

# Assessing the Identity of Place through Its Measurable Components to Achieve Sustainable Development

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**Abstract** Scholarly studies have enriched the definition and theory of place identity since the 1960s. These trends are becoming more prevalent in the urban setting. This is because place identity has become a common theme in many researches and design projects and a thriving theme in policies and regulations to achieve sustainable development. In this respect, it is necessary to review these studies to identify the points of intersection and present updated evidence that incorporates the most relevant approaches. In this context, literature provides a deep understanding of place identity definitions through literature and research articles that discuss many factors and elements that identify place identity. This review divided the data into definitions, types, layers, levels, forms, features, dimensions, principles, and elements. Based on the research objective to present a reliable tool to measure the sense of identity in public places, the study used the descriptive-analytical approach to analyze, compare, and explore the collected information on place identity to present a matrix for evaluating place identity. According to the matrix, identity can be categorized into three axes: environment, people, and interaction; under two primary classifications: tangible and intangible. The findings confirmed a network of elements that were coded and defined. Parcel "elements" are evaluated by grouping them into three groups according to their contribution: positive element contribution, negative contribution, and neutral or non-contributing element. Based on the matrix checklist proposed as part of the evaluation strategy, the

outcome indicates the extent of the place's senses of identity. The suggested matrix could be used to compare different places' sense of identity, and accordingly, the places could be developed based on these results.

**Keywords** Place Identity, Measuring Identity, Identity Components, Sustainable Development

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## 1. Introduction

Since the dawn of civilization, humans have sought to identify and relate to their environments, and they were evolving their environments while they have evolved. Consequently, cultures have been developed, societies have been formed, places have been created, and then it has been characterized. Today, due to globalization, the rapid rate of urban growth, and the changes that happened in old cities to adapt to mutable human needs, the images of cities become similar, repetitive, and monotonous [1]. This situation has led to a cause for concern among researchers and urban designers. As life in public places is one of the most significant aspects of urban design [2], contemporary urban design is mainly concerned with the quality of public places, both physical and socio-cultural. Cities need to celebrate their environments through different means beyond functionalities and physicality by offering a range of meanings and values [3].

Several UN-Habitat reports [4]–[7] confirm this. Today

identity is a common phenomenon in many research studies. According to a survey of recent research, academic journals have seen an increase in articles about place identity in the last 40 years, notably since 2006 [8]. Due to the difficulty in perceiving urban identity, scholars and urbanists have attempted to investigate related notions such as place identity, attachment to place, sense of place, place dependence, and regional identity [9]–[11]. Urban identity is a broad theme and concept in urbanism and urban design; it is used in various ways and does not appear to be a fully defined term [12]. It exists on multiple scales: local, city, regional, and national, and can be viewed from various perspectives: personal, collective, and external; it develops over time, and is affected by change and influenced by multiple factors [13]. The various perspectives in understanding the urban identity nation were the motivation behind this research as these calls for the need to review these multiple studies to find the points of intersection between these explications and come up with a new reading that includes the all-important of those approaches.

For many researchers and urbanists, urban identity is too complex to define. Some of them (Norberg-Schulz [14], Urry [15], Hague and Jenkins [16], Bentley and Butina-Watson [17]) described urban identity as place identity, indicating the placeness of a nation [12]. This paper adopts the opinion that the experience within urban places is the most important of urban identities, as the place is a repository for emotions and relationships that offer meaning and purpose to life, convey a sense of belonging, and are crucial to a person's well-being [18], [19]. This study reviewed urban identity by focusing on place identity and testing the hypothesis that place identity has measurable elements, which could be used for assessing and developing a sense of identity. This investigation of identity in urban areas by creating a tool to evaluate is vital because places with a powerful identity help promote awareness and connect within society [20], which is consistent with the calls for sustainable development. This paper reviews several definitions before concluding what it means by positioning at various levels, types, features, forms, dimensions, classifications, and elements.

## 2. Materials and Methods

The study stemmed from extensive reading of reliable literature and research articles on place identity since the term appeared in the urban design literature in the 1960s. As the scale of the data required for this study is impossible for one researcher to collect, data from other sources were used wherever it was relevant and available. Because it is impossible to change how data were collected and analyzed retrospectively, the methods used in these sources become an influential factor in this research.

The present research objective is to present a new tool to measure the sense of identity in public places. The study was conducted using three methods. First, the inductive

approach of literature and research articles reviews several factors and elements that identify place identity. Second, the study follows the descriptive-analytical methodology through a qualitative process to analyze, compare, and explore the collect information on place identity. Finally, the study presents a matrix that evaluates the identity in public places, depending on the deductive method.

## 3. Identity in the Urban Context

### 3.1. Definitions

In the 1970s, there was a surge in interest in studying people's relationships to and perceptions of places. 'Identity of place,' according to Lynch [21], is simply that which offers 'individuality or distinctiveness from other locations... the basis for its recognized as a separate entity.' For Relph [22], this merely acknowledges that each place has a 'unique address' without explaining how it becomes identifiable. He argued that the three main parts of place identification are 'physical setting,' 'activities,' and 'meanings'. Drawing on Relph's work, Canter [23] considered places as functions of 'activities' plus 'physical attributes' plus 'conceptions.' (Figure 1).

However, the human interaction with elements is what gives the sense of place, not the element itself. Punter [25] and Montgomery [24], building on Relph and Canter's ideas, identified the elements of the sense of place in the thought of urban design, as shown in Figure 2.

Proshansky [26] was also one of the initials who introduced identity in the urban context when he defined it as "... those aspects of self that determine an individual's identity in relation to their physical surroundings through a complex pattern of conscious and unconscious feelings, ideas, goals, skills, preferences, values, and behavioral tendencies relevant to a particular environment". Then he described the notion comprehensively by suggesting that place identification is an element of self-identity, the built environment surely influences how city people describe themselves within society. As a result, place identity emerges from direct interaction with the physical world, and it represents the area's social, cultural, and ethnic features [27]. At the same time, it is critical to a person's well-being because it aids in the maintenance of self-identity and the adaptation to changing circumstances [18].

A recent study reviews how researchers have deconstructed and conceived place identity [8]. This study used CiteSpace (a scientometric tool for analyzing and visualizing patterns and trends in scientific publications) and data from the Web of Science's core database, totaling 1,011 bibliographic records between 1985 (the earliest year for data available in database core) and 2019. The title searched for "regional identity" or "regional identities" or "place identity". According to the survey, academic journals have seen an increase in articles about place identity in the last 40 years, notably since 2006.

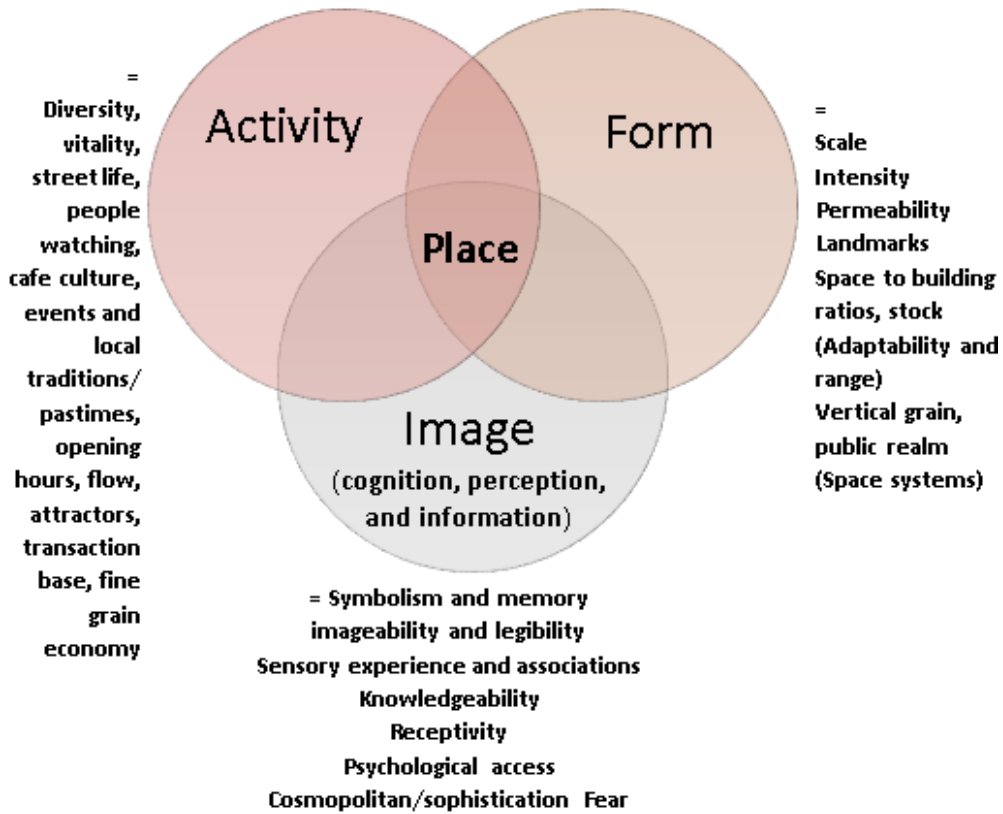


Figure 1. The three essential elements of the identity of place [24]

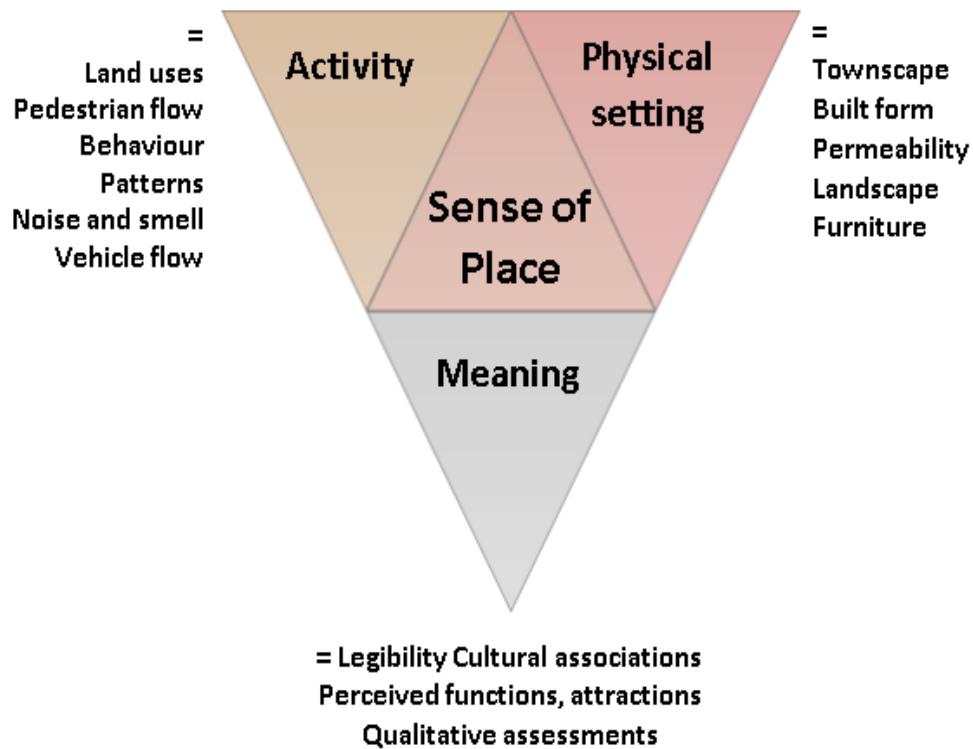


Figure 2. The components of sense of place [24]

According to the findings, the conceptual foundation for place identity relies on either a place's place identity or people's place identities. It rarely notices both sides of place identity, or at least few studies have done so. Furthermore, there are complex discussions about the analytical relationships between place, people, and place identity, further complicating the notion of place identity. The place identity of people's place and a place are overlap but not similar; both concepts embody personal or emotional links between the physical world and man (Figure 3). In order to identify knowledge connections between different empirical understandings of place

identity, the study conducted an in-depth examination of measuring methods and roles of place identity in academic literature, then summarize the meanings of place identity in four dimensions, as shown in the dimensions of identity section.

In this context, some literature discusses place entity, a logical construct that includes physical and social objects (or items). It is defined as an abstraction from the real world that can be seen as a mosaic of physical and social settings, the latter consisting of individual and collective meanings [28]. (Figure 4).

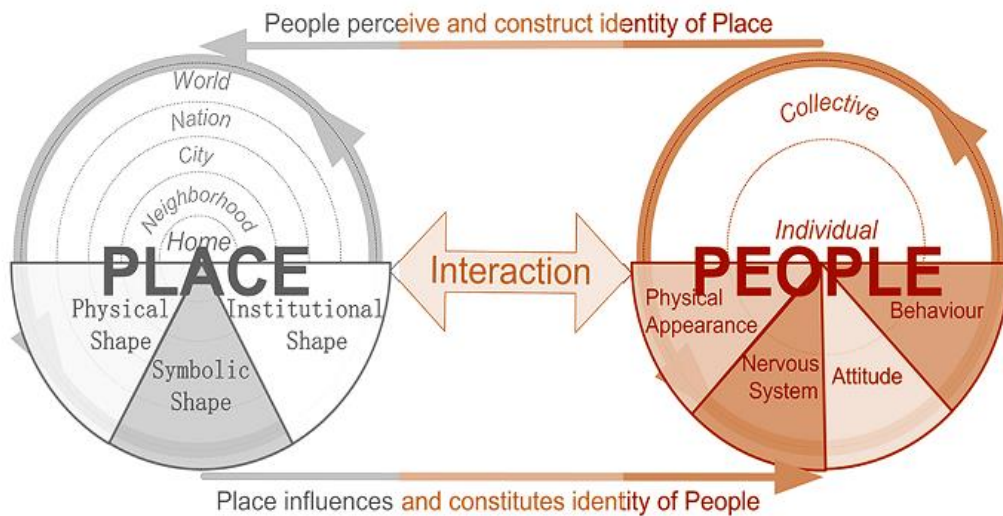


Figure 3. Relationships between the identity of people and place. [8].

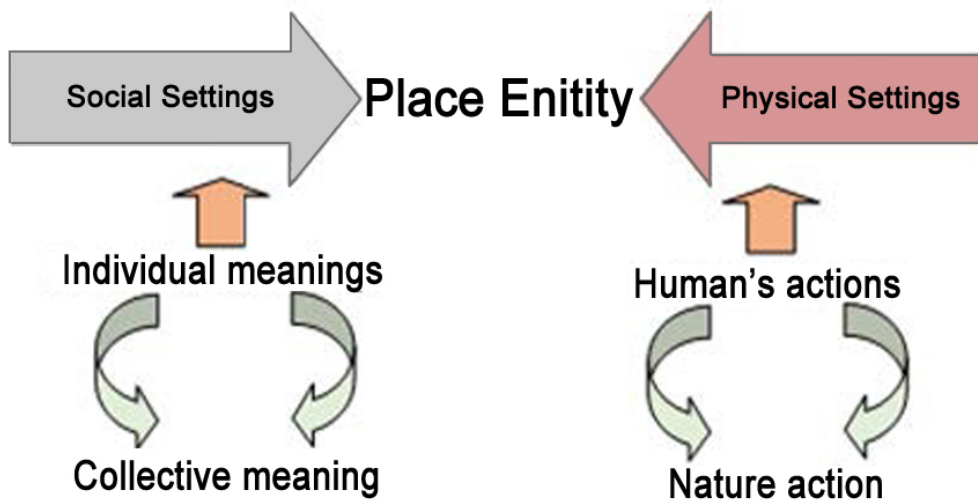


Figure 4. Place entity scheme [28]

Another major challenge to understand place identity is the widely complained-about unclear relations between place identity and other environmental psychological notions including sense of place, place attachment, rootedness, place satisfaction, and place dependence [29], [30]. Distinctions between these notions have been agreed upon by all parties and are still being debated today.

From all the above descriptions, the definition of urban identity could be summarized as place identity, placeness, the character of a place, the image of a place, sense of place,

and spirituality of the place. These definitions, used over the years and by many scholars, all pertain to urban identity as the concept of distinctiveness. Depending on this, Urban identity, according to the Cheshmehzangi [12], is a socially constructed interaction between a human and his space, space and its elements, and elements with other elements; in other words, a set of intricate and mutual relationships between context and content(s). He also presents a conceptual model of people-environment interaction (Figure 5) adapted from Pocock's [31] conceptual model.

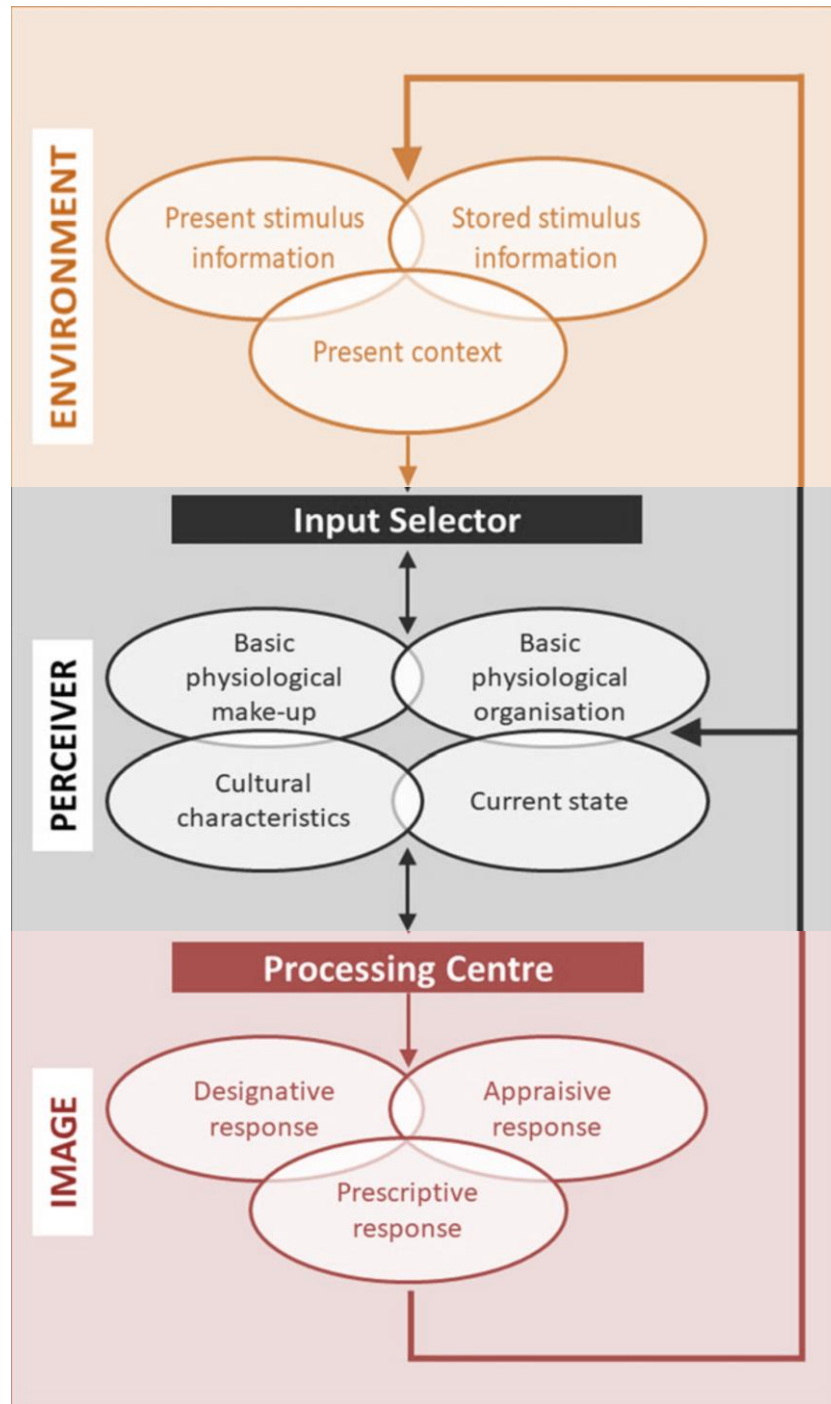


Figure 5. A conceptual model of people-environment interaction [12]

Recently, there are some studies have discussed the possibility that the expression "affective atmospheres", instead of "spirit" or "essence," can be used for referring to people's emotional impressions as a fifth dimension in urban environments. Abusaada and Elshater [32] argue affective atmospheres should follow the perceptual dimension in urban planning and design, particularly under the aspects of spiritual investigations. Thus, affective atmospheres should be considered while examining urban and place identity.

In the end, we can think of urban identity as a concept that is continually integrating with itself in multiple roles, attributes, dimensions, and many more, as we discuss below.

### 3.2. Types

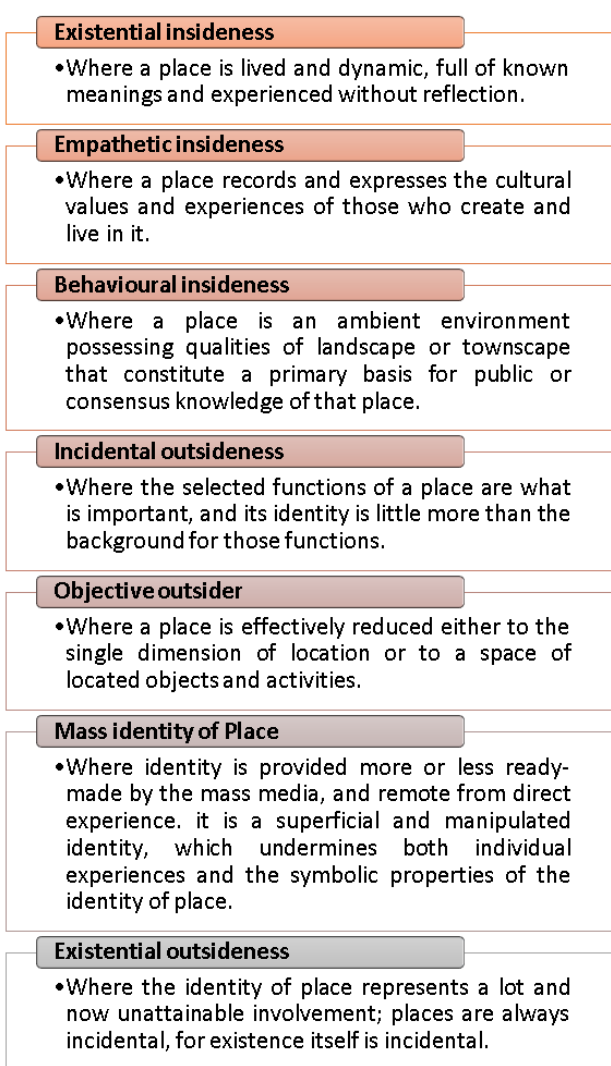


Figure 6. Types of place identity (By the authors based on [22])

Ior Relph distinguished the types of place-identity based on 'insiders' and 'outsiders' (Figure 6). He argued that the 'essence of place' lay in the occasionally unconscious,

experience of an 'inside' as distinct from an 'outside' [33]. Similarly, Norberg-Schulz said 'to be inside' was 'the primary intention behind the place concept' [2].

### 3.3. Layers

Certain communication theorists have underlined the layered character of identity. It was divided into four main layers [34]. As shown in Figure 8, these layers extend from a person to the entire group, altering at each interface. The personal layer revolves around the individual. The Enactment and Relational layers, on the other hand, are transitional layers that shift the focus of identification from individuals to collectives, resulting in the communal layer of identity. As a result of this identity change, the urban identity can be derived as a sum of individual identities.

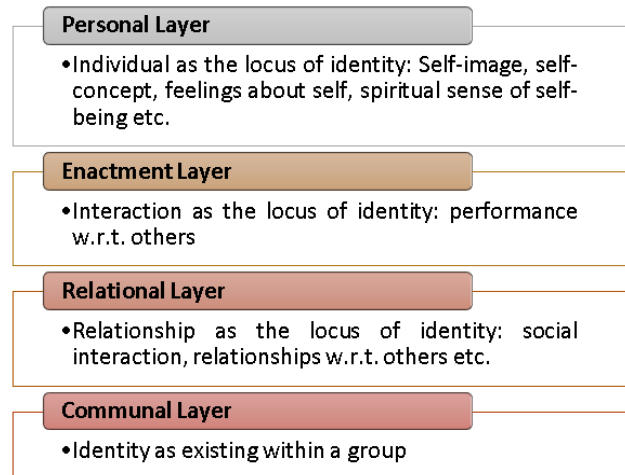


Figure 7. Layers of Identity (By Authors, Based on [35]).

### 3.4. Levels

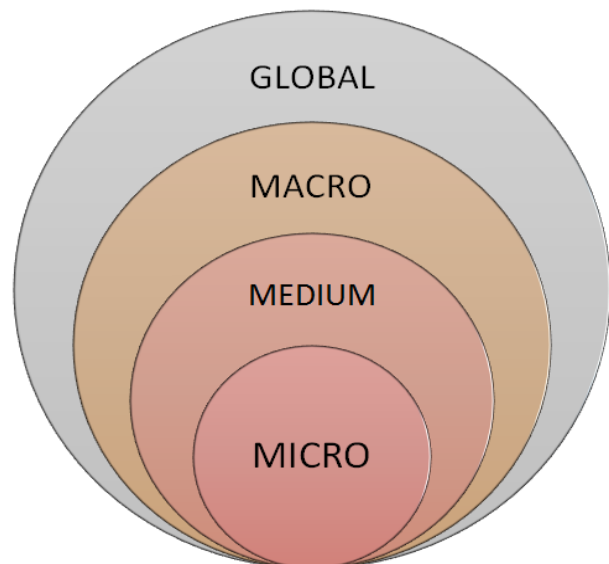


Figure 8. Different levels of urban identities [12].



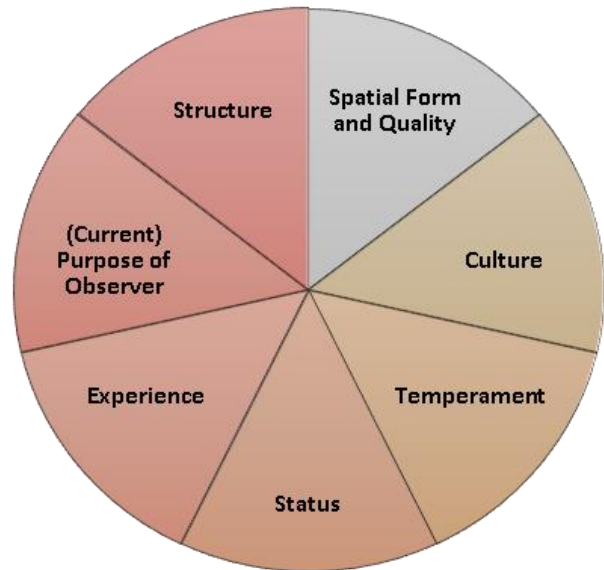
We cannot use the term "urban identity" to refer to all levels of the built environment since urban identity manifests itself differently at different spatial levels and is thus recognized differently. Cheshmehzangi [12] contextualized urban identity in four various and overlapping levels and Scales from broadest to most minor in terms of spatiality (Figure 8).

These four levels are described as the followings:

- (1) The global outlook or 'global level': It recognizes how a city or environment is viewed worldwide. Design detail is rarely essential at this level, and social concerns are minor. As a result, the relationships that emerge from this level of urban identity are predominantly perceptual and visual. On occasion, it has been viewed as overlapping with other layers of urban identities.
- (2) The urban setting or 'macro level': In this level Urban identity is defined as a concept for urban branding or urban industry that strongly emphasizes a place's image. As a result, the urban area is frequently branded on a national or regional scale rather than worldwide. Hence, a significant link is usually with specific industries that distinguish an area or make it known to a larger public group.
- (3) The environmental framework or 'medium level': It is usually called "place identity." The experience and events that take place within these urban contexts continue to be the most critical aspects of urban identities. The image stays in mind, but the relationship remains in the heart.
- (4) The personal perspective or 'micro-level': Because it deals with a person's perspective of a place or city, it is the most sophisticated level of urban identity [27]. At this level, urban identities might differ from one culture to the next, from one area to the next, from one experience to the next, and from one person to the next. This level of urban identity focuses on a place's or a city's personality, meaning, and memory and how these are represented in an individual's consciousness. What one sees and feels is never the same as what another sees and experiences.

### 3.5. Factors

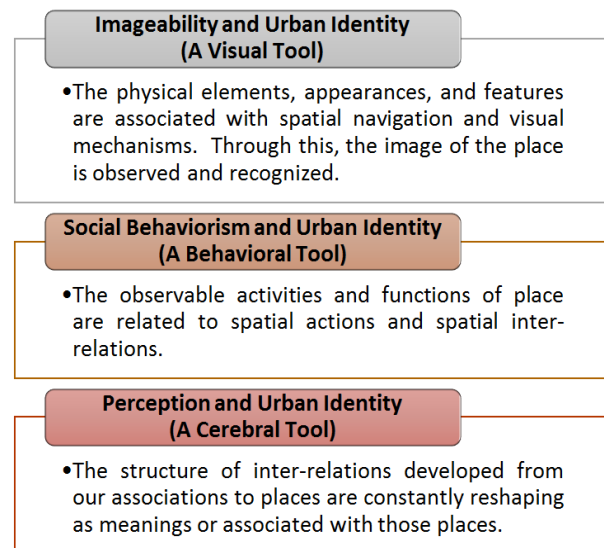
According to Lynch [21], "the same places can be experienced differently by different people, while the same person can experience different places differently". Nevertheless, there are some consistencies and significant constancy in the experience of the specific place by different people. So, he lists seven factors specifying the sense of a place [18] (Figure 9).



**Figure 9.** Factors specifying the sense of a place (By the authors based on [34]).

### 3.6. Forms

Urban identities come in numerous purposes and forms. Consequently, Relph [22] asserted that a city's or a place's identity consists of three interconnected components each irreducible to the other: observable activities and function, physical features or appearance, and meanings or symbols. Based on this, Cheshmehzangi [12] argued that urban identity comprises three generalized forms.



**Figure 10.** Form of urban identity (By Authors, Based on [12]).

### 3.7. Features

The visual image of the built environment represents a distinct identity that is bolstered by unique characteristics found in the urban fabric. Since identity relates to the relationship between oneself and one's surroundings, the appraisal of the urban context value and meaning is the relations among physical objects and material based on people's experience in their daily interaction with the urban area surrounding them [36]. Consequently, the notion of place identity symbolizes the connection of the physical environment with its conceptual and functional dimensions [37]. In this sense, urban theorists classified urban identity into three features (Figure 11).

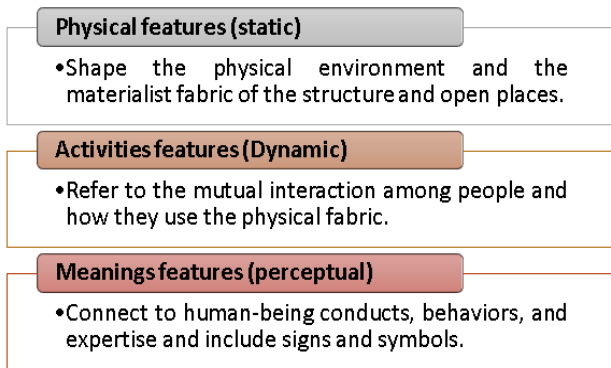


Figure 11. Features of urban identity. (By the authors based on [38])

From another perspective, Cheshmehzangi [12] categorized urban identity into various features (Figure 12).

### 3.8. Dimensions

While the urban design has six dimensions, namely: social, visual, functional, temporal, morphological, and perceptual [39], urban identities have various dimensions too. Lefebvre [40] analyzed everyday life and urbanism through three key factors: self, reality, and relations. Accordingly, Cheshmehzangi [12] expressed urban identity in three intertwined dimensions that refer to the essence of human-environment relations.

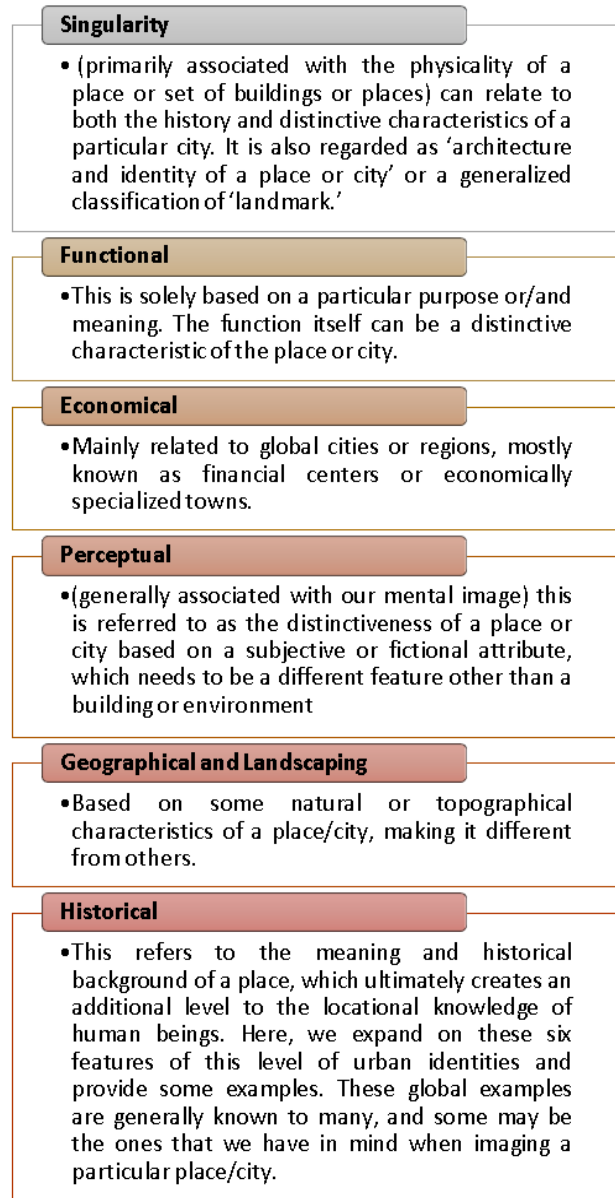


Figure 12. Features of urban identity (By the authors based on [12]).

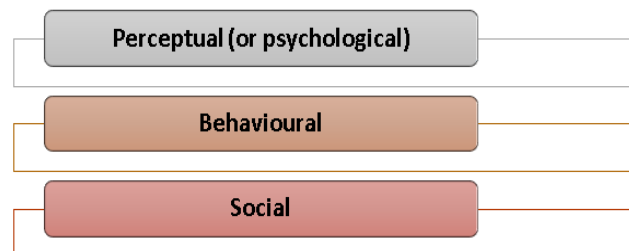


Figure 13. Dimensions of urban identity (By the authors based on [12])



Otherwise, Lalli [41] named five dimensions of urban-related to identity. These dimensions have various attributes that jointly shape an individual's perception of the identity of a space (Figure14).

Scannell and Gifford [42] developed a tripartite model of place attachment from a different perspective. They argued that place attachment occurs at both group and individual levels, although there is the tendency to assure personal connections to a place. This model is based on three dimensions (Figure 15).

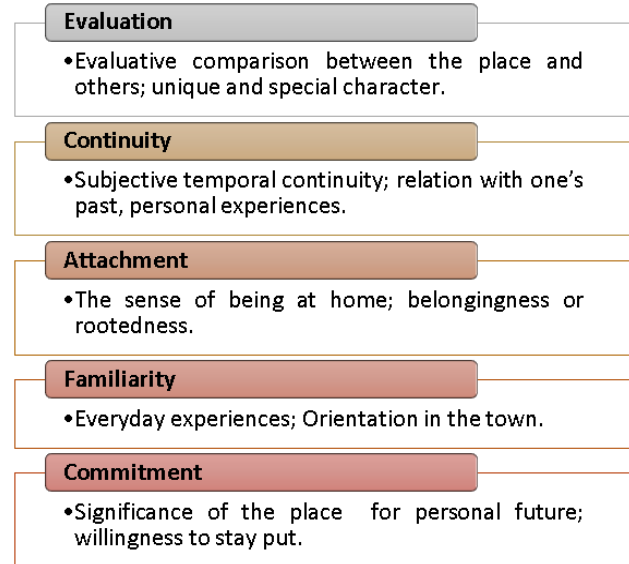


Figure 14. Dimensions of urban related identity (By the authors based on [33]).

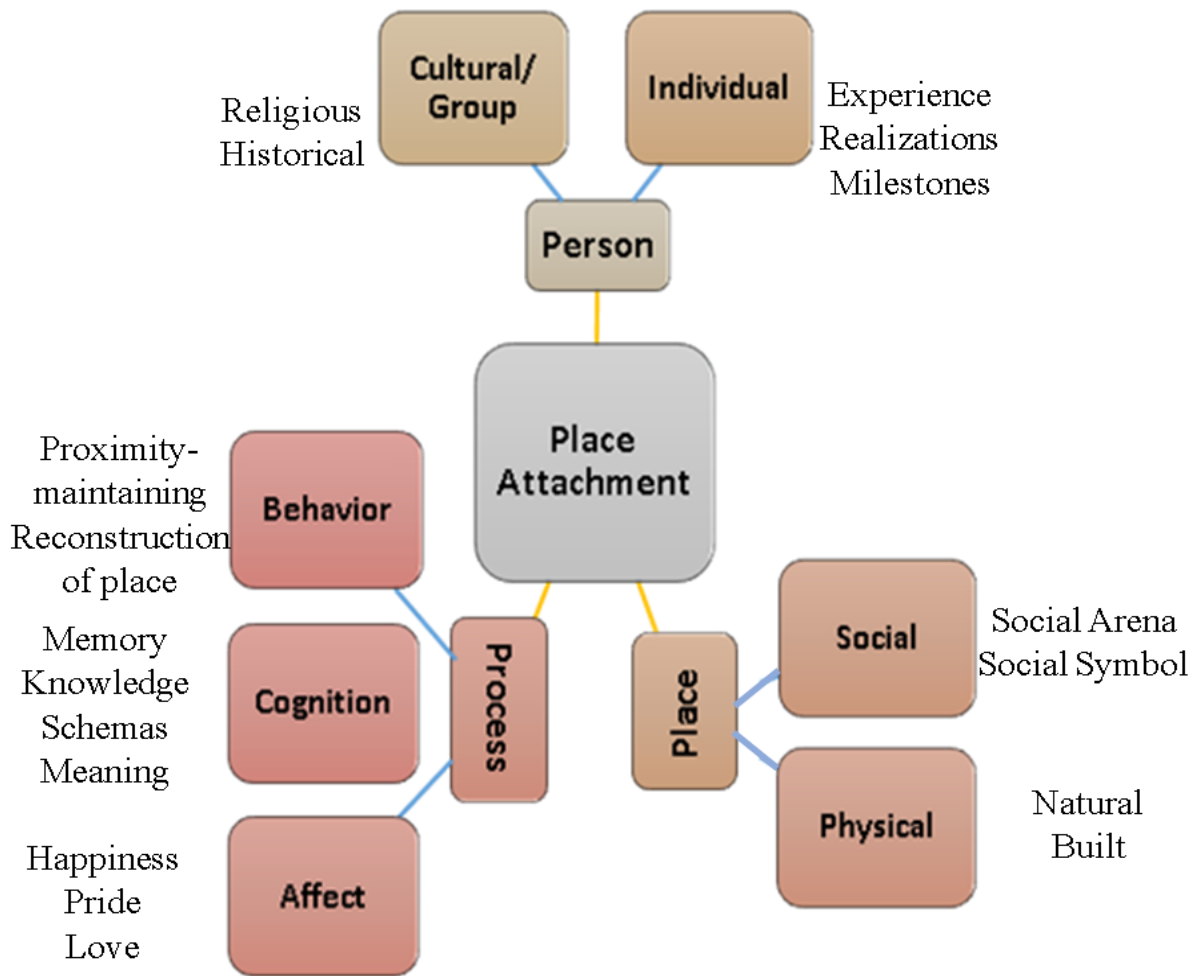
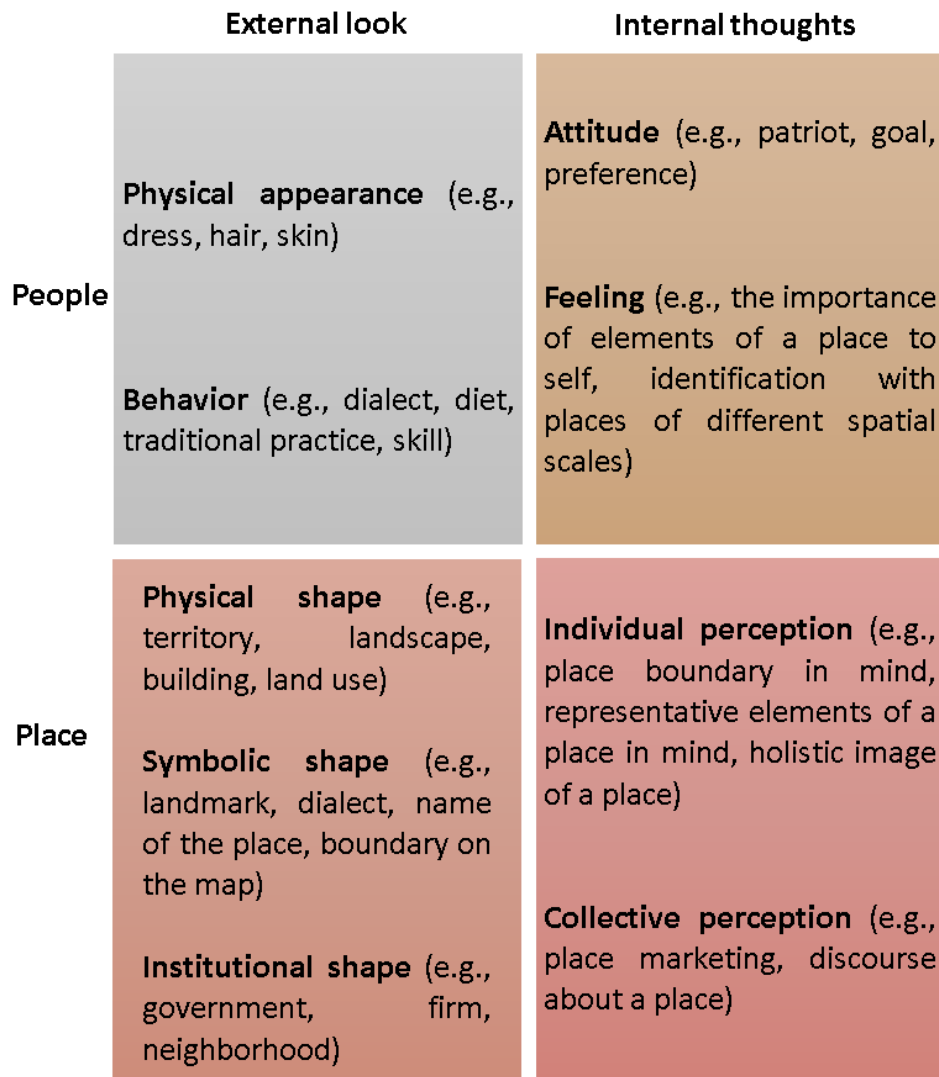


Figure 15. The tripartite model of place attachment by Scannell & Gifford [42]



**Figure 16.** The meanings of place identity dimensions [8].

A recent study (2020) [8] reviewed 1,011 bibliographic records obtained from the Web of Science's core database and related to the place identity, summarized the meanings of place identity in Quadrantal dimensions, as shown in Figure 16. The study expected that the four dimensions of the purposes of place identity help researchers when they are interested in research questions in this domain to find their positions.

Another recent study (2021) [39] monitored the impact of people in city streets on affective atmospheres and placemaking. This study concluded that four dimensions are covering the situation impacts of affective atmospheres: social (which is linked to people), visual, aesthetic, and spiritual (which is related to the place). This is explained in detail in Figure 17.

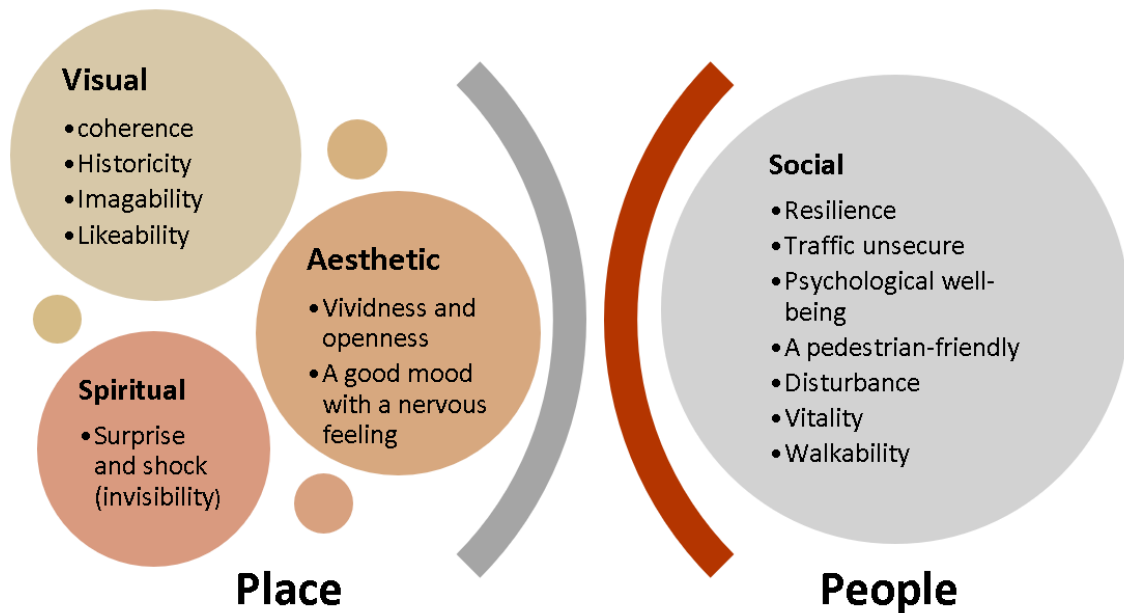


Figure 17. Affective atmospheres Dimensions (By the authors based on [43]).

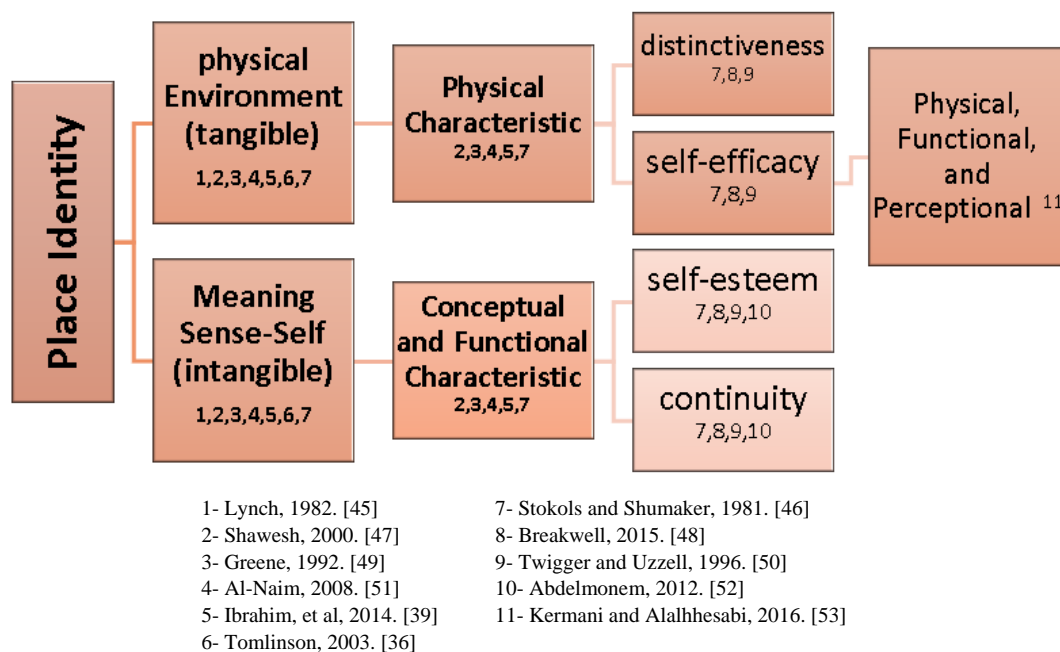


Figure 18. Place identity aspects connections and principles [37].

### 3.9. Classification, Principles, and Connections

Based on the literature, Surchi and Nafa [37] demonstrated the relationships of place between physical aspects (tangibles) and the meaning aspects (intangibles), see Figure 18. These aspects have been divided and detailed through their main classifications (physical and perceptual connections). The perceptual consists of 'self-esteem and continuity' elements, while the physical includes elements of 'distinctiveness and self-efficacy', which are the physical and functional elements [44].

### 3.10. Components and Elements

This section lists identity elements from different scholars' points of view. The available studies show that experts consider the elements of place identity in diverse categories [44]. Shekhar [34], listed elements enhancing urban identity (Table 1) based on Lilli [41].

Moreover, there are available studies concerned with studying the cultural landscape elements. Ziyaae [54] characterized the elements through the literature as shown in Table 2.

**Table 1.** The elements enhancing urban identity

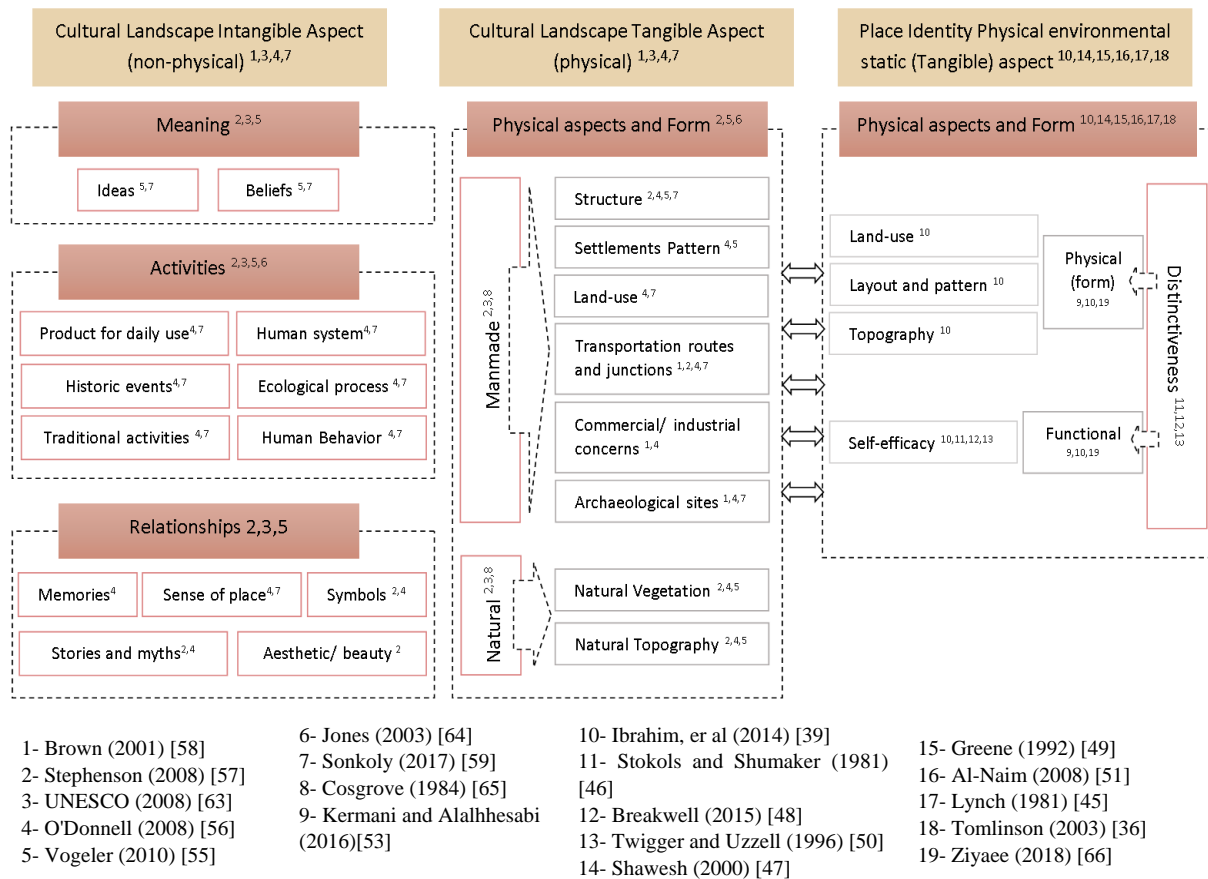
Elements	Type of impact
Land/Flat Ownership	Positive
Place of birth	Positive
(Social) Relationships	Positive
Quality of Life	Positive
Noise	Negative
Landmarks	Positive
Duration of Stay	Positive but not very significant
History	Positive (not always)
Aesthetics	Positive

**Table 2.** Cultural landscape elements through literature review

Authors	Main elements	Sub-elements
Vogeler (2010) [55]	Cultural meaning and message	Ideas, beliefs.
	Human activities/behaviours	
	Physical forms	Topography, vegetation, structure (time/space, visual needs), settlement pattern.
O'Donnell (2008) [56]	Tangible heritage values	Natural systems, land uses, patterns, spatial organization, visual relationships, topography, vegetation, circulation systems, water features, natural and constructed, non-habitable landscape structures and buildings, spatial characteristics, form and scale of habitable structures, the vocabulary of site furnishings and objects.
	Intangible heritage values	Festivals, traditional music, dance, performance, pilgrimage, worship, the commemoration of past events, traditional practices, gathering place for native plants, iconic shared community place of memory and present use.
Stephenson (2008) [57]	Forms	Natural features (landforms, vegetation, etc.). Human intervention (structures, gardens, track, etc.).
	Relationships	Memories, symbols, ideologies, spirituality, sense of place, meanings, aesthetic/beauty, stories and myths, the meaning of place names, feeling of belonging.
	Practices	Human systems, ecological process, human activities, historic events, historical process, traditional activities, national process.
Brown (2001) [58]	Tangible elements	Transportation corridors and junctions, utilities, land cover, sites of cultural importance, key commercial/industrial concerns.
	Intangible elements	Political and census boundaries, ownership boundaries, land use.
Sonkoly (2017) [59]	Living cultural heritage	Tangible: item for religious/cultural use, the item for domestic use (food, dress, household item), product for industrial use.
		Intangible: the sense of identity, space use pattern, expression (oral/manners/custom), belief system, commercial/social/cultural activities.
	Built cultural heritage	Tangible: building/group of buildings, public parks, and gardens, monuments, and structures, archaeological sites. Intangible: land use pattern, building use pattern, expression (architecture/ streetscape/ townscape), sense of place.

**Table 3.** Components of cultural landscapes.

Co.	Main elements	Sub-elements
Materials	Natural forms	Topology, geography, hydrography. Texture and surface materials, vegetation. The climatic situation, deserts, seaside.
	Manmade forms	Buildings, roads, bridges, monuments, urban artifacts, gardens, agricultures.
Immaterials	Beliefs	Values, visions, religions, ideologies.
	Rules	Policy, economy, power.
	Behaviors	Social practices, place name, patterns, symbols, lifestyle, icons, meanings, activities, myths, stories.
Links	Time/ process	History, memory.
	Method and technique	Style, dance, paintings, clothes, foods, singing.



**Figure 19.** The proposed model for the relationship between place identity and cultural landscape (By the authors based on [37]).

Then the study summed up the main factors of the cultural landscape by suggesting three descriptive categories: materials, immaterials, and links (Table 3).

Surchi, Z., & Nafa, H. [37] formulated a proposed model that can establish the relation between place identity and the cultural landscape, focusing on the tangible aspect in both concepts of identity and culture to establish the relation between place identity elements and cultural landscape elements (Figure 19). They mentioned that the place identity element (Topography) could be influenced by one or more than one element of cultural landscape elements. The connections were designed based on: Site observation, image interpretation, and maps analysis. From another aspect, Elshater et al [9], [11], [60]–[62] presented a list of physical and non-physical elements that

describe how cities have their singularity based on the readings of seven Western paradigms that focused on city distinctiveness. These seven paradigms were:

1. Cities as works of art.
2. Global & informational cities.
3. Cosmopolis transcultural cities.
4. City branding.
5. Smart cities.
6. Organic urban development.
7. Great city.

As shown in Figure 20, the extracted elements with the focus being given to the city's urban form are listed, including the classification of the design on the one hand and the physical and non-physical elements on the other.

	Physical	Non-Physical
In the premodern and modern era	<ol style="list-style-type: none"> <li>1. Urban artefacts</li> <li>2. Individual semantics and symbols</li> <li>3. Architecture style</li> </ol>	<ol style="list-style-type: none"> <li>4. Management</li> <li>5. Experience</li> <li>6. Adaptability with time and history</li> <li>7. Accumulative or phase of construction</li> </ol>
In the postmodern and contemporary era	<ol style="list-style-type: none"> <li>8. ICT infrastructure</li> <li>9. The digital technology (information and communication)</li> <li>10. The architectural style</li> <li>11. Iconic buildings</li> <li>12. Spatial forms</li> <li>13. Elements of smart community</li> </ol>	<ol style="list-style-type: none"> <li>14. The human spatial experience</li> <li>15. City-making/management</li> <li>16. Gradual transformation</li> <li>17. Community participation</li> <li>18. The affinity of the local residents (support localism)</li> <li>19. Citizenship</li> <li>20. Civil initiatives</li> <li>21. Economic balance (value for money)</li> <li>22. Environmental responsiveness</li> <li>23. Customer focus</li> <li>24. Long-term outlook</li> <li>25. fulfil the needs of contemporary and upcoming generations</li> <li>26. Leadership</li> </ol>

**Figure 20.** The physical and non-physical elements for gauging cities of singularity (By the authors based on [65])

From all the above, analysis of the different visions of identity in the literature can provide a comprehensive perception of appraisal of place identity through its measurable component. In the following section, we list the elements in an applicable matrix for measuring the identity of a place.

#### 4. Discussions and Results

As we previously discussed, the notion of place identity has a vast realm that makes it hard to recognize all related aspects through different types, layers, levels, factors, features, forms, dimensions, principles, components, etc. In this section, the literature's relations among the

mentioned elements and components of place identity are organized in a matrix checklist and reveal the connections. Since the vast amount of these elements, a more flexible system seems to be needed for analyzing the relations and identifying them. This matrix used the vision of dividing the identity of the place into three axes: place, people, and the interaction between people and place; under two primary classifications: tangible and intangible (Table 4). Each parcel of this matrix acts as a code of analysis. We characterize the matrix as follows: (i) coded by the letters E, P, and I, belonging to Environment, People, and Interaction between them. (ii) Indexed numbers 1 to 4 are classified under the letters T and N, respectively belonging to tangible and intangible.



**Table 4.** Matrix checklist to assess the identity of the place

	Environment				People	Interaction (between People and Environment)
Tangible	Physical E/T- 1		Function E/T- 2	Quality E/T- 3	Physical Appearance P/T- 1	Efficacy of place I/T- 1
	Natural forms E/T-1.1	Topography E/T-1.1.1	Land-use E/T- 2.1	Technology E/T- 3.1		
		Vegetation E/T-1.1.2				
		Climate E/T-1.1.3	Transportation routes and junctions E/T- 2.2			
		Hydrography E/T-1.1.4				
	Manmade forms E/T-1.2	Singularity and Historical E/T-1.2.1	Facilities E/T- 2.3	Sustainability E/T- 3.2		
		Layout and pattern E/T-1.2.2				
		Buildings E/T-1.2.3	Accessibility E/T- 2.4			
Furniture E/T-1.2.4						
Intangible	Sensation E/N-1	Vision E/N- 1.1			Ideas and beliefs P/N- 1	Memories I/N- 1
		Hearing E/N- 1.2				
		Smell E/N- 1.3			Values and Visions P/N- 2	Stories and myths I/N- 2
		Touch E/N- 1.4				
	Management E/N-2	Delineated E/N- 2.1			Feeling P/N- 3	Aesthetics I/N- 3
		Social E/N- 2.2			Attitude and Behavior P/N- 4	Experience I/N- 4
		Customer focus E/N- 2.3				

Accordingly, the datum that each parcel of the matrix can extend us is explained in Table 5 and provides more detailed descriptions of such matrix elements. These parcel "elements" are evaluated based on their contributions and are divided into three scours: "1" element contribution positively and "-1" for negatively, while (0) is for the

neutral or non-contribution element. Based on the proposed evaluation strategy through the matrix checklist, the outcome value indicates the extent of the sense of identity in the place. Matrix could use to compare different places' sense of identity.

**Table 5.** Features of code element in the evaluation matrix

Place Identity Elements (PI)			
Code		Element Description	
E/T		Environment/Tangible	
E/T- 1		Environment/Tangible- Physical	
	E/T- 1.1		Natural forms
		E/T- 1.1.1	Topography: landmarks, and views.
		E/T- 1.1.2	Vegetation: variety of forms, and colors.
		E/T- 1.1.3	Climate: cold, hot, rainy, etc.
		E/T- 1.1.4	Hydrography: lake, river, sea, etc.
	E/T- 1.2		Manmade forms
		E/T- 1.2.1	Singularity and Historical: elements classification as a landmark, Individual semantics, and symbols.
		E/T- 1.2.2	Layout and pattern: Spatial forms: organic, ordered, linear, pointed, etc. and Legibility, visual appropriateness, and human scale
		E/T- 1.2.3	Buildings: Architecture style, Structure type, cultural style, materials, texture, etc. Iconic buildings.
		E/T- 1.2.4	Furniture: Urban artifacts. sculptures, seats, fountains, pools, stairs, lights, paving, etc.
E/T- 2		Environment/Tangible- Function	
	E/T- 2.1		Land-use: Archaeological or special sites
	E/T- 2.2		Transportation routes and junctions: clearly public in their use, Evolving, and Diverse.
	E/T- 2.3		Facilities: ICT infrastructure, and Adaptability with time and history.
	E/T- 2.4		Accessibility: Vividness and openness, Free. Secure, pedestrian-friendly.
E/T- 3		Environment/Tangible- Quality	
	E/T- 3.1		Technology: Digital technology, Elements of smart community
	E/T- 3.2		Sustainability: Environmental responsiveness, fulfilling the needs of contemporary and upcoming generations, and Long-term outlook.
E/N		Environment/Intangible	
E/N-1		Environment/Intangible-Sensation	
	E/N- 1.1		Vision: Imageable, Coherable.
	E/N- 1.2		Hearing: Disturbance or Tranquility
	E/N- 1.3		Smell: likable.
	E/N- 1.4		Touch: Diverse and Valuable.
E/N-2		Environment/Intangible-Management	
	E/N- 2.1		Delineated: clearly public in their use.
	E/N- 2.2		Social: encouraging social engagement.
	E/N- 2.3		Customer focus: Citizenship, The human spatial experience.
P/T		People/Tangible	
	P/T- 1	Physical Appearance: Comfortable, Amused, Surprised, Shocked.	
	P/T- 2	Social practices: Community participation, Civil initiatives.	
	P/T- 3	Social style: The affinity of the local residents (support localism)	
P/N		People/Intangible	
	P/N- 1	Ideas and beliefs: Religions, Ideologies, Culture.	

Table 5. Continued

P/N- 2	Values and Visions: friendship, empathy, and
P/N- 3	Feeling: Psychological well-being, feeling safe and relaxing.
P/N- 4	Attitude and Behavior: Social practices, lifestyle, activities. Understanding and acceptance (social sustainability)
I/T	Interaction /Tangible
I/T- 1	Efficacy of place: Resilience, adaptability, and distinct in the face of change.
I/T- 2	Duration of Stay: Easy, slowness, or Fast
I/T- 3	Walkability: Hiking, special views, Vitality.
I/N	Interaction /Intangible
I/N- 1	Memories: Imageable, Rememberable.
I/N- 2	Stories and myths: Sensibility, Warmth, and Richness.
I/N- 3	Aesthetics: Elegance, Pride, and Glory.
I/N- 4	Experience: Comfort, Familiarity and friendliness, Delight and felicity.

Table 6. Evaluation identity in “A” place

		Environment						People		Inter.	
		E/T- 1		E/T- 2		E/T- 3		P/T- 1	1	I/T- 1	1
Tangible	E/T-1.1	E/T-1.1.1	1	E/T- 2.1	1	E/T- 3.1	1				
		E/T-1.1.2	0								
		E/T-1.1.3	1	E/T- 2.2	1						
		E/T-1.1.4	0								
	E/T-1.2	E/T-1.2.1	0	E/T- 2.3	1	E/T- 3.2	1	P/T- 3	1	I/T- 3	1
		E/T-1.2.2	0								
		E/T-1.2.3	1	E/T- 2.4	-1						
		E/T-1.2.4	0								
Intangible	E/N-1	E/N- 1.1		1		P/N- 1	1	I/N- 1	0		
		E/N- 1.2		-1							
		E/N- 1.3		1							
		E/N- 1.4		0							
	E/N-2	E/N- 2.1		1		P/N- 3	0	I/N- 3	1		
		E/N- 2.2		1							
		E/N- 2.3		1							
Total								21			

We can, for example, assess identity in three different places (A, B, and C) that have the same culture or in the same region and serve the same purpose (public space in an administrative area). This assessment is done by observation, site analysis, and questionnaire depending on the element type. Tables 6, 7, and 8 assess the identity in A, B, and C places, respectively. According to the result,

place B has the most vital sense of identity, followed by place A and then place C. Since the purpose and users are constant in the three cases, it is possible to extract viable strategies to raise the sense of identity in the examined places through comparative analysis of the matrix results. From a study point of view, it is a step for sustainable development.

**Table 7.** Evaluation identity in “B” place

		Environment						People		Inter.		
<i>Tangible</i>	E/T-1.1	E/T-1.1.1		E/T-2.1		E/T-3.1		P/T-1	1	I/T-1	1	
		E/T-1.1.1	1	E/T-2.1	1	E/T-3.1	1					
		E/T-1.1.2	0	E/T-2.2	1	E/T-3.1	1					
		E/T-1.1.3	1	E/T-2.2	1	E/T-3.1	1					
	E/T-1.2	E/T-1.1.4	1	E/T-2.3	1	E/T-3.2	1	P/T-2	0	I/T-2	1	
		E/T-1.2.1	0	E/T-2.3	1	E/T-3.2	1					
		E/T-1.2.2	1	E/T-2.4	0	E/T-3.2	1					
		E/T-1.2.3	1	E/T-2.4	0	E/T-3.2	1					
		E/T-1.2.4	1	E/T-2.4	0	E/T-3.2	1	P/T-3	1	I/T-3	1	
	<i>Intangible</i>	E/N-1	E/N-1.1			1		P/N-1	1	I/N-1	0	
			E/N-1.2			1						
			E/N-1.3			1		P/N-2	1	I/N-2	1	
E/N-1.4			0									
E/N-2		E/N-2.1			1		P/N-3	0	I/N-3	1		
		E/N-2.2			1							
		E/N-2.3			1		P/N-4	1	I/N-4	1		
<b>Total</b>								<b>28</b>				

**Table 8.** Evaluation identity in “C” place

		Environment						People		Inter.		
<i>Tangible</i>	E/T-1.1	E/T-1.1.1		E/T-2.1		E/T-3.1		P/T-1	1	I/T-1	1	
		E/T-1.1.1	1	E/T-2.1	1	E/T-3.1	1					
		E/T-1.1.2	0	E/T-2.2	0	E/T-3.1	1					
		E/T-1.1.3	1	E/T-2.2	0	E/T-3.1	1					
	E/T-1.2	E/T-1.1.4	0	E/T-2.3	1	E/T-3.2	0	P/T-2	0	I/T-2	0	
		E/T-1.2.1	0	E/T-2.3	1	E/T-3.2	0					
		E/T-1.2.2	0	E/T-2.4	-1	E/T-3.2	0					
		E/T-1.2.3	1	E/T-2.4	-1	E/T-3.2	0					
		E/T-1.2.4	0	E/T-2.4	-1	E/T-3.2	0	P/T-3	1	I/T-3	1	
	<i>Intangible</i>	E/N-1	E/N-1.1			1		P/N-1	0	I/N-1	0	
			E/N-1.2			0						
			E/N-1.3			-1		P/N-2	1	I/N-2	1	
E/N-1.4			0									
E/N-2		E/N-2.1			1		P/N-3	0	I/N-3	1		
		E/N-2.2			0							
		E/N-2.3			1		P/N-4	1	I/N-4	0		
<b>Total</b>								<b>15</b>				

## 5. Conclusion

Throughout literature review, this manuscript presents the concept of place identity which includes an extensive definition. It deals with the social, economic, cultural, and environmental dimensions. The major theories relevant to place identity and the compatibility and difference points between them have been reviewed in this paper. Our results showed that place identity has different types and forms. It can be seen from different levels: global, city, medium, and micro. Place identity was also discussed from various perspectives: personal, collective, and external. It can be identified by many features, dimensions, and principles. Reviewing literature also concluded that there are many types of elements enhancing identity in the place. Nevertheless, these meanings and classifications meant either the place itself or the people within the place. As place and people are interdependent, places, people, and interactions between them should be taken as the main components of the identity of the place. By examining the different researchers' studies of the elements of the identity of the place, this paper argues that all effects come in two primary forms, tangible and intangible.

As such, this study proposed a matrix with parcels to appraise the identity of the place based on this vision. The elements and components of the place that affect identity have been identified and classified into three axes: environment, people, and the interaction between them; under two primary classifications: tangible and intangible elements. Each parcel in this matrix works as an element with a specific code. The evaluation outcome indicates the extent of the sense of identity in the place.

The present manuscript suggested a matrix that could be used to compare different places regarding the sense of identity. This matrix helps decision-makers, planners and designers to develop public places which would be developed depending on the present results.

The present study design has a limitation in depending on literature review only. More studies are needed to determine a reliable method for evaluating each element. Also, by considering different places and comparing them, it is possible to develop strategies for each component's role to raise the sense of identity from a directed framework. We recommend this for future studies.

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