relation with the surroundings<br>Proportionate locating of the elements (water, trees, main structure)<br>Increasing of international tourism and ecotourism (Yazd, New Delhi)<br>Observing the principles of sustainable architecture (centrality, symmetry, hierarchy, repetition)<br>Mixed used<br>Formation of the garden in conformity with the surroundings |  |  |

Considering the cultural heritage and attracting tourists to the city and country in conformity with the concept of sustainable development; Dolat Abad and Taj Mahal gardens have highlighted the role of the cities of Yazd and New Delhi in this respect, and have as well increased the dynamism and vitality of the cities.

Increasing the morphological role of breathing for the citizens through Iranian and Indian gardens in the modern urban

planning with basic approach towards the presences of the two gardens in Yazd and New Delhi; the citizens thus can enjoy the places and this objective;

The two gardens have originally had particular uses, but now have mixed uses, which serve the sustainability of the city and the structure.

Based on the findings of this study, it can be inferred that the two gardens have been able to adapt themselves to the criteria of sustainability, and also play significant roles in the sustainability of the two cities. This is in such a way that even the new urban design and construction movements have not been able to undermine their effective roles in sustainable urban development. (However, it must be noted that determining the exact level of sustainability calls for comprehensive studies). So, it should be taken into consideration that development and expansion of cities, and the consequent gap between the modern man and the natural environments, increase of environmental pollutions, and the growth of mechanized life are increasingly highlighting the urge for presence of the nature and natural elements in human life. This has been carried out in the form of construction of parks in both Yazd and Delhi, but parks do not tend to follow the Islamic, Iranian and Indian principle ruling the construction of gardens and this clarifies the importance of the role of Dolat Abad and Taj Mahal gardens in the increasing of urban sustainability.

## ENDNOTES

1. Iranian Poem lived in 12 A.D

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