Evaluation of Satisfaction with Post-War Reconstruction in light of the Sense of Belonging in the Survivors, A Case Study: Rafi, Khuzestan province

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Abstract

Evaluating and documenting post-war reconstruction (one of the most complex types of reconstruction processes) is a good way to learn from possible future accidents. The 8-year war between Iran and Iraq ruined the city of Rafi completely. The process of reconstruction began after the liberation with a different approach to other experiences (emphasis on the promotion of the role of survivors and attention to their needs and wants). The aim of this study was to evaluate the success rate of Rafi reconstruction from the perspective of creating a sense of belonging in residents, as one of the most important determinants of residential satisfaction. The research approach is quantitative and qualitative. The three main hypotheses of the research are based on the effect of satisfaction and sense of belonging in post-war reconstruction on the revival of social and economic traditions, as well as rebuilding in-situ and land ownership preservation. Samples of the study have been collected in a random-cluster method, and the necessary data for testing the research hypotheses was collected through questionnaires, field studies, and interviews. The research hypothesis was then tested using a dependent t-test. The average obtained for the process of reconstruction and creating a sense of belonging through the revival of social and economic traditions of the people (Hypothesis 1) 2.43 out of 5; creating a sense of belonging to the place of residence by in-situ building and maintaining land ownership (Hypothesis 2) 3.45 out of 5; and the degree of desirability of this process for people (Hypothesis 3) is 2.87 out of 5 on the Likert scale. As a result, the first and third hypotheses are rejected and the second one is accepted. At the end, according to the unique features of the high reconstruction process, a set of tips and suggestions for application in future experiences is presented by prioritizing research indicators.

Keyword: Rafi, Satisfaction, Sense of Belonging, Post-War Reconstruction, Iran-Iraq War.

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Introduction

With the occurrence of high-intensity disasters, the history of humanity is increasingly moving towards a competition between learning and disasters (Buri, 2008). One of the most important methods of learning is the evaluation and documentation of events (Fallahi, 2011). Using the experiences and evaluation of post-war reconstruction in Khuzestan province can provide useful lessons for future projects to eliminate past shortcomings and strengthen its positive points. The scope of the present study is limited to the success rate of reconstruction (satisfaction[1] of survivors) in consideration of the sense of belonging[2], sense of place[3], place attachment[4] and the resulting satisfaction in Khuzestan province, especially Rafi city.

We know that wars cause widespread destruction to the objective perspective of people, while the subjective perspective continues in line with what existed before war (Jalali, 2017). During the imposed war, sixteen cities and four hundred and thirty-five villages of Khuzestan province were damaged and five cities of Khorramshahr, Susangard, Bostan, Hoveyzeh and Rafi were completely occupied. According to the UN report, the amount of destruction in the different cities of the province was as follows: Abadan 60%, Khorramshahr 88%, Dasht-e Azadegan 73% and the cities of Hoveyzeh and Rafi 100%.

Statement of Problem

Inspired by the post-World War II reconstruction experiences in France, three methods were used in the reconstruction of war-torn cities in Khuzestan province: historical reconstruction, regeneration, and logical renovation, which are summarized as follows (Coup Anatole, 1987):

A. Historical reconstruction: The reconstruction of the cities of Susangard and Abadan are examples of such reconstruction. The aim was to reconstruct the cities without change, so that the former public image of the cities is preserved as much as possible.

B. Regeneration (modernization): The city of Hoveyzeh in the Azadegan plain of Khuzestan province is the best example of renewal operations. Due to the lack of attention to the needs, wants and culture of the people, the modernization has caused dissatisfaction of residents and caused many changes by the people in the renovated houses (Matouf, 1988; 183).

C. The loss of the sense of place is one of the most important consequences of crisis destruction (Lak & Gholampour, 2015). Promoting the collective identity of the residents by creating a sense of belonging is one of the best opportunities for a reconstruction project. Therefore, a reconstruction program should pay more attention to restoring and creating a sense of place attachment rather than the mere reconstruction of houses (Jalali, 2017).

D. Rational modernization: After the war and in the third stage of reconstruction, the city of Rafi was rebuilt in a manner called ‘rational modernization’ by experts. Rational modernization refers to a reconstruction program that make no major changes in the city. The new plan, without exaggeration, takes into account the old construction of the city and the new needs. The logical modernization of Rafi is a compromise between the old and the new, in which the past is often superior. In this sense, changes are made in the most cautious and mildest way possible.

One of the distinguishing features of post-war reconstruction is the severity of forced migration. In fact, war refugees are more reluctant to return home than the immigrants of other disasters. This resistance is directly related to the duration of war and its damages. For example, the prolongation of the war causes many temporary immigrants to settle permanently in new areas (Arthur, 1985).

Research Questions

How much attention has been paid to the preservation and revival of social and economic traditions in the process of Rafi reconstruction?

To what extent the residents of this city are satisfied with the in-situ building and preservation of land ownership?

To what extent the residents of this city are satisfied with the post-war reconstruction process (based on the above two factors from the set of factors of sense of belonging)?

Research Objectives

The main purpose of this research is to evaluate the success rate of Rafi city reconstruction (survivors' satisfaction rate) through the concept of sense of belonging and to list its strengths and weaknesses in three hypotheses. The following can also be mentioned as micro-objectives:

- Investigating the extent of revival of people's social and economic traditions as an influential factor on the sense of belonging
- Investigating the protection of land ownership and its effect on people's sense of belonging to the living environment
- Evaluating the people's satisfaction with the process of reconstructing residence in Rafi city

Research Hypotheses

Reconstruction has revived the social and economic traditions and affected the sense of place attachment in people.

In-situ building and maintaining land ownership has affected people's sense of belonging.

People's satisfaction with the reconstruction is desirable (the reconstruction process has been successful).

Discussion and Findings

For a sense of place, Shamai defines three main stages including belonging to a place, attachment to a place, and commitment to a place with seven levels. These levels show the application of the process of sense of place, encompassing a range of feelings from indifference to a sense of sacrifice (Falahat, 2006).

Place attachment has two types of factors: perceptual and physical factors. In perceptual factors, the relationship between man and place is interactive, that is, humans give positive or negative things to the environment and then take from it. In other words, the activities of people affect the quality of the environment impact. According to Fritz Steele, the most important physical factors influencing the perception and sense of place are place size, degree of confinement, contrast, scale, proportion, human scale, distance, texture, color, smell, sound, and visual diversity. He also considers characteristics such as identity, history, imagination and illusion, mystery, pleasure, surprise, security, vitality, passion and memory to establish a centralized relationship with place. According to Schultz, places that have distinguished and specific features can sharpen the sense of place in its residents (Nurberg Schultz, 2015 and Falahat, 2006).

According to Lynch, the feeling of place is a communication and unifying factor between man and place, and space has a perceptible, recognizable and memorable identity and creates a sense of place and belonging (Lynch, 1997).

Therefore, the physical characteristics of the environment or the creation of meanings and activities are effective in creating a sense of place. Activities are created by the static elements of the environment (dimensions, proportions and forms). satisfaction from the changing characteristics of the environment (such as temperature, sound and location), individual activities and social interactions.

The duration of stay and the sense of ownership have direct relationship with the sense of belonging. Therefore, due to the possibility of new reforms and changes, land ownership is one of the important issues of reconstruction that must be resolved in a favorable manner.

Row	Levels of Sense of Place	Application of place attachment process
1	Indifference	Lowest level of evaluating the sense of individuals
2	Knowledge of being located in a place	Recognizing symbols
3	Belonging to a place	Sense of being and having the same destiny
4	Attachment to a place	Complicated emotional relationship
5	Identifying with the goals of the place	Integration and connection with the needs of the place
6	Involvement in a place	The active role of the individual in society due to location
7	Sacrifice for a place	The deepest commitment of the individual

T1. Levels of the sense of place according to Shamai (Falahat, 2006)

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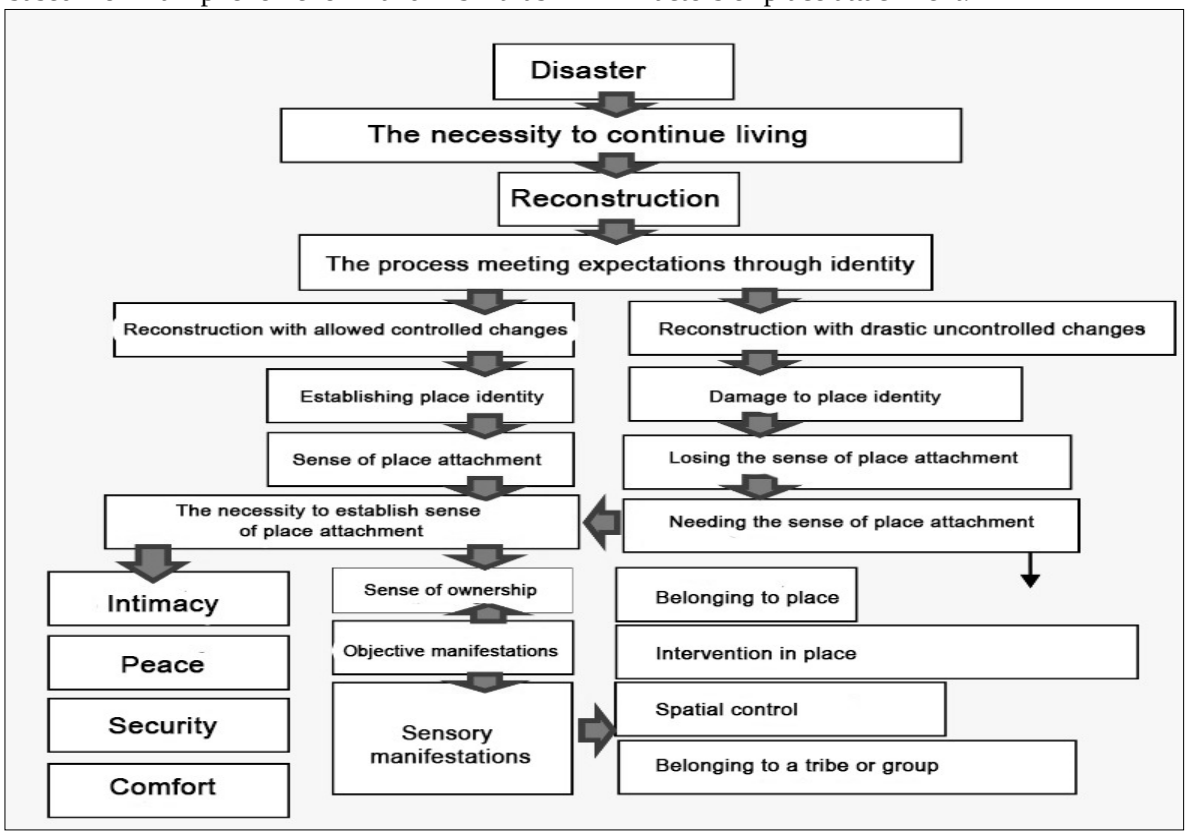
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Theoretical Framework and Research Method

Sense of belonging is considered by experts as the essence of identity. In fact, identity ultimately ends in belonging, and belonging ends in land, culture, customs, language, ethnicity, and sense of place. Moreover, identity is not the characteristics of a phenomenon but is the result of an agreement between the individual and the phenomenon. Therefore, identity is not based on a phenomenon and is thus dynamic.

In order to maintain the identity of war-torn people, in particular people of Rafi, the process of reconstruction needs to be redesigned with controlled changes. Moreover, people of Rafi have a keen sense of ownership, and it seems that paying attention to this sense may intensify the sense of both physical and social belonging.

The chart below shows the relationship between post-war reconstruction and the factors of place attachment.



Ch1. Relationship between reconstruction and sense of belonging

Figure 1 justifies the need to maintain and sustain post-traumatic life and accelerate the process of reconstruction. This is where the need for an identity reconstruction finds meaning that is accepted by the people and meets their expectations. Reconstruction with drastic changes leads to the possibility of crisis and distortion of spatial identity and sense of spatial belonging. These changes cause the loss of physical and semantic features so that they can no longer be recognized.

The important point is that the sense of place and belonging is related to the status of ownership and residence history. Therefore, the focus of the research is on the consideration of objective and sensory manifestations of ownership in the reconstruction process of Rafi. Table 2 shows the indicators of examining the research hypotheses. In this table, a variable on Likert scale is allocated to each indicator. scale is

allocated to each indicator.

The present study has a mixed approach (quantitative and qualitative) with an applied purpose, and the method of research is descriptive. If validity is considered as the ability to collect and analyze data and eliminate all disruptive factors during the process (Barati, 2012), the required data is collected through desk and field study, and the target community is the population of Rafi city (all citizens and residents with a population of 3832 people in 632 households) that is located in the Azadegan plain of Khuzestan. Moreover, during the research, a cluster random sampling was conducted in four stages as follows: in the first stage, the city was divided into several areas and in the next stage, each area was classified into several neighborhoods. In the third stage, a number of households were randomly selected from each area. Finally, 100 households were interviewed. Quantitative data were analyzed by statistical methods with the help of SPSS software, and the results were analyzed along with qualitative data such as interviews with officials and experts in the field of reconstruction, photos and videos, maps and sketches. At this stage, in order to test the reliability of the research, a dependent t-test was conducted. This method is one of the methods of statistical analysis (Barati, 2012).

Row	Hypothesis	Indicators
1	Preservation and revival of social and economic traditions of the people and its effect on the sense of belonging	1- Comparing the average number of household members before and after the war 2- Comparing the desirability of subsistence before and after the war 3- The desirability of post-war living conditions and facilities 4- The possibility of housing survivors during the war 5- The first priority to start the reconstruction from the residents' point of view 6- Cash assistance in the reconstruction process 7- The amount of loans paid in the reconstruction process
2	Establishing and maintaining land ownership and its effect on people's sense of belonging	1- The compliance of the reconstructed place with the wishes of survivors 2- Satisfaction with the current location of the house 3- Satisfaction with maintaining pre-war neighborly relations in reconstruction 4- The compliance of the amount of relocation with the preference of survivors
3	The level of people's satisfaction with the reconstruction	1- Improving public services such as schools 2- The general satisfaction of the survivors from the reconstruction of their house 3- The general satisfaction of the survivors from the reconstruction of their city

T2. Hypotheses, indicators, and the manner of designing a layout for answers to the question related to each of them

A Review of Khuzestan Reconstruction Activities (War Reconstruction and Renovation Headquarters, 1991)

The beginning of reconstruction activities dates back to 1981, which has witnessed changes in policies and methods in all dimensions over the past years. The history of reconstruction can be examined in three stages: from the beginning to the year 1982, from the year 1982 to 1988 and from 1988 onwards.

The first stage, from the beginning to the middle of 1982: In this stage, the damaged urban areas, especially large industrial units, were rebuilt in various ways without any special management and in accordance with sectoral policies.

The second stage from 1982 to 1988: With the victory of the Operation Beit-ol-Moqaddas and the liberation of Khorramshahr on June 23, 1982, the issue of reconstruction was widely raised in the country. As a result, reconstruction headquarters in the war-torn provinces and certain headquarters in other provinces (such as Astan Quds Razavi) were established (Mazhari, 1993). At this stage, it was important to remove the effects of the destruction, while the effects of the war are a major opportunity to create tourist attractions (Mirisaee & Ahmad, 2018).

All in all, in this phase, reconstruction

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process was completed hastily with many economic, social, and cultural implications. A clear example of this is the reconstruction of the city of Hoveyzeh in 1982, which led to the dissatisfaction of people and caused them to make many alterations. The adverse effects of this reconstruction are further evident in the dissatisfaction of local officials, the strong objection of experts, and the inefficiency of the city (Matouf, 1988 and 1986).

The third stage from 1988 onwards: In the second half of 1988, the cleaning operations of Abadan and Khorramshahr began. The end of 1989 and the beginning of 1990 were, in fact, a new chapter in the reconstruction program. In 1989, by dividing the reconstruction tasks between all organizations and forces involved in the reconstruction, and by collecting information and filing documents on the condition of different places, the necessary framework was shaped for the program, and it began. (SM, MA, & A. 2015).

At the end of 1997, the government announced the end of the reconstruction, and the reconstruction headquarters were disbanded. The task of following up the remaining matters has been assigned to the Reconstruction Follow-up Group, and this group continued to operate until the end of 2007.

Analysis of information

In the initial data analysis, the following results were analyzed based on 100 supplementary questionnaires. In this study, in addition to the individual characteristics of residents, their views on the questions of the questionnaire have been examined using descriptive statistics by hypotheses.

Hypothesis 1

A summary of the answers to the questions in this hypothesis is given in the table below.

Question No.	Question	Prewar	Postwar
1	Household members	20-1	17-1
2	Desirability of subsistence	84	16
3	Living facilities	78	22
4	Residence during war	Azadegan Plain	Azadegan Plain
		5	95
5	Priority	Agriculture	House
		52%	5%
6	Cash contribution	Insufficient	Insufficient
		95	5
7	Loans	98	2

T3. Questions that determine the status of the first hypothesis

Hypothesis2

The summary of the answers obtained from the questions of this hypothesis is as follows.

Hypothesis3

The summary of the answers obtained from the questions of this hypothesis is as follows.

Inferential analysis of research hypotheses

One-sample t-test was used to test the research hypotheses. In this test, the cut point is 3. This means that if the satisfaction in the axes is higher than 3, the process of reconstruction is desirable. However, calculations performed at the 5% alpha level showed that the first and the second hypotheses are not acceptable with a mean below 3, and the only hypothesis that is acceptable is hypothesis two with a mean of 3.45. Thus, people do not seem to be satisfied with the policies of reviving traditions. Tables 6 and 7 shows the mean and mean difference for the hypotheses.

Question No.	Question	Satisfied/Suitable	Dissatisfied/Unsuitable
8	Relocation	71%	29%
9	Location of the city	85%	15%
10	Location of the house	79%	21%
11	Location of neighboring units	82%	18%

T4. Questions that determine the status of the second hypothesis

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Question No.	Question	Satisfied/Suitable	Dissatisfied/Unsuitable
12	Satisfaction with house reconstruction	82%	18%
13	Satisfaction with city reconstruction	85%	15%

T5. Questions that determine the status of the third hypothesis

Hypothesis	Qty.	Mean	Standard deviation	Std. Error
Reviving the social and economic traditions of the people and its effect on the sense of place attachment	100	2.43	0.370	0.34
Establishing and maintaining land ownership and its effect on people's sense of belonging	100	3.45	0.384	0.30
The level of people's satisfaction	100	2.78	0.473	0.47
Overall satisfaction with all policies	100	2.78	0.202	0.20

T6. Mean and standard deviation of items in relation to hypotheses

One-Sample t-test						
Hypothesis	Test value = cut point 3					
	t	df	Sig. (-2 tailed)	Mean difference	Lower	Upper
Reviving the social and economic traditions of the people and its effect on the sense of place attachment	15.15	99	0.0	-0.561	-0.6352	-0.4881
Establishing and maintaining land ownership and its effect on people's sense of belonging	11.81	99	0.0	0.455	0.3786	0.5314
The level of people's satisfaction	-4.65	99	0.0	-0.220	-0.3139	-0.1261
Overall satisfaction with all policies	-10.41	99	0.0	-0.210	-0.2506	-0.1704

T7. Mean difference for each hypothesis

Independent variable	Dependent variable	Type of test	Mean	Standard deviation	Std. Error Mean
Revival of social and economic traditions	Improving sense of belonging in people	T-test	2.43	0.37	0.34
In-situ building and maintaining land ownership	Improving sense of belonging	T-test	3.45	0.384	0.3
Policies of reconstruction programs	People’s satisfaction	T-test	2.78	0.202	0.2

T8. Mean difference for each of the hypotheses

Summary of the Study in Hypotheses

The present study has been conducted with the general purpose of evaluating the success rate of Rafi reconstruction (survivors' satisfaction) by examining the extent of creating a sense of belonging and expressing its strengths and weaknesses by testing three research hypotheses. The analysis of the data in accordance with the main hypotheses of the research is as follows:

Reconstruction has revived social and economic traditions and affected the sense of place in people.

A dependent t-test was conducted to examine the accuracy of this hypothesis. The obtained results in 5% alpha are t 15 and sig 15. This indicates the significance of the relationship between the two variables.

In relation to the above component, in questions 1-7, the residents' views on answering the questions are as follows:

In question 1, post-war households have 1 to 17 members, while this number reached 20 members before the war. This indicates that the households are getting smaller.

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In question 2, 84% of the respondents consider their financial and income to be worse than before, and only 15% consider this situation to be better. Comparing the livelihood composition of pre-war and post-war households, there is no significant change in the job composition of Rafi residents. As a result, the reconstruction has not been able to take advantage of the opportunities created to improve this situation.

In question 3, 78% stated that their agricultural and livestock conditions and facilities are worse than before, 4% stated that there is no difference and only 18% consider the conditions better than before the war. This indicates the inattention of reconstruction planners to the livelihood of people, which is the first and foremost priority of reconstruction from the viewpoint of Rafi people.

In response to question 4, regarding the temporary residence of people during the war, 95% stated that they had lived in other cities of Khuzestan. Prolonged migration time has increased the impact of host communities and reduced the dependence of residents on their environment.

In question 5, in relation to the reconstruction priorities of Rafi city, 52% of the respondents consider the reconstruction of agricultural lands as the top priority of reconstruction program. This clearly shows the difference between the views of the people and the officials in this regard.

In response to questions 6 and 7, 95% of the respondents considered the amount of government grants to be small and insignificant and 98% considered bank loans to be low. Insufficient government grants are one of the most important reasons for the dissatisfaction of people.

Because no reconstruction work is being done to boost agriculture and animal husbandry (buffalo breeding) and the use of wetlands (fishing, birds hunting and using straw to produce mats), residents have often stated that their livelihoods are worse than before the war. Restriction of the residents to enter the wetlands (due to the restrictions of border and military zone) have worsened the livelihoods of a high percentage of people. Therefore, it can be concluded that reconstruction has not only failed in improving the people's livelihoods, but has also weakened the previous living conditions.

From 1475 families before 2006, only 632 families have returned and settled in their hometown. Therefore, despite the planners' perceptions, physical reconstruction alone cannot increase the sense of belonging and motivate the immigrants to return home.

Although the design of new houses follows the tradition of people, it has not been able to affect the satisfaction of residents because the planners ignored the issue of livelihood. The mean obtained from the questionnaire for this hypothesis was 2.43 (the lowest) which is below the cut point.

In-situ building and maintaining land ownership have affected the sense of belonging in people.

In this hypothesis, the study examined the opinion of residents about the effects of in-situ building and maintaining land ownership on the sense of belonging. This was done through a dependent t-test. The results show that the relationship between the two variables with t 11 and sig 81 is significant at the 5% alpha level.

A summary of responses to questions 8-11 are as follows:

In question 8, 85% of respondents stated that the location of the city and the reconstructed houses is appropriate. Therefore, it can be concluded that people are satisfied with the spatial conditions of reconstruction.

In question 9, 79% stated that they were satisfied with the location of the reconstructed houses and only 21% were dissatisfied.

In answer to question 10, in relation to satisfaction with the neighborhood and proximity to the prewar neighbors, 79% are satisfied, and 82% have the same neighbors. This indicates that there is no fundamental change in the composition of social fabric after reconstruction.

In response to question 11, regarding the relocation of houses, 38% stated that their new houses were relocated slightly, 11% stated that their new houses were relocated a bit and 22% stated that no relocation was

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made at all. While the reconstruction program changed the spatial position of the city in order to improve the network of roads and to protect the river, the old composition of neighborhoods was maintained, thus the resident felt no changes.

Since the reconstruction program paid attention to the prewar pattern of the city texture that was influenced by the pattern of the tribal system, it has created a sense of belonging in the residents. In a way, despite the relocation of the city, most people are satisfied with the location of the houses and their proximity to the former neighbors.

Studies show that most residents are fully satisfied with maintaining the ownership of homes in the comprehensive physical plan. Moreover, despite the fact that the land area remained the same, the building area and the number of rooms were limited and the government cash assistance was insufficient, the residents were satisfied with the interior design of their houses since it was design by themselves.

Therefore, it seems that the only area that is satisfactory for people is the physical reconstruction of houses. However, despite the relative satisfaction of the residents with the housing sector, what attracts attention during the visit to the city are the semi-finished and dilapidated housing units whose usable materials (beams and opening frames) have been removed, and the building has been abandoned. These buildings are now vacated and most of their owners have migrated to other cities for reasons such as ignoring their livelihood in the reconstruction program (Shahraki, March 2015). This shows the effect of other factors on the result of this hypothesis. Therefore, despite the higher average (3.45) of this hypothesis than the cut point, people are not entirely satisfied with this one as well.

3- People's satisfaction with reconstruction is desirable. (Reconstruction process has been successful)

To test this hypothesis, a dependent t-test was conducted. The results show t10 and sig41 at 5% alpha and the relationship between variables is significant. The results of the questions of this hypothesis are as follows:

In question 12, 82% were somewhat satisfied with the reconstruction of their house and only 18% were dissatisfied. It seems that the relative participation of the people in the process of reconstruction is a reason of this satisfaction.

In response to question 13, 78% of residents were somewhat satisfied with the reconstruction of their city. 17% had low satisfaction and 5% were not satisfied at all.

The mean obtained from the total number of questions related to this hypothesis is 2.78, which indicates the failure of the reconstruction from the residents' point of view. Given the proximity of 2.78 to the cut point and the relative satisfaction of most respondents, the status of this hypothesis can be considered better than the first hypothesis.

Hypothesis	Weaknesses	Strengths
Revival of social traditions and its effect on the sense of place attachment	- Prolonged migration of people - Difference between people and planners - Ignorance of economic prosperity - Inattention to the revival of agriculture and animal husbandry - Restriction of resident to enter the wetland	- In-situ building and maintaining ownership - Justice in the distribution of resources - Preserving neighborhoods - Strengthening the sense of social belonging - Improving the sense of place attachment
In-situ building and maintaining land ownership and its effect on people's sense of belonging	- Restrictions on the provision of services per capita - Lack of proper distribution of service spaces - Lack of the necessary ground for social life - Ignorance of non-residents about urban attractions	- Maintaining ownership - Justice in the distribution of resources - Maintaining the location of the house and the neighborhood - Maintaining social composition and pattern - Having a human scale - Up-to-date and coordinated development of urban space - Understandability of the whole urban space - Preserving memorable places in the city

T9. Weaknesses and strengths of programs and reconstruction performance in relation to hypotheses

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Conclusion

1. In the process of post-disaster reconstruction programs, one of the most important points is to pay attention to the relationship between the revival of social and economic traditions and the intensity of the sense of place attachment to the reconstructed area. This process requires the use of local experts who have a good understanding of local traditions and play an intermediary role between officials and residents. This can also accelerate and increase public participation. Moreover, the society should be involved whenever possible because understanding the complexities of the context is important for sustainable reconstruction (Brown, 2010).
2. If the process of reconstruction is in connection with the past, land ownership and neighboring status can be maintained. In short, solving land ownership issues leads to the success of reconstruction process (Fallahi, 2005).
3. The process according to which the family receives the house is much more important than the reality of receiving it by that family (Zargar, 1990, 44). In Rafi, the use of owner-based models reduced the conflict between the house and the needs of residents (Parva & Dola, 2010). Rafi's experience shows that paying attention to previous properties, despite many shortcomings, can greatly increase the success of the reconstruction program.
4. The division of neighborhoods and the location of the Rafi people correspond to the tribal affiliation. Due to the non-observance of this principle in previous experiences of reconstruction and the resulting disputes, the adoption of this approach prevented the possibility of ethnic conflicts among the people so that Rafi reconstruction could proceed without disrupting the ethnic structure.
5. Paying attention to the main priority of reconstruction from the point of view of the residents, i.e. livelihood revival and economic rehabilitation, is more important than a rapid physical reconstruction (Fallahi, 2005). The amount of grants in most of the past reconstruction experiences has been considered insufficient by the residents, while if this liquidity enters the field of livelihood improvement, in the medium term, it will bring more favorable results and ultimately more satisfaction. In Rafi, in addition to not paying attention to the traditional occupations of the residents, we see restrictions on traffic in the wetlands for military reasons. In Rafi, it seems that the aid workers have provided assistance in a way that hinders the revitalized flow and creates dependencies.
6. Recognition of cause-and-effect relationships between physical and social rehabilitation is essential (Isan & Davis, 2006). For example, we can mention the relationship between the speed of physical reconstruction and the tendency of migrants to return to their homeland. However, the slow process of Rafi reconstruction decreases the percentage of residents returning. In fact, a purely physical view does not necessarily lead to the return and sustainable living of the inhabitants.
7. The view of the reconstruction process should be comprehensive and systematic. In Rafi, although residents chose the design of their houses and had the opportunity to adapt the tradition of their residence, they are still reluctant to return home due to other reasons such as livelihood and social issues.
8. The reconstruction plan of Rafi has been prepared with emphasis on the scale of urban planning, not architecture. With people's participation, architects are able to identify the needs of residents and provide a design that is acceptable to them.
9. It is important to pay attention to the fact that the relocation of settlements is considered as the last resort in reconstruction (Fallahi, 2005) and should be avoided as much as possible. In Rafi, this has led the officials to choose the policy of in-situ building and maintaining ownership. The good point of this policy is that the new houses can be built near the old ones and prevent any further objection. It also preserves the social pattern and thus maintains the social belonging of the residents, which leads to the relative satisfaction of the people.
10. In the reconstruction plan of Rafi, there is loyalty to the mental image of the people

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from the previous residence. The efforts of designers in this field can be achieved in two scales of architecture and urban planning. In architecture, paying attention to residents' participation in spatial divisions and interior design increased satisfaction. In urban planning, in addition to meeting urban standards, the overall structure of the city was preserved. This had an effective role on the acceptance of the plan by the people (Shahraki, Esfand 94).

11. The multiplicity of abandoned houses in the city indicates the waste of resources due to the political view of donors, lack of specialized program and conflict with officials. An issue, which has led the planners to focus on short-term problems and ignore medium-term ones such as livelihoods.

Endnotes

1. The word 'satisfaction' in the Oxford Dictionary is defined as feeling satisfied by what you or other people do. Satisfaction assessment is done for two reasons: determining the desirability of housing and accurately predicting residents' behaviors (Amérigo & Aragonés, 1990)

2. Attachment to place is an important factor in the connection between the individual and the environment, which ultimately causes the sense of belonging to the living environment, their satisfaction and continuity of presence and refers to the cognitive relationship with the environment or a specific space (Jalali, 2017).

3. Sense of Place is a complex combination of meanings, symbols, and qualities that consciously or unconsciously are perceived from a particular space or region. The primary form of sense of place is familiarity with place, which includes being in a place (Falahat, 2006). Sense of place is the main coordinating factor, and as a result, is considered as the users' satisfaction with their environment and achieving identity (Jalali, 2017).

4. Place attachment means that people define themselves by place. In fact, the feeling of belonging and attachment to the place is a higher level of the sense of place. It plays a decisive role in any situation in order to continue to be present in the place. (Falahat, 2006)

References

- Arthur, A. (1985). Recognition of key issues in war-torn areas for reconstruction and settlement, presented at the International Conference on the Reconstruction of War Logic, Tehran.
- Aisan, Y. & Davis, Y. (2006). Architecture and Reconstruction Planning (II). Tehran: Shahid Beheshti University.
- Barati, N. Davoodpour, Z. & Montazeri, M. (2012). Research Methodology in Environmental Studies (Vol. 1).
- Parva, M & Dola, K. (2010). Differences between post-earthquake housing reconstruction methods in urban and rural areas. 35–49. Tehran: Islamic Revolution Housing Foundation.

Jalali, T. (2017). A sense of spatial belonging of regions in post-war reconstruction. Case studies of post-World War II Europe and sacred defense. Knowledge of crisis prevention and management

Zargar, A., (1990), Emergency Shelter, Shahid Beheshti University, Faculty of Architecture and Urban Planning

- Program and Budget Organization. (1976). Statistics of Khuzestan province 1976. Ahvaz: Program and Budget Organization.

Program and Budget Organization. (2017). Statistics of Khuzestan province 2016. Ahvaz: Program and Budget Organization.

- War Reconstruction and Renovation Headquarters. (1991). 10-year performance of reconstruction and renovation of war-affected areas. Tehran: Central Reconstruction and Renovation Headquarters, Shahid Beheshti, Tehran.
- Shahraki, F. (March 2015). Documenting the reconstruction of Rafi city after the imposed war. Shahid Beheshti, Tehran.
- Falahat, M. (2006). The concept of sense of place and its factors. Fine Arts, 26, 57–66.

Falahi, A. (2005). An introduction to the basic categories of reconstruction (misconceptions and facts). Sefeh, 40, 89.

- Falahi, A. (2011). Accident assessment. Tehran: Shahid Beheshti University.
- Katozian, N. (1997). Civil law, principles of property. Tehran: Justice Publishing.
- Koop, Anatoly, Reconstruction Architecture, Translated by Seyed Mohsen Habibi, Building and Housing Research Center, 1987
- Lak, A. & Gholampour, A. (Spring 2015). Understanding the meaning of sense of place in Bam residential reconstruction (Case study: Narges residential complex). Housing and rural environment, 149, 37.

Lynch, K. (1997). The theory of the good shape of the city, translated by H. Bahraini. Tehran: University of Tehran.

- Motavaf, Sh. (Spring 2004). Analysis of Abadan and Khorramshahr reconstruction process from a theoretical point of view. Garden of Nazar, first (first), 85-105.
- Motavaf, Sh. (1986). Reconstruction of

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[DOI: DOI: 10.22034/40.173.19]

Hoveyzeh city. Program and Budget Organization.
- Motavaf, Sh. (1988). Evaluation of Hoveyzeh city reconstruction (p. 183). Program and Budget Organization.
- Mazhari, M. (1993). Abadan Housing Reconstruction (Master Thesis). Shahid Beheshti University of Tehran.
- Nurberg Schultz, K. (2015). Sense of place: Towards a Phenomenology of Architecture (M. Shirazi, translator). Rokhdad No
- Amérigo, M. & Aragonés, J. I. (1990). Residential satisfaction in council housing. Journal of Environmental Psychology, 10 (4), 313–325. https://doi.org/10 ، 1016 / S272-4944 (5) 80031-3
- Brown, C. (2010). The 21st Century urban disasters. CHF international.
- buri, george. (2008). "Between Education and Catastrophe": Public Schooling and the Project of Post-War Reconstruction in Manitoba 1944-1960. Faculty of Graduate Studies of The University of Manitoba, Department of History.
- Mirisaee, S. M. & Ahmad, Y. (2018). Post-war tourism as an urban reconstruction strategy case study: Khorramshahr. International Journal of Tourism Cities, 4 (1), 81–97. https://doi.org/10.108 / IJTC-7-2017-0039
- S.M, M. M.A, I. & A. F. (2015). Post-War Resettlement and Urban Reconstruction: A case study of Khorram-Shahr, Iran. Journal of Design and Built Environment, 15 (2), 39–47. https://doi.org/10.22452 / jdbe. Vol. 15 No. 2.1.1

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