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Reinforcing Urban Identity and Social Sustainability: A Case Study of Kizil Hamam Street in the Walled City of Famagusta

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Abstract: This study explores the relationship between urban identity, sense of place, and social sustainability through a qualitative analysis of Kizil Hamam Street in the historic Walled City of Famagusta, Northern Cyprus. Using observations, photographs, and maps, the research evaluates key urban identity elements such as street form, building shapes, façade characteristics, and natural features and their influence on residents' sense of place. The findings indicate that historical continuity in building functions and facades contributes positively to place attachment. However, the limited presence of vegetation weakens the environmental identity of the street. The study concludes that preserving architectural identity and enhancing environmental features can strengthen the sense of place and, consequently, improve social sustainability in historic urban areas.

Keywords: Urban identity, Sense of place, Social sustainability, Walled city.

1. Introduction

Various researchers have defined identity differently over time. Identity is a quintessential attribute that qualifies an environment as an ideal one. The term identity found its origin in the study of architecture due to the universal policy concept initiated by modernist architecture [1]. Identity can be described as a set of signs and signals that distinguishes people, persons, and communities biologically, materially, psychologically, and culturally, such that it makes them peculiar from others [2]. Identity is the sum of the behavioral patterns which is used in describing the various assets with their natural and cultural properties. It has the tendency to easily change over time; besides, it can also be changed intentionally [3]. Identity has four parts, they are: origin or cultural heritage, quality and character of social needs, local features and factors depending on topography, and the production of appropriate technology [4].

In connection with how the city is being experienced, place-identity precedes 'urban identity'. Urban identity of a city can be described as the collection of the expressions of all its different physiological characteristics indexed utilizing its roads and settlements, its important and modern structures, in every space and popular built areas [5]. According to researchers such as Relph (1976), Garnham (1976), and Carmona (2007), urban identity can be categorized into three dimensions [6-8]. Firstly, it has to do with the visual appearance of the environment, in other words, what is physically seen in the setting these including landscapes, built structures, climatic conditions, and the quality of the aesthetics. Secondly, the functional and observable activities around the setting are concerned with how the individuals communicate with their environment. Finally, the third part is meaning and symbols, which are an outcome of people's experiences and purposes on an environment reacting to the physiological nature of the place and functionality [9].

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Here, urban identity points to the nature of the town's peculiar form of culture and its socio-economic dimensions that differentiate it from other cities or the visual space [10]. The elements in nature that constitute its urban identity include the following geographical entities: flora, climate, topography, as well as certain elements added by man to the environment, such as structures, iconic buildings, urban areas, roads, public squares, and urban crafts [11].

The dimensions of urban identity that appear both in time and space and significantly influence it are as follows:

1. Identity components that are derived from the nature of the environment itself, they are factors such as land topography, climate, and vegetation.

2. Identity factors that are societal in nature (Socio-economic and socio-cultural characteristics),

3. Identity influences that arise due to the environment's artificial nature or manmade, such as roads, walkways, public squares, avenues, monumental architectural buildings [12].

As urban space users have an experiential feel for the walkways, roads, paths, and other linear three-dimensional spaces, they also get a feel for the upright structures that exist along the sides of the linear path, such as trees, buildings, and facades [9].

Mansouri (2009), suggests that the components of a streetscape an the elements that helps define its characteristic is known as static for examples, building structure, free spaces, path ways, street furniture greenery as well as dynamic (foot path and theirs activities within the environment of the structure) system [13].

A sense of place is described as the factors that create a connection between people and a certain environment. It also involves perception and identity, which makes it easier for people to easily make sense of a place [14]. Senses of place enable an individual to mentally like and appreciate shows that the person is linked to the place [15]. Phenomenologists suggest that a sense of place can be defined as own a person is linked to a place through a good comprehension of signs and everyday activities [6].

Sense of place can be seen from different perspectives, whereas, dimensions of sense of place can be categorized into two groups, namely cognitive and physical [16]. From the cognitive factor: Sense of place is a complex mixture of meanings, symbols, and the quality that a person or a group perceives from space or a specific area consciously or unconsciously [17]. That is to say, individuals who don't possess a sense of place are not supposed to survive in that environment since the place is supposed to provide that feeling of connection and relationship in the person. From the physiological point of view, the most crucial sets of factors that influences the perceptibility if sense of place of individuals are as follows scale, location degree of how much the object is concealed, proportion, human scale, open space, texture, color, smell, sound, diverseness of the views, history, imagination and fantasy, mystery, joy, surprise, security, vitality, and passion cause intensive memory relationship with the place [15].

Social sustainability is understood as the capacity of urban environments to foster long-term social cohesion, equity, participation, and cultural continuity. According to Colantonio (2008) and Bramley et al. (2006), socially sustainable places promote a sense of belonging, safety, and inclusion among residents [18, 19]. Theories from environmental

psychology suggest that a strong sense of place developed through meaningful interactions with familiar, identity-rich environments can significantly enhance social sustainability by encouraging emotional investment, communal memory, and long-term residency. Therefore, this study considers sense of place as a key mechanism through which urban identity can contribute to social sustainability, especially in historically layered settings such as the Walled City of Famagusta.

This study tries to find out how we can change the attitudes of people through the strengthening of a sense of place. Although there are too many residential buildings in the Walled city, however, people are not willing to live in such historical place to live in the Walled City as a historical place. According to the literature review, place identity is a significant determinant of the sense of place. Specifically, this study uses the street identity as a measurement for sense of place. The main objective of this research is to increase the level of sense of place, which will lead to an increase the social sustainability subsequently. To do this, this study, in line with the objective, provides two main research questions as follows: What is place identity, and how is it related to social sustainability? How does enhancing the sense of belonging contribute to strengthening social sustainability?

To answer the research questions, this study uses a qualitative approach that is based on observations, photos, and maps. The rest of this study is presented as follows: Section 2 describes the methodology and case study. Section 3 explains about results. Section 4 is the conclusions.

2. Methodology

This study employed a qualitative research approach based on direct observation, photography, and analysis of maps and visual materials. The selected study area, Kizil Hamam Street, includes a total of 14 buildings spanning the length of the street, which were systematically analyzed in terms of street form, building shape, façade characteristics, function, and environmental features. Observations were conducted during the spring of 2016, over a period of several weeks, allowing for consistent daylight and climate conditions to evaluate environmental comfort and visual qualities. While no formal resident interviews were conducted, informal conversations with local shopkeepers and residents during field visits provided contextual insight into the use of space and perception of the street's character. These qualitative inputs helped support the physical analysis and provided cultural grounding for understanding place identity and its social implications.

2.1. Case Study

"Kizil Hamam" Street, situated within the historic Walled City of Famagusta, was selected as the case study for this research due to its distinctive combination of architectural, historical, and cultural characteristics. The street reflects a complex layering of urban identity elements, with architectural traces from the Lusignans and Ottoman periods, as well as more recent developments. Its historical importance lies in both its physical role within the city's defensive structure and its function as a space shaped by cross-cultural interaction over time. These features make "Kizil Hamam" Street a representative and meaningful example for exploring the challenges of preserving urban identity and enhancing social sustainability in a historic urban context. Figure 1 shows the geographical location of the selected street on the map.

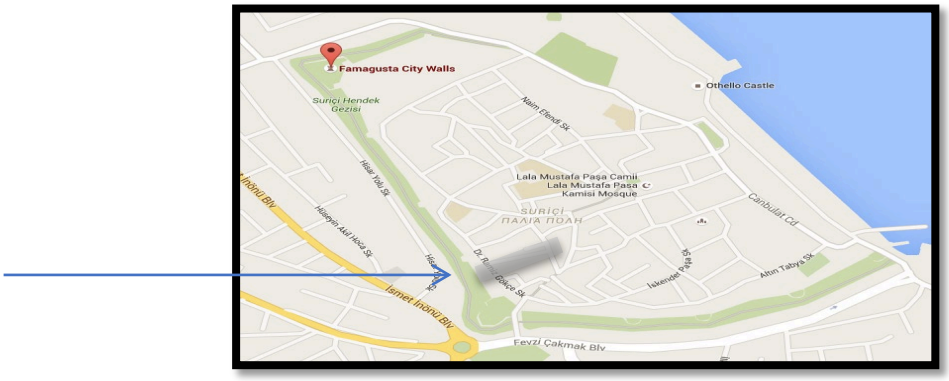


Figure 1: Kizil Hamam Street [20]

Additionally, the following Figures describe the view of the sample case study street. Figure 3 demonstrates the view of the street from the entrance to the exit point, whereas Figure 4 shows a view of the street from the exit to the entrance point. Figure 5 shows a view from the middle to the end.

(2) (3) (4) (5)

Figures 2-5: The view of the Kizil Hamam Street

This street has three important characteristics due to the following reasons: The first characteristic is easy accessibility and visual access (Figure 6).

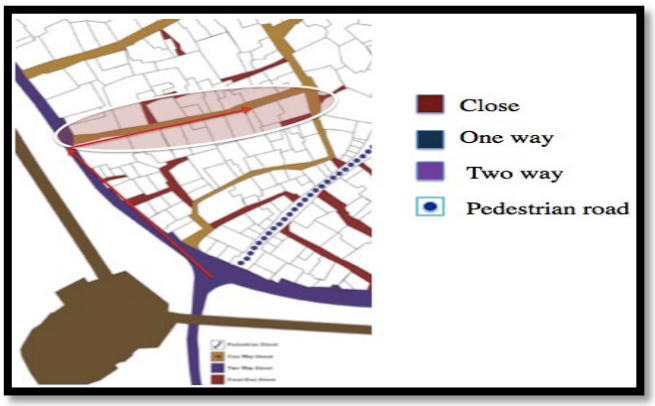


Figure 6: Accessibility

The second characteristic is the double-sided spectacular views of the sample case study street to the Walled City (entrance point) and the significant monument (exit point) (Figures 7 & 8).

Figure 7: View of the Walled City

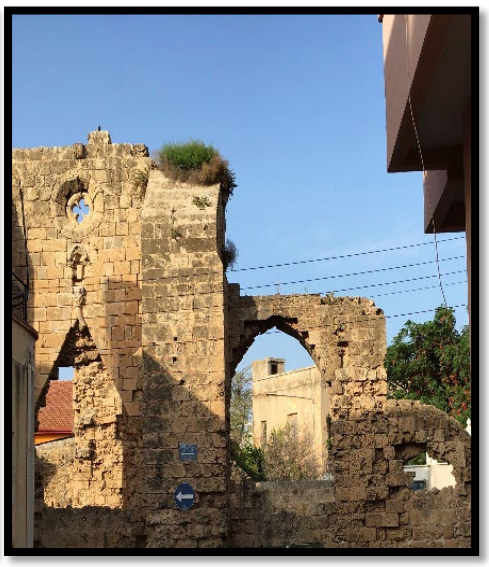


Figure 8: View of the Monument

Third, this street has two significant character buildings. Figure 9 demonstrates the location of these two buildings in the sample case study street. Figures 10, 11, 12, 13, 14, and 15 show that these buildings have special colors, materials, and types of windows.

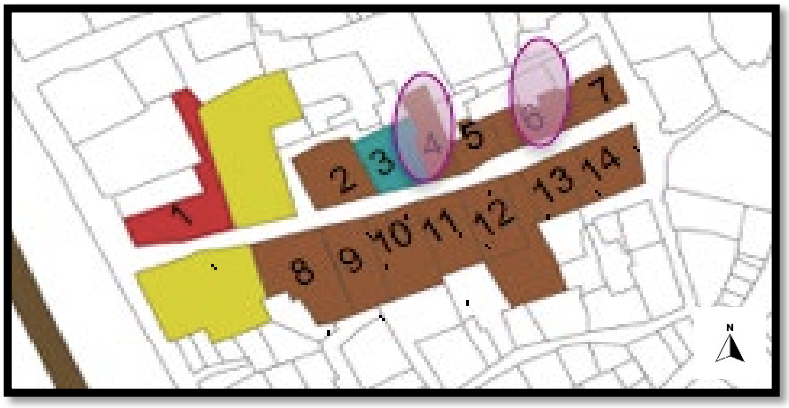


Figure 9: Location of Significant Buildings

Figures 10-12: Significant Building (Number 4)

Figures 13-15: Significant Building (Number 6)

3. Analysis

Based on the reviewed literature, the evaluation of urban identity in this study focuses on five common dimensions: “street form”, “building shape”, “functions”, “vegetation and climate”, and “building façade characteristics (skyline, type of the roof, type of the window, row of buildings, preserving the characteristic of the buildings, courtyards, balcony)”. Table 1 presents the analytical framework used in the case study analysis, linking each dimension to specific indicators and corresponding literature sources.

Table 1: Selected indicators.

Urban Identity Dimension	**Indicators Used in Analysis**	**Key Literature Sources**
Street Form	Linearity, enclosure, visibility, continuity	Hartanti & Martokusumo (2012), Mansouri (2009) [9, 13]
Building Shape	Massing, silhouette, organic form	Relph (1976), Carmona (2007) [6. 8]
Building Functions	Residential, commercial, and public uses	Gündüz (2005), Carmona (2007) [3. 8]
Vegetation & Climate	Tree presence, shading, climatic orientation	Gündüz (2005); Vali & Nasekhiyan (2014) [3. 15]
Façade Characteristics	Roof type, windows, balconies, courtyards, preservation of elements	Torabi & Brahman (2013), Gürsel (1996), Hacıhasanoğlu (1996) [2, 4. 11]

3.1 Street Form

Figure 16 shows that the sample street has a straight form and a direct visual view to the exit.

Figure 16. Form of the Street

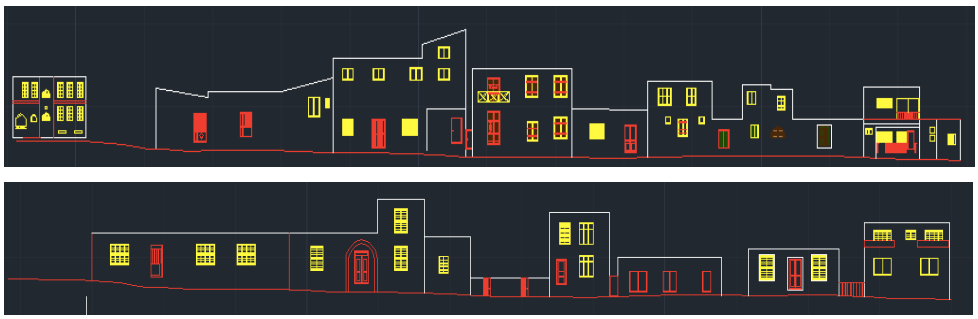
Furthermore, the street has a wrapped shape from the entrance corners and building intimates (Figures 17 & 18). Similarly, the street has the wrapped shape from the exit corners and building intimates (Figure 19). However, the other building is intimate from the ground (Figure 20).

Figures 17-18. Street Form of Corners

Figures 19-20. Street Form of Corners

3.2 Buildings Shape

The second factor is related to the shape of buildings. Figures 21 and 22 show the irregular shape, and most of the houses were organically and directly linked to the street.



Figures 21-22. Silhouette

3.3 Building Functions

The third common determinant is related to the functions (Figure 23). Table 2 demonstrates the number of functions in the sample case study street. In summary, it comprises fourteen buildings, including one office, two open spaces, ten residential buildings, and one public utilities building.

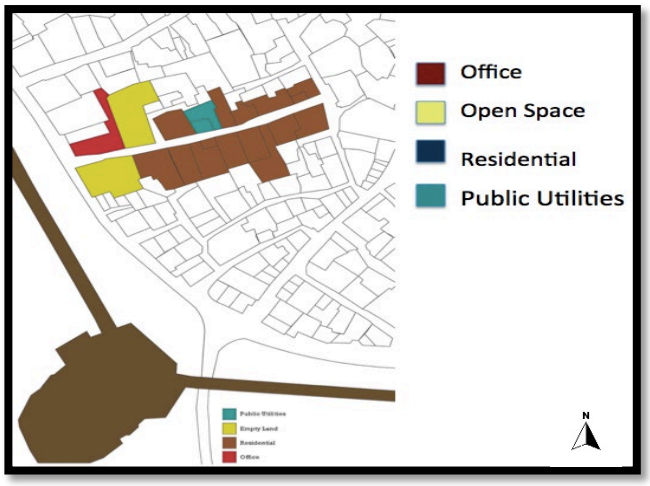


Figure 23. Functions

Table 2: Number of Functions.

Functions	Number
Office	1
Open Space	2
Residential	10
Public Utilities	1
Total	14

3.4 Vegetation and Climate

According to the literature review in Section 1, the natural environment, particularly vegetation and climate, is an important determinant of urban identity and sense of place. Figure 24 shows the location of the few trees along the sample case study street. Notably, the tree highlighted in Figure 25 gives a specific character to the street. Although vegetation is limited, this single prominent tree holds both ecological and symbolic value. Ecologically, it provides shade and contributes to microclimatic comfort. Symbolically, its presence in an otherwise built-up environment serves as a distinct visual marker, offering a subtle yet meaningful connection to nature and enhancing the street's identity within the dense historic fabric.

Figure 24. Vegetation

Figure 25. Vegetation

According to the climate analysis, Figure 26 shows the direction of the winter and summer winds. Figures 27 and 28 demonstrate the linear shading in the morning and evening, which provides an inhabited street for people.

Figure 26. Climate

Figure 27. Morning Time

Figure 28. Evening Time

3.5 Building Facade Characteristics

The fifth factor is related to the buildings' façade, which is considered as the skyline, type of the roofs, type of the windows, courtyard, balcony, row of the buildings, and preserving the characteristics of the buildings. Synthesizing the various façade components reveals a coherent architectural language shaped by the historical layers of the Lusignan, Ottoman, and British periods. Most buildings exhibit pitched roofs, low-rise massing (one to two

floors), and courtyard-based layouts, while the variety in window forms reflects influences from different historical phases. Despite this diversity, the street maintains a consistent visual rhythm, with attached rows of buildings, preserved façade elements, and horizontal alignment contributing to a strong sense of spatial continuity. This dominant façade character expresses the street's historical identity and enhances the human-scale experience. It strengthens the sense of place by reinforcing visual memory and cultural continuity, which are essential components in supporting social sustainability in the historic Walled City context.

3.5.1 Skyline

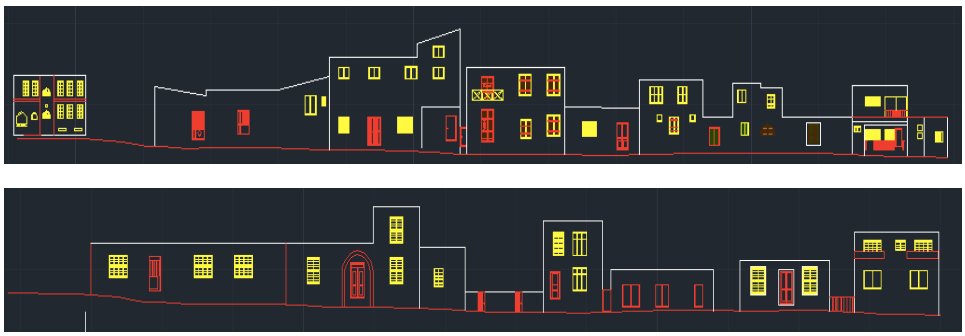
The sample case study street is located in the Walled City, which has a valuable historical background, and most of the buildings have no more than three floors. Figure 29 shows the number of building floors in the sample street.

Figure 29. Location of Floors

Table 3 shows that among the total buildings, seven buildings have one floor, six buildings have two floors, and one building has three floors. According to the number of floors, Figures 30 and 31 demonstrate that the horizontal lines are dominant on façades and the street is in human scale.

Table 3: Number of Floors.

Floors	Buildings
One	7
Two	6
Three	1
Total	14



Figures 30-31. Skyline

3.5.2 Skyline

Table 4 illustrates that among the total buildings, nine buildings have a pitched roof and five buildings have a flat roof. Generally, most of the buildings in the sample street have a pitched roof.

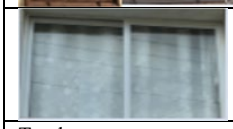
Table 4: Types of Roofs.

Type of Roofs	Number of Buildings
Pitched	9
Flat	5
Total	14

3.5.3 Type of Windows

According to the evaluation, this street has many different types of windows due to the different historical periods. However, I classify the type of windows into three different forms from material and shape as shown in Table 5.

Table 5: Types of Windows.

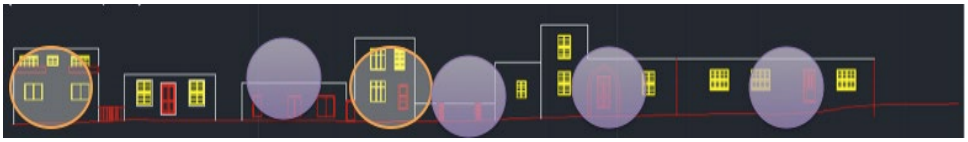
Type of Windows	Number of Buildings
	4
	5
	5
Total	14

3.5.4 Balcony and Courtyard

Another significant factor for the evaluation of the facade is the balcony and courtyards. According to the Cypriot culture, the balcony could lead to extending the living environment and courtyards, with its fruit trees, flowers, and small vegetable plot, which is the closest relation the house has to nature; and thus it also provides the inhabitant with direct access to nature. Table 6 shows the number of buildings with balconies and courtyards. It shows that three of the buildings have a balcony and nine of the buildings have a courtyard. Figures 32 and 33 demonstrate the balconies and courtyards of the buildings in the sample street.

Table 6: Number of Balconies and Courtyards.

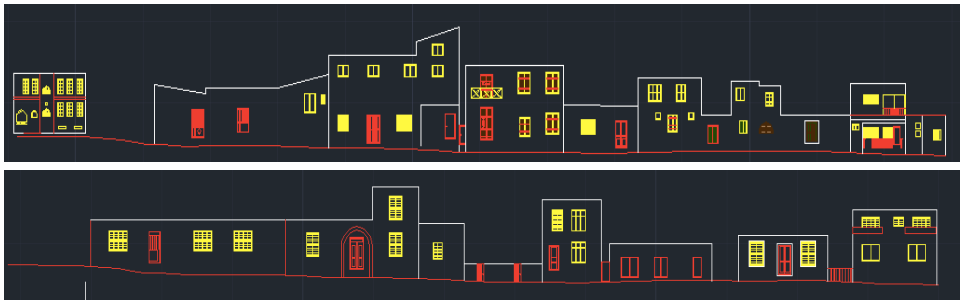
Balcony and Courtyard	Number of Buildings
Balcony	3
Courtyard	9
Total	14



Figures 32-33. Location of Balconies and Courtyards

3.5.5 Row of Buildings

The fifth factor of the façade evaluation in the case study is the row of buildings. Figure 34 shows that the position of the buildings on one side of the street is attached to each other in the same row. On the other hand, on the other side of the street, except for two buildings, all the buildings are attached to each other in the same row (Figure 35).



Figures 34-35. Row of Buildings

3.5.6 Preserve the Façade Characteristics

The last factor for façade evaluation is preservation of façade characteristics, which is in line with their historical periods. Figure 36 and Table 7 show the degree of façade characteristics, such as preserved, contrary, and partially for the buildings. In this study, these categories are defined as follows: Preserved façades retain their original historical features with no significant alterations. Partially preserved façades maintain some original elements but include visible modifications, such as replaced windows or non-original materials. Contrary façades have been extensively altered and no longer reflect the building's original architectural identity.

Overall, Table 8 shows that the sample street has seven preserved characteristics buildings, four contrary characteristic buildings, and three partially characteristic buildings, respectively.

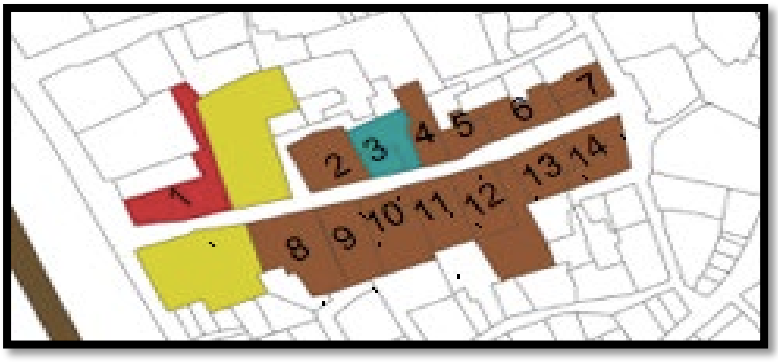


Figure 36. Number of Buildings

Table 7: Degree of Façade Characteristic.

Number of Buildings	Façade Preservation
1	Contrary Facade
2	Preserve Facade
3	Contrary Facade
4	Preserve Facade
5	Preserve Facade
6	Preserve Facade
7	Preserve Facade
8	Partially Deformed Facade
9	Preserve Facade
10	Contrary Facade
11	Partially Deformed Facade
12	Partially Deformed Facade
13	Preserve Facade
14	Contrary Facade

Table 8: Number of Building Façade Characteristics.

Characteristic	Number
Preserve	7
Contrary	4
Partially	3
Total	14

4. Conclusion

This study explored how urban identity and architectural characteristics contribute to enhancing the sense of place and, in turn, support social sustainability in historic environments. The qualitative analysis of "Kizil Hamam" Street revealed that building function, street form, and especially façade characteristics, including skyline, roof type, window forms, courtyards, and alignment, have been preserved in a manner that reflects the area's historical identity, shaped by Lusignan, Ottoman, and British periods.

In response to the research questions, the findings demonstrate that place identity is a central component in strengthening the sense of place, especially when the built environment retains its cultural and historical continuity. The presence of unique architectural landmarks, such as two historically significant buildings and a terminating monument, further reinforces the visual and symbolic identity of the street. These elements promote a deeper emotional connection and familiarity, which enhances the sense of place for residents and visitors.

As supported by theoretical perspectives, a strong sense of place is not only a psychological response but also a social one that fosters belonging, memory, and a sense of attachment. These qualities directly influence social sustainability, as emphasized by encouraging long-term engagement, community interaction, and cultural continuity. Therefore, preserving and reinforcing the architectural identity of "Kizil Hamam" Street plays a crucial role in maintaining and enhancing the social sustainability of the Walled City.

However, the analysis also showed a notable weakness in the presence of vegetation and environmental features, which are important for completing the sense of place. Strengthening these aspects could further enhance environmental comfort and increase the street's livability, contributing to a more holistic sense of social sustainability.

While this study offers valuable insights into the relationship between urban identity and social sustainability, it is important to acknowledge its limitations. As a single-case study focused on "Kizil Hamam" Street, the findings may not be directly generalizable to all historic urban contexts. However, the methodological approach and conceptual framework can be adapted and applied to other streets and cities with similar historical layering and cultural importance.

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