# ISFAHAN

The Massachusetts Institute of Technology

Design Proposal

#### An urban manifesto: New Approach to Urbanism

Nowadays, cities function in a different way comparing to traditional cities. Modernity has changed the spatial experience. We cannot deal with urban issues like before. Cities are not self-sustained anymore. Globalization, global economy, political systems, capitalism, information technology, economic-space and etc. are affecting the city today. Population exploded and industrialization caused fast urban growth. Old traditional pedestrian ways are not responding to emerging use of cars and so the scale of cities are changing from a human scale to huge scales. The viability of different forms of contemporary urbanism, the changing character of urban life, the nature and functions of large cities, are issues to be considered today. Architects and planners should have a different approach toward "Urbanism".

Urbanism should take the city toward a well-functioning public realm. While studying traditional cities that have strong social interaction and community life, one can learn how a specific design of solids and voids, which form streets, alleys, squares, plazas and other urban elements, can encourage public life. A public space is important because it is not owned by anyone, so people can engage in social interaction apart from their level of wealth or class and it can lead to a more democratic way of life. Public realm can be approached by designing a good network of public spaces and by encouraging pedestrianisation by creating a continuous network of pedestrian ways. We, as architects often think about creating buildings, but what about creating a space?

What is essential here is to Study if vertical integration and horizontal co-ordination are the only ways to respond to today's accommodation needs and if it helps or prevents the realization of sustainable neighborhood development and regeneration. Sustainability of historic towns and town centers is currently one of the most debatable topics in urban design. Sustainable development in the major cities of the world have focused on the combination of good planning and meeting the overall needs of the community and the ability for developers to work profitably. Can we contribute to a development that responds to today's needs without preventing future generations to meet their own needs?

Studying the cities, we come up with two kinds of cities. A traditional city that has formed organically around a historic city center and has the usual elements of the urban environment and the new model which arises in

growing economic environment of Asia and has formed huge metropolises developed in a short period of time and they cannot be analyzed and interpreted like the traditional model.

In a successful traditional urban fabric, each building finds its character by engaging in a composition with other buildings around it. Monuments do exist at some points, but the beauty emerges from the inter-relationship of solids and the way they interact with spaces they surround. The city is a network, where each element exists to complement to urban integration. Materials, building orientation, colors, shapes, and function of each building is coming form urban fabric and should contribute to it. In modern times, this quality of city has changed and has gone more towards the character of the building itself rather than quality of space.

The other important issue about city is the way that functions interact with each other. The interconnection of living and activity zones is an important goal. In more interesting urban fabrics, one can see more residential, commercial, administrative and cultural facilities are brought together in close spatial proximity. The quality of life will be better by mixed-used functions and more social and formal diversity.

Market places have a special role in forming a city and keeping it alive. Most of the older cities have shaped along a market place which is also an attractive place for either tourists or local people. Market places normally start and end in important spots of the city like squares or city hall and they are an idea for expanding the city, if needed, along them.

Streets and squares have found a more abstract meaning in modern mentality. As a modern space needs to be, streets are straight, linear and wide. They create transparency and openness whereas in traditional concept, they create translucency and closure. Squares should have their own individual formal character. They should not be a leftover space between the blocks but should be an independent space with a specific function shaping the area around them.

Although we should not aim to re-construct the model for traditional city, we have to challenge the concept of isolation that has affected our contemporary cities. Also, we should consider the old concept of public space with attention to scale and pedestrian role and interaction between social levels. The contemporary de sign should have contemporary characteristics to leave

a footprint for the future. If we want to be a part of the history of urban integration, we have to find a new appropriate approach towards urbanism.

### Ways of implementation

- 1. Even a city with a big population growth rate should be managed to grow neighborhood by neighborhood. All major human needs should be provided in walking distance in the neighborhood. Depends on the size of the city, each neighborhood or few of them should have a community building that increases people's interaction in their city management.
- 2. A network of pedestrian walkways should always be provided. This pedestrian network should provide access to all neighborhoods' main spots such as shopping areas, schools, governmental offices and etc. a network of larger streets can provide connections between neighborhoods and the each neighborhood with the city center
- 3. Squares as spaces providing public interaction, should be built in human scale. They should be located in each neighborhood and in the city center. While they should be formally inviting, they should be surrounded to give a sense of enclosure.
- 4. After calculating the population and estimation of the future needs for accommodation with respect to amount of land available, building codes can be determined. They should be provided in a way that they can increase density and make a better fabric.
- 5. When a city is expanding the most important thing is to create a system for this expansion. The urban fabric should be continuous and repeatable. By defining building codes and density, urban designers can help keep the fabric dense and consistent. Give the guidelines to the inhabitants and they will build their city.
- 6. Mixed-use functions are the key to social interaction and formal diversity.
- 7. Public transportation is a must for a well-functioning city. A city that can work without cars, a city with a good public transport system, can enjoy a better environment, a less polluted weather and healthier citizens.
- 9. The relationship between the buildings should be determined. In the other words, each building should exist to contribute to a whole urban form. If monuments are to be built, they should be placed in places with more

public character and not necessarily in the center.

#### Isfahan: Problems and Remedy

When studying Isfahan, the first thing that comes to mind is the combination of the old and new and how they survive beside each other. As said before, new developments have already ruined some parts of the valuable old districts and the question is how to protect the rest of the city. Looking at Isfahan, the following problems seem to be more of a matter:

- 1. Meidan. The Shah square which was the glory of the city today is the major traffic thoroughfare and its northern end is used as a parking lot. The modern garden and pool which fill the central area are a western import. They break it up and make it impossible o appreciate its extraordinary scale.
- 2. The Khawju bridge is now, car accessed. This makes it difficult to preserve it and also the connection between people and water is declined.
- 3. Bazaar as the spine of the city today is not as powerful as before. It has become mostly a place for tourists to visit and buy traditional handicrafts. Chaharbagh and other modern streets around (such as Ebn-e-sina and Abdolrazzagh streets), in turns have become a center for commercial activities throughout the city and they are sucking out the life of the bazaar.
- 4. Chaharbagh has lost its spirit, because of the new constructions around it. Also, this happened because of the transformation of the role of this beautiful street. Before it used to connect the gardens with the imperial palace. It still has the pedestrian path in the middle but the water channel inside has been filled.
- 5. New constructions have taken place during past thirty years. They are mostly of very bad building quality and design. They are low in density, especially towards north.
- 6. Old neighborhoods such as Julfa have devastatingly lost their identity. There is nothing left of their old character. New constructions have ruined their structure and new roads have cut them in halves.
- 7. The connection between the Shah square and Chahar Bagh is declined in the new developments. Before, in Shah Abbas era this was the main concept of the Persian gardens around the square. Today, the square and the Chahar Bagh are connected only thorough narrow streets.

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#### **Concept of Persian Gardens**

Persian Gardens refers to a tradition and style of garden design which originated in Persia, modern day Iran. Traditionally, such gardens would have been enclosed.

It is of note that the Persian word for "enclosed space" was Pardeiza, which was inherited in Christian mythology as Paradise on earth, the garden of Eden.

Its role was, and is, that of relaxation in a variety of manners: spiritual and leisurely (such as meetings with friends), essentially a paradise on earth. The manner in which the garden is constructed maybe formal (with emphasis on structure) or casual (with emphasis on plant), and complies to various simple rules governing the design - this is said to allow a maximization, in terms of function and emotion, of what may be done in the garden. The origin of the Persian gardens has been estimated to go back to 4000 B.C. On the decorated pottery of that time are found the typical cross plan of the Persian gardens. The Persian concept of an ideal, paradise-like garden is perfectly embodied in the Taj Mahal. It was Babur who introduced the Persian garden to India, and the now unkempt Aram Bagh garden in Agra was the first of many Persian gardens he created. Taj Mahal is one of the largest Persian gardens of the world.

The style may be traced to ancient time's centuries before the Common Era. For example, the outline of Cyrus I's garden, which adjoined a palace, is still viewable today - it was built around 500 BCE. During the reign of the Sassanids (third to seventh century CE), and under the influence of Zoroastrianism, the presence of water in art grew to importance - this manifested itself as fountains and ponds in gardens.

During the occupations by the Arabs the aesthetic aspect of the garden increased in importance, overtaking the utility of the garden. During this time the aesthetic rules by which the garden is governed grew in importance - an example of this is the chahar bagh (a form of garden which attempts to emulate Eden - having four rivers and four quadrants, representing the world. The design sometimes involves one axis being longer than the other, water channels often run through the four gardens and connect to a central pool.

The invasion of Persia by the Mongol Empire in the thirteenth century saw an emphasis on highly ornate structure within the Garden, examples of which include peonies and chrysanthemums The traditional forms and style are no longer present among the population of Iran.

They may be found in historical sites, museums and affixed to the houses of the rich.

## Elements

Sun light and its effects were an important factor of structural design in Persian gardens, textures and shapes were specifically chosen by architects to harness the light. Due to the latitudinal position of Iran, shade is also incredibly important in the garden, without which it could not be a feasibly usable area - trees and trellises largely feature as biotic shade; pavilions and walls are also structurally prominent in blocking the sun.

Also related to the heat is the importance of water in the gardens. A form of underground tunnel, below the water table, called a Qanat is used to irrigate water to, and around, the garden. Well-like structures then connect to the Qanat, enabling the drawing up of water. Alternatively, an animal driven Persian well would be used to draw up water to the surface. Such wheel systems could also be used to move water around surface water systems, such as those which exist in the chahar bagh style. Trees were often planted in a ditch called a Jub, this prevented water evaporation and allowed the water to quickly access the tree roots.

The Persian style often attempts to integrate that which is "indoors" with the "outdoors" - this is often achieved through the connection of a surrounding garden, with an inner courtyard. Between the out and interior were often architectural elements such as vaulted arches which opened up the divide between.

The garden has been inextricably tied with Iranian culture since the Emperor Cyrus planted fruit trees at Pasargardae, just north of Shiraz. Indeed our word "Paradise" derives from the Persian word for an enclosed garden. For the formerly nomadic tribes of central Asia, the concept of a permanent place in which flowers and trees were planted to be enjoyed over successive years, became a powerful symbol.

The concept of garden is fundamental to an understanding of Shah Abbas I's intention in rebuilding Isfahan. The palaces he built were small since each had a definite purpose; the entertainment of visitors, the dispensation of justice, but they were linked by gardens set out along his great central avenue, Chahar Bagh (or four gardens).

There are few gardens left today in Isfahan but every house has its own miniature enclosure which will normally include some shade and a small pool around which people may gather when the weather permits.

School of Madar-e-shah garden



Chehel Sotun, Garden in Isfahan

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## The Design Proposal

The cultural and historical axis of Isfahan in fact acts as the core of the city. This axis begins from the Friday mosque and old square, which forms the Seljukid city center and runs up to the location of Bagh-e-Hezar Jarib of Safavid period, in place of which today's Isfahan University stands.

This axis passes across Bazaar, the complex of the Square, City's heart in Safavid period, and Char Bagh. The historical axis that has evolved during a period of more than 1000 years has always acted as the main structure of the city and comprises examples of architecture and urban planning of all different periods of Isfahan history.

The new urban plan of the city ensures the identity, internal congruity, homogeneity and functional efficiency of this axis in compliance with Isfahan's architecture and urban values and will serve as Isfahan's main structure in the future.

District "3" covers a large part of Isfahan's historic center. This historic region has a unique coherent urban fabric and structure. The detailed plan for district"3" attempts to enhance this quality by defining a framework that stems from the unique characteristics of the historic region and that adheres to the principals and guild lines of the master plan, that concern to these characteristics.

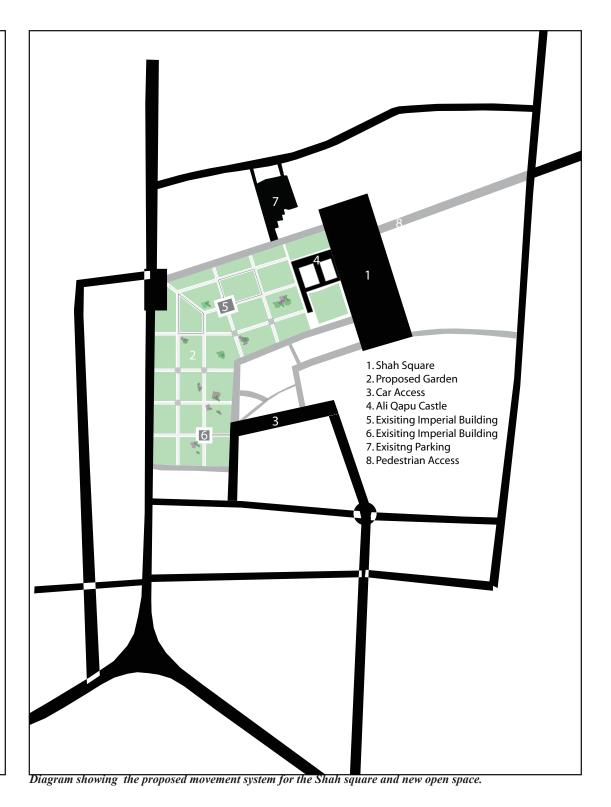
The historic zone of Isfahan that includes the old part of the city, not only embodies a large number of valuable historic architectural works- some of which internationally known- but also is prominent from esthetics point of view, for the way it functions and for its well-shaped urban structure. The urban skeleton of the zone is so robust that despite all the ignorance and harm that it has been subject to, is still functioning and the present day Isfahan, with millions of inhabitants, still relies on this old structure.

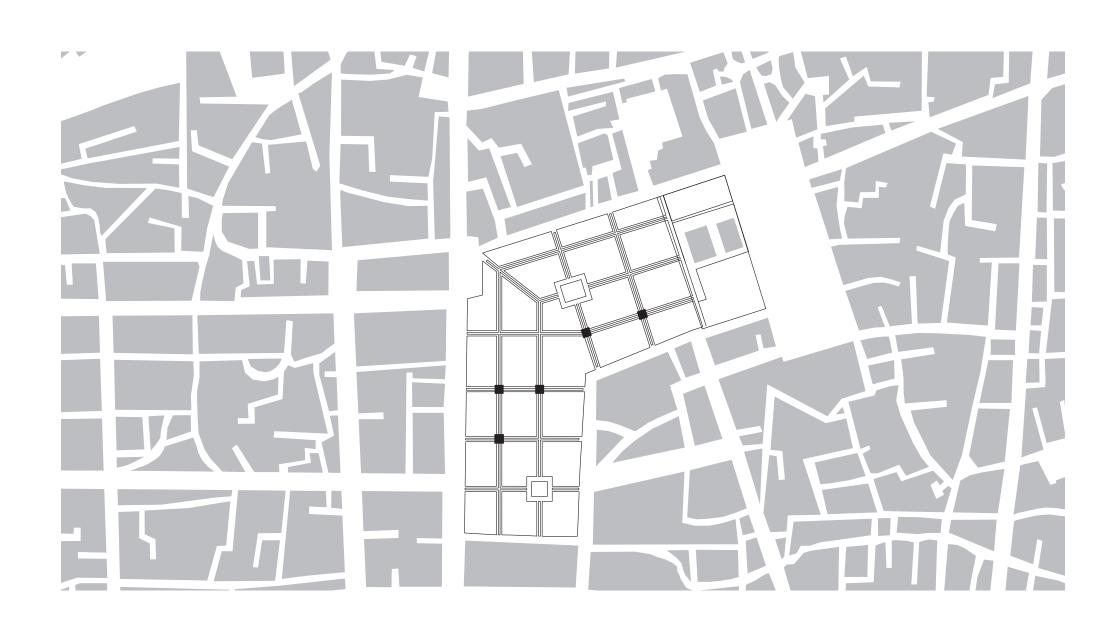
The design proposal is to find a connection between the Shah square and Chahar Bagh in connection with the concept of Persian gardens which once exist and where the glory of the city. The other attempt is done to protect the Shah square from being car-accessed and functioning as a parking garage in the north side. The streets to the Shah square should not bring the cars in. In return, people can use the public transport or the other parking garages that exist near the square.



Sketch showing the main pathways that are car-accessed in the present day Isfahan.







# Bibliography

Sajjādī, Amad. Mīrās-i awzah-i Ifahān / bih ihtimām-i Amad Sajjādī ; Raīm Qāsimī. Qum. Mūassasah-i Farhangī, Muālaātī-yi al-Zahrā, 2004

Jafarī Zand, Alī Rizā. Ifahān pīsh az Islām : dawrah-i Sāsānī. Tehrān. Ān, 2002

Grabar, Oleg. The great mosque of Isfahan. New York: New York University Press, 1990.

Chardin, John, Sir, 1643-1713. Safarnāmah-i Shārdan: bakhsh-i Ifahān / tarjamah-i usayn Arīzī ; bā muqaddamah-i Alī Dihbāshī. Tehran : Intishārāt-i Nigāh, 1983 or 1984

Siroux, Maxime. Anciennes voies et monuments routiers de la région dÍspahân. Tehran. Sāzmān-i Millī-i ifāat-i Āsār-i Bāstānī-i Īrān, 1978

Muassasah-i Jughrāfiyāī va Kārtūgrāfī-i Saāb. Sahab guide map of Isfahan. Tehran. province. Ordered by Isfahan Municipality. 1970

Hunarfar, Luf Allah. Historical monuments of Isfahan. Isfahan, Emami Press, 1964.

Singer, Caroline, 1888-1963. Half the world is Isfahan, by Caroline Singer and Cyrus Leroy Baldridge. New York, London, Oxford University Press, c 1936.

Babaie, Sussan. Safavid palaces at Isfahan: continuity and change (1590-1666) / by Sussan Babaie. 1993

Blunt, Wilfrid. Isfahan, pearl of Persia. London. Elek. 1966

Kocks, F. H. Esfahan master plan; prepared for the City of Isfahan, Iran. Tehran United States Operations Mission to Iran. Public Administration Division, 1961.

Blake, Stephen P. Half the world: the social architecture of Safavid Isfahan. Costa Mesa, Calif.: Mazda Pub., 1999.

Ganjnāmah : farhang-i āsār-i mimārī-i Islāmī-i Īrān. Tehrān : Dānishgāh-i Shahīd-i Bihishtī : Shirkat-i Tawsiah-i Qazāhā-yi Farhangī, 1996

Grabar, Oleg. Isfahan as a mirror of Persian architecture

Ardalan, Nader. The sense of unity: the Sufi tradition in Persian architecture. Chicago.: ABC International Group. 1999

Arzoo, Emil J. (Emil Joseph). The Armenians of New Julfa Esfahan. Glendale, Calif.: E. Arzoo, 1994.

Galdieri, Eugenio. Efahān, Alī Qāpū: an architectural survey. Rome: IsMEO, 1979.

Rufin, Jean-Christophe (translated from the French by Willard Wood.) The siege of Isfahan. New York. W.W. Norton, c2001.