

Identifying the Principles of Identity Building in Tabatabai and Boroujerdi Houses*

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ABSTRACT

As a result of acculturation and confusion in contemporary Persian architecture, houses constructed during this period do not conform to the social and cultural requirements of the local community. Hence, identifying identity-forming elements and concepts in the architecture of Kashan plays a key role in the process of constructing houses possessing an identity and responding to the cultural and social requirements of the local community. In order to identify and explain identity-forming elements and concepts, the qualitative method and the content analysis approach were employed to study two historical houses in Kashan. Based on the results, the identity-forming elements were divided into the natural and physical categories. In addition, identity-forming concepts and principles were determined, some of which confirmed the views of the scholars while others were consistent with such views to some extent. The identity-forming elements in the architecture of the houses of Kashan were divided into two parts of the natural elements and physical elements. The natural elements are water, wind, light, and plants. Physical elements are linking vestibules, Hashti, room, veranda, central courtyard, alcove, hall, wind catcher, and Howz-khāneh. The concepts and principles affecting the formation of housing in Kashan include introversion (i.e., the quality of being inward-looking), centralism, the relationship of architecture with nature, the application of geometric principles in the formation of spaces and visuals, attention to hierarchy and the prioritization of space, space flexibility, proportion and balance in the relationship of architecture to natural elements, and harmony with the climate of the region. Some characteristics and concepts were determined to be “relative” identity-forming features of houses in Kashan. These characteristics and concepts are as follows: Self-Sufficiency (i.e., the use of local materials in the construction of the house) and humanized architecture (i.e., the practice of giving a human character to the construction), transparency, and continuity.

Keywords: Identity-Forming Elements and Concepts, Houses, Kashan.

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1. INTRODUCTION

Architecture and the principles of construction have always been evolving to meet human needs, which have a direct relationship with human lifestyle. In various historical periods, factors such as basic needs, religion, and climate have affected human behavior. The set of such behaviors, which determines the culture of human societies, directly influences space quality and the physical body in architecture.

Persian architecture has always evolved in response to the principles and values of human beings. A number of studies in Persian architecture have revealed that every building tells a distinct story, which indicates that Persian architecture has evolved according to various human and environmental conditions. Research on Persian houses also indicates that the Persian architect has reflected on all the physical and nonphysical elements and dimensions of the construction and then masterfully represented such elements.

As a result of modern technology and construction industry as well as the variety of styles in the modern period, contemporary Persian architecture suffers from acculturation and a break with historical experiences and the timeless principles of Persian traditions. This break with tradition has seriously damaged the contemporary architecture and urban planning of various Iranian cities, especially those of Kashan. While the construction industry pursues quantitative

factors, especially economic ones, qualitative features, especially significant spiritual and cultural values, are neglected in the process of formulating architectural programs. As a result of acculturation and confusion in contemporary Persian architecture, the houses constructed during this period do not conform to the social and cultural requirements of the local community. Hence, identifying identity-forming elements and concepts in Persian architecture plays a key role in the process of constructing houses possessing an identity and responding to the cultural and social requirements of the local community. This research addresses the following question:

What are the Principles of Identity building in the architecture of selected houses and how do these principles manifested?

We intend to answer the above question in order to achieve the objective of the research. Architects and scholars have explained principles and frameworks in this regard, some of which are presented in Table 1. However, such principles and frameworks are too general because they are not comprehensive enough on the one hand, and they fail to present and explain a portfolio in order to objectively study such values and principles on the other hand. As a result of this issue, contemporary architects and designers have failed to adequately manifest the principles and values exhibited by the physical and non-physical aspects of Persian masterpieces in contemporary housing architecture.

Table 1. The Views of Scholars on the Characteristics and Identity-Forming Concepts of Persian Architectural

Release Date	Research Title	Identity-Forming Concepts	Scholars
1997	Persistent Values in Iranian Architecture	Perfectionism, Mystery (Multiple Foundations), Centralization, Continuity, Sharing and Correlation, Distinct in the Region	Ali Akbar Saremi
1995	Unity of Action and Opinion In the Words of Contemporary Scholars	The dominance of spirituality, The integration of beauty and utility, Integration, Harmony with the environment, Profound Knowledge of materials, Architecture based on sacred cosmology, Readiness to acknowledge needs and change circumstances and Loyalty to the eternal truth	Hossein Nasr
2003	The Stylistics of Iranian Architecture	Humanized architecture, Avoiding futility, Niaresh (i.e., structural rigidity), Self-sufficiency and Introversion (i.e., the quality of being inward-looking)	Karim Pirnia
1995	Iranian Architecture in the Words of four Generations of Prominent Architects	Symbolic insights, Environmental adaptation, Innovation, The ideal of Paradise Gardens, The human measure, social participation and Positive space systems	Nader Ardalan
1999	Inspirations and Interpretations of the Fundamental Concepts in Iranian Architecture	Introversion, the connection between architecture and nature, Centrality, Reflection, Geometry, Transparency and continuity, Secrets and ambiguity, balanced equilibrium and Fragile balance	Darab Diba

(Pirnia, 2003)

In order to answer the research question and realize the objectives of the research, it is necessary to explore the climate of Iran and the research region as well as the location of Kashan.

1.1. The Climatic Zones of Iran

Climate is generally determined by latitude and altitude. Iran is located in the tropic of cancer zone between 25

and 40 degrees northern latitude. In terms of altitude, the country constitutes a high plateau, a minor part of which is 475 meters below the sea level. Due to the Alborz and Zagros Mountains and their location, the Caspian Sea and the Persian Gulf can barely moderate the temperatures at the central regions of the country. The Iranian Plateau is located in an arid region. As a result of this arid region, which extends from North Africa and the Middle East to Iran and Central Asia, the average rainfall in Iran is below the globally averaged annual precipitation (Köppen, 2014). Iran is generally classified as a country with an arid climate. Iranian scientists have divided the country into climatic

regions based on the Köppen Climate Classification System. The classification of the Iranian climate proposed by Mohammad Hassan Ganji can be used here. He adopts the Köppen system and divides the country into four major climatic zones according to the geographic features of the land:

1. The southern shore of the Caspian Sea
2. The northern shore of the Persian Gulf and the Gulf of Oman
3. The highlands of the Plateau, and
4. The Plains of the Plateau (Kasmai, 2008).

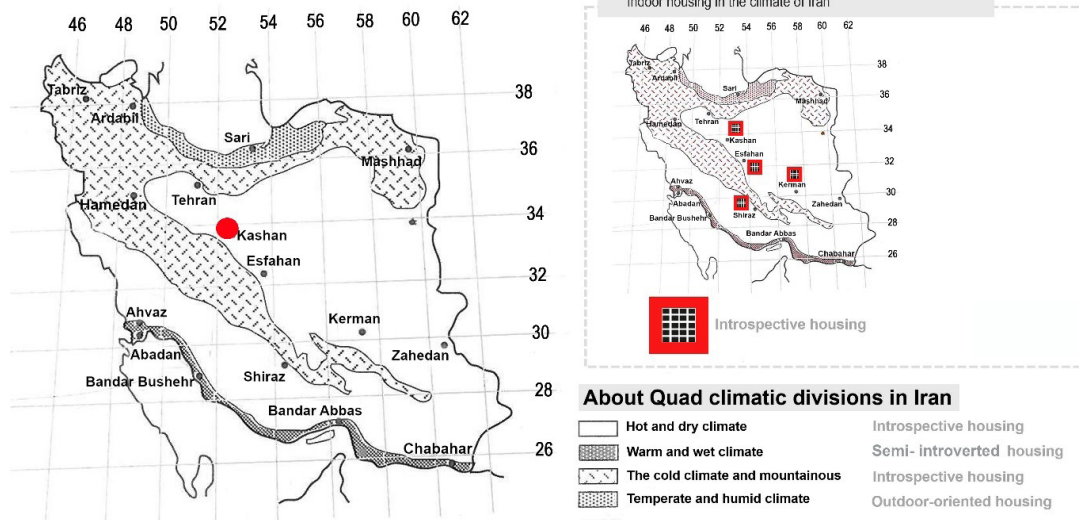


Fig. 1. The Climatic Classification of Iran - The Location of Introverted (I.E. Inward-Looking) Housing and the City of Kashan on the Map of Iran

1.2. The Geographical and Climatic Characteristics of Kashan

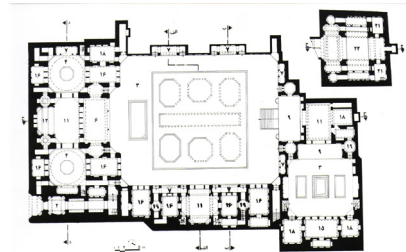
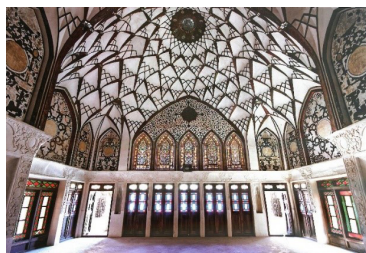
Kashan is located at the Longitude of 51 degrees and 27 minutes east and the latitude of 33 degrees and 59 minutes north from the Prime Meridian. It is located 235 km south of Tehran and 250 km north of Isfahan. Aran o Bidgol, an ancient desert city in central Iran, is northeast of Kashan. The towns of Natanz and Qamsar and the heights overlooking them are located south of Kashan. From the west, Kashan borders the towns of Neyasar and Mashhad Ardehal and the heights overlooking them. The average annual rainfall is below 150 mm in Kashan, which has led to water scarcity. Temperatures vary in the plains and foothills of the city. The foothills are arid and semi-arid. Temperatures are moderate in summers and cold in winters. The plain is extremely hot in summers, which is due to the central desert, and relatively moderate in winters. According to the classification of the Iranian climate, Kashan is located in a very hot and dry region (the Central Plateau, as shown in Figure 1). The climate of Kashan is characterized by hot and dry summers and cold winters, which cause intense sunlight and energy at a horizontal plane of 700 to 800 kilocalories per hour per square meter (Mir Miran, 2010, p. 12).

2. RESEARCH METHOD AND INSTRUMENTS

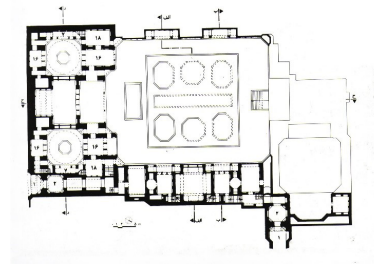
This research employs a qualitative method with a description and content analysis approach. Two historical houses were investigated in order to identify and explain the identity-forming elements and concepts in the architecture of Kashan (Figures 2 and 3). Studies were initially conducted to develop the theoretical framework of the research using the library and citation analysis research tools. Then, case studies were selected, evaluated, and reviewed. The selected case studies, which date back to the Qajar dynasty, are regarded as complete buildings in terms of quality and spatial diversity. Sampling was conducted randomly. The tools employed in the sample survey include library studies, observation, photography, and in-depth interviews with the elderly residents of the study region who have lived in the oldest introverted houses of Kashan. After deep interviewing 12 residents of old houses in Kashan, as well as field observations of selected samples, the authors attempted to identify and explain the identity-forming elements and concepts in the selected houses of Kashan.

Tabatabai House

The Tabātabāei house is located in the Sultan Amir Ahmad neighborhood and adjacent to the Emamzadeh Sultan Amir Ahmad, and has two private and public sections. Unlike other houses in Kashan, which usually have a cortile (i.e., private courtyard) wider than the dooryard (i.e., public court), the wider and larger courtyard is dedicated to the dooryard. Therefore, the most important part of the house is the public space, with spaces on each side of the yard, and on each front, there is a central space in the middle and the other spaces appear to support the middle element. The most important space in the public courtyard area, facing south-east and northwest, is located on the south-east front. The height of this front is larger than the other faces of the facade and an arched half-appears over the pillared veranda¹. The construction of such an arc adds to the magnificence of the building. The whole of this front is placed on a clerestory smaller than one meter. The southwestern front constitutes the summer section of the building, which consists of a hall in the middle and four double rooms on the sides. This part is dedicated to the summer quarter (tabestan-neshin) because it has a northern view and the high ceilings of the rooms ventilate the air and prevent heat from being trapped.



under Ground –First Floor Plan



Second Floor Plan

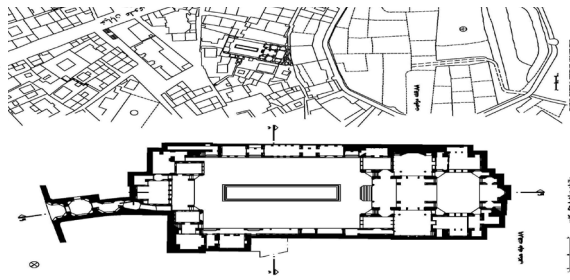
The northeastern front constitutes the winter quarter where the height of the floor to the ceiling is shorter than the height of the ceiling, which consists of two shells, which trap the heat. In addition, the public courtyard is constructed in a specific direction in order to receive more sunlight. The northeastern complexes of the building, like the summer quarter, consist of the middle hall and four tree-windowed rooms. On the northwest front of the courtyard, there is a fairly large Mahtābi² in the middle of the facade. Located behind the Mahtābi, there is a hall leading to three patios from three fronts (one to the public courtyard and two to the nearby private courtyard). The private part of the house has two symmetrical patios located on the northwest front of the public courtyard and on the sides of the five-windowed hall. The two private patios of this house are perpendicular to the public courtyard and contain spaces such as three-windowed, five-windowed doors and the Mahtābi (i.e., unroofed area).

Due to the position of the land, the entrance to this house is located at the end of a narrow alley, which is a roofed passageway. Therefore, unlike other houses, the semi-open passage is the starting point of the entrance door of the house. The home entry path is a combination of several consecutive spaces that connect the entrance to the courtyard at a 90 degree turn.

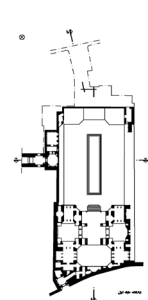
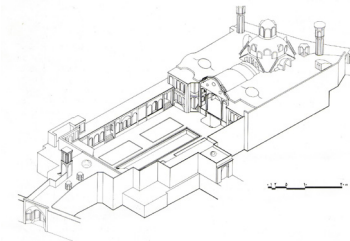
Fig. 2. Introduction to the Case Study (The Tabātabāei House)
(Ganjnameh, 2015)

Boroujerdi-ha House

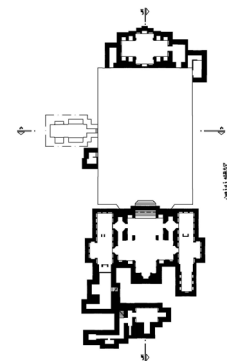
The Boroujerdi House, located in the old neighborhood of Sultan Ahmed Kashan, the current site of the Cultural Heritage, Handicrafts and Tourism Organization of Kashan, is an example of houses from the Qajar period constructed in 1901 A.H. by Haj Seyyed Hassan Natanzai, one of the famous merchants of Kashan. However, some of the decorations of the interior body of the main vestibule were introduced in 1916 A.H. The house consists of two private and public sections. The area currently visible visitors is the public part of the house. We enter the house through the main vestibule, where the entrance to the private section of the house is located. After that, we pass through the fairly long and steep corridor and enter the courtyard. Next to this corridor is the northern veranda of the house. In the northern part of the veranda, there is a five-windowed room that constituted the guestroom, on both sides of which there are two terraces. Due to good lighting and heat, these terraces were used more in the winter. The outside walls of the rooms of this veranda and the interior of the five-windowed room are decorated with very delicate stuccos of flowers and birds.



Site Plan -Ground Floor plan



First Floor Plan



Basement Floor Plan



There is a large pond inside the courtyard with wide gardens around it. The kitchen is located in the north-eastern part of the house. There are roofed verandas and rooms in the eastern part. In front of the veranda, there are stairs leading to the grotto (basement). These grottos are located at various fronts of the building and are ventilated and cooled by wind catchers, which makes them suitable for summers. In the southern part of the building, there is a roofed hall masterfully designed by Iranian architects. The mesh vents designed to ventilate the hall have been decorated with extraordinary stuccos regarded as some of the most innovative works of traditional architecture in terms of design and construction. The large roofed hall, which has been the venue for mourning ceremonies, consists of an veranda with a high ceiling on the front and a raised alcove³ at the end of the hall with special decorations, as well as halls in two floors on both sides.

Fig. 3. Introduction to the Case Study (The Boroujerdi House)
(Ganjnameh, 2015)

3. THE PHYSICAL PATTERN OF THE HISTORICAL HOUSES OF KASHAN

In general, as a result of the arid climate of the central regions, houses in the various historical periods have been systematically constructed around a central space. The entrance hall, the hashti⁴, the hallway, the passageway, the courtyard, the terrace, and the Mahtābi (i.e., the unroofed area) have all been organized next to each other (Farokh Yar, 2011, p. 20). This element, known as the “central courtyard,” plays a key role in the houses of this arid region. Both sample houses had overdoors decorated with rammers for men and women, hashti and multiple vestibules separating the public space of the building from the private.

Both samples indicate that the architect has considered spatial hierarchies and divisions and has divided the house into private (andarooni)⁵ and public (birooni)⁶ sections consisting of large patios with trees.

“Five-door and three-door rooms were positioned around the courtyard, each suitable for a particular season. Large verandas and halls, constructed on the northern and southern sides of the courtyard, were among the most important spaces in such houses. The windows were generally decorated with colored glass in various shapes depending on the seasonal location of the space.

The old houses had beautiful decorations consisting of stucco, Āina-kāri (small pieces of mirror) and paintings.

An interesting decoration called Simgol was formed using soft clay and sieved straw, which covered the walls, piers, and pillars. white raised stucco was used on the cob plaster in the vault of the verandas, stalactite works, Karbandies, and the bulkhead. The construction of large grottos for use in hot summers is one of the special characteristics of old houses in hot and dry regions. These grottos sometimes include pavilions, clerestory, and numerous symmetrical vaults in various sizes. The tall and interesting windcatchers houses, which were connected to the grottos and the basements, cooled the hot air and ventilated the space through the vestibules” (Farokh Yar, 2011, p. 25).

After studying and analyzing all the functional aspects and the principles informing the physical construction of the samples, the results are presented in this section. As stated in the research title, the purpose of the research is to identify and explain the identity-forming concepts and elements in the introverted houses of Kashan. Research results are presented and evaluated in the concepts (the intellectual principles forming the physical structure) and the elements (physical characteristics) sections.

3.1. Architectural Formation Elements of the Analyzed Houses in Kashan

The architectural elements of houses in Kashan are either natural or physical, each of which has sub-categories as presented in the table below:

Table 2. The Architectural Elements of the Analyzed Homes in Kashan - Natural Elements, Physical Elements

The Architectural Elements of Kashan Houses													
Physical Elements							Natural Elements						
Central Courtyard	Howz-khāneh ⁷	Windcatchers	Mahtābi	The Hall	Veranda	Linking vestibules	Alcove	Hashti	Entrance	Plants	Light	Wind	Water

3.2. Concepts and Principles of the Designed Houses in Kashan

The Concepts and principles affecting the formation of the studied houses in Kashan include: Introversion (i.e., the quality of being inward-looking), centralism, the relationship of architecture with nature, the application of geometric principles in the formation of spaces and visuals, attention to hierarchy and the prioritization of space, space flexibility, proportion

and balance in the relationship of architecture to natural elements, and harmony with the climate of the region. Some characteristics and concepts were determined to be “relative” identity-forming features in the Selected Houses. These characteristics and concepts are as follows. Self-sufficiency (i.e., the use of local materials in the construction of the house) and humanized architecture (i.e., the practice of giving a human character to the construction), transparency, and continuity.

Table 3. The Constituent Concepts and Principles of the Analyzed Houses in Kashan

The State of the Case Study	Principles and Concepts
Absolute	Introversion
Absolute	Attention to Hierarchy and the Prioritization of Space in the Architectural Plan
Relative	Humanized Architecture (i.e., the practice of giving a human character to the construction)
Absolute	the Application of Geometric Principles in the Formation of the Spaces and Visuals
Absolute	Space Flexibility

The State of the Case Study	Principles and Concepts
Relative	Self-sufficiency, i.e., the utilization of local materials in the construction of the building
Absolute	Centrality
Absolute	The Relationship of Architecture with Nature
Relative	Transparency and Continuity
Absolute	Balance in the Relationship of Architecture to Natural Elements, and the Harmony with the Climate of the Region
Absolute	Reflection
Absolute	Mystery and Ambiguity

4. DISCUSSION

Researchers have always referred to and discussed the views of scholars on the identity-forming elements and concepts in Persian architecture. However, few studies have explored identity-forming elements and concepts in the houses of a specific region. Therefore, we discuss the views of scholars and researchers on each identity-forming concept and element in order to evaluate and compare the results obtained by studying the samples. As previously mentioned, this research highlights some of the concepts and principles that have always been emphasized by various scholars. These concepts and principles are introversion - centralism - the relationship of architecture with nature - the application of geometric principles in the formation of visual spaces and images - attention to hierarchy the prioritization of space, space flexibility, proportion and balance in the relationship of architecture to natural elements, and the harmony with the climate of the region.

Some of the concepts and principles highlighted by researchers that had a relative impact on the samples include:

- Humanized architecture (i.e., the practice of giving a human character to the construction), Self-sufficiency, i.e., the utilization of local materials in the construction of the building, transparency, and continuity. Humanized architecture, which is identified by Pirnia as one the principles of Persian architecture in the book "The Stylistics of Iranian Architecture," was determined to be "relatively" effective by this research. Studies of the samples indicate that the form of the construction in the architectural plan conforms to the human form (in terms of the length and width of the spaces), as does the form of the outer physical body. However, what causes this mental concept, which should be manifested in the physical body, to have a "relative" effect, is the imbalance in the interior space and the height of some of the spaces considered as elevated. This impression is clearly present on the verandas, halls, and the alcoves of both samples. The elevation of the spaces of the alcoves is such as to induce the sense of pride and power of the owner rather to mimic the human form.

- Self-sufficiency, i.e., the utilization of local materials in the construction of the building, has always been emphasized by various scholars. Self-sufficiency, which is identified by Pirnia as one the principles of

Persian architecture in the book "The Stylistics of Iranian Architecture," was determined to be "relatively" effective by this research. Most of the buildings in Kashan region have been constructed using materials such as soil and its derivatives from the same region. Due to the use of materials such as wood and glass, which have been transported from other locations to the construction site and have shaped the architecture of the region, this research has determined that the principle of self-sufficiency has a "relative" impact. As a result, it is logical to assess compliance with the principle of self-sufficiency in samples to be relative.


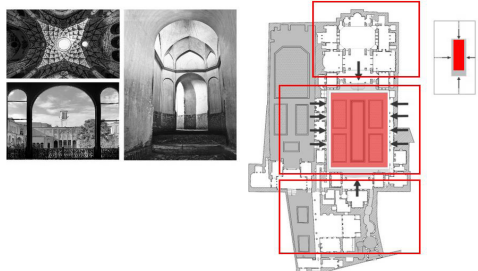
- Transparency and continuity, two other factors influencing the formation of Persian architecture, were determined to be relative identity-forming concepts. As in some spaces, such as the alcove, the hall, and the veranda, the spatial opening in horizontal and vertical lines creates an attractive view. Spaces such as the terrace with the opening of their ceilings allow the residents to watch the starry desert sky above. However, it is not possible to ignore the meandering vestibules or the dark humid kitchens that reduce the transparency of the space. Concerning transparency and continuity, Diba states in a paper entitled "Inspirations and Interpretations of the Fundamental Concepts in Iranian Architecture": "The concept of transparency and continuity is the opposite of the concept of closed space. In a transparent and continuous space, our path or our gaze is continuous in a way that it revives the landscape in the infinite horizon. In the body of Persian architectural monuments, space can never be determined with certainty, and the ambiguity of the complicated combinations of space is intended to enrich a landscape that cannot be interpreted in a finite, complete form. This space carries a message from a phenomenon that has another phenomenon within itself, and the movement towards it is a movement towards another part of space. With its broad universality, the 2 and 3-dimensional geometry of this architecture, settles and defines the perspective and path through the transparency of the landscape and the continuity of forces depending on complex axis in spatial conflict, "(Diba, 1999). In this study, based on field studies and observations of the samples, the effect of the "transparency and continuity" factor was also assessed to be of "relative" quality. As in the studied samples, the connection of the spaces (from the public to the private and vice versa) and movement was obscure

Yaran, A. et al.

and meandrous. As a result, the relationship between the spaces was very obscure and incomprehensible for the person who first entered these houses although the connection of the spaces in a particular section was very clear. For example, the rooms and side spaces formed around the central courtyard had transparency and fluidity.

With regards to describing the characteristics of Persian architecture, it is worth noting that some scholars and researchers have employed keywords that were not perceived in the examples studied in this research.

Such characteristics include avoiding futility identified as one of the principles of Persian architecture by Pirnia (2003) in the book "The Stylistics of Iranian Architecture". Another such factor is the "reflection" that Diba has in a study entitled "Inspiration and understanding of fundamental concepts Iranian Architecture - Architecture and Culture" as a factor A feature in the skepticism of introverted houses is raised he does; While during the present study such a concept Do not touch or understand the samples being evaluated

Architectural Elements	Natural Elements	Water Wind Light Plants		The use of natural elements in the formation of Iranian houses is a hallmark of this type of building.
	Physical Elements	Entrance Hashti Alcove Linking Vestibules Veranda The Hall Mahtābi Wind Catcher Howz-khāneh Central Courtyard		
Identity-Forming Concepts	Introversion Attention to Hierarchy Humanized Architecture		Identity-forming physical elements and concepts in the Boroujerdi House are quite apparent.	
	The Application of Geometric Principles			
	Space Flexibility Self-Sufficiency Centrality The Relationship of Architecture with Nature Transparency and Continuity Consistency with Climate Reflection			
	Mystery and Ambiguity			

1. Mystery and ambiguity, transparency and continuity, the relationship between architecture and nature, as well as the application of the principles of geometry can be observed in the above pictures.

2. The proportions of the dimensions and sizes used in this building reflect considerations of the human form by the architect.


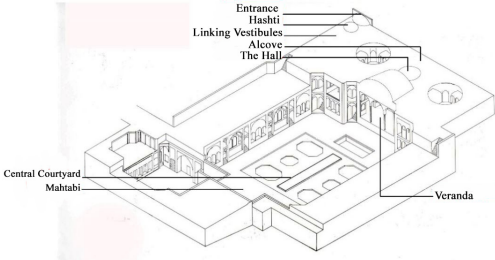
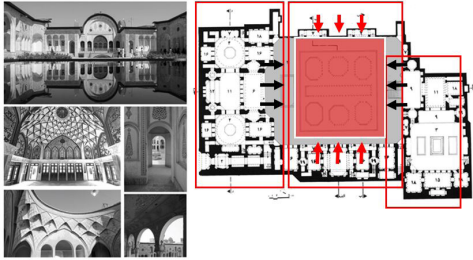
3. The presence of water, plants and soil in this building indicates the adaptation of architecture to regional climate.

4. The linking of adjacent spaces through various doors reveals the architect's attention to the formation of multi-functional spaces, which expresses space flexibility.

Introversion, centrality, and considerations of spatial hierarchy are evident in this plan

1. Mystery and ambiguity, transparency and continuity, the relationship between architecture and nature, as well as the application of the principles of geometry can be observed in the above pictures.
2. The proportions of the dimensions and sizes used in this building reflect considerations of the human form by the architect.
3. The presence of water, plants and soil in this building indicates the adaptation of architecture to regional climate.
4. The linking of adjacent spaces through various doors reveals the architect's attention to the formation of multi-functional spaces, which expresses space flexibility.

Fig. 4. Identity-Forming Elements and Concepts in the Boroujerdi House
(Ganjnameh, 2015)

Architectural Elements	Natural Elements	Water Wind Light Plants		Light Plants Water
	Physical Elements	Entrance Hashti Alcove Linking Vestibules Veranda The Hall Mahtābi Wind catcher Howz-khāneh Central Courtyard		
	Identity-Forming Concepts	Introversion Attention to Hierarchy Humanized Architecture The Application of Geometric Principles Space Flexibility Self-sufficiency Centrality The relationship of architecture with nature Transparency and continuity Consistency with Climate Reflection Mystery and ambiguity		

The use of natural elements in the formation of Iranian houses is a hallmark of this type of building.

1. Mystery and ambiguity, Introversion, centrality, and transparency and continuity, the relationship between architecture and nature, as well as the application of the principles of geometry can be observed in the above pictures.
2. The proportions of the dimensions and sizes used in this building reflect considerations of the human form by the architect.
3. The presence of water, plants and soil in this building indicates the adaptation of architecture to regional climate.
4. The linking of adjacent spaces through various doors reveals the architect's attention to the formation of multi-functional spaces, which expresses space flexibility.

Fig. 5. Identity-Forming Elements and Concepts in the Tabātabāei House
(Ganjnameh, 2015)

5. CONCLUSION

This research aimed to identify and explain the identity-forming elements and concepts in the analyzed homes in Kashan. Accordingly, two historical houses were investigated and the results were divided into identity-forming elements and identity-forming concepts.

The identity-forming elements in the architecture of the analyzed homes were divided into two parts of the natural elements and physical elements. The natural elements are water, wind, light, and plants. Physical elements are linking vestibules, Hashti, room, veranda, central courtyard, alcove, hall, windcatcher, and Howz-khāneh. Concepts and principles affecting the formation of the analyzed homes in Kashan include

introversion (i.e., the quality of being inward-looking), centralism, the relationship of architecture with nature, the application of geometric principles in the formation of spaces and visuals, attention to hierarchy and the prioritization of space, space flexibility, proportion and balance in the relationship of architecture to natural elements, and harmony with the climate of the region. Some characteristics and concepts were determined to be “relative” identity-forming features of two historical houses. These characteristics and concepts are as follows: Self-sufficiency (i.e., the use of local materials in the construction of the house) and humanized architecture (i.e., the practice of giving a human character to the construction), transparency, and continuity.

Table 4. Identity-Forming Elements and Concepts in the Architecture of the Analyzed Homes in Kashan - Natural Elements, Physical Elements, and Concepts

Architectural Elements of the Analyzed Homes in Kashan													
Physical Elements							Natural Elements						
Central Courtyard	Howz- khāneh ⁷	Windcatchers	Mahtābi	The Hall	Veranda	Linking vestibules	Alcove	Hashti	Entrance	Plants	Light	Wind	Water
The State of the Case Study		Principles and Concepts											
Absolute		Introversion											
Absolute		Attention to Hierarchy and the Prioritization of Space in the Architectural Plan											
Relative		Humanized Architecture (i.e., the practice of giving a human character to the construction)											
Absolute		the Application of Geometric Principles in the Formation of the Spaces and Visuals											
Absolute		Space Flexibility											
Relative		Self-sufficiency, i.e., the utilization of local materials in the construction of the building											
Absolute		Centrality											
Absolute		The relationship of Architecture with Nature											
Relative		Transparency and Continuity											
Absolute		Balance in the Relationship of Architecture to Natural Elements, and the Harmony with the Climate of the Region											
Absolute		Reflection											
Absolute		Mystery and Ambiguity											

END NOTE

1. Roofed semi-open space usually closed on Three sides and open on the fourth which appears on the edge of a courtyard.
2. Unroofed area on the upper floor. This area is usually closed on three sides and it overlooks the open area on the third.
3. A recess in the main side of a reception area containing seating, usually reserved for dignitaries.
4. The main vestibule located between the portal and the entrance.
5. In contrast to be biruni-the quarter in a traditional persian house restricted to household members and their intimates.
6. In contrast to the andaruni- the quarter in a traditional Persian house designed to hold social activities and receive visitors and guests.
7. Covered area with a central pool usually elevated and lit through the ceiling.

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