

DESIGNING SANGALJ NEIGHBORHOOD OF TEHRAN USING THE REVITALIZATION APPROACH

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ABSTRACT: The main goal of this research was to compile the design framework of Sangalaj neighborhood inside Tehran, Iran using the revitalization approach. The research method of this research is descriptive-analytical in terms of the theoretical-applicative goal and in terms of the field method. To collect the required information and data, document reviews, library studies, and field studies are used, and the tools needed to collect and analyze information are questionnaires, interviews, field observations and observations, information and documents of extra-hand plans. and satellite images. In the analysis and evaluation section, considering that each of the extracted indicators do not have the same importance for the revitalization of urban spaces; Therefore, it is necessary to measure their importance relative to each other and finally apply this measurement in the context of Sangalaj neighborhood. After identifying and investigating a passage in the neighborhood, analyzing each building and passages and its constituent parts, presenting its policies and strategies with the possibility of desirable revitalization based on the social, cultural, economic, physical structure, and attracting participation People can re-realize the historical identity of Sangalaj neighborhood and achieve a sustainable development in the direction of a lively neighborhood by preserving its historical identity.

KEYWORDS: Urban design, Economic aspects, Revitalization approach, Vibrant neighbourhood, Tehran.

INTRODUCTION

The industrial revolution and the resulting technological advances accelerated the slow population changes and increased the population. This increase in population was more concentrated in the urban centers and caused social and environmental balances to be disturbed. According to the report of the United Nations Population Fund, the year 2008 is an important turning point in the history of the world, because for the first time in history, more than half of the world's population, about three billion and three hundred million people, will live in urban areas, and it is predicted that this figure will increase to about five billion people by 2030 [1]. Today's city is one of the greatest achievements of culture and civilization and one of the most pervasive social phenomena of the present age. In the period of new developments of urbanization and the problems caused by it, urban areas have been exposed to the adverse effects of urban development more than other places; As the consequences of this issue can be clearly seen in the face of most of the world's cities and especially the cities of Iran [2]. The degeneration of citizenship ethics and the widespread migration of rural people to cities, especially in developing countries, has caused the cities to grow indiscriminately towards the periphery or the scattered growth of cities. This

is in parallel with the horizontal growth of the city towards the suburbs and the destruction of the lands and the natural environment around the city, the main spaces and valuable urban neighborhoods within the city have been and are left behind from the desirable urban development process [3, 4].

In this research, an attempt is made to take a new look at urban development plans and by using the approach of revitalizing urban spaces, to consider a new idea for urban neighborhoods with historical value and identity. According to the needs of the research, the statement of the problem and the importance of addressing it, the background of the research, the goals and questions of the research, the method of conducting the research and the introduction of the study's scope are discussed. Sangalaj neighborhood, which was chosen as the study sample of this research, is located in the middle context of Tehran city. The renovations that have taken place in this neighborhood over many years have been done without considering the identity of its historical context and cultural values, and from the physical, socio-cultural and economic point of view, there are inappropriate conditions in this neighbourhood [4]. The constructions carried out in the Sangalaj neighborhood of Tehran, regardless of the social and economic characteristics of the residents, led to the migration of the old and authentic residents of this neighborhood, as well as

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the dimming of social life and the sense of belonging and trust between the residents on the one hand and On the other hand, residents and existing institutions in the neighborhood have become; which reveals the necessity of paying attention to the development planning of the local community in order to achieve sustainable development.

Samiei and Sayafzadeh [5] in their research focused on the need to pay attention to worn-out urban tissues with an emphasis on the regeneration approach and finally provided solutions to revive these tissues. Rafiyan et al. [6] in the article "Designing valuable localities with emphasis on the approaches of organizing worn-out fabrics, (2012)" with a descriptive-analytical approach and using field and library study methods and using the SWAT model to investigate different dimensions of the fabric. He has paid for worn-out urban areas in Akhund neighborhood of Qazvin city. The findings from the analysis of the studies have led to pioneering strategies to improve and improve the worn-out urban fabric in Qazvin [4].

Izadi et al. [7] in their research entitled "urban design in the organization of traditional neighborhoods with a development-stimulating approach", with the aim of investigating how the development-stimulating approach affects urban regeneration in traditional neighborhoods in the document studies section, tried to review important and outstanding documents. It has been in the field of urban regeneration and development drivers [8], and the obtained information has been analyzed in a survey method by distributing questionnaires in line with the research objectives. The results of the research showed that considering that the driving dimensions of development include socio-cultural, economic, physical-spatial and environmental dimensions; Based on this, the socio-cultural dimension in Golpai neighborhood of Hamedan has been assigned the first priority and paying attention to social issues is the main issue of the driving approach of development in this neighborhood. In a research, Jamakloo et al. [9] focused on the need to pay attention to worn-out urban neighborhoods, and by presenting a design framework for Evin neighborhood inside Tehran, they are trying to solve the problems in the context, especially in residential spaces. The study and investigation of people's behavior patterns in order to respond to their needs within the framework of the laws is considered, as well as the designer's proposal to introduce patterns in the design of residential complexes with an approach to preserving the native architecture of the region, paying attention to the shape and topography of the land and designing neighborhood units with The use of the ecological potentials of Evin neighborhood has been investigated [9]. Saberi Naseri [10] in his dissertation entitled "Organization of worn-out fabric (a case study of Imamzadeh Yahya neighborhood)" was studied and researched in order to organize Imamzadeh Yahya neighborhood with a systematic approach, the main

axes of which are improving the physical appearance, improving the traffic situation, improving Environmental conditions are reducing density and concentration, maintaining and reviving economic prosperity, improving the social and cultural environment, strengthening and creating visual and identity values [10]. Kalharnia [11] in his article entitled "Reconstruction of Qasr Shirin from narrative to reality", using qualitative and content research methods and interviews with related people, reached the conclusion that the theoretical content of the process of fabric organization begins with the discourse between the stakeholders and is formed. It recognizes the needs of reconstruction and public interest, turns the opinions of stakeholders into executive decisions, reduces the distance between decision-making and implementation, and draws the future vision of the city. The main issue in the theoretical debates of urban planning is the recognition of "public interest", which can be a set of demands and finally reaches the final result with social participation. Hernandez and Jones [12] in the article "Changing Attitudes of Beneficiaries and Communities in Chua Orange", point out the vital role of social participation in the protection of historical heritage with valuable ancient textures [13]. Informing the stakeholders - both those who live in the context and those who are decision-makers and beneficiaries of the valuable historical heritage - is one of the basic requirements for decision-making and planning for the ancient context. The success of historical heritage protection projects depends on the correct performance of the role of each of the beneficiaries and their maximum participation.

METHODOLOGY

This research is theoretical-applicative in terms of its purpose and descriptive-analytical in terms of its method. To collect the required information and data, document reviews, library studies, and field studies are used, and the tools needed to collect and analyze information are questionnaires, interviews, field observations and observations, information and documents of extra-hand plans. and satellite images. In the documentary method to review the research literature and statistics and the required information, from the most important researches that are related to the subject in question, in the form of authentic scientific articles, books and reports of consulting engineers, theses and statistics offices of the Statistics Center, Municipality and ... Used. After studying the theoretical foundations and statistics of the indicators, the study sample is recognized and analyzed. As mentioned before, Sangalaj neighborhood of Dozahde district of Tehran municipality was chosen as the study sample of the research. In the analysis and evaluation section, considering that each of the extracted indicators do not have the same importance for the revitalization of urban spaces; Therefore, it is necessary to

measure their importance relative to each other and finally apply this measurement in the context of Sangalaj neighborhood. In other words, once the relative importance of the indicators is measured using AHP technique in the Expert Choice software, and then these indicators are evaluated using the questionnaire method in the study sample and using the Likert scale.

In this section, AHP technique, Likert scale and SWOT analysis model are introduced.

The Likert scale is one of the most common measurement scales in questionnaire-based research and was invented by Rensis Likert (1903-198). In this scale or spectrum, according to the subject of his research, the researcher provides a number of items to the participants to determine their tendency based on multiple items and answers. The answers are in the form of multiple options, for example, in the 5-point mode, the options include "completely disagree, disagree, have no opinion, agree and completely agree".

In making the Likert spectrum, the following steps should be followed:

- 1- Selecting items that make up the measurement scale and compiling suitable and inappropriate items related to the subject
- 2- Carrying out a prototype of items in a random sample of respondents
- 3- Valuing and calculating the total score for each respondent
- 4- Determining the differential power of items
- 5- Selection of selected subjects
- 6- Determining the reliability coefficient of the scale

Usually, questionnaires based on the Likert scale use the mentioned five modes, but many psychometricians also use seven and nine modes. Although recent studies show that the 5 and 7 point scale have more valid results than the 10 point scale. Then each item is valued numerically. The numerical sum of these values gives the score in this scale, which expresses the tendency of the respondents; For this reason, this scale is also called the total score scale. Usually, because the respondents are not influenced by the numbers, the evaluation of the items is not written. In other words, instead of numbers, appropriate words and expressions are used in the options. Also, the evaluation of the items is done arbitrarily, and for example, on a 5-part scale, a score of 1 can be assigned to the totally agreeable option and 5 to the totally opposed option, where 0 can be used instead of 1. Usually, the number of respondents in this scale is at least 100 people.

In the science of decision-making, in which the choice of a solution from among the existing solutions or the prioritization of solutions is discussed, it has been several years that "MADM" decision-making methods with multiple indicators have opened their place. Among these, Analytical Hierarchy (AHP) method has been used more than

other methods in management science. Hierarchical analysis process is one of the most famous multi-objective decision-making techniques, which was first introduced by Thomas L [5]. An original Iraqi watch was invented in the 1970s. Hierarchical analysis process reflects natural behavior and human thinking. This technique examines complex problems based on their interactions and turns them into a simple form and solves them.

Hierarchical analysis process can be used when the decision-making process is faced with several competing options and decision-making criteria. The proposed criteria can be quantitative and qualitative. The basis of this decision-making method lies in pairwise comparisons. The decision maker starts by creating a hierarchical decision tree. The decision hierarchy tree shows the factors compared and the competing options evaluated in the decision. Then a series of pairwise comparisons is done. These comparisons show the weight of each of the factors in line with the competing options evaluated in the decision. Finally, the logic of the hierarchical analysis process combines the matrices resulting from pairwise comparisons with each other so that the optimal decision is obtained.

Thomas (the founder of this method) stated the following four principles as the principles of the hierarchical analysis process and based all the calculations, rules and regulations on these principles. These principles are:

$$n = \frac{\frac{z^2 pq}{d^2}}{1 + \frac{1}{n} \left(\frac{z^2 pq}{d^2} - 1 \right)}$$

Inverse condition: if the preference of element A over element B is equal to n, then the preference of element B over element A will be equal. Principle of homogeneity: element A and element B must be homogeneous and comparable. In other words, the superiority of element A over element B cannot be infinite or zero.

Dependency: Each hierarchical element can be dependent on its higher level element and linearly this dependency can continue up to the highest level.

Expectations: Whenever there is a change in the hierarchical structure, the evaluation process must be done again.

RESULTS AND DISCUSSION

Based on the location and form of the city core, the combination of the central cores along the basic working axis has turned it into a row, this row consists of three cores. In addition, the Ahadi Mahdovian axis (Ab Anbar) has also become a central axis due to the establishment of commercial and religious elements (mosque-school).

The main ossification of the space is based on the main order of the basic worker and the house,

which connects most of the body of the historical fabric in two directions, north-south and east-west. What should be mentioned in the meantime is that a small part of this ossification in the south of Baft has not recovered its regularity well due to historical reasons [14, 15].

According to the collected questionnaires and interviews with the people of the neighborhood, the favorite places of the people are: Dr. Hasabi Park, Darkhungah shops, Meir and Tarkhani bazaar, Seyed Nasreddin Imamzadeh, Irani Farhang House, residents of the neighborhood expressed their concern about excessive motor traffic. They are dissatisfied and consider the operation of the municipality to destroy the water streams as the cause of more traffic of motorcyclists at a higher speed. However, some shop owners, especially shoe wholesalers, welcomed this trend and wanted to widen the passages. Most of the women expressed dissatisfaction with the lack of suitable public spaces and public places such as parks.

The scope of the project in its current state consists of a compact mass of buildings, mostly 1 to 2 stories. In addition, in some parts of the space, there have been sporadic renovation movements by the owners who have settled next to this old mass. Such an order has led to the formation of a volumetric system, from the establishment of disharmony, which generally lacks the necessary proportions in the formed compositions.

In the historical part of the space and within the context, the parts where the renovation movements have not taken place are 2 and 1 story buildings, and most of the time the skyline is uniform and with little changes. Due to the small and variable width of the passageways, as well as their organic nature, in some cases the enclosure rises and it is not possible for passers-by to see the skyline. have had a uniform skyline and in the vicinity of the old building, they have created a jagged and inappropriate skyline within the historical context that can be seen in the picture.

The mass and space system within the scope of the plan clearly indicates the dominance of the mass over the space and the least amount of space opening in the target area, such a system that includes the scope of the plan as well as its immediate scope, due to its historical antiquity. And the system of filling and emptying the tissue has been within the scope of the design and also following the environmental requirements in this space.

In the scope of the study, small collective spaces that concentrate the presence of citizens due to spatial qualities or activity system in the direction of social and economic interactions can be identified [16, 17]. Due to its historical age and proximity to the market, this area had a better quality of space in the past than it does now, and the rest of these spaces are still playing their historical role with a decline in quality compared to the past. Spaces such as the area under the arches and junctions, valuable spaces such

as Imamzadeh Seydan Nasreddin (in the east of the area), Dr. Hasabi's house and the church (in the west of the area) as well as in the immediate area that adds to the number of these places, such as the stretch of the street Meir, which ended in Bazarche Shapur, shows an example of this space, including arenas.

The presence of religious places such as Imamzadeh, Hosseiniyehs, Saqaqhanas and religious affiliations, proximity to Shahpur Bazaar and Bazarcheh, vaults and valuable old houses such as Dr. Hasabi's house, have been among the positive aspects of the citizens' perception of the scope of the project. The effect of the market performance on the scope of the plan has caused the edge of the main passages in the space to have a performance greater than the local level.

Passage of Qoli, Bagh Meir, Karken Esasi, and Passage Darkhungah (Maghfori) within the scope of the plan are spaces where various activities are carried out more concentratedly than in other parts of the site. Especially the basic and standard worker, which are considered the most important behavioral domain. that people or a group of people use it in a regular and sustainable manner and defend it against disturbing people and outsiders because of the sense of belonging and ownership they have towards the space.

Elements and places that are memorable and with identity, the formation of a place in urban areas is realized when the defining elements of the space have an effect on the different dimensions of human existence and being (in the material, mental and spiritual spheres) and the scope of its effect in relation to time has continuity. Based on the findings of this consultant (from the environmental perception questionnaire distributed at the area level) from the residents' point of view, some of the existing elements and spaces such as religious spaces, arches and historical elements, as well as activity nodes and bazaars in the area or in the area They are among the points of identity in the space that are the circle of collective memories.

In order to identify the citizens' perception of the space under investigation, a number of perceptual questionnaires were selectively distributed and completed among the citizens (both residents, workers and passers-by). The results of extracting the answers to the questions are as follows:

- In many cases, the general mentality of the citizens about the studied space does not have a positive direction. This is mainly due to the low permeability of the fabric, excessive traffic of motorcyclists in the crossings, wear and tear of the fabric, lack of public space or suitable green space in the area under study.

- The presence of religious places such as Imamzadeh, Hosseiniyehs, Saqaqhanas and religious belongings, proximity to Shahpur Bazaar and Bazarcheh, vaults and valuable old houses such as Dr. Hasabi's house, have been among the positive

aspects of the citizens' perception of the scope of the project.

- The effect of the market performance on the scope of the plan has caused the edge of the main crossings in space to have a performance greater than the local level, and this itself has caused the creation of motor traffic in these narrow crossings and reduced pedestrian safety. It did not affect the mentality of the respondents.

- The effects of the market have caused many of the old and large residential houses of Baft to turn into warehouses or production workshops (mostly shoes and bags), and this has caused the residential identity of Baft to decrease in the eyes of the residents.

In order to qualitatively analyze the visual sequence at the range level, macroscopic analysis method is used, and in this way successive views of the axes are evaluated. In this framework, qualities such as enclosure, oneness (difference and contrast of Serial Vision) (spatial) being a sign or the possibility of having the role of signs, qualitative characteristics of walls (advancement or retreat from the edge) and... are desired. The set of qualities referred to when it leads to spatial integration of the axis and follows the objective and subjective continuity of the landscape in space and time, it will follow the desirability of the urban space.

Considering that the analysis of the space arrangement deals with the body and physical part as well as urban trips. As a result, it is necessary to provide a more detailed analysis of the problems and the existing situation of the area. For this reason, SWAT analysis was chosen for a detailed investigation of the scope, which will be analyzed in the form of a table and matrix as well as in the form of detailed maps. First, a visual SWAT analysis is presented, and then we analyze the strengths, weaknesses, threats, and opportunities in the form of a matrix. And finally, the detailed analysis of the current situation of Sangalj neighborhood will be done in analytical maps.

CONCLUSION

The lack of suitable public spaces with desirable physical quality throughout the area, which is the cause of ignoring the social dimension of sustainable development, environmental sustainability and lack of attention to the health of the environment and public spaces of the neighborhood, the narrow width of the roads, the low quality of urban space design at the level of roads and spaces General, the low quality of lighting in the space, the low level of security, which leads to the rejection of the space and the reduction of the presence of residents in it; Among the basic problems and challenges of Sangalj neighborhood, it is necessary to pay extra attention to these issues in the design of the neighborhood. After analyzing and evaluating the questionnaires, based on the knowledge obtained from the studied

area, to evaluate it based on the SWAT analytical technique in the sections of urban facilities and equipment, movement and access, use and functional zones, activity system and public spaces, spatial organization and environmental has been discussed.

Competing interests

The authors declare that they have no competing interests.

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