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PRINCIPLES OF AESTHETICS IN ISLAMIC ARCHITECTURE

M. FOROOZANI

Department of Town Planning
Faculty of Fine Arts, Tehran University
Tehran, Iran

Abstract

Principles of aesthetics in Islamic architecture have been achieved through the analysis of the existing historical buildings and monuments.

Nowadays we cannot copy the forms of our ancient architecture, but through the analysis of their forms, we can use the meaning of visual understanding of the physical aspect of our ancient architecture in the modern Islamic architecture (contemporary Islamic architecture).

Keywords: equilibrium, culmination, tranquillity, variety.

Objective

The objective of this paper is to achieve some usable principles of aesthetics in Islamic architecture in order to use them in modern Islamic architecture (contemporary Islamic architecture), as well as to demonstrate these principles on some examples taken from one of the most famous historical cities in Iran (Isfahan).

Introduction

Nowhere in the world can you tell where the boundary between 'beauty' and 'ugliness' is. Beauty is a changeable quality, and it is true that you cannot fix it anywhere in the world because it depends on a great number of known and unknown items.

For instance to judge the beautiful face of a pretty girl, you really cannot find any fix principles anywhere in the world to prove that her face is beautiful. Neither can you find any 'fix form' to prove that a historical monument is beautiful. That is why, when aesthetics in general is discussed, you should be flexible and should not look for some fix items for your design. The following major principles of aesthetics in Islamic architecture may help you in modern Islamic architectural design.

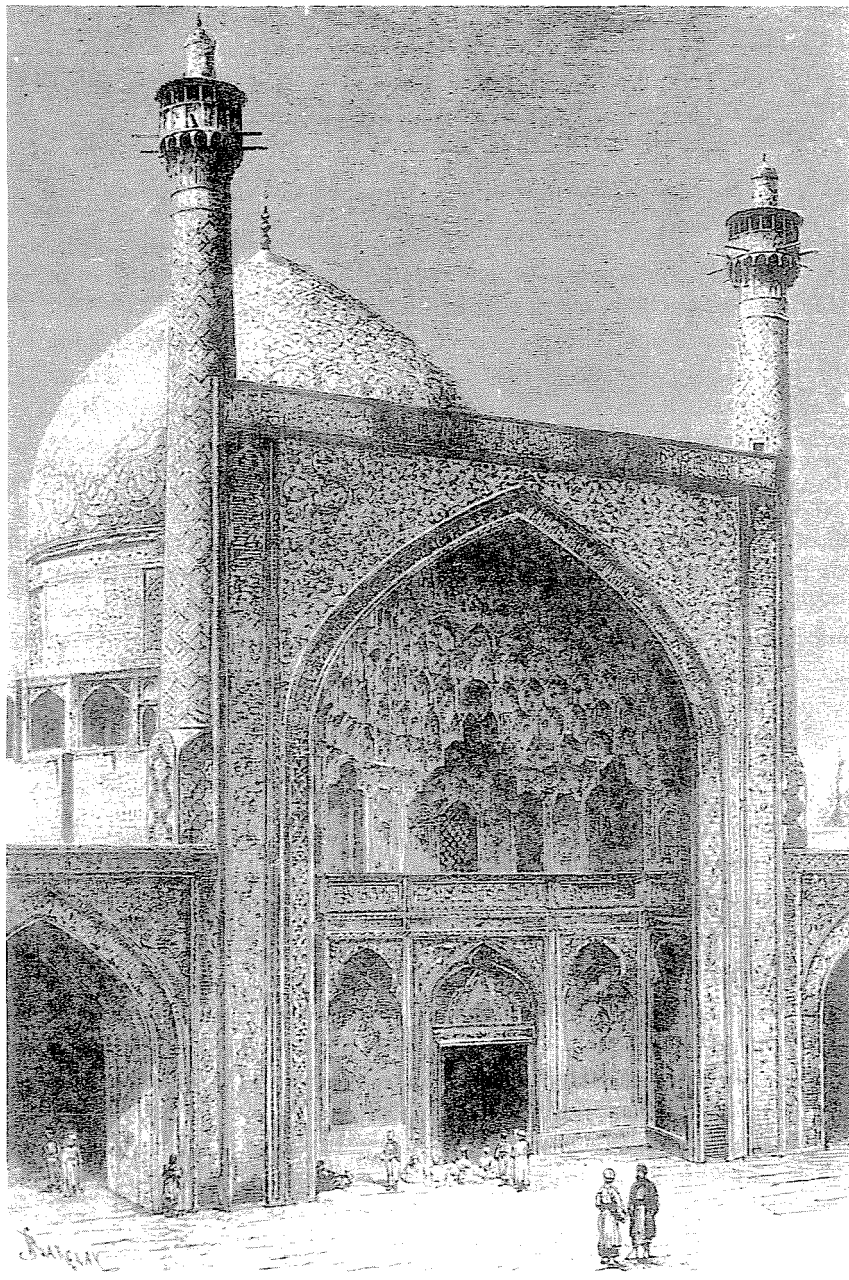

Fig. 1. Gate to Shabestan (praying room) of 'Imam' mosque, in Isfahan, proportion between the dimensions of architectural elements, scale in size of the building and human, symmetry on the façade and plan (DIEULAFOY, 1887)

1. Proportionality

This principle concerns the size of different elements of a historical building both on the plan and façade. It relates to the width and length of rooms, yard, pools, ... and the width and height of entrance, corridors, columns, windows, doors, the height of the major and minor spaces and so on, see *Figs. 1* and *6*.

2. Scale

This principle concerns the comparison of the size of monuments and the surrounding residential buildings. In general, different scales have different meanings. The feeling of a big or small entrance is really different. In Islamic architecture, the public buildings and especially the holy places and mosques with their high minarets are the landmarks of the biggest height on a city skyline, which stand out high from the cityscape. On the other hand, the scale of residential buildings is in accordance with the human dimensions and needs. See *Figs. 1* and *5*.

3. Repetition/Frequency

This principle was used on the façade and the plan of most of the historical monuments. The repetition of the columns, windows, arches, ... is frequently applied in Islamic architecture. This principle should be repeated more than twice. See *Figs. 2, 3, 4, 5* and *6*.

4. Symmetry

You can see the manifestation of this principle with all the mosque yards when you stand facing Mekka. In general in a holy place, the architectural forms should help to tranquillize you for better praying. The symmetry helps you to add this feeling to the prayer. You can also see the symmetry on the façade of all the Islamic constructions (both on the façades facing the street and the courtyard if any). See *Figs. 1, 2, 3* and *6*.

5. Equilibrium

This principle concerns the visual balance of an architectural form. In this case, it is not necessary to have a symmetrical form but it is necessary to

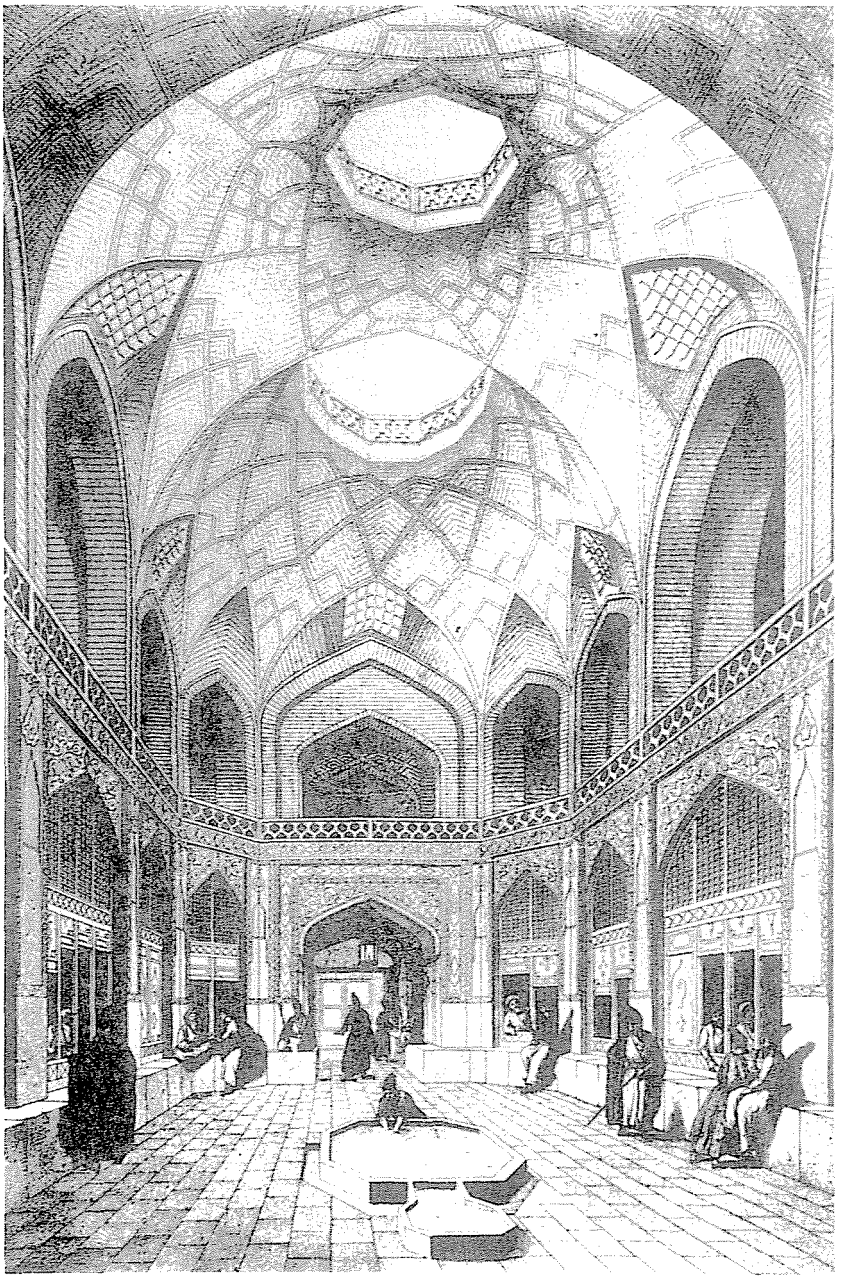

Fig. 2. The Bazaar of 'Hadji Seyyed Hossein', in Isfahan, repetition of arches, very clear symmetry, centrality of pool, harmony of roof and façade, similarity between different size of arches, order, culmination by pool, highest point of sky lights (COSTE, 1867)

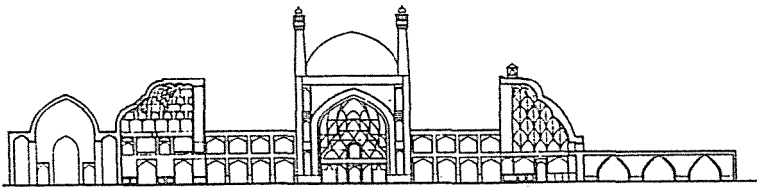

Fig. 3. Gamie' mosque in Isfahan, section and façade, repetition on the façade, symmetry both on the façade and plan, equilibrium of sections and order on the ornaments and façade (S. G. D. I., 1978)

have the balance between the right and left sides. Symmetry will always involve equilibrium, but equilibrium will not always involve symmetry. See the two Evans of Jamie Mosque — in Isfahan — on the right and left side of *Fig. 3*.

6. Centrality

The meaning of this principle is very clear. The best example of it is the 'House of Prayer' in Mekka. All the mosques were designed to face this house because the prayers should face this house when they are praying.

When you want to emphasize something, you will put it in the centre. In most of the mosque yards you will see a pool in the centre. In Islamic architecture, water has a symbolic meaning of cleanliness, and before you start praying you must make Vozou (washing the face and the hands). Therefore, the pool in the centre of yard should be designed in a way to emphasize the symbolic meaning of water (cleanliness) and its function (making Vozou). See *Figs. 2, 4* and *6*.

7. Harmony

This principle concerns harmony of architectural elements. On a façade, perhaps you may use different proportions and different forms but they should be in harmony. Just like each musician in a symphony orchestra plays a different instrument but they all play in harmony. To take an architectural example, the capital of big and small columns should not necessarily have the same shape, but they should be in harmony. Harmony with nature which expresses another meaning of this word has been produced in Islamic architecture, too. The harmony of the public buildings

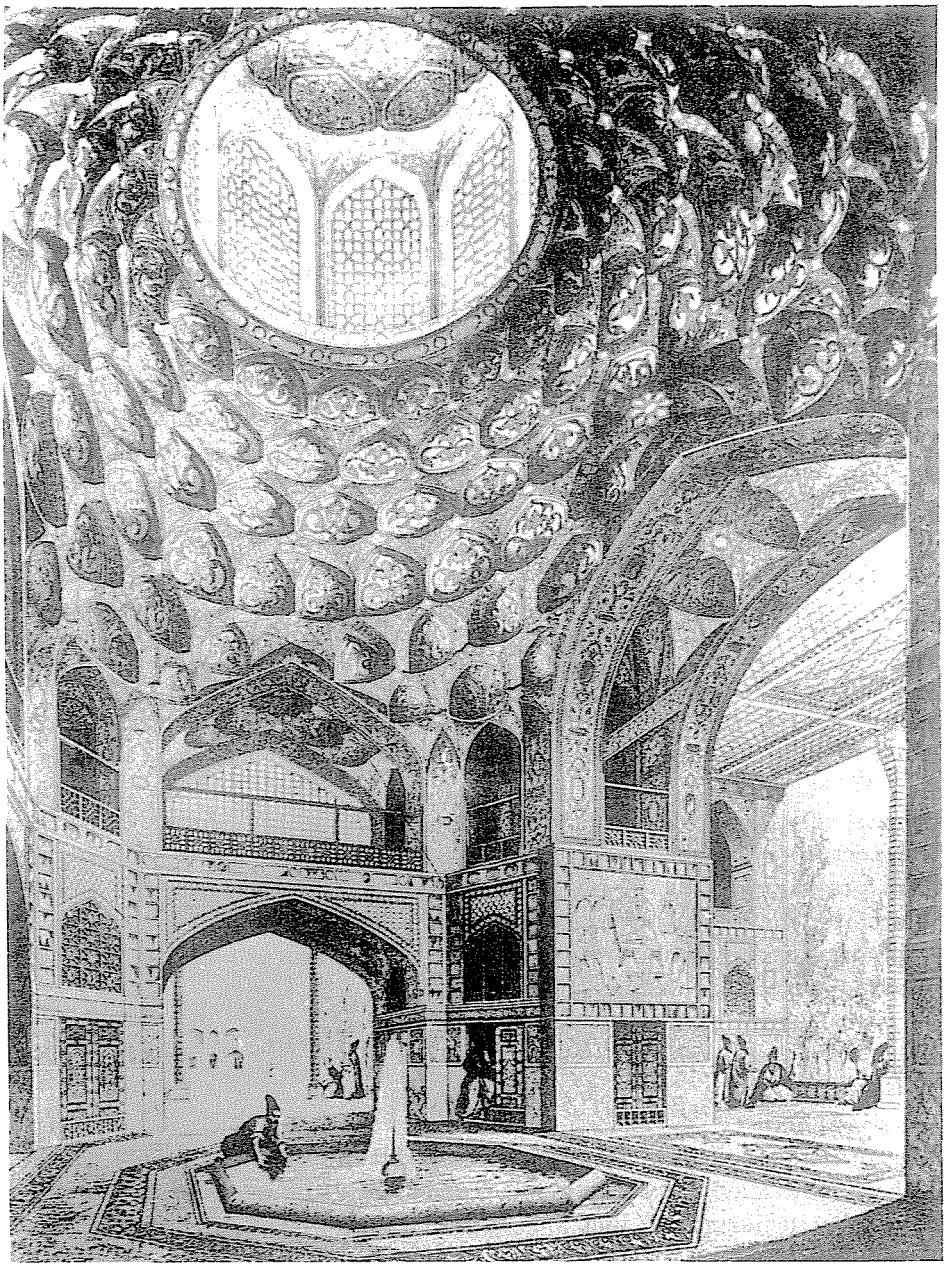

Fig. 4. The pleasure pavilion of 'Hasht Behest' (Eight Paradise) Place in Isfahan, repetition on the roof and sky windows, symmetry in plan, equilibrium of the whole construction and good order on roof and ornaments, culmination by pool and its fountain (COSTE, 1867)

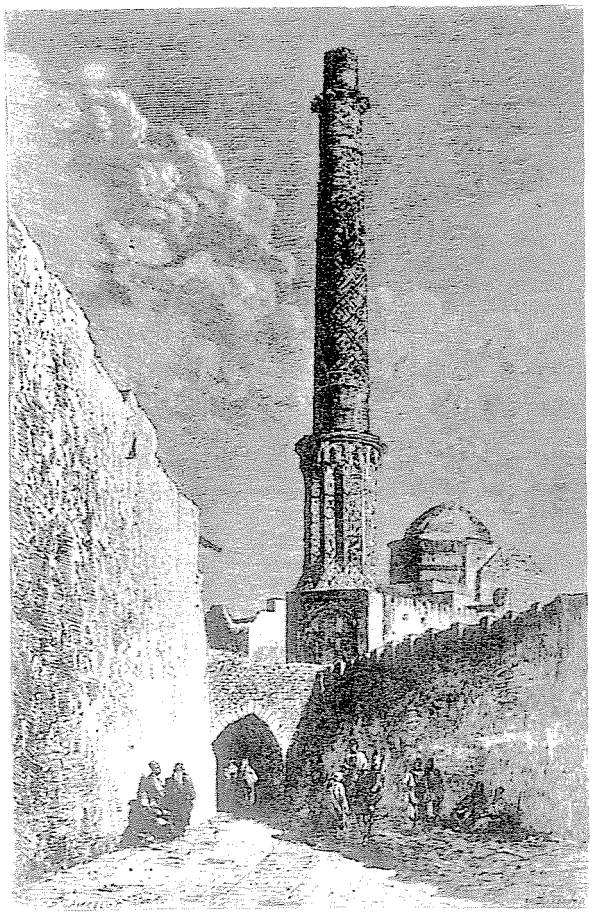

Fig. 5. The 'Tah Berenjy' minaret in Isfahan, repetition in the lower part of the minaret, a very strong contrast with city panorama and highest point (DIEULAFOY, 1887)

and residential buildings is not only unnecessary but in many cases, it is a conflicting requirement. See *Figs. 2* and *4*.

8. Similarity

This principle has the same meaning as harmony with the difference that in the case of similarity, we cannot compare different elements. For instance, similarity can be detected between all circles but you can never find any similarity in the composition of a circle and a rectangle because they are dissimilar. To take an architectural example, in case you have a small and a

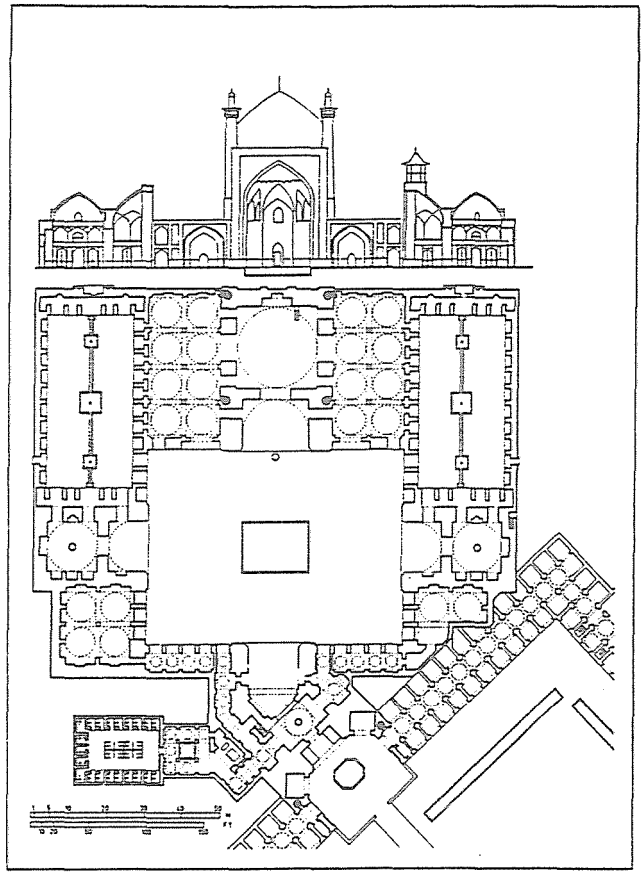

Fig. 6. 'Imam' mosque in Isfahan, plan, section and façade, proportion between dimensions of architectural elements on the plan, section and façade, repetition of domes and arches on the plan, symmetry on the plan and façade, centrality in the centre of all courtyards, good order, movement and tranquillity between the entrance and the main courtyard on the plan, culmination by pools on the plan, highest point(s) of the top of the dome and minaret on the façade (S. G. D. I., 1978)

big arch, according to this principle they should be similar in the technique of drawing. In Islamic architecture, sometimes you can experience the principle of harmony and sometimes the principle of similarity. In my opinion, deciding on whether this one or that one dominates in modern Islamic architecture, will depend on the designer's taste.
See *Figs. 2* and *4*.

9. Contrast

The nature of human will not like uniformity in general. The military colour may be nice in the army, but surely it is not in the civilian life! It could hardly be imagined that in a city every citizen should wear a uniform of the same colour and cut. The human nature likes and needs contrast and variety. In Islamic architecture a series of rhythmic elements will always be followed by a higher or bigger element in size (contrast) which provides a nicer form in construction. See *Fig. 5.*

10. Variety

The meaning of this principle is the same as that of contrast with the difference that the modification in the principle of contrast will result in achieving the principle of variety. Both will bring you out of monotony, but contrast will bring about a sudden shock, while variety will exert its influence step by step. See *Fig. 7* (right side of the picture).

11. Order

The human nature has always liked the order. In the nature when you encounter any kind of order, surely you can trace back to the activity of a human. In general, the mind of a human will create some kind of order in the things.

In Islamic architecture, this principle comes out clearly on the plan, façade, ornament and structure. On plan, modules are used to obtain a general order in the whole design, on the façade this principle is used for dividing it into small parts and finding the best proportion for entrance, windows, doors and so on. On ornament, it will be applied to the tile-work, painting the walls and domes and so on. In structure it will be revealed in the better and easier implementation and so on. See *Figs. 2, 3, 4, 6* and *7.*

As another good example of it the Islamic gardens (parks) can be mentioned, where you can see the realization of this principle with a strong geometry in it. In modern parks, you can usually observe another order, which can be called order in disorder.

12. Order in Disorder

If you examine the road network of a historical district of an Islamic city, at the first glance, there is no order in it, it's just like a plate of spaghetti.

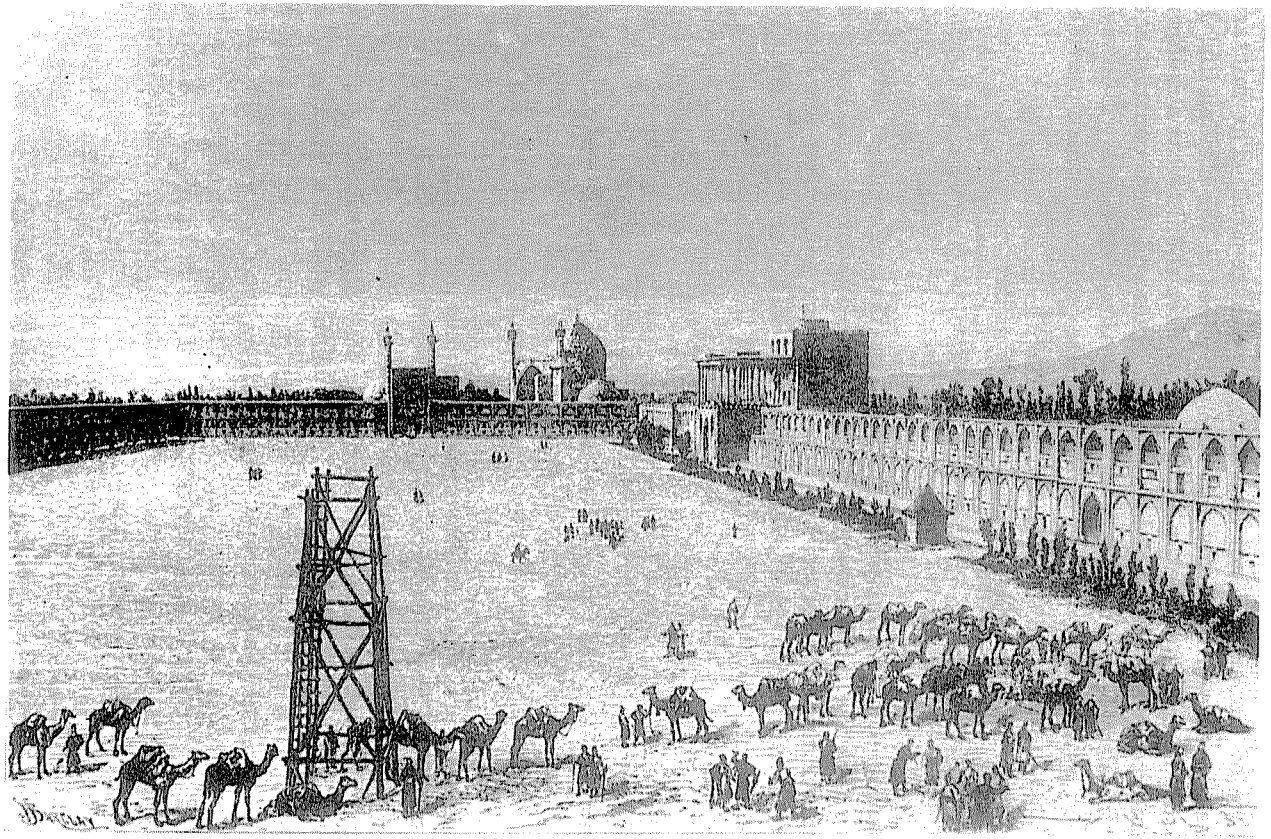

Fig. 7. 'Imam' square in Isfahan, repetition on the arches, variety on the façade of square, order on the façade, and highest point (DIEULAFOY, 1887)

But if you stroll through a quarter of a town, you will see that the mosque is situated in the most proper place of the settlement, so have the shops, public baths, residential houses and so on. When you are walking through a city you can experience that different functions are settled in a good arrangement, but if you have a bird's-eye view of it, perhaps you can find no order in it. It is due to the ancient town-planning method, because town-planning took place on the spot, but nowadays in modern town-planning, the design of a city takes place in the design bureau on the map (bird's-eye view planning!).

Anyway, in historical cities you usually will observe order in orderliness in road network but in modern cities (after 60s) you can usually observe the order straightforward in the road network. In my opinion, that's why you can observe a strong order in an Islamic garden but a stress order in orderliness in a modern garden. Why is it so? The reason for it is that the human needs contrast and variety in his/her life. When he is tired of work during the week, he wants relaxation in an environment of another organization which is different from the city order.

13. Movement and Tranquillity (Approach and Arrival)

This principle is useful when you want to arrive at an important space, for instance at a courtyard. Before entering this space, you usually move into a narrow dark corridor where there is nothing interesting, you have no motive to stay, so you move on. Suddenly, you arrive at an interesting wide space where everything is beautiful to see. The first architectural space (in this case, the corridor) gives you the feeling of movement, the second architectural space (in this case the courtyard) gives you the feeling of tranquillity. See *Fig. 6,* from the entrance to the courtyard.

14. Culmination

This principle concerns an attractive point on the façade or plan. The pool, which is in the centre of the courtyard, is a culmination for the courtyard. The fountain is also a culmination for the pool. On the façade, any attractive point situated not on the top of the façade is called a culmination point. See *Figs. 2, 4* and *6.*