



Global Journal of Scientific Researches

Available online at gjsr.blue-ap.org

©2017 GJSR Journal. Vol. 5(3), pp. 53-69, 30 June, 2017

E-ISSN: 2311-732X

Typology of Components of the Corresponded Physique-Identity Structure in Yazd Historical Context

Farnaz Javadi^{1*} and Hossein Noormohamadza²

- 1- Urbanism, studied urban design at Yazd University, Yazd, Iran
- 2- Urbanism, Associate professor at Yazd University, Yazd, Iran

Corresponding Author: Farnaz Javadi

Received: 23 May, 2017

Accepted: 5 June, 2017

Published: 30 June, 2017

ABSTRACT

As stated by the 'structure theory', components of a phenomenon are related to each other by transformers, around regulators and in adherence to principles, to create the structure of that phenomenon. Therefore identity is a total, comprised of language, art, and thought that are related to each other by transformers, around regulators and in adherence to principles, which create the identity structure. Similarly, the physique structure of the city is the result of the structure of its material, its form and its content; which are related to each other by transformers, around regulators and in adherence to principles. It seems that the physique structure of Yazd¹ historical context has been designed in compliance with some types. This study is about to answer the question: What are the types of components of the corresponded structure of physique-identity in Yazd historical context? And how these types can be identified? Studying this context has been done through studying the samples in three levels. The research has been performed by survey, descriptive and correlative methods. After describing the characters of the structure components and calculating the correlation between them, similarities of the characters are categorized based on two characteristics and represented as types of the corresponded structure of physique-identity in Yazd historical context.

Keywords: *Identity structure, Physique structure, Corresponded, types, Yazd historical context.*

©2017 GJSR Journal All rights reserved.

INTRODUCTION

The manner of the style, order and arrangement of the component's shape of different phenomena, leads to the phenomenon called structure. These components are consisted of division units, connectors, joints, and boundaries. (Noormohamadza, H; Behzadfar, M, 2011) The term structure became an important word in various fields of knowledge by Ferdinand de Saussure (Meghdadi, 2014). Saussure expressed the language structure (Piaget, 2005). After the linguistics, constructivism was introduced into other fields. The most appropriate form of constructivism was appeared in studies and researches of Claude Levi-Strauss in anthropology (Partovi, 1999). Strauss believes that constructivism is an attempt to find the unchangeable element among superficial distinctions (Ahmadi, 2003). Following this process, constructivism, which was emerged in the early 1950s through the discussion between SIAM and TeamX as a method in architecture and urbanism, was corresponded to Strauss's thought. With the development of constructivism in architecture and urbanism, the two other currents of thoughts had won the special position: Brutalism and formalism (Partovi, 1999). Noam Chomsky continued current of thoughts which had been performed by earlier scholars such as Ferdinand de Saussure and Louis Hjelmslev, by his language theory (Lotfi, 2005).

Structure is one of the perceptions that can be trailed in different phenomena. As stated by the 'structure theory', components of a phenomenon are related to each other by transformers, around regulators and in adherence to principles, and create the structure of that phenomenon. (Noormohamadza, H; Behzadfar, M, 2011)

Hence, to model the structure of a phenomenon, four points must be reflected:

- Components, which have the entity-constructing role.
- Transformers, which are actions and behaviors that create the structure.
- Regulators, which are rules that the structure components are arranged around them. Regulators have the regulation role.

- Principles, which are the unchangeable issues that have the forming role. (Ibid)

The Identity is a phenomenon which has structure. By surveying the identity in lower levels and avoiding to roam around this word in surface, identity can be transformed from its theoretical cliché and unreachable concept to an efficient and tangible concept. (Behzadfar, 2008) To reach this, a deductive approach toward identity is necessary. In other words, the identity structure is the subsequent of identity structure in different levels. In order to assemble the identity structure, the ‘structure theory’ was used. Identity is a Total, consisting of language, art, thought, which are connected by transformers, around regulators and in adherence to principles that create identity structure.

The physique of the city is also a phenomenon which has structure. Similarly, to assemble the physique structure, the ‘structure theory’ was used. Based on the structure theory on physique structure, division units are defined as the shape of the intersection of form, material and content. The intersection shape of division units creates connectors. The shape of connectors’ confluence creates joints. The shape of most outer limit of division units forms the boundary. These components are connected by transformers, around regulators and in adherence to principles that create physique structure. (Noormohamad, H; Behzadfar, M, 2011)

This study is aimed to identify the correlated types of components of physique structure of the city and identity structure. Therefore, out of the four points that were counted for the structure of each concept, the study is limited to the identification of the ‘components’ of each concept. Identifying the types of transformers, types of regulators and types of principles could be the subject of future researches.

Yazd historical context has already its explicit identity, but this does not essentially mean that it is its expected identity. This context has been chosen as the case study in this research. Studying this historical context and identifying types that have benefited predecessors is necessary in order to achieve the goal of its desired identity. This study has been performed by survey, descriptive and correlative methods. To collect data, a questionnaire was used. Analyzing data has been done by SPSS 19.

Article Layout

1. Theoretical model of Identity Structure

Identity components from the viewpoint of Dariush Shaygan are thought, language, and art. (Ghezelsofla, M; Maashsani, S, 2010) Thought is a current in which our knowledge is gathered to reach a new result. (Solso, 2002) Language is an ability allocated to the species that due to the natural selection has been evolved in human. (Parsa, 1997) Undoubtedly, language is the major and important foundation of each society’s identity. (Saniejlal, 2005) Art is the expression of any ideal into a visual form by the artist. (Read, 2007) Totality and the major backbone of character of each human, which determines his/her identity, is the environment that he/she recognizes himself/herself by it and introduces to others. (Pakzad, 1996) Rapoport introduces the environment as the result of meaningful communication. In his view, the environment can be seen as a series of relations between objects and objects, objects and human, human and human. (Rapoport, 2005)

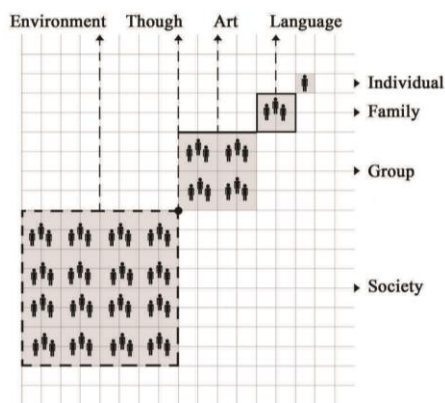


Figure 1. General model of identity structure components in hierarchy

2. Theoretical model of Physique Structure

Physique is formed in material and also form is affected by the content. Therefore, the intersection of form, material, and content, create the physique of a phenomenon. (Authors based on Grutter 1996; Pakzad 2010) Based on the structure theory on physique structure, division units are defined as the shape of the intersection of form, material and content. The intersection shape of division units creates connectors. The shape of connectors’ confluence creates joints. The shape of most outer limit of division units forms the boundary.

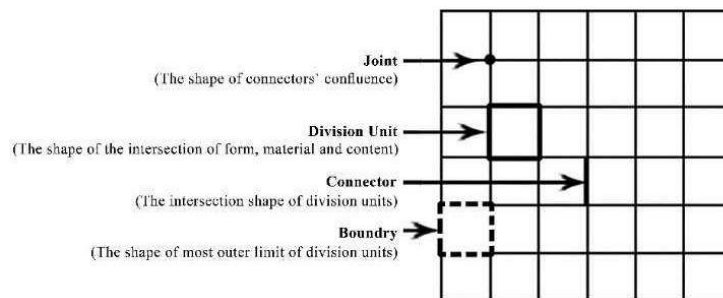


Figure 2. General model of physique structure components (authors based on Noormohamad, H; Behzadfar, M 2011)

3. Correspondence of Identity Structure and Physique structure

Components and constituents of city identity, is similar to the components and constituents of human identity which is considered as the research issue of psychologists and sociologists. City is considered as a specific context for identity studies. (Behzadfar, 2008) This study significantly seeks to identify the corresponded types of components of physique-identity structure. To determine the conceptual framework, correspondence between levels, components, constituents and characters has been established. Then the corresponded characters have been categorized based on two characteristics and the corresponded types of physique-identity structure have been identified and presented.

3.1. Correspondence of the Levels of Identity Structure and Physique Structure

The individual is the generator of society; this means that some individuals create the family, some families create the group and hence, a set of groups create the society. On the other hand, particle is the generator of the city; some particles create block, some blocks create superblock, and a set of superblocks create sectors of a city. Corresponded levels of identity structure and physique structure from lowest to highest is presented in table 1.

Table 1. Corresponded levels of identity structure and physique structure (authors)

Levels of Identity Structure	Levels of Physique structure	Corresponded levels
Individual	Particle*	Individual- Particle
Family	Block	Family- Block
Group	Superblock	Group- Superblock
Society	Sector	Society- Sector

*In this study, the research begins from sector as the highest level and leads to block as the lowest level; because particle seems to be out of the scope of urban design.

3.2. Correspondence of the Components of Identity Structure and Physique Structure

Based on the structure theory, components of identity structure and physique structure are division units, connectors, joints, and boundaries which are proposed in different levels, and were introduced in the identity structure model and physique structure model. In table 2 these corresponded components are presented in four levels.

Table 2. Corresponding components of identity structure and physique structure in hierarchy (authors)

Levels	Components of Identity Structure	Components of Physique structure	Components of Structure
Individual-Particle	Individual's thought	Shape of particle's physique	Division Unit
	Individual's language	Shape of deadlock	Connector
	Individual's art	Shape of entrances, crossing points	Joint
	Individual's environment	Shape of most outer limit of particles' physique	Boundary
Family-Block	Family's thought	Shape of blocks' physique	Division Unit
	Family's language	Shape of alleys	Connector
	Family's art	Shape of intersections, squares and points	Joint
	Home	Shape of most outer limit of blocks' physique	Boundary
Group-Superblock	Group's thought	Shape of superblocks' physique	Division Unit
	Group's language	Shape of secondary passes	Connector
	Group's art	Shape of intersections and points	Joint
	Group's environment	Shape of most outer limit of superblocks' physique	Boundary
Society-Sector	Society's thought	Shape of sectors' physique	Division Unit
	Society's language	Shape of main passes	Connector
	Society's art	Shape of intersections, squares and crossroads	Joint
	Society	Shape of most outer limit of sectors' physique	Boundary

3.3. Correspondence of the Constituents of Identity Structure and Physique Structure

In order to find the intersections of constituents and characters of identity structure with physique structure, in table 3, correspondence of constituents including "individuation", "equipoise", "homogeneity", and "parity", from the identity structure is established by the constituents including "position", "shape", "size" and "elongation", from the physique structure. These constituents have been extracted from several definitions of 'identity' and 'physique' in different sources.

Table 3. Corresponded constituents of identity structure and physique structure (authors)

		Constituents of Identity Structure			
		1. Individuation	2. Equipoise	3. Homogeneity	4. Parity
Constituents of Identity Structure	Shape	Individuation of shape	Equipoise of shape	Homogeneity of shape	Parity of shape
	Elongation	Individuation of elongation	Equipoise of elongation	Homogeneity of elongation	Parity of elongation

3.4. Correspondence of the Characters of Identity Structure and Physique Structure

The quality constituents of identity structure and physique structure were presented in table 3. In order to measure these constituents, each of their characters should be identified. The characters have been extracted from the definition of each constituent.

Table 4. Corresponded characters of identity structure and physique structure (authors)

		Characters of Identity Structure			
		1. Unique and Distinct	2. Balanced	3. Similar	4. Memorable
Characters of Physique Structure	Length	Unique length	Balanced length	Similar length	-
	width	Unique width	Balanced width	Similar width	-
	border	-	Balanced border	Similar border	Memorable border
	direction	-	Distinct direction	Similar direction	-


Based on table 4, in each of the three levels of 'family-block', 'group-superblock' and 'society-sector' the characters to measure are: unique length, unique width, distinct direction, balanced length, balanced width, balanced border, similar length, similar width, similar border, similar direction and memorable border.

Research Method

This study has been conducted by survey, descriptive and correlative methods through both inductive and deductive attitude. To collect data needed for the study a questionnaire was used. Analyzing data has been done by software techniques (SPSS 19). Studying the case (Yazd historical context) has been done by studying the samples in three levels. First the samples have been determined and represented by 'cluster sampling method'. In each level, the components' characters of identity structure and physique structure have been identified and described. Then correlation between characters of identity structure and physique structure has been calculated.

The components' characters of physique structure, as the independent variables, have been measured. The components' characters of identity structure, as dependent variables, have been evaluated by questionnaire. Each variable evaluated in questionnaire, that has ordinal scale, has been ranked in 5 degrees (based on Likert scale) which are presented in table 5.

Table 5. Ranked qualitative characters based on Likert scale



1	2	3	4	5
Absolutely Non-Unique	Rather Non-Unique	Average	Rather Unique	Absolutely Unique
Absolutely Non-Distinct	Rather Non-Distinct	Average	Rather Distinct	Absolutely Distinct
Absolutely Unbalanced	Rather Unbalanced	Average	Rather Balanced	Absolutely Balanced
Absolutely Dissimilar	Rather Dissimilar	Average	Rather Similar	Absolutely Similar
Absolutely Not Memorable	Rather Not Memorable	Average	Rather Memorable	Absolutely Memorable

381 samplesⁱⁱ, as the representative of all people in Yazd historical context, were selected by 'random sampling method'. After filling the questionnaires in and collecting data, studying the correlation between variables (characters of identity structure and physique structure) has been done through categorizing and describing data in SPSS19.

Conclusions have been obtained from the case studies in each level. After the description of the components' characters of structure and calculation of the correlation between them, similarities and differences of the characters have been c and concluded as species, types and patterns. If categorizing is based on one characteristic, species are obtained; if categorizing is based on tow characteristics, types are obtained; if categorizing is based on one or some characteristics and one specification, patterns are obtained; in this study only types were identified. (Species and patterns could be considered in future studies.)

Case Study Introduction (Yazd Historical Context)

Yazd historical context (figure 3) is the precious legacy left from the past which over time has always played an important role in giving identity to urban life. This study aims to identify the types that have benefited predecessors in order to create a preferred identity in physique.

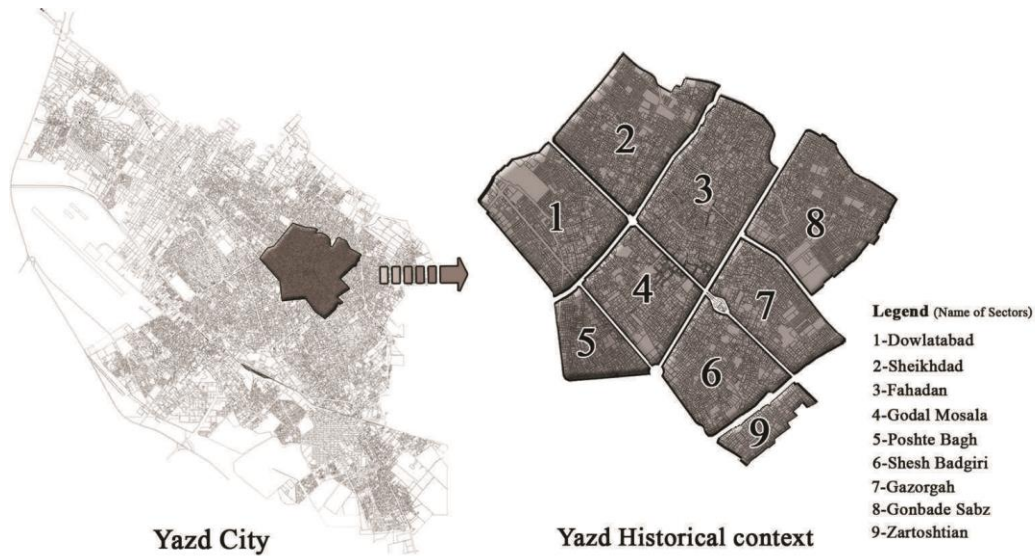


Figure 3. Location of historical context in Yazd

Research on Yazd historical context has been done through samples in three levels: Society-Sector, Group-Superblock and Family-Block. Due to the extent of historical context, researching the whole context in each level was not possible in this study. Therefore in Society-Sector level, due to limited sample size, all of them have been considered; but in Group-Superblock level and Family-Block level, due to numerous samples, some of them were chosen and considered by cluster sampling method.

Findings and Discussions

1. Typology in Society-Sector Level

1.1. Identifying and Describing the Components of Physique-Identity structure in Society-Sector Level

In society-sector level, the identity of society is the language of society, the thought of society and the art of society and their relations in the sectors. In this level, Yazd historical context is consisted of 9 sectors, 12 connectors and 6 joints. The shapes of most outer limit of the sectors are the boundaries of the structure. These components are presented in figure 4.

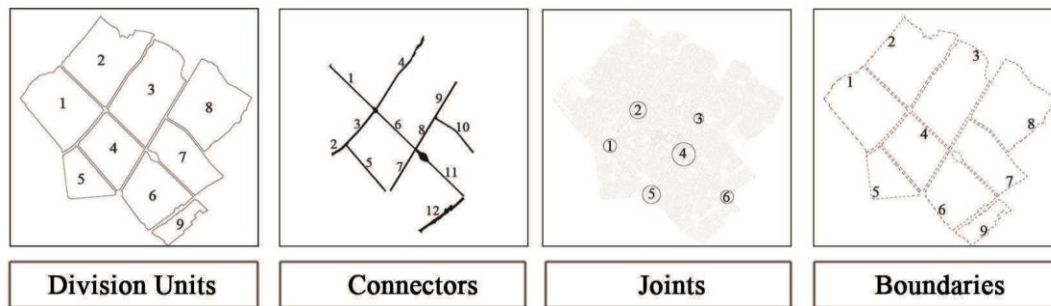


Figure 4. The components of structure in Society-Sector level

In tables 6, 7 and 8, characters of physique structure components have been described and measured, as the independent variables, and the characters of identity structure have been described and measured by questionnaire, as the dependent variables.

Table 6. Described and measured characters of division units and boundaries in Society-Sector level

Characters	Physique structure				Identity structure					
	Length(m)	Width(m)	Border	Direction	Unique	Distinct	Balanced	Similar	Memorable	
Division Units & Boundaries	1	852	1064	Rectangle	Latitudinal	Absolutely Non-Unique	Average	Absolutely Balanced	Average	Average
	2	1007	883	Rectangle	Latitudinal	Absolutely Unique	Absolutely Distinct	Absolutely Balanced	Absolutely Dissimilar	Average
	3	1445	764	Rectangle	Longitudinal	Absolutely Unique	Absolutely Distinct	Rather Unbalanced	Absolutely Similar	Absolutely Memorable
	4	715	812	Square	Latitudinal	Absolutely Non-Unique	Absolutely Non-Distinct	Absolutely Balanced	Absolutely Dissimilar	Absolutely Memorable
	5	542	869	Triangle	Latitudinal	Absolutely Unique	Absolutely Distinct	Average	Rather Dissimilar	Rather Not Memorable
	6	828	916	Square	Latitudinal	Absolutely Non-Unique	Rather Non-Distinct	Absolutely Balanced	Rather Similar	Rather Memorable
	7	818	1164	Rectangle	Latitudinal	Absolutely Non-Unique	Average	Absolutely Balanced	Average	Average
	8	986	967	Square	Latitudinal	Average	Rather Non-Distinct	Absolutely Balanced	Rather Similar	Rather Not Memorable
	9	825	304	Rectangle	Longitudinal	Rather Unique	Absolutely Distinct	Absolutely Unbalanced	Absolutely Dissimilar	Average

To calculate the correlation of the characters, length and width, that have ordinal scale, have been in 4 classes. Border and direction, which due to lack of superiority among classes have nominal scale, have been respectively classified in 3 and 2 classes. Classes of length: [542-768], [768-994], [994-1220] and [1220-1446] Classes of width: [304-519], [519-734], [734-949] and [949-1164]

Table 7. Described and measured characters of connectors in Society-Sector level

Characters	Physique structure				Identity structure					
	Length(m)	Width(m)	Border	Direction	Unique	Distinct	Balanced	Similar	Memorable	
Connectors	1	930	22	Rectangle	Latitudinal	Absolutely Non-Unique	Absolutely Distinct	Absolutely Balanced	Absolutely Similar	Absolutely Not Memorable
	2	235	33	Rectangle	Longitudinal	Absolutely Non-Unique	Absolutely Non-Distinct	Rather Unbalanced	Absolutely Similar	Absolutely Not Memorable
	3	654	27	Rectangle	Longitudinal	Absolutely Non-Unique	Absolutely Non-Distinct	Absolutely Balanced	Absolutely Similar	Absolutely Not Memorable
	4	1326	25	Non-geometric	Longitudinal	Absolutely Unique	Absolutely Distinct	Rather Unbalanced	Absolutely Dissimilar	Absolutely Memorable
	5	927	22	Rectangle	Latitudinal	Absolutely Non-Unique	Absolutely Non-Distinct	Absolutely Balanced	Absolutely Similar	Absolutely Not Memorable
	6	810	22	Rectangle	Latitudinal	Absolutely Non-Unique	Absolutely Non-Distinct	Absolutely Balanced	Absolutely Similar	Absolutely Not Memorable
	7	733	28	Rectangle	Longitudinal	Absolutely Non-Unique	Absolutely Non-Distinct	Absolutely Balanced	Absolutely Similar	Absolutely Not Memorable
	8	548	29	Rectangle	Longitudinal	Absolutely Non-Unique	Absolutely Non-Distinct	Absolutely Balanced	Absolutely Similar	Absolutely Not Memorable
	9	627	27	Rectangle	Longitudinal	Absolutely Non-Unique	Absolutely Non-Distinct	Absolutely Balanced	Absolutely Similar	Absolutely Not Memorable
	10	793	23	Arc	Latitudinal	Absolutely Unique	Absolutely Distinct	Absolutely Balanced	Absolutely Dissimilar	Absolutely Memorable
	11	784	20	Rectangle	Latitudinal	Average	Average	Absolutely Balanced	Average	Average
	12	864	40	Non-geometric	Longitudinal	Average	Average	Absolutely Balanced	Average	Average

To calculate the correlation of length and width, each has been classified in 5 classes. Border and direction have been classified respectively in 3 and 2 classes.

Classes of length: [235-454], [454-673], [673-892], [892-1111] and [1111-1330]

Classes of width: [20-24], [24-28], [28-32], [32-36] and [36-40]

Table 8. Described and measured characters of joints in Society-Sector level

Joints	Characters	Physique structure			Identity structure					
		Length(m)	Width(m)	Border	Direction	Unique	Distinct	Balanced	Similar	Memorable
1	44	56	Rectangle	No direction	Rather Non-Unique	Absolutely Non-Distinct	Absolutely Balanced	Absolutely Similar	Absolutely Not Memorable	
2	61	101	Rectangle	Latitudinal	Rather Non-Unique	Absolutely Non-Distinct	Absolutely Balanced	Absolutely Similar	Rather Not Memorable	
3	54	48	Non-geometric	No direction	Average	Rather Non-Distinct	Rather Balanced	Rather Similar	Rather Memorable	
4	121	223	The Composition of Tow Geometric Shapes	Latitudinal	Absolutely Unique	Absolutely Distinct	Rather Unbalanced	Absolutely Dissimilar	Absolutely Memorable	
5	120	120	Circle	No direction	Rather Unique	Rather Distinct	Absolutely Balanced	Rather Dissimilar	Average	
6	31	65	Non-geometric	Latitudinal	Average	Rather Non-Distinct	Rather Balanced	Rather Similar	Absolutely Not Memorable	

To calculate the correlation of length and width, each has been classified in 4 classes. Border and direction have been classified respectively in 4 and 2 classes.

Classes of length: [31-54], [54-77], [77-100] and [100-123]

Classes of width: [48-92], [92-136], [136-180] and [180-224]

1.2. Calculating the Correlation between the Components' Characters of Physique-Identity Structure in Society-Sector Level

Based on table 4, the correlation between the characters of physique-identity structure, separately for each of the structure components has been calculated and the results are presented in table 9. (Due to overlapping boundaries with division units, correlation table of boundaries is ignored.)

Table 9- Calculating the correlation between the characters of components of physique-identity structure in Society-Sector level

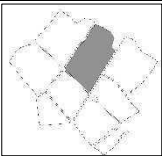
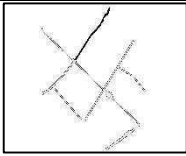
Component/Division Units	The Characters of Identity Structure	The Characters of Physique structure	Value	Direction of the Relationship	Results
	Division Units	Unique	Border	0.518	-
Distinct		Length	0.257	Positive	As the length increases, distinction increases. Division units with a length in the class interval of [1220-1446] meters, are more distinct. So the individuation of identity is more in these division units.
		Width	0.288	Negative	As the width decreases, distinction increases. Division units with a width in the class interval of [304-519] meters, are more distinct. So the individuation of identity is more in these division units.
Balanced		Border	0.827	-	Division units with rectangle border are more distinct. So the individuation of identity is more in these division units.
		Length	0.118	Negative	Division units with a length in the class interval of [542-768] meters, are more balanced. So the equipoise of identity is more in these division units.
Similar		Width	0.446	Positive	Division units with a width in the class interval of [914-1164] meters, are more balanced. So the equipoise of identity is more in these division units.
		Border	0.440	-	Division units with square border are more balanced. So the equipoise of identity is more in these division units.
Memorable		Border	0.807	-	Division units with square border are more similar. So the homogeneity of identity is more in these division units.
			0.406	-	Division units with square border are more memorable. So the parity of identity is more in these division units.

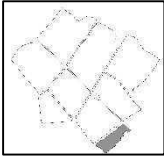
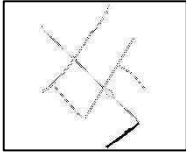
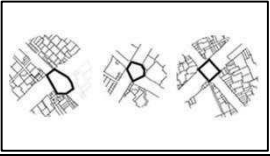
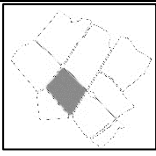
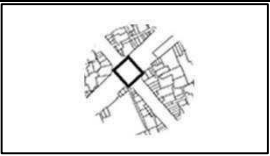
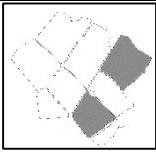
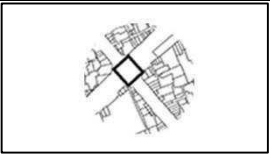
Connectors	Unique	Border	0.875	-	Connectors with geometric border are more unique. So the individuation of identity is more in these connectors.
	Distinct	Length	0.241	Positive	Connectors with a length in the class interval of [1111-1330] meters, are more distinct. So the individuation of identity is more in these connectors.
		Width	0.067	Positive	Connectors with a width in the class interval of [36-40] meters, are more distinct. So the individuation of identity is more in these connectors.
		Border	0.819	-	Connectors with non-geometric border are more distinct. So the individuation of identity is more in these connectors.
	Balanced	Length	0.006	Positive	Connectors with a length in the class interval of [1111-1330] meters, are more balanced. So the equipoise of identity is more in these connectors.
		Border	0.380	-	Connectors with rectangle border are more balanced. So the equipoise of identity is more in these connectors.
	Similar	Border	0.811	-	Connectors with geometric border are more similar. So the homogeneity of identity is more in these connectors.
Memorable	Border	0.845	-	Connectors with arc border are more memorable. So the parity of identity is more in these connectors.	
Joints	Unique	Border	0.698	-	Joints with the composition of a tow-geometric-shape border are more unique. So the individuation of identity is more in these joints.
	Distinct	Border	0.773	-	Joints with the composition of a tow-geometric-shape border are more distinct. So the individuation of identity is more in these joints.
	Balanced	Length	0.039	Negative	Joints with a length in the class interval of [31-54] meters, are more balanced. So the equipoise of identity is more in these joints.
		Width	0.125	Negative	Joints with a width in the class interval of [48-92] meters, are more balanced. So the equipoise of identity is more in these joints.
		Border	0.653	-	Joints with rectangle border are more balanced. So the equipoise of identity is more in these joints.
	Similar	Border	0.756	-	Joints with rectangle border are more similar. So the homogeneity of identity is more in these joints.
	Memorable	Border	0.701	-	Joints with the composition of a tow-geometric-shape border are more memorable. So the parity of identity is more in these joints.

1.3. Correlated Types of Physique-Identity Structure in Society-Sector Level

In table 10, the similarities and differences of the characters of structure components in society-sector level are categorized and concluded as types. Categorization has been done separately for each of the structure components.

Table 10 Types of the structure components in society-sector level

The Characters of Identity Structure	The Characters of Physique structure	Types	Division Unit & Boundary	Connector	Joint
			Distinct	Length & Width	Type 1
Type 2	Division units with a length in the class interval of [1220-1446] meters and with rectangle border	Connectors with a length in the class interval of [1111-1330] meters and with non-geometric border			-
					
Distinct	Length & Border	Type 2			
			Type 3	Division units with a width in the class interval of [304-519] meters and with rectangle border	Connectors with a width in the class interval of [36-40] meters and with non-geometric border
Distinct	Width & Border	Type 3			

					
Balanced	Length & Width	Type 1	Division units with a length in the class interval of [542-768] meters and width in the class interval of [914-1164] meters	-	Joints with a length in the class interval of [31-54] meters and width in the class interval of [48-92] meters 
	Length & Border	Type 2	Division units with a length in the class interval of [542-768] meters and with square border 	-	Joints with a length in the class interval of [31-54] meters and with rectangle border 
	Width & Border	Type 3	Division units with a width in the class interval of [914-1164] meters and with square border 	Connectors with a length in the class interval of [1111-1330] meters and with geometric border	Joints with a width in the class interval of [48-92] meters and with rectangle border 

2. Typology in Group-Superblock Level

2.1. Identifying and Describing the Components of Physique-Identity structure in Group-Superblock Level

In group-superblock level, the identity of group is the language of group, the thought of group and the art of group and their relations in the superblocks. In this level, 9 superblocks, 9 connectors and 9 joints have been chosen by random method. The shapes of most outer limit of the superblocks are the boundaries of the structure. These components are presented in figure 5.

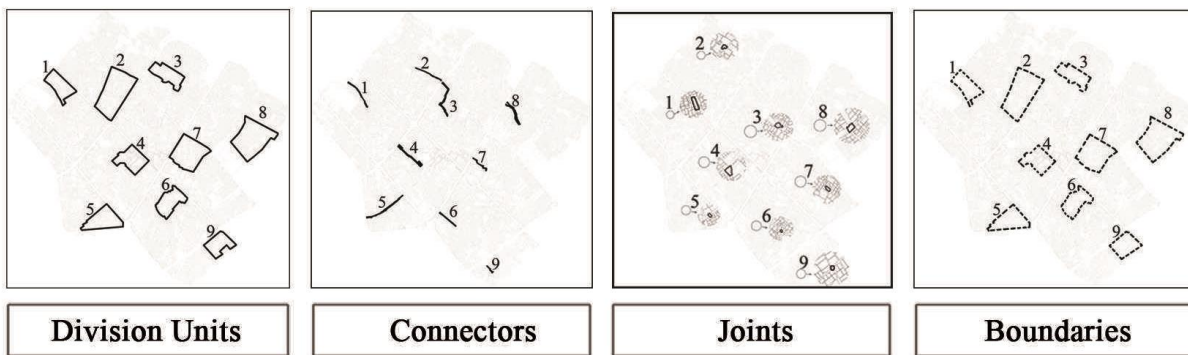


Figure 5. The components of structure in Group-Superblock level

Like the society-sector level, characters of physique structure components and identity structure components, in group-superblock level, have been described and measured. The outcome has been excluded to prevent prolongation.

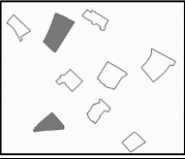

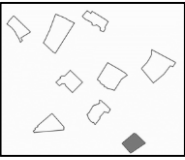

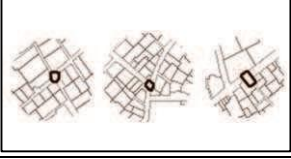
2.2. Calculating the Correlation between the Components' Characters of Physique-Identity Structure in Group-Superblock Level

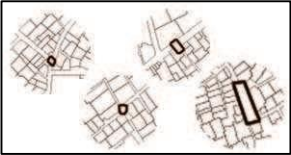
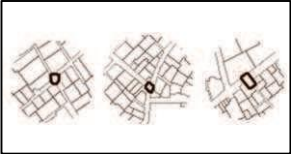
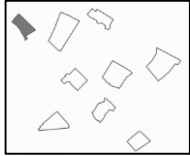
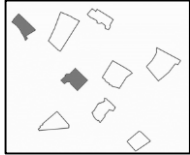

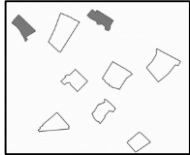
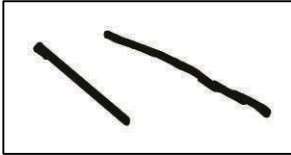

The correlation between the characters of identity structure and the characters of physique structure, separately for each of the structure components has been calculated and the results have been excluded to prevent prolongation.

2.3. Corresponded Types of Physique-Identity Structure in Group-Superblock Level

In table 11, the similarities and differences of the characters of structure components in Group-Superblock level are categorized and concluded as types. Categorization has been done separately for each of the structure components.

Table 11. Types of the structure components in Group-Superblock level

The Characters of Identity Structure	The Characters of Physique structure	Types	Division Unit & Boundary	Connector	Joint
Distinct	Length & Width	Type 1	Division units with a length in the class interval of [506-614] meters and width in the class interval of [203-258] meters	Connectors with a length in the class interval of [111-221] meters and width in the class interval of [17-21] meters	Joints with a length in the class interval of [26.5-32.5] meters and width in the class interval of [36-46] meters
	Length & Border	Type 2	Division units with a length in the class interval of [506-614] meters and with geometric border	Connectors with a length in the class interval of [111-221] meters and with non-straight direction	-
					
	Width & Border	Type 3	Division units with a width in the class interval of [203-258] meters and with geometric border	Connectors with a width in the class interval of [17-21] meters and with non-straight direction	-
					
Balanced	Length & Width	Type 1	-	-	Joints with a length in the class interval of [8.5-14.5] meters and width in the class interval of [6-16] meters
					
	Length & Border	Type 2	-	-	Joints with a length in the class interval of [8.5-14.5] meters and with rectangle border

					
	Width & Border	Type 3	-	-	Joints with a width in the class interval of [6-16] meters and with rectangle border 
Similar	Length & Width	Type 1	Division units with a length in the class interval of [182-290] meters and width in the class interval of [203-258] meters 	Connectors with a length in the class interval of [441-551] meters and width in the class interval of [5-9] meters	-
			Division units with a length in the class interval of [182-290] meters and with non-geometric border 	Connectors with a length in the class interval of [441-551] meters and with straight direction 	-
	Width & Border	Type 3	Division units with a width in the class interval of [368-423] meters and with non-geometric border 	Connectors with a width in the class interval of [5-9] meters and with straight direction 	-
Memorable	Length & Direction	Type 1	-	Connectors with a length in the class interval of [441-551] meters and with non-straight direction 	-

3. Typology in Family-Block Level

3.1. Identifying and Describing the Components of Physique-Identity structure in Family-Block Level

In family-block level, the identity of family is the language of family, the thought of family and the art of family and their relations in the blocks. In this level, 9 blocks, 9 connectors and 9 joints have been chosen by random method. The shapes of most outer limit of the blocks are the boundaries of the structure. These components are presented in figure 6.

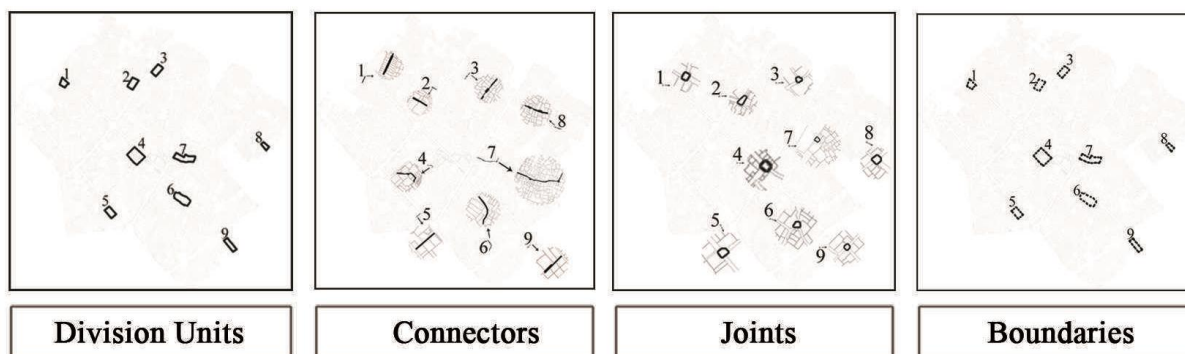


Figure 6. The components of structure in Family-Block level

Like the society-sector level, characters of physique structure components and identity structure components, in family-block level, have been described and measured. . The outcome has been excluded to prevent prolongation.


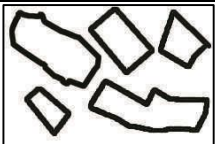
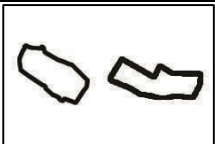


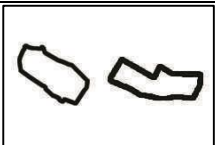
3.2. Calculating the Correlation between the Components' Characters of Physique-Identity Structure in Family-Block Level

The correlation between the characters of identity structure and the characters of physique structure, separately for each of the structure components has been calculated and the results have been excluded to prevent prolongation.

3.3. Corresponded Types of Physique-Identity Structure in Family-Block Level

In table 12, the similarities and differences of the division units' characters of structure in family-block level are categorized and concluded as types. In table 13, the types of connectors and in table 14, the types of joints are introduced.

Table 12. Types of the division units of the structure in Family-Block level

The Characters of Identity Structure	The Characters of Physique structure		
	Length & Width	Length & Direction	Length & Border
	Type 1: Division units with a length in the class interval of [506-614] meters and width in the class interval of [197-238] meters	Type 2: Division units with a length in the class interval of [46-108] meters and with latitudinal direction	Type 3: Division units with a length in the class interval of [46-108] meters and with non-geometric border
			
	Width & Direction	Width & Border	Border & Direction
	Type 4: Division units with a width in the class interval of [197-238] meters and with latitudinal direction	Type 5: Division units with a width in the class interval of [197-238] meters and with non-geometric border	Type 6: Division units with non-geometric border and with latitudinal direction
			
Distinct	Length & Width	Length & Border	Width & Border
	Type 1: Division units with a length in the class interval of [232-294] meters and width in the class interval of [197-238] meters	Type 2: Division units with a length in the class interval of [232-294] meters and with non-geometric border	Type 3: Division units with a width in the class interval of [197-238] meters and with non-geometric border

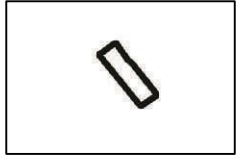
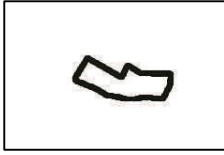
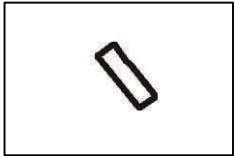
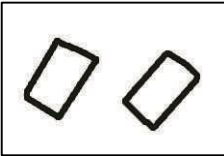
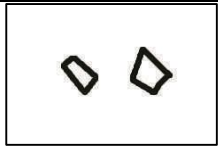
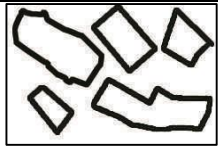
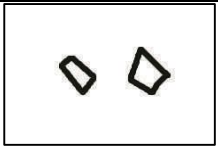
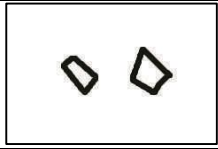
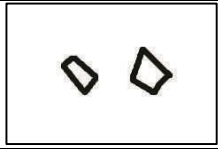
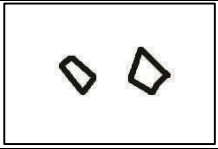
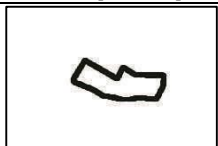
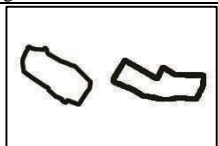
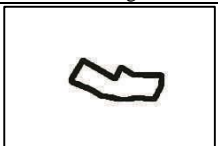
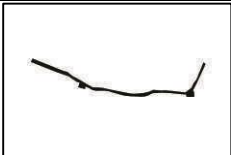
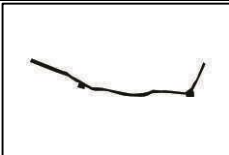
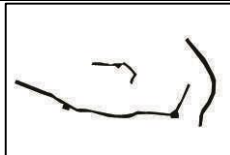


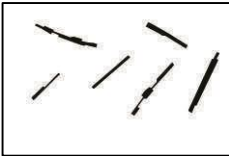

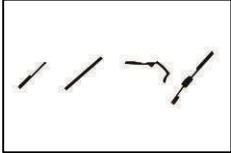

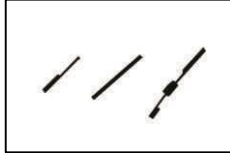
		-	
Balanced	Length & Width	Length & Border	Width & Border
	Type 1: Division units with a length in the class interval of [232-294] meters and width in the class interval of [74-115] meters	Type 2: Division units with a length in the class interval of [232-294] meters and with rectangle border	Type 3: Division units with a width in the class interval of [74-115] meters and with rectangle border
	-		
Similar	Length & Width	Length & Direction	Length & Border
	Type 1: Division units with a length in the class interval of [46-108] meters and width in the class interval of [74-115] meters	Type 2: Division units with a length in the class interval of [232-294] meters and with latitudinal direction	Type 3: Division units with a length in the class interval of [232-294] meters and with semi-rectangular border
			
	Width & Direction	Width & Border	Length & Border
	Type 4: Division units with a width in the class interval of [74-115] meters and with latitudinal direction	Type 5: Division units with a width in the class interval of [74-115] meters and with semi-rectangular border	Type 6: Division units with a length in the class interval of [8.5-14.5] meters and with semi-rectangular border
			
Memorable	Length & Width	Length & Border	Width & Border
	Type 1: Division units with a length in the class interval of [46-108] meters and width in the class interval of [197-238] meters	Type 2: Division units with a length in the class interval of [46-108] meters and width with non-geometric border	Type 3: Division units with a width in the class interval of [197-238] meters And with non-geometric border
			

Table 13. Types of the connectors of the structure in Family-Block level

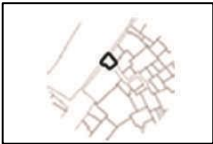
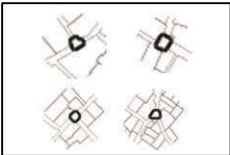

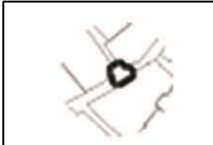
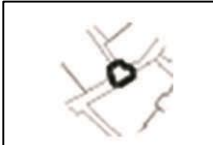
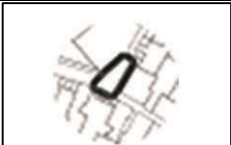
The Characters of Identity Structure	The Characters of Physique structure		
	Length & Width	Length & Direction	Width & Direction
Unique	Type 1: Connectors with a length in the class interval of [258-325] meters and width in the class interval of [3-5] meters	Type 2: Connectors with a length in the class interval of [258-325] meters and with non-straight direction	Type 3: Connectors with a width in the class interval of [3-5] meters and with non-straight direction
			
Distinct	Type 1: Connectors with a length in the class interval of [258-325] meters and width in the class interval of [9-11] meters	Type 2: Connectors with a length in the class interval of [258-325] meters and with straight direction	Type 3: Connectors with a width in the class interval of [9-11] meters and with straight direction
	-	-	
Balanced	Type 1: Connectors with a length in the class interval of [57-124] meters and width in the class interval of [9-11] meters	Type 2: Connectors with a length in the class interval of [57-124] meters and with straight direction	Type 3: Connectors with a width in the class interval of [9-11] meters and with straight direction
			
Similar	Type 1: Connectors with a length in the class interval of [57-124] meters and width in the class interval of [3-5] meters	Type 2: Connectors with a length in the class interval of [57-124] meters and with straight direction	Type 3: Connectors with a width in the class interval of [3-5] meters and with straight direction
			

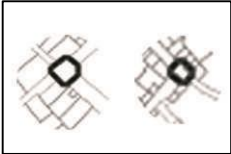
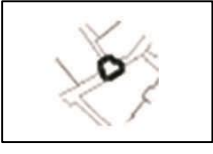
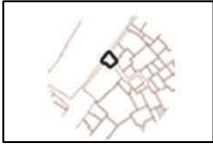


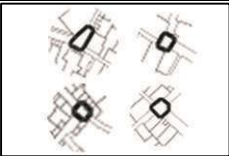

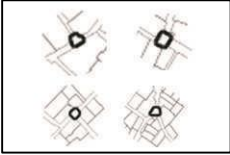
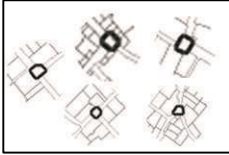
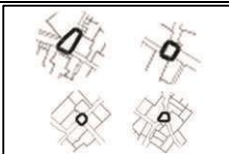
Conclusion

Identity Structure is the resultant of its components' structure (Thought, language and art) which are related to each other by transformers, around regulators and in adherence to principles. Likewise, physique structure of the city is the resultant of its components' structure (Form, material and content) which are related to each other by transformers, around regulators and in adherence to principles. This study specifically followed the components of the structure of each concept.

Corresponded levels, components, constituents and characters of identity structure and physique structure shows that the identity structure has an influence on physique structure of the city. In this research, the correlation between the identity structure components and the physique structure components was calculated. To calculate the correlation, direction (positive or negative) and degree (strength) of relationship between variables (characters of identity structure and physique structure) were described. Then by categorizing the similarities and differences of the characters, based on two characters the types of components of the corresponded structure of physique-identity in Yazd historical context were identified and presented in three levels. Typology was done separately for division units, connectors, joints and boundaries in each level. When redesigning the physique structure of Yazd historical context with the emphasis on identity structure, these types could be practical.

Table 14. Types of the joints of the structure in Family-Block level

The Characters of Identity Structure	The Characters of Physique structure		
	Unique	Length & Width Type 1: Joints with a length in the class interval of [6-10] meters and width in the class interval of [11-13] meters 	Length & Direction Type 2: Joints with a length in the class interval of [6-10] meters and with longitudinal direction 
Distinct	Width & Direction Type 4: Joints with a width in the class interval of [11-13] meters and with longitudinal direction - 	Width & Border Type 5: Joints with a width in the class interval of [11-13] meters and with non-geometric border 	Border & Direction Type 6: Joints with non-geometric border and with longitudinal direction 
	Length & Width Type 1: Joints with a length in the class interval of [18-22] meters and width in the class interval of [5-7] meters 	Length & Direction Type 2: Joints with a length in the class interval of [18-22] meters and with latitudinal direction - 	Length & Border Type 3: Joints with a length in the class interval of [18-22] meters and with non-geometric border -
	Width & Direction Type 4: Joints with a width in the class interval of [5-7] meters and with latitudinal direction 	Width & Border Type 5: Joints with a width in the class interval of [5-7] meters and with non-geometric border 	Border & Direction Type 5: Joints with non-geometric border and with latitudinal direction

			
Balanced	Length & Width Type 1: Joints with a length in the class interval of [18-22] meters and width in the class interval of [5-7] meters	Length & Border Type 2: Joints with a length in the class interval of [18-22] meters and with geometric border	Width & Border Type 3: Joints with a width in the class interval of [5-7] meters and with geometric border
			
Similar	Length & Width Type 1: Joints with a length in the class interval of [6-10] meters and width in the class interval of [11-13] meters	Length & Direction Type 2: Joints with a length in the class interval of [6-10] meters and with longitudinal direction	Length & Border Type 3: Joints with a length in the class interval of [6-10] meters and with geometric border
			
	Width & Direction Type 4: Joints with a width in the class interval of [11-13] meters and with longitudinal direction	Width & Border Type 5: Joints with a width in the class interval of [11-13] meters and with geometric border	Border & Direction Type 6: Joints with geometric border and with longitudinal direction
	-	-	

Notes

ⁱ Yazd is a historical city in the center of Iran. The historical structure of Yazd is a collection of public-religious architecture in a very large scope comprising of different Islamic architectural elements of different periods in a harmonious combination with climatic conditions. (UNESCO)

ⁱⁱ . Cochran's formula was used to determine the sample size. To calculate the sample size, population size was placed in the formula. The population size was 64700, so the sample size was estimated to be 381.

REFERENCES

- Ahmadi, B. (2003). *Structure and Interpretation of the Text*. Tehran: Markaz.
- Behzadfar, M. (2008). *The identity of the City (Looking at the identity of Tehran)*. Tehran: Shahr Publications.
- Ghezelsofla, M; Maashsani, S. (2010). Iranian Cultural in Dariush Shayegan`s Viewpoint. *Journal of Political Science*, 5(4), 137-171.
- Lofii, S. (2005). Introduction to Grammatical Structural Analysis of City Structure. *Beautiful Arts*(22), 15- 24.
- Meghdadi, B. (2014). *Encyclopedia of Literary Criticism from Plato to the Present Day*. Tehran: Cheshmeh.
- Noormohamadzaad, H; Behzadfar, M. (2011). Study of Physical Texture Structure of the Historical City of Yazd. *Architecture and Urbanism Letter*, 3(6), 71- 87.
- Pakzad, J. (1996). Identity and Parity with Space. *Soffeh*, 6(21-22).
- Parsa, M. (1997). *Introduction To Psychology*. Tehran: Besat.
- Partovi, P. (1999). Structuralism in Architecture and Urbanism. *Honarname*, 2(5), 104- 121.

10. Piaget, J. (2005). *Structuralism*. (R. Aliakbarpour, Trans.) Tehran: Library, Museum and Documentation Center of Islamic Parliament.
11. Rapoport, A. (2005). *The Meaning of the Built Environment*. Tehran: Urban Planning and Process.
12. Read, H. (2007). *The Meaning of Art*. (N. Daryabandari, Trans.) Tehran: Scientific and cultural publications.
13. Saniejlal, M. (2005). *Introduction to Iranian Culture and Identity*. Tehran: Institute of National Studies and Iranian Civilization.
14. Solso, R. (2002). *Cognitive Psychology*. (F. Maher, Trans.) Tehran: Roshd.
15. <http://whc.unesco.org/en/tentativelists/5191>.