THE MANNER OF REHABILITATION OF HISTORICAL VERNACULAR GARDENS (CASE STUDY IS ALI ABD GARDEN IN BOJNOURD-IRAN)

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ABSTRACT

Gardens can be considered as a symbol of heaven on earth. In opinion of Iranian people, garden is a place for relaxation and as a feedback of paradise on earth. The structure of Persian garden is composed of rectangular shape and main monuments located at the intersection of two main perpendicular axes.

Ali abad garden is located in north of Bojnourd and south of Ali abad village. Saham al Doleye Boujnordi established this garden at the time of his life at the same time of Qajar period. Rehabilitation, according to the documentation that can be a turning point in rehabilitation of gardens, tourist attraction (economical issue) and provide a place for people to tranquility.

In this paper we try to answered these questions:

1. Restoration of these historical gardens can be useful for speared the culture of establish these gardens?
2. Restoration of Ali Abad garden can be useful in restoring the architecture of historical gardens?
3. What is the role of Ali bad historical garden after restoration in the local economy of Ali bad village and city of Boujnord?

Keywords: Persian garden, Rehabilitation, Tourism

1. BRIEF INTRODUCTION OF BOJNOURD

Bojnourd is located in north east of Iran and north west on northern Khorasan. This city has borders with Torkaman estan from north, with Faroj from east, with Esfarayen and Jajarm from south and Golestan province from west [1].

![Fig. 1 Map of Northern Khorasan](image)

Bojnourd has a Semi-temperate climate with cold winter.

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2. **IRANIAN GARDEN**

The process of garden formation contains various objects:

- **Place and position of garden**
  
  Iranian garden located in a place that has fresh air, light, fertile soil and water moreover gardens should be able to create beautiful landscape [2].

- **The structural system**
  
  The base of structural system in Iranian garden is geometrical system [3]. Gardens have main edifice and some places near entrance called Sardar buildings for reception.

- **Irrigation system**
  
  Exist of water and the shape of the water path is one of the most important aspect in Iranian gardens.

- **Herbaceous system**
  
  In Iranian gardens, plants have specific system. Tall trees that make shade, plant on both sides of main paths and main axes in gardens, the other trees plant in sideways axes [4]. Flowers have plant in a very beautiful shape under the trees [5].

3. **INTRODUCE ALI ABAD GARDEN, BASED ON WRITTEN DOCUMENTS**

Three kilometres northeast of Bojnourd, in the southern of Ali Abad village can be seen a large garden with old trees. This is one of the valuable Iranian garden. This garden has 380 meters long, 260 meters wide and 9.88 hectares in area. Poplar and walnut trees have been planted around the garden and in the main axis, cypress, sycamore, acacia and many plants can be seen.

A historical building located in the middle of garden, with dimensions of 6.90 × 15.50 meters with 6 meters height. Stone, brick and adobe are three materials used in this building. The roof is made of timber. This building containing residential rooms and springhouse.

Springhouse located in the middle of the ground floor and leads to two rooms (3 × 4 meters) these two rooms lead to the second floor with separate stairways. Springhouse has a domed ceiling with plaster decorations. Around this place there are 24 square niches. In the middle of springhouse we can see a pool with dimension of 1.65 × 2.45 meters this pool covered with blue tiles. Water enters the springhouse from the north and exit from south with a gentle slope. This water supplied from two Qanats (aqueduct).

Ali Abad Garden has lived over three centuries. This garden belongs to the Shadlou ruler. Who have pointed to this garden in their itinerary are Naser-al-din Shah (Qajarie ruler) and McGregor. Naser-al-din Shah in his second itinerary mentioned the name of this garden and said this is a beautiful garden that Saham-al douleye Boujnordi bult it with a bulding in the middle in Qajar periods.

4. **RECOGNITION OF ALI ABAD GARDEN, BASED ON AERIAL PHOTO**

![Aerial photo of Ali Abad garden taken from Archive of geographic mapping of Military](image-url)
According to the Arial photo, the garden has four parts. Architectural elements of the garden are not visible due to tall trees.

5. **RECOGNITION OF ALI ABAD GARDEN, BASED ON FIELD RESEARCH AND WHATEVER OLD RESIDENTS TOLD**

The following results after field research have been obtained:
- According to field research, the building of this garden belongs to (about) 200 years ago.
- Water has been supplied from Aqueduct (Qanat) located in the northeast of the village.
- Structural form of Ali Abad garden follows the form of Iranian gardens (Chahar Bagh).
- Types of trees are fruit trees like Pomegranate, fig, cherry, Apricot, Almonds and apple and the others like Buttonwood, Acacia, Juniper, Poplar.

6. **CURRENT STATUS OF ALI ABAD GARDEN**

What now remains of Ali Abad Garden is the main structure of garden including northern- southern axis, palace and walls around garden. Trees are wizen. Unfortunately, because of wheat planting four parts of this garden isn't clear. In this bad condition, Ali Abad garden is like a wasteland.

6.1. **Access to Ali Abad garden**

![Map of how to access Ali Abad garden](Fig. 4)

6.2. **Introduction the current spaces of Ali Abad garden**

![Introduce different part of Ali Abad garden](Fig. 5)

1 – Ali Abad village  
2 – The pass of water between Qanat and garden  
3 – The main part of Qanat  
4 – little gardens around main garden  
5 – pool  
6 – Ali Abad garden  
7 – Place for playing football  
8 – ruin building  
9 – Tehran-Mashhad road
7. CURRENT STATUS OF HISTORICAL BUILDING (PALACE) IN ALI ABAD GARDEN

The historical building has a rectangular plan with 101.75 square meters in area and 6.30 meters height. This building is constructed in a way that provides maximum viewing angle and because of this, inhabitants might have been the best view to the garden. The building has four rooms and two floors. two rooms located in east and the other two rooms located in west of building. Dimensions of the rooms is about 3 at 4:30 and they aren't perfect rectangle. These two floors connected with each other through stairway located in northern room.

8. DEVELOPED DESIGN STRATEGIES ACCORDING TO THE EXPERIENCE METHODS IN NATIONAL AND GLOBAL SCALE

Structure of garden or four divisions of Persian garden, play the most important role in identification, return to the original identity and one of the most influential elements in the visual space of Persian garden. The purpose of design in this historical garden is create a sense of unity and harmony. In this way, at first, identified the major four sections structure and then reconstructed them. In the next of design phase we try to design the other element that can be a organized complex together and with the space of garden. These new elements must be distinguished from old one.
Lighting is an important tool that can be increase the visual effects of garden. Type and location of trees are the most important element to represent the unity of Ali Abad garden. In flooring, the most important issue is consider to length and width of the paths those according to historical shapes. It's important to consider parking spaces for people who will use this place.

9. CONCLUSIONS

- Landscaping design will do according to the main lines of them those can be identify today.
- Type and location the trees should be according to the old and main one.
- In this area is enough and safe water for irrigation and drinking.
- Historical building in middle of garden that can be a suitable place for attract residents and tourism to this garden. This attraction make improvements in economy and social condition of this village. This improvements make motivation for public participation for protection of historical vernacular gardens like our case study.

Restoration of this historical vernacular garden can be a pattern for restoration and rehabilitation these kind of gardens.

![Fig. 10 Plan of Ali Abad garden after restoration](image-url)

![Fig. 11 Ali Abad garden after restoration](image-url)
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REFERENCES

[3] Research and field questions