



# Investigating the relationship between place attachment and sustainable development of urban spaces case study: Shiraz vegetable oil site

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### ABSTRACT

This study has examined the effects of place attachment and its impacts on sustainable development. To perform this, the components of place identity including emotional attachment, place attachment and social bonding which totally constitute the output of place attachment, by means of the standardized questionnaire consisting of 22 questions, measure place attachment in three domains of (cognitive) the place identity, (affective) emotional attachment and (behavioral) place attachment and social bonding. The relationship between the results of independent variable of place attachment on the sustainable development is visible in terms of descriptive and inferential. By eliciting the responses' results of the present situation of the site on the attachment variables' mean it has been shown low attachment, also, it has been observed that attachment rates in women are more than men. However, the result of proposal has shown that the mean of attachment variables represents high attachment, also it has been observed that attachment rates in women are more than men. The above results confirm the relationship between place attachment and sustainable development.

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### Introduction

Vegetable oil site is located in the city of Shiraz, Iran, that due to the oldness and generation of an unpleasant smell of vegetable oil production in urban areas, the need to change in using has been observed, and the new using has been predicted based on tourism space. In the new design by using the sustainable architecture and its influences on the sustainable development in the surrounding area has been investigated and used a questionnaire including environmental, social and economic indicators, and also proposed closely related questions to questionnaire standards of place attachment model. Attachment to place, while deriving from experiences, behaviors, social and emotional organization of individuals, stimulating the behaviors regarding the motivation of individuals and establishes a purposeful behavior. Therefore, individuals with their behaviors and interaction with the space will try to have more care and attention. Attachment to place is based on how humans communicate and interact positively and emotionally with the space and is caused by personal, collective, social and cultural characteristics. Establishing this emotional interaction, causes humans' connection with the space and provides meaning to space and causes more interest in place which can raise growth and sustainable development of the environment.

#### Literature review:

##### Attachment to place:

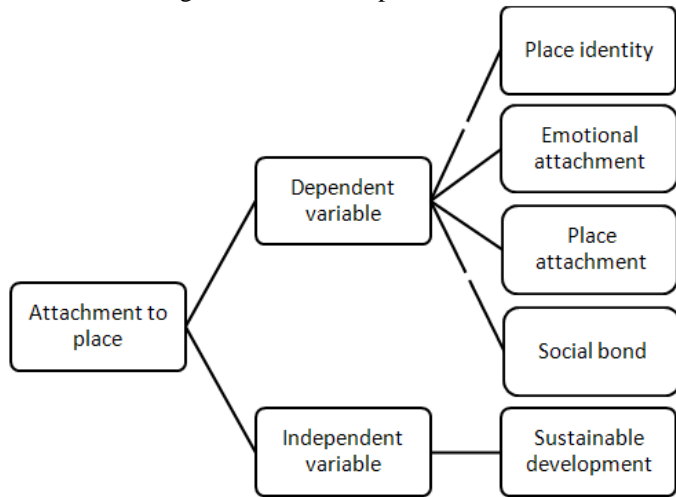
Schultz Nourberg borrowed from Heidegger's ideas about the nature of residency, considers the purpose of architecture as settlement and believes that humans settle when they can adapt themselves with an environment and identify with it. Hence, settlement is more than a safe place and implies that the spaces in which life happens as place in real meaning of the word. (Hale, 2000) Kevin Lynch as cited by Schultz Nourberg believes that humans live when they are capable of making the universe

objective as objects and buildings that will be created by architecture. One of the important roles of architecture is to achieve a sense of place objectively, so that through such a sense, abstract space is converted into a tangible place and obtains its character. (Falahat, 2007, 59) For a sense of place, Shamay determines three main steps of belonging to place, attachment to place and commitment to place in seven levels. These levels of sense of place represent the application of process of the sense of place which includes from a path to a sense of dedication with respect to place as in the following order. (Shamai, 1991) Indifference to the place: this level is not usually considered in the literature of a sense of place, although it can be used in measuring the sense of place. (Falahat, 2007, 63) Awareness of locating in one place: this level happens when a person knows that s/he lives in a distinct place and recognizes the symbols of that place, although there is not any emotions that attaches s/he to places. In this case, the person may know that s/he is located in one place although does not know that is a part of that place. At this level, awareness of the place is not beyond an address or the situation. (Falahat, 2007, 63) Belonging to the place: at this level, a person is not only aware of place's names and symbols but also has a feeling of being with the place and a common destiny. In this case, place's symbols is respected and what happens to the place is also important for the person. (Falahat, 2007, 63) Attachment to place: at this level, the person has complex emotional connection with the place. Place has a meaning for him or her and place is the center of the individuality. Collective experiences and individual identity gives character to the place in combination with the meanings and symbols. In this case, it emphasizes the uniqueness of place and its differences from other places. (Falahat, 2007, 63) Research indicates that attachment to place plays an important role in motivating for the presence and care of public spaces such as urban squares and parks. (Kyle, et al, 2004. Moore & Graefe, 1994:

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Williams, et al, 1995) Attachment to a place, while deriving from experiences, behaviors, social and emotional organization of individuals, stimulating behavioral incentives and also establishes a purposeful behavior. Therefore, a person with behaviors and interactions in space try to have more care and attention. Attachment to place is based on communicating and positive emotional interaction of human with the space and creates by individual, collective, cultural, and social characteristics. (Altman & Low, 1992: 5) Establishing the emotional interaction causes human's connection with the space and provides meaning to space (Rubinstein & Parmelee, 1992: 139) and makes it to be more interesting in place (Bonaiuto, et al, 1999: 332) which can raise sustainable growth and development.



(Standard model of attachment to Place, Safarinaia, Altman, Astdman, Tarant)

**Sustainable development:**

The verb "Sustain" has been used in English since 1920 and taken from the Latin root of "Sub" and "tenere" means to keep or maintain. The idea of sustainable development was formed in the mid-1990s that economic growth and social development must be done in such a way that does not decrease the environmental investments and development needs for the next generation. By the late 1990s it was found that to identify sustainable development better, it is necessary to consider simultaneously issues of economic, social, political and environmental protection. (Cedric, 2004, p 36) Sustainability widely used to describe the world in which natural and human systems together survive until distant future. (De Coster, 2003, 34) In the UN World Conference on Environment and Development (1987) sustainable development is defined as a process that meets current requirements without destroying the ability of future generations, in order to meet their needs. (303-289, 2008, Tosun) "Ray" states that the duty of sustainable development is reducing unemployment, poverty and lack of work. (56, 1993, Ray) A popular definition of sustainable development which is an appropriate point to begin a discussion about this is the definition that provided by the Brundtland Report: Sustainable development is development that will meet the needs of the present generation, such that it does not harm the abilities of future generations to meet their needs. (World Commission on Environment and Development, 1987) This definition contains three key ideas: the development, needs and next generation. According to Blourz, (1993) developments should not be confused with growth. Growth is physical expansion or quantitative economic system, while development is a qualitative concept: this concept is related to cultural, social and economic advancement. The other concept is "need" that is related to various methods of resources division:

"Meeting the basic needs of all and to create the opportunity for those who wish to have a better life and realize their aspirations." (World Commission on Environment and Development, 1987) Okin (1991) describes four characteristics of sustainable development: Looking into the future, the environment, equality and participation. Looking into the future requires minimal maintenance of environmental investment that includes major supportive systems of the planet's environment and also it emphasizes to maintain the traditional and renewable resources such as forests. This is what Brundtland expresses it under this title: "Sustainable development is development that will meet the needs of the present generation, such that it does not harm the abilities of future generations to meet their needs. Other characteristics are related to environmental expenses." (Magtyn, Shirley: 2009, 8-7) According to definition of "Brundtland" three layers of equality, equity and environmental protection were identified. The three components of sustainable development are environment, economy, society. Others including Zax separately added two dimensions of spatial and cultural. Also some like Jyvar (1966), Jalz (1995), Kumar (1993) and others believed in fundamental or political stability in sustainable development. Not attaining any of the dimensions, causes to weaken the stability and avoidance of sustainable development. (Zax, 1375, 10-2)

The current preoccupation of designers of urbanization (Sustainable Development) is to create the vitality of urban identity, urban quality of compact city and urban forms in human-scale, so that in all cases, non-renewable resources are not used. (Magtyn, Shirley, 2007)

**Dimensions of sustainable urban development-economic sustainability:**

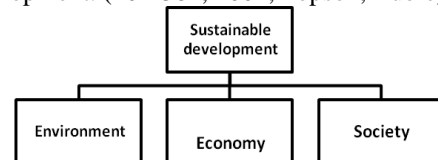
This dimension focuses on maintaining or improving economic conditions. Economic criteria have in separable relationship with the process of formation of economic policy. Economic welfare is based on a combination of economic factors such as employment, unemployment, rent levels, resource rents, equality distribution and survival in the global and local economy. More expertise, more efficient management of resources and the flow of investments will guarantee this dimension. (Zax, 1374, 5-9)

**Dimensions of sustainable urban development-environmental sustainability (ecological):**

Ecological sustainability means conservation of basic resources (and related types) at levels that it does not foreclose future options, and maintain or improve the capacity, quality and ecosystem flexibility. This dimension of stability reinforces by reducing consumption of resources and energy, reducing the amount of residues, pollutions and recycling them and finding the right technologies. (511-491, 2001, Edward & Jepson)

**Dimensions of sustainable urban development-social sustainability:**

Reducing social tensions, method of organization of social adaptation, equality with disabilities, women and ethnic groups, ethnic-religious, human rights, education, environmental awareness, health and shelter for all, expanding the role of family and society, political rights, participation and expanding the social values are fundamental axes of sustainable urban development. (404-381, 2001, Popson, Ruble)



Balance trihedral model in sustainable development. (Magtyn, Shirley, 2007)

**Vegetable oil site:**

The project is located in Iran, Shiraz, fifth region, on a land area of 13,172 square meters at the intersection of Chehel-magham avenue and Golestan street, (Adabiy at intersection) and Shiraz Narges avenue which is located in dry and hot climate and within the compressed urban place.



(Current situation of vegetable oil site)

Urban open space has long been the anatomical context of people's social interactions. Shiraz is the third largest metropolitan in Iran. The willingness of citizens to participate in gathering is necessary, so due to the lack of such a space in the metropolitan area of the site, designing the site has been done based on recreational use. Attempts have been made in designing the transparent urban body to create a stretch inside. The use of green space and fountain inside to create a comfortable climate by using renewable natural energy (sustainability) has been performed.



(Vegetable oil site proposal- Reference: Author)

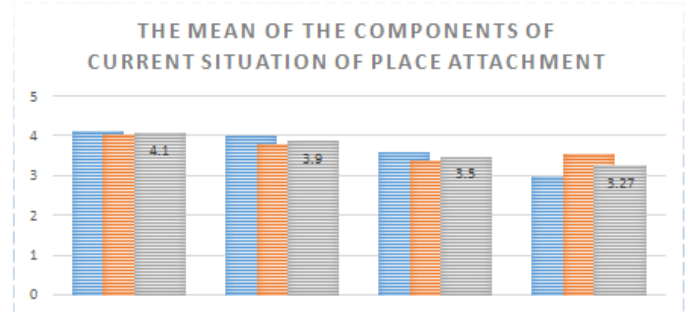
**Research findings:**

Research method has been conducted by the standard questionnaire of place attachment in two stages: First, assessment of the present situation, second, measuring residents' viewpoint about the proposed designer. The statistics of questionnaire have been collected from 20 females and 20 male. Response rates were analyzed through Excel software. The average age of participants has been between 25 and 60 years. The questionnaire consisted of a total of 22 questions: 4 questions about place identity, 10 about emotional

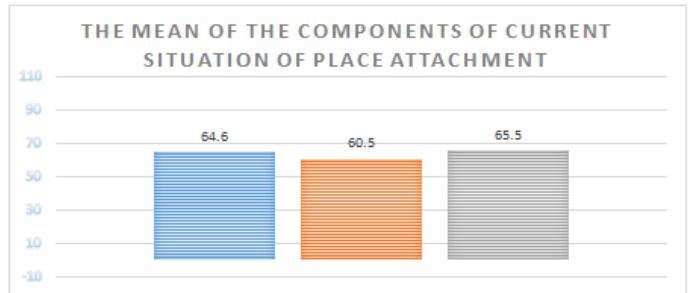
attachment, 4 about dependence on place, and 4 about social bond. The results obtained from questionnaire shows high level of attachment to place in designing based on the sustainable development.

**The results of questionnaire:**

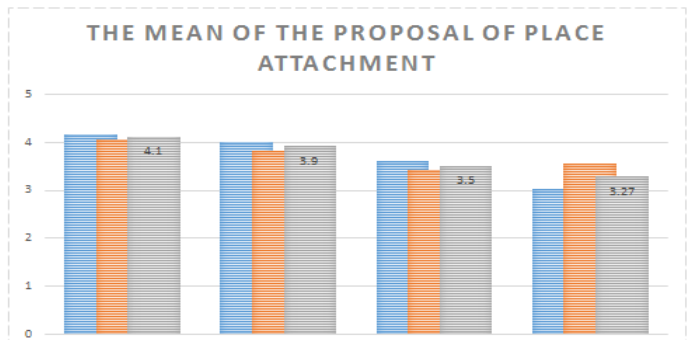
- The obtained results is the current status of architecture and urbanism of vegetable oil site.
- Results of the present situation of site shows low level of the place attachment, also, attachment rates in women are more than men.



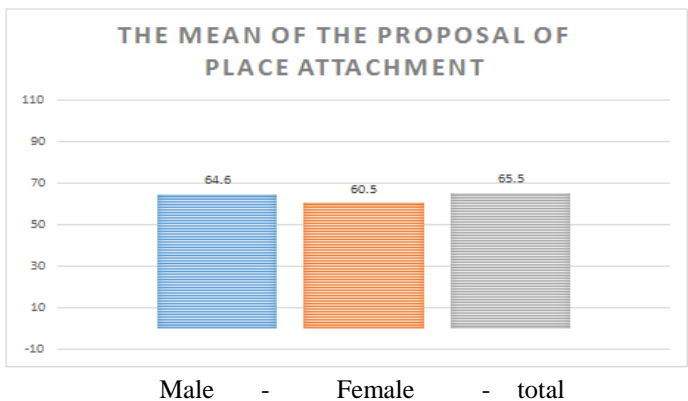
Place identity - Emotional attachment - Place attachment - Social band



- The results obtained by the new proposed designer of the architecture and urbanism areas follows:
- The results of the new designing of site show high level of the place attachment, also, attachment rates in women are more than men.



Place identity - Emotional attachment - Place attachment - Social band



### Conclusions

The relationship between the results of independent variable of place attachment and the sustainable development have been analysed through descriptive and inferential statistics. By eliciting there sponses of the present situation of thesite, it has been observed lowlevel of the placeattachment,also, attachmentratesin womenare more than men. Howevertheresult ofnew site proposal shows high level of theplace attachment, also, attachmentrates in womenare more than men.The above mentioned results are evidence of therelationship between place attachment and sustainable development. And if designing is to be implemented withthe architectural principles ofsustainable developmentinthe oldurban contexts, The amount of residents' place attachment will be increased.

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