

# Architectural Identity in the Reconstruction of New Residential Buildings Adjacent to Historic Houses (Case Study: the Ancient City of Homs)

Batool Alsulaiman, Afsaneh Zarkesh \*, Mansour Yeganeh

*Department of Architecture, Tarbiat Modares University, Tehran, Iran.*

Received: 15 April 2023.- Accepted: 24 October 2023

Doi:10.22094/SOIJ.2023.1983975.1547

## Abstract

Statement: There have been changes in the architecture of contemporary Syrian buildings adjacent to historic buildings, which poses a threat to the identity of the historic neighborhood. Objective: provide comprehensive guidelines for reconstructing residential buildings damaged in the war so that the contemporary building, while preserving the values of the historic building, can also express the spirit of contemporary architecture. The method: is descriptive-analytical using resources and field observation. After conducting interviews and analyzing data; the indicators have been extracted according to the SWOT method, then the indicators have been weighed according to the AHP method, and points have been presented. Conclusion: The opportunity of Rebuilding residential buildings according to the neighborhood's identity is more than a threat, and strength is more important than weakness at this stage. It also shows apparent advantages in the post-war reconstruction of Homs, which preserves its identity and confirms its spirit without compromising its sense of place.

**Keywords:** Historic-buildings; Contemporary-buildings; Neighborhood; Identity; Homs City.

## 1. Introduction

Cities are faced with complex options after the war, including protecting their material heritage or allowing new development to take its place. Of course, these issues have not been well-researched and require more systematic treatment. In Syria, due to the last war, many cities were seriously damaged. (Bemanian & Alsulaiman, 2020) Many questions are raised about how the damaged buildings should be rebuilt, assuming they preserve the city's heritage! It can be said that the Syrian people and architects today have two choices; either the devil continues to globalize cities, or they accept reality and coordinate reconstruction work and new buildings of a city with an identity and traditional buildings. (Motevalian & Yeganeh, 2020; Ulusoya et al., 2013) Therefore; efforts to preserve history to enhance the traditional urban area's identity and prevent the long-term loss of significant indigenous architectural heritage are invaluable. The built environment is historically necessary for the preservation of a society's identity. (Al-Mohannadi et al., 2020; Ganji & Rishbeth, 2020; Rukayah, 2022)

The ancient city of Homs in Syria has lost many of its distinctive architectural features due to ignorance and neglect. In recent years due to war, however, it still has a group of sections and properties of archaeology and heritage, whose properties and characteristics decrease over time. Today; there is a strong awareness of the loss of the region's identity with the construction of any new building, which many scholars and historians see as a growing urban threat affecting traditional homes. Therefore, this study was conducted to evaluate the

factors of strengths, weaknesses, opportunities, and threats (SWOT) concerning the reconstruction of contemporary buildings adjacent to historic once in the Bab Hood neighborhood. This assessment from the perspective of the people of the neighborhood has been done with the help of architects and using the Analytic Hierarchy Process (AHP). This research seeks to answer the following questions:

- What are the strengths, weaknesses, opportunities, and threats in the Bab Hood area in Homs?
- What is the statistical relationship between internal and external SWOT factors, and the strategies can be extracted?
- Which of the strength and opportunities factors are more important than others in the current situation?
- What are the possible strategies for seizing opportunities and avoiding threats in the area of Bab Hood?

## 2. Brief literature Background

To create a solution for preserving the physical identity of the historical region, it is in the process of development and reconstruction works after the war. First; international and local laws and conventions in the field of physical identity should be reviewed.

### 2.1. Historical background

The interest in heritage through the concepts of preservation and restoration of historical sites dates back to the eighteenth century. But; it can be said that in the second half of the nineteenth century, national efforts in

\* Corresponding Author Email Address: [zarkesh@modares.ac.ir](mailto:zarkesh@modares.ac.ir)

Europe recognized the preservation of valuable buildings in different parts of Europe under different conditions. (Yazdani Mehr, 2019) The followings are some of the agreements and suggested principles:

-Athens Charter (1931): Preserving the urban fabric of the old city; when designing new buildings, the need to respect the character and the overall composition of the city.

-UNESCO: (1954): Preservation of cultural heritage in time of war; (1964): No damage to the interesting parts of the monument, traditional space, and its relationship with its surroundings, at the time of joining the monument. (Shahtemori & Mazaherian, 2012) (1972): Protection of historical monuments against any reconstruction that may disrupt the relationship of mass or color between it and the surrounding environment. (Titchen, 1996) Recommendations to ensure the protection of inherited culture in general; (2005): continuity of culture, through quality interventions, avoidance of quasi-historical design; as " In a cultural-historical setting, it is necessary to adhere to ethical standards and require high-quality design and production." (Memorandum, 2005)

-ICOMOS: (1965): Mainly formal combination tools (mass, color, scale, rhythm, and appearance) are defined to achieve coordination between the new building and its historic texture; (1982): The protection of traditional local construction techniques. (Building materials and techniques need to be used to ensure continuous cultural identity, not simply replicating historic building forms, patterns, and appearances.); (1992): Respect for the scale and spatial structure of a place, as well as the relationship of each building or place with the larger environment around it. (Shahtemori & Mazaherian, 2012) (1992-1996): The new building should be read as a new work, but imitation should be avoided. (Navickienė, 2012) (2008): It must be considered in all rescue and restoration buildings, landscapes, paths, etc.

- Council of Europe organizations: (1968): Historical monuments, building groups, and sites; each of them formed a part of urban heritage that cannot be separated. (Navickienė, 2012) (1985): The need to enact laws for plans related to the construction of new buildings and plans that affect the environment around historic buildings. (Shahtemori & Mazaherian, 2012)

-International documents: (1964-1972): The new architecture requirements in urban heritage: 1- coordination with the environment at (structural-urban level); 2- visual harmony with the environment in

Table 1

Opinions of researchers and theorists on the design technique of new buildings adjacent to historic buildings

Study Number	Author(s)	Year of Publication	the relationship of the new building in the historic area
(1)	Li	2018	-The importance of preserving the spirit of the place. -When it is no longer possible to recover or rebuild the physical form of architectural heritage, it may be possible to take this spirit of place faithful to its origin.
(2)	Masoud	2013	-Maximum contrast approach

architectural composition; 3- Contemporary stamps. (Navickienė, 2012)

After examining various charters and international strategies for the preservation of historic urban heritage, it can be said that the official standards and recommendations to the preservation of it are not clear, and the essential aspects written by international conventions to the preservation of heritage are on two levels: (Abouei & Jafari, 2015; Dabiri et al., 2014; Gharebaglou et al., 2019)

1- The first level; the conservation of the urban fabric of the city's general plan, such as the design of the roads that determine the city's historical context and shape, is determined throughout history. Moreover; this aspect is essential because if the interference in the historical context and the opening of new roads cause significant damage to the deformation of the road. Which leads to the loss of identity and the acquisition of unpredictable characteristics.

2- The second level; is the preservation of urban heritage and urban buildings as much as possible through continuous renovation.

Therefore, it has become clear that over time, the purpose of protection is not to protect the steady state of the past but to preserve the region's value.

In the Syrian Antiquities Law: Antiquities are considered to be the things that have been made, produced, compiled, or studied two hundred years before the Gregorian calendar or two hundred and six years before the Hijri. (Foroughi & Ghani, 2015) Historical urban heritage preservation strategies, clarify formal standards and recommendations for the preservation of heritage authenticity. At this level, it seems to be preserving the urban fabric or city plan on the one hand and preserving urban heritage and buildings as much as possible through continuous renovation.

Nevertheless, global experiences in architectural heritage preservation have proven that; Heritage does not make sense if it is not inspired and understood. It will not make sense if the contents and the ability to change, develop and synchronize the present are not discovered.

## 2.2. Research background

Examining the opinions of researchers and theorists about the design technique of new buildings adjacent to historic buildings and their use are important issues in the development and construction of new buildings next to buildings of historical value; some of the theorists' views are shown in Table 1.

	and Zadeh Shahraki		-maximum similarity -preserving the façade -Relative similarity -unifying elements, and lines in the design -Neutral architectural approach, Accompanying approach to temporary -The approach of creating unseen buildings -A coherent and continuous geographical -Combined approach.
(3)	Çizgen	2012	-Duplicate -Innovation within a style: use similar without copying the characteristics of the environment -Abstract Reference: considering an abstract alternative -Intentional opposition: contradictory view of the context.
(4)	Riza	2009	-a combination of homogeneity, coherence, set-aside and non-contextual
(5)	Semes	2007	-Literal replication -Invention within a style -Abstract reference -Intentional opposition.
(6)	Venturi	1977	-Each building must be designed and executed based on the site and building's cultural, social, historical and physical contexts and conditions. The author is wholly opposed to imitating the past. The past works are not for repetition but for the benefit of the knowledge of that time.

(Source: (Çizgen, 2012; Li, 2018; Naghavi & Mazaherian, 2019; Semes, 2007; Soosani, 2013; Venturi et al., 1977))

Based on the analysis of the theorists' writings, it can be said that this part covers a wide range, from similarity and imitation in its general meaning to complete contradiction with historical monuments; the following methods can be divided into three main methods, including:

- I. 1-Completely opposite, the building bears no resemblance to the surrounding buildings.
- II. 2-The supplement is building a new piece and as homogeneous as possible that can create harmony between itself and existing buildings.
- III. Similarly, there is no difference in shape between the historic building and the new building.

Based on the studies performed, the design strategies of the new residential building adjacent to the historic building can be explained in Fig. 1.

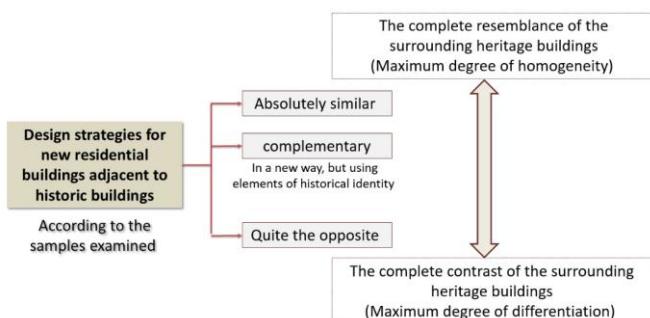


Fig. 1. Design strategies for a new residential building adjacent to a historic building

### 3. Research Methodology

#### 3.1. SWOT and AHP:

SWOT strategy (strength, weakness, opportunity, and threat analysis)

This model is one of the important tools that can be used to compare information about internal and external factors

and can be used to offer a variety of possible strategies. The model in question consists of two matrices as follows:

- I. Internal Factor Evaluation Matrix (IEF) can be used to assess the strengths and weaknesses of the region.
- II. External Factor Evaluation Matrix (EFE) can be used to evaluate environmental, economic, social, political, cultural, legal, and technological factors in the desired time.

Finally, SWOT consists of a two-dimensional table of specialists, each of whose four areas represents a set of strategies. (Karimi Skaboni & Pourjafar, 2017; zare & sardari, 2015)

AHP (the analytic hierarchy process)

The process of hierarchical analysis is one of the most famous multi-criteria decision-making techniques invented in the 1970s by Thomas L. Saati. (PALABIYIK & ALKILINC, 2021) This method can be helpful when the decisive action is faced with several options or decision indicators. And these indicators can be qualitative or quantitative. This method is based on pairwise comparisons. (ILICALI & GİRİTLİ, 2020; Mushtaha et al., 2020) The steps are involved in ranking and prioritizing options using the AHP method. (Alani & Mahjoob, 2021; Nakhaei et al., 2015; Yavuz, 2021; Zhao et al., 2022)

- I. Establish a hierarchy: At this point, appropriate criteria can be achieved to reach the desired outcome and options.
- II. Do a pairwise differentiation of the relative importance of the criteria for creating weights. The even scale and importance value can be given in the range of numbers from number 1: an equally important preference to number 9: a very important preference.
- III. Each criterion's weight is calculated after the weights of each option have been determined for each criterion. Then this formula can be used to calculate

the final weights of the options:  $S = \sum (W_i \times X_i)$ ;  $W_i$  is the weight of  $C11, C12, \dots$  etc.;  $X_i$  is  $(A11, A12, \dots), (A21, A22, \dots), \dots$  (Shenavar et al., 2012)

- IV. Compatibility with the Consistency Rate (CR): The adjustment rate is obtained by calculating the Consistency Index (CI) and the following relation:  $CI = \frac{\lambda_{max} - n}{n(n-1)}$ .  $\lambda_{max}$  must be calculated by the number of criteria and for all of them, and then from the sum of them can be calculated CI. Another required index is the RI random index, which is determined based on the number of existing criteria.
- V. Finally, the adaptation rate is calculated from the following equation:  $CR = CI/RI$ . (Setiawan et al., 2022)

### 3.2. Background of methodology:

In addition to the SWOT matrix, other methods help to quantify the analysis of the current situation of the organization and formulate its strategies. With the aim of strategic analysis, some areas, with the help of the IE matrix, determined the strategic position of neighborhoods and proposed strategies but did not reach the level of extended strategies. One of the more sophisticated methods used by the SWOT factor group to extract weights is the Analytic Hierarchy Process (AHP). (Arbab Shirani et al., 2019)

According to this research method, only a small amount of research has been performed; some of the researches are summarized below.

In the research of Coruhlu et al. (2020), SWOT analysis was used to determine the Strengths and Weaknesses of cemetery sites and to limit ways to eliminate Weaknesses and Threats. Then, research findings were used to determine the criteria for selecting the appropriate location. Of course, the criteria were ranked based on importance using the hierarchical analysis process method. (Coruhlu et al., 2021) Akbari (2019), this article aims to find a suitable location for the construction of a health tourism complex in the metropolitan area of Qom. Therefore, the SOWT strategic model and AHP hierarchical analysis process have been used to reach the optimal site, and the most appropriate site is selected from the three sites proposed, to design, discover and extract ideas. (AKBARI, 2019) Jiang et al. (2015), by examining several representative cities; this paper analyzes the SWOT factors behind the development of construction technology in recent years. And adopts the AHP-SWOT analysis method to analyze the construction technology development strategy in Wuhan, China. (Jiang et al., 2015) Among the investigations conducted in various fields using this method, it can be noted: Darwish and Shehab (2017) (Darwish & Shehab, 2017) Shawn et al. (2010) (Margles et al., 2010), and others.

### 3.3. Method of the research

Based on the theoretical literature on the subject and the field investigation of the target area on the one hand, as well as referring to the opinion of experts on the other

hand, the conceptual model of physical identity preservation is presented in the diagram below (Fig. 2.). in which, after identifying the internal and external factors affecting the target area, the evaluation of various factors has been done by weighting and using the AHP model, then according to the SWOT table, various strategies have been described, and the most important strategy, which is the highest it has been scored, and a suitable solution is provided.

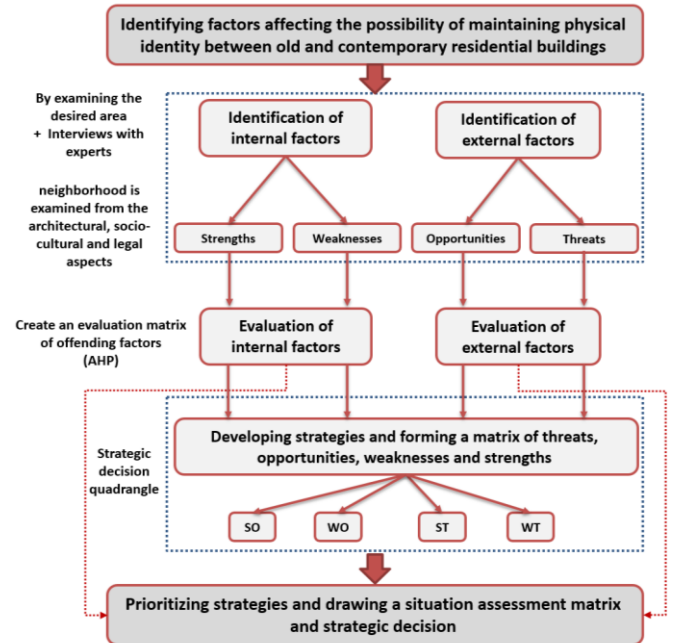


Fig. 2. Research conceptual model

Information completion, identification, and analysis of residential buildings in the Bab Hood neighborhood (study area) in ancient Homs city, was prepared through field surveys and face-to-face interviews with neighborhood residents with at least a diploma. Among the most important topics that were discussed with the residents of the neighborhood were: The importance of historical monuments for them; social identity; sense of belonging; the role of laws (renovation and restoration) in the construction of their own houses; and the extent of their collaboration and participation with architects. SWOT technique has been used to present physical reconstruction or construction of a new residential building next to a historic building. Then, based on the AHP analysis method, the relevant indicators have been weighed. Interviews were taken from the statistical community to assess the neighborhood's situation in terms of the physical problem of the building. The statistical population of this study includes residents of the Bab Hood neighborhood in the city of Homs and architects and specialists. Furthermore, this interview was conducted in Syria in the summer of 2020.

SWOT analysis is an essential tool in the strategic planning process, but it also has drawbacks. Because this analysis of the list of several factors in the groups of strengths, weaknesses, opportunities, and threats cannot identify the most critical groups. So, the AHP hierarchical

analysis can be used in SWOT analysis to examine quantitative SWOT factors and include decision priorities in the planning situation. This AHP technique is based on two-way comparison and makes it possible to study and decide on issues with multiple criteria with each other. (ASADPOUR et al., 2016; Sabzekar et al., 2020) Following are the steps in the research methodology, See Fig. 2.

- I. Based on interviews with required people from the neighborhood, a list of strengths, weaknesses, opportunities, and threats in the study area has been prepared and completed as criteria to be measured.
- II. Then, with the help of experts and architects, Both AHP and SWOT methods are combined for pairwise analysis and comparison, and each of the strengths, weaknesses, opportunities, and threats are separated and weighted.
- III. The final matrix of priorities between the expressed factors has been determined and extracted by weighting by the AHP method.
- IV. Due to the importance of the findings and considering the implementation constraints, the top priorities have been determined and graded.
- V. Finally, strengths, weaknesses, opportunities, and threats are linked in four modes: WO, SO, ST, WT, and strategic options are created and selected.

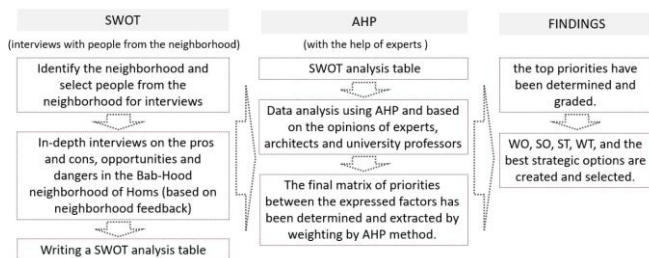


Fig. 3. SWOT-AHP study framework.

#### 4. Study area (Neighborhood of Bab Hood in Homs city)

Bab Hood neighborhood, the study area, is located southwest of the old part of the city of Homs, separated from other parts by the main streets and the city's traditional market. The neighborhood covers an area of about 40 hectares with a population of 7460 residents. (See Fig. 3.) This area is one of the oldest areas of the city and there are many historical buildings from different eras, each of which has its own artistic style and architectural elements. (Alsulaiman et al., 2023) The most important architectural symbol of the old city is the black stone. (Khalil et al., 2016)

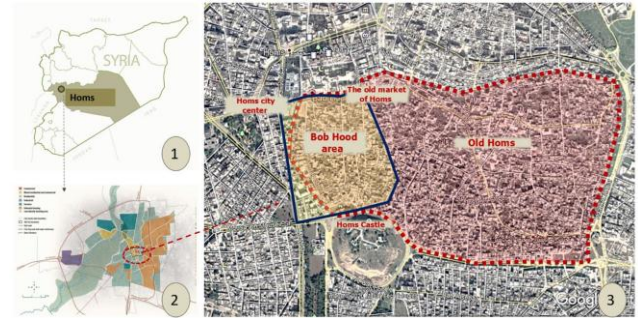


Fig. 4. Left-Up: the site of Homs city in Syria; Left-Down: Neighborhoods location within Homs; Right: the site of the Bab Hood neighborhood in Homs.

#### 4.1. Architectural history of Bab Hood area

Most of the traditional houses in the Bab Hood area that have survived date back to the late Ottoman period (approximately the seventeenth century). (Mekhael & Saker, 2021) In 1920, after France occupied the country, France had a common influence on the architecture of major Syrian cities. (Daneshjoo & Al-Sulaiman, 2021) Furthermore; this effect appeared in architectural facades. Then, over time, the problem was found. (Ali et al., 2018) The new overlap of modern buildings with the historical context of the ancient city of Homs through the accumulation of time and based on the variables of life and lack of study led to significant damage to the region's historical architecture. It threatened its civilizational identity through the expansion of buildings affected by globalization.

From the beginning of the twentieth century, old houses were allowed to be demolished, and new two- to seven-story buildings were erected on the same old alleys. Furthermore, these buildings are made of concrete blocks without any urban pattern in shape or materials. Unfortunately; the new buildings did not create any conditions that could relate them to the nation's history, the city, and the civilization, so the contradiction became clear, (El-Borombaly, 2015) as Fig. 4. shows.

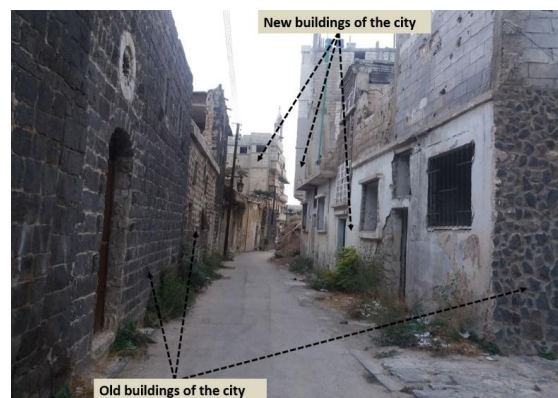


Fig. 5. A photograph of the threat to architectural identity with contemporary buildings that may have no civilized meaning.

#### 4.2. The current housing situation in the Bab Hood area:

Today, Many of Bab Hood's residential buildings have been destroyed by the recent war, so it is essential to examine the physical features of the area's old residential buildings before beginning any reconstruction work. (Daneshjoo & Al-Sulaiman, 2021) They provide a suitable architectural model for buildings. Furthermore; you can use some of the historical monuments registered in the Syrian cultural heritage.

Based on field research, it can be said that housing is classified into two main parts:

I. Traditional (historical) buildings includes historical houses that are built in the native style and from the

stone materials ruling the region (black stone) and include elements of beautiful historical architecture of different periods.

II. Contemporary buildings and including buildings that were built with new building materials and their age is not more than 25-30 years.

In Fig. 5. A detailed study of the condition and type of old and contemporary residential buildings is presented.

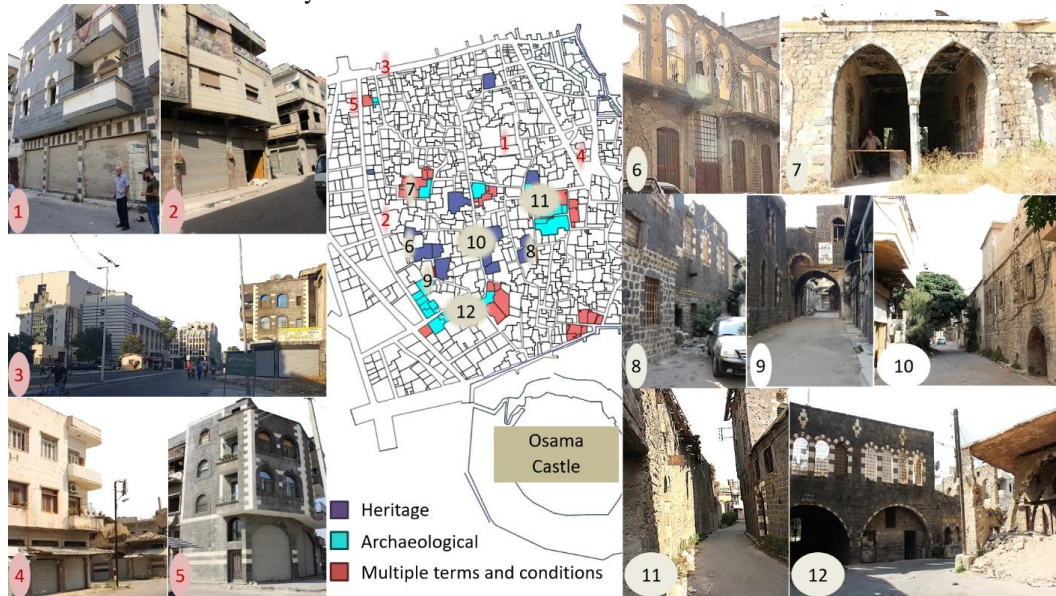


Fig. 6. Photos of the types of residential buildings in the Bab Hood neighborhood, (new designs & historic designs). (Source: (Alsulaiman et al., 2023))

Many examples have been studied in the Bab Hood neighborhood to show that changing the physical elements of residential buildings in the old city affects the heritage value of the city. The essential historical houses that have survived to this day are an undeniable part of the heritage, but the measures taken to revive or preserve the identity of this city lack any helpful effort. New buildings must be identified in terms of the construction period, yet they should not be so differentiated as to destroy their historical proximity - or visually compete with them.

After a field study of the Bab Hood neighborhood and based on **the policies and executive measures of physical identity planning** (Fig. 1.), It can be said that there are two strategies for designing a new residential building adjacent to a historic building, assuming that it considers the process of preserving urban heritage and local identity:

1. New buildings should be completely similar to the historical buildings of the neighborhood.
2. The building will be reconstructed in a new way based on a complementary strategy, but using the historical elements of the neighborhood identity.

It is natural that after several years of war, it is not possible to build new buildings very similar to the historical monuments in the city of Homs (due to the need for speed after work after the war, lack of old construction materials, ease of use of new methods and new materials, and...) Therefore, new buildings must be rebuilt according to a complementary strategy; New buildings should be built with new construction materials and methods, but using neighborhood features to maintain physical identity.

In all the studied buildings, a small number of buildings have been built based on the specific characteristics of the historical area; But a method of the historical simulation was used that sometimes led to a complete imitation of the historical part and, in many cases even failed with mere imitation; but, despite the concerns of the architects or residents of the area to establish a connection with the adjacent past architecture, this attempt has been somewhat unsuccessful.

## 5. Discuss the topic

5.1. Analysis of the physical structure of the buildings in the region:

(Using the SWOT and AHP strategic analysis method based on the data from the interview with architects and people).

SWOT technique has been used to analyze the strategies for physically reconstructing residential buildings in the Bab Hood area. Preparing a list of opportunities and threats resulting from the analysis of external factors affecting the building, and preparing a list of strengths and weaknesses resulting from the analysis of internal factors affecting residential buildings. In this method; after identifying opportunities and threats and weaknesses and strengths and evaluating and scoring them, appropriate strategies and strategies for physical reconstruction are presented.

The hierarchical structure of the SWOT structure is shown in (Fig. 6).

(Source: (Görener et al., 2012)

*5.2. Combining the AHP method and SWOT model:*

Firstly, the SWOT analysis is performed and the matrix is structured. Factors related to the external and internal environment in the SWOT matrix are defined, analyzed, and constructed based on interviews conducted with the people of the Bab Hood neighborhood and by asking them limited and prepared questions about the area. The Strengths (S1, S2,...), Weaknesses (W1, W2,...), Opportunities (O1, O2,...), and Threats (T1, T2,...) of the physical condition of residential architecture in the Bab Hood neighborhood are examined from the architectural, socio-cultural and legal aspects in Table 2.

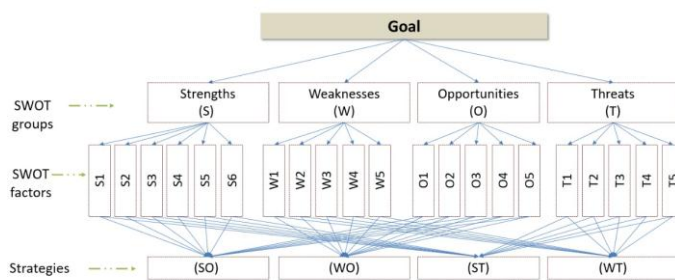


Fig. 7. Hierarchical structure of the SWOT matrix.

Table 2

**Comparison of strengths, weaknesses, opportunities, and threats in the Bab Hood neighborhood**

Strengths	Weaknesses
<p>S1: Using important historical monuments in the neighborhood to carry out the necessary projects in order to renovate post-war buildings. (There are important historical residential buildings in the neighborhood, such as the house and Sibat al-Adib and the house of al-Husseini)</p> <p>S2: Write new laws for post-war reconstruction and communicate executive policies to preserve the neighborhood's identity.</p> <p>S3: The use of neighborhood location, and the existence of historic public spaces reflect the characteristics of historic construction. (Homs city fortress and traditional bazaar)</p> <p>S4: Relative stability of neighborhood identity and motivation for people's participation in ideas of maintaining social and physical identity.</p> <p>S5: Emphasis on the right of people to participate in reconstruction (announcing policies to implement the principle and strengthen the role of the people).</p> <p>S6: Strengthen the sense of belonging of the people to the Bab-Hood area and the sense of belonging to the Islamic culture and Islamic architecture of the neighborhood.</p>	<p>W1: Weak correlation of contemporary buildings with the architecture and identity of the neighborhood. (And this weakness in the appearance of neighborhood buildings is easily recognizable).</p> <p>W2: There is a weakness in the sense of social responsibility and conscience of the people.</p> <p>W3: Occurrence of differences in the level of boundaries and uncertainty of privacy (indicating that historic buildings lost their character and privacy with the construction of contemporary buildings).</p> <p>W4: High population density and heterogeneity of historical context and its buildings with the population.</p> <p>W5: Lack of proper construction laws.</p>
Opportunities	Threats.
<p>O1: Improving the physical environment of the neighborhood (considering the beautification of the neighborhood and its Islamic architecture).</p> <p>O2: Utilizing the existing historical features in the neighborhood to reconstruct and strengthen physical identity.</p> <p>O3: Develop and implement laws related to construction in the neighborhood and public participation plan.</p> <p>O4: Creating a spirit of partnership between people, architects, governmental and non-governmental institutions to develop reconstruction programs.</p> <p>O5: Paying attention to inappropriate buildings and constructive spaces of neighborhood buildings and approaches to development of reconstruction program.</p>	<p>T1: Lack of empirical legal models to guide citizens' content and preserve identity.</p> <p>T2: Poor level of public awareness about the protection of the history and identity of the neighborhood.</p> <p>T3: Ignoring the role of identity and culture of spaces in the reconstruction work by architects.</p> <p>T4: Further destruction of the neighborhood identity due to the use of new materials in reconstruction work.</p> <p>T5: Emotional and unscientific decisions in reconstruction work.</p>

A pairwise comparison of SWAT agents in the form of AHP was performed, weighed, and prioritized in the Bab Hood area. Then, the Evaluation matrix of external factors

(opportunities and threats) and internal factors (strengths and weaknesses) are given in Table 3.

Table 3  
Single hierarchical arrangement and total arrangement

Factor	Local-weight	Rank	Index	C.R.	Local-weight	Global-weight	Rank
S	0.3545	1	S1	0.0148	0.2929	0.1038	3
			S2		0.2609	0.0925	4
			S3		0.0992	0.0352	13
			S4		0.1063	0.0377	11
			S5		0.0597	0.0212	17
			S6		0.1809	0.0641	5
W	0.1602	2	W1	0.102	0.2755	0.0441	9
			W2		0.1238	0.0198	18
			W3		0.2918	0.0467	7
			W4		0.0752	0.0120	20
			W5		0.2338	0.0374	12
O	0.3545	1	O1	0.0151	0.3007	0.1066	2
			O2		0.3685	0.1306	1
			O3		0.1374	0.0487	6
			O4		0.1265	0.0448	8
			O5		0.0789	0.0280	16
T	0.1307	3	T1	0.0197	0.3014	0.0394	10
			T2		0.1389	0.0181	19
			T3		0.242	0.0316	14
			T4		0.0892	0.0117	21
			T5		0.2284	0.0298	15

From the weight of the factor layer in Table 3:

- The Opportunity (0.3545) of residential buildings in the Bab Hood area was more significant than the threat (0.1307).
- The Strength (0.3545) was more significant than the weakness (0.1602).

Thus, there is more opportunity and evidence to develop residential buildings in the Bab Hood neighborhood during reconstruction.

The intensity of total strength, weakness, opportunity, and threat was calculated based on the single hierarchical and total arrangement. Then the strategic decision quadrangle in SWOT was constructed Fig. 7.

Four strategies are related to combining different internal and external factors in SWOT. They were SO (growth-oriented strategy), ST (diversified business strategy), WO (Adaptive strategy), and WT (defensive strategy), respectively. (Zhang & Feng, 2013)

Table 4  
the final weight of the strategies of the study area.

Strategies	SO	ST	WO	WT
Weights	0.7132	0.4851	0.5817	0.2906

From the analysis, it can be seen that the **growth-oriented strategy**, which is a combination of external opportunities and benefits, explains the appropriate strategy for the reconstruction of residential buildings based on the people of the neighborhood and architects.

SO-strategy: Strengthening the sense of attachment and belonging and restoring the identity of the post-war reconstruction neighborhood; Introduce high-level

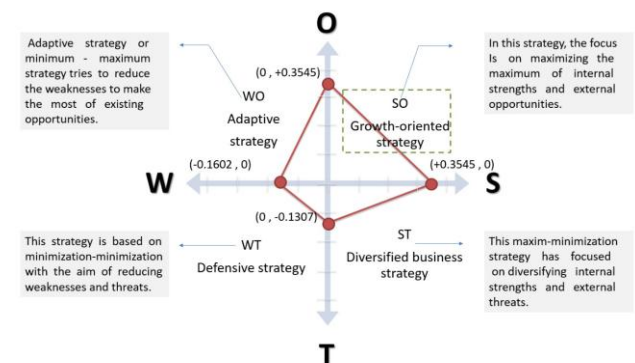


Fig. 8. Strategic decision quadrangle.  
By comparing the four main SWOT criteria in each format, the set of factors below the criteria is determined separately. The results can be seen in Table 4.

reconstruction projects (after the war) to improve the identity of the region by using appropriate laws and policies to renovate buildings and preserve the identity of the city; It is increasing the participation of neighborhood people and specialized architects in the planning process of design and reconstruction works.

Because the goals should be written based on the existing reality, so most important factors were tried to be



considered in the analysis of SWOT. All internal conditions of the neighborhood and its external conditions have been studied. The results of the review, prioritization, and evaluation based on the AHP method show that The most important strengths of the neighborhood are the presence of historical elements and the possibility of using them to create essential features of the neighborhood and use It is in the design and reconstruction work. At the same time, the most critical factor in the neighborhood's weakness is that the neighborhood's new buildings have nothing to do with its characteristics. It can be said that the lack of specific features and rules, and regulations of urban planning to build new buildings in the neighborhood (in terms of the physical shape of the building) is the greatest threat.

It is worth mentioning that the choice of strategy in the AHP-SWOT model as an excellent and complementary strategy does not mean that the other two strategies cannot be effective in managing the Bab Hood area, but it means that the capabilities to improve this area in the current situation in this two strategies are more than the others. Therefore, it can be said that: Matrix of strategies based on strengths, weaknesses, opportunities, and threats, valuation, and prioritization; and based on objectives:

- Due to the last war, it is possible to propose high-level reconstruction projects to improve the region's quality (Study and use the reconstruction experiences of others, especially post-war reconstruction experiences - Define and design different examples and take help from experienced global groups).
- Strengthening the sense of attachment and relationship of belonging and restoring the identity of the neighborhood after reconstruction (Using the special features of the neighborhood in the design of new buildings after the war and reconstruction work)
- It is possible to create appropriate laws and policies for the reconstruction of the buildings and preserve the city's identity. (Applying the rules and regulations for carrying out reconstruction works following the neighborhood's identity).
- Increasing the participation of neighborhood people and specialized architects in planning design and reconstruction works (Collaboration of experts with the people of the neighborhood to get acquainted with the culture and do construction based on it).

## 5. Conclusion

Through studying some experiences and regulations related to architectural proximity between historical and contemporary buildings, it appears that research is still limited. Despite different strategies for post-war reconstruction, methods, and laws do not directly address neighborhoods as an essential and existing urban phenomenon; this has led to the visual distortion of places and undermines their architectural value.

The importance of historic buildings requires preserving their architecture, not only through the reconstruction of

historic sites but also by studying the architecture of adjacent buildings. It should be noted that understanding the region's historical monuments and compatibility with them does not lead to mere imitation. However, designing a contemporary building adjacent to a historical monument can be mediated by respecting the constituent elements of the historical monument and preserving the identity of the region.

Based on our neighborhood architecture analysis of the Bab Hood area, we find that the area consists of modern buildings that do not reflect any of the existing civilization's characteristics. So, while reconstruction work in the affected areas is underway, it is necessary to find architecture that respects the past and traditions and at the same time looks to the present and the future.

Based on Studies, interviews, and field research conducted with residents and experts in the neighborhood, then by analyzing the data obtained based on SWOT and AHP methods, it can be said that the highest strengths in the region are the existence of important historical monuments that can strengthen their identity. Use city architecture, with a score of 0/1038. And the existence of cultural and historical attractions near the region, such as Osama Castle and the traditional bazaar of the city, strengthens the sense of belonging to the region with a score of 0.025. There are weaknesses against these strengths, most notably the lack of proper planning for the neighborhood's construction. Due to the designer's use of modern coatings, shapes, and materials, which have nothing to do with the location of the building, the building remains far from Homs' architectural style; and these are the most important weaknesses of the region, with a weighted score of 0.0467. Also; the most important opportunities in the region are that based on the condition of the building after the recent war, a suitable approach can be created for the reconstruction of the area with the previous score of 0.1306. In contrast, there are threats, the most important of which are the lack of special features and rules and regulations of urban planning for the construction of new buildings in the neighborhood (in terms of physical shape) with a score of 0.0394. And according to the characteristics of the Bab Hood area, it can be said that the opportunity to rebuild residential buildings in accordance with the neighborhood's identity is more than a threat and strength is more than weakness at this stage. And this shows that there are obvious benefits in the post-war reconstruction work in the city of Homs. The findings of this study show that the Growth-oriented strategy (SO) with a score of 0.7132 has been selected as the main strategy. And this strategy is a combination of opportunities and external benefits, which include strengthening the sense of attachment and revitalizing the identity of the neighborhood, introducing high-level reconstruction projects using appropriate laws and policies, and increasing the participation of local people and expert architects in the planning process of doing works.

Based on the research and field study and interviews and analysis of data obtained according to the SWOT and

AHP methods, it can be said that the opportunity for proper reconstruction of the identity of the neighborhood is more than a threat, and the strength of this stage is greater than the weakness. That showed that there are apparent opportunities and benefits in post-war reconstruction work. So it is imperative that the Bab Hood neighborhood be reconstructed by adopting a growth oriented strategy that combines external opportunities with its benefits.

## References

- Abouei, R., & Jafari, N. (2015). The Role of Infilling in Historic Fabrics A Comparative Study of International Instruments. *Soffeh*, 25(1), 119-138.
- AKBARI, A. (2019). Comparative-Deductive analysis of location of construction of health tourism complex based on SOWT strategic model and AHP analytic hierarchy process (A case study Qom city).
- Al-Mohannadi, A., Furlan, R., & Major, M. D. (2020). A Cultural Heritage Framework for Preserving Qatari Vernacular Domestic Architecture. *Sustainability*, 12(18), 7295.
- Alani, S. H. N., & Mahjoob, A. M. R. (2021). Using AHP to prioritize the corruption risk practices in the Iraqi construction sector. *Asian Journal of Civil Engineering*, 22(7), 1281-1299.
- Ali, M., Zarkesh, A., & Yeganeh, M. (2018). Development of housing architecture identity in Damascus. *J*, 16-33.
- Alsulaiman, B., Zarkesh, A., & Yeganeh, M. (2023). Choosing a strategy for the reconstruction of residential buildings after the war in terms of physical identity (case study: the city of Homs in Syria). *Journal of Building Pathology and Rehabilitation*, 8(1), 22.
- Arbab Shirani, B., Zeynal Hamadani, A., & Shavaran, S. H. (2019). Application a Mixed Model of Factor Analysis and SWOT Analysis in Determining Strategic Priorities for Higher Education (Case Study: Isfahan State Higher Education Subsystem). *Journal of Educational Sciences*, 26(1), 217-240.
- Asadpour, H., Yousefpour, F., & Faizabadi, Y. (2016). Comparison between definitive and fuzzy decision models and their application in appointing the priority of agricultural production combination.
- Bemanian, M., & Alsulaiman, B. (2020). Feasibility Study of Assignment of Syrian Projects to Iranian Architects Using Grounded Theory. *Building Engineering & Housing Science*, 13(25), 7-16.
- Çizgen, G. (2012). *Rethinking the role of context and contextualism in architecture and design* Eastern Mediterranean University (EMU)].
- Coruhlu, Y. E., Baser, V., & Yildiz, O. (2021). Object-based geographical data model for determination of the cemetery sites using SWOT and AHP integration. *Survey Review*, 53(377), 108-121.
- Dabiri, F., Laghaee, H. A., & Shirazian, S. (2014). Study of the Convention Concerning the Protection of World Cultural and Natural Heritage of 1972, and a selection of some natural monuments specimens of Iran and their adaptation to the criteria of the. *Journal of Environmental Science and Technology*, 16(1), 319-340.
- Daneshjoo, K., & Al-Sulaiman, B. (2021). Climate-Responsive Architecture for the Residential Houses of Homs: A Comparison of Traditional and Contemporary Houses. *Journal of Housing and Rural Environment*, 40(173), 61-74.
- Darwish, M., & Shehab, E. (2017). Framework for engineering design systems architectures evaluation and selection: Case study. *Procedia CIRP*, 60, 128-132.
- El-Borombaly, H. (2015). Building regulation, control for Conservation of Architecture and urban heritage to the value Areas. *Qaseem University*.
- Foroughi, F., & Ghani, K. (2015). War Crimes against Cultural Heritage in Syria's Armed Conflict. *Criminal law and Criminology Studies*, 2355-333, (شماره 4 و 5).
- Ganji, F., & Rishbeth, C. (2020). Conviviality by design: the socio-spatial qualities of spaces of intercultural urban encounters. *Urban Design International*, 25, 215-234.
- Gharebaglou, M., Ebrahimi, A. N., & Ardabilchi, I. (2019). Infill Architecture: An Interdisciplinary Approach to the Design of Historic Context Case Study: Mashruteh Complex in the Historic Bazaar of Tabriz, Iran\*.
- Görener, A., Toker, K., & Ulucay, K. (2012). Application of combined SWOT and AHP: a case study for a manufacturing firm. *Procedia-social and behavioral sciences*, 58, 1525-1534.
- ILICALI, E., & GİRİTLİ, F. H. (2020). Measuring the environmental performance of urban regeneration projects using AHP methodology. *A/ Z ITU Mimarlık Fakültesi Dergisi*, 17(2), 123-142.
- Jiang, X., Wang, Q., & Zuo, W. (2015). Study on Construction Science & Technology Development using AHP-SWOT Method [A]. Proceedings of 2015 2nd International Conference on Education, Management and Computing Technology (ICEMCT 2015).
- Karimi Skaboni, M., & Pourjafar, M. (2017). Organizing the Cultural, Historical Axes of Qazvin City with Contextualism Approach,(Case Study: Street Peighambarieh). *Space Ontology International Journal*, 6(3), 1-16.
- Khalil, I., Khalabi, S., & Alhalabi, Z. (2016). Architecture study of thenold city part of Homs. *Вестник Российского университета дружбы народов. Серия: Инженерные исследования*(1), 157-165.
- Li, X. (2018). A great Chinese 'rural' metropolis—the unity and contradictions in Beijing's urban identity. In *Cities' Identity Through Architecture and Arts* (pp. 3-8). Routledge.
- Margles, S. W., Masozera, M., Rugyerinyange, L., & Kaplin, B. A. (2010). Participatory planning: Using SWOT-AHP analysis in buffer zone management planning. *Journal of sustainable forestry*, 29(6-8), 613-637.
- Mekhael, S., & Saker, A. (2021). Architecture of Public Buildings in Syria in the Second Middle of the 19th and Early 20th Centuries (1850 – 1918) (the Late Ottoman Period). *Tishreen University Journal -Engineering Sciences Series*, 42(6).
- Memorandum, V. (2005). Vienna Memorandum World Heritage and Contemporary Architecture: Managing the Historic Urban Landscape. In: Paris: UNESCO World Heritage Center.
- Motevalian, N., & Yeganeh, M. (2020). Visually meaningful sustainability in national monuments as an international heritage. *Sustainable Cities and Society*, 60, 102207.
- Mushtaha, E., Alsyouf, I., Al Labadi, L., Hamad, R., Khatib, N., & Al Mutawa, M. (2020). Application of AHP and a mathematical index to estimate livability in tourist districts: The case of Al Qasba in Sharjah. *Frontiers of Architectural Research*, 9(4), 872-889.
- Naghavi, P., & Mazaherian, H. (2019). Analysis of Contemporary Theories When Encountering the Context in Architectural Design. *The Monthly Scientific Journal of Bagh-E Nazar*, 16(74), 69-80.

- Nakhaei, J., Bitarafan, M., & Lale Arefi, S. (2015). Choosing the best urban tunnels as safe space in crisis using AHP method: a case study in Iran. *Journal of Architecture and Urbanism*, 39(2), 149-160.
- Navickienė, E. (2012). Infill architecture: chasing changes of attitudes in conservation of urban heritage. HERITAGE 2012-proceedings of the 3rd international conference on Heritage and Sustainable Development,
- PALABIYIK, S., & ALKILINC, E. (2021). Developing a web based software for the evaluation of architectural designs.
- Rukayah, R. S. (2022). Post office and the sustainability of triangle historical area in Semarang from the traditional era to the colonial era.
- Sabzekar, M., Afarideh, F., Deldari, A., & Rezaei, A. (2020). DAMP: Decision-Making with the Combination of Analytical Hierarchy Process and Deep Learning (Case study: Car Sales Forecasting). *Computer and Knowledge Engineering*, 3(1), 123-128.
- Semes, S. W. (2007). " Differentiated" and" Compatible": Four Strategies for Additions to Historic Settings. *Forum Journal*,
- Setiawan, C., Hardi, O., A'Rachman, F., Ariyanti, O., Fattah, R., Baihaqy, M., & Abidin, Z. (2022). Determination of land conservation policy using the analytical hierarchy process method in Weninggalih Village, Jonggol District, Bogor Regency, West Java. *IOP Conference Series: Earth and Environmental Science*,
- Shahtemori, Y., & Mazaherian, H. (2012). Design Guidelines for New Constructions in Historic Context. *Honar-Ha-Ye-Ziba: Memary Va Shahrsazi*, 17(4), 1-15.
- Shenavar, B., Hosaini, S. M., & Ovrak, N. (2012). Application of Analytic Hierarchy Process (AHP) in Assessing Land Capacity for Urban Development in Geographic Information System (GIS) Environment [Original Research]. *Geographical Researches*, 27(2), 129-149.
- Soosani, L. (2013). *Questioning the compatibility of the infill architecture in historic environment, case study: walled city of Nicosia* Eastern Mediterranean University (EMU)-Doğu Akdeniz Üniversitesi (DAÜ)].
- Titchen, S. M. (1996). On the construction of 'outstanding universal value': Some comments on the implementation of the 1972 UNESCO World Heritage Convention. *Conservation and management of archaeological sites*, 1(4), 235-242.
- Ulusoya, M., Erdogan, E., Erdogan, H., & Orala, M. (2013). Re-Using of the Historical Buildings in the Context of Sustainability: AN Architectural Design Studio Study on Old Girls Teacher Training School. *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, 5, W2.
- Venturi, R., Stierli, M., & Brownlee, D. B. (1977). *Complexity and contradiction in architecture* (Vol. 1). The Museum of modern art.
- Yavuz, F. (2021). Urban sprawl: An empirical analysis for Konya Province Turkey. *A/ Z ITU Journal of the Faculty of Architecture*, 18(1), 79-97.
- Yazdani Mehr, S. (2019). Analysis of 19th and 20th century conservation key theories in relation to contemporary adaptive reuse of heritage buildings. *Heritage*, 2(1), 920-937.
- zare, Z., & sardari, A. (2015). ApplyingSWOT andSWOT- AHP models in logistics of borderline areas focusing on strategiesand priorities of planning : Under Study Areas (Marivan and Baneh). *journal of border studies*, 3(3), 121-146.
- Zhang, Y., & Feng, L. (2013). Development assessment of leisure agriculture in Henan province of China based on SWOT-AHP method. *Journal of Industrial Engineering and Management (JIEM)*, 6(2), 642-653.
- Zhao, J.-j., Chen, R.-n., Wang, J.-h., & You, X.-y. (2022). Multiple indicators and analytic hierarchy process (AHP) for comprehensive performance evaluation of exhaust hood. *Building Simulation*,