

Generation of Sense of Place from the Urban Patterns in Modern Cities: Insights from Basmayah, Baghdad, Iraq

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Abstract

This research deals with the subject of sense of place arising from urban patterns and the importance of it for the future of cities. Since the arrival of modernity, technology, and informatics, modern cities have acquired transformations of the urban patterns from organic patterns to grid patterns. Research reveals a problem there particularly in Iraq: an absence of sense of place in the elements producing the urban patterns of the cities (buildings, building blocks, and roads), which has resulted in cities that have lost contact with their inhabitants. In fact, the neglect of human feelings in the cities is reflected in the orientations of most modern cities.

This paper examines the relationship between sense of place and urban patterns in the modern cities in Iraq to identify the places where sense of place is either present or absent, as well as the places which have been affected significantly. The aim of the research is to determine the places where sense of place exists in the urban patterns of some cities. After introducing the concept of sense of place, the study proposes indicators, and then provides an introduction to urban patterns and the different types that usually emerge. For this purpose, the pattern language proposed by Christopher Alexander is employed.

The research adopts a questionnaire, based on practical experience of the modern city of Basmayah, in Baghdad, Iraq.

The findings show that there is a relationship between sense of place and the constructs of urban patterns.

Keywords: sense of place, urban pattern, modern cities.

1.0 Introduction

Cities came into being centuries ago. They were made by and for the people, and are concerned with fulfilling human requirements. Since then, people have been in contact with each other and with their cities. Time has passed and complexities and technological developments have emerged; cities have impacted a large number of people. In fact, this has caused disruptions and a breakdown in the communications between people and their surroundings. This interruption has caused serious problems and have influenced many cities causing people to lose any sense of place in most of their cities.

There is thus an absence of sense of place arising from the elements of the urban patterns of the cities (buildings, building blocks, and roads), which has resulted in the cities to

lose contact with their inhabitants. This neglect of human feelings indeed has left people disorientated in their own cities.

Each city has its own pattern language. This paper is based on this idea and its manifestations in sense of place in the urban patterns of modern cities. The objective of the research is to determine the places where sense of place exists in the urban patterns of some cities in Iraq. The study proposes indicators, and then provides an introduction to urban patterns and the different types that usually emerge. For this purpose, the pattern language proposed by Christopher Alexander (1977) is employed.

2.0 Theoretical Background

Sense of place is associated with a number of concepts that are essential to be understood, in order to both make sense of the concept as well as to employ it in examining its relationship with the cities.

Several studies have been conducted on meaning of place and the clarification of its components. Their findings show that meaning, performance, and structural qualities are crucial in transforming spaces into places and giving people a sense of place (Vali and Nasekhiyan, 2014). Muhammad et al (2021) discuss the phenomenon of attachment to place in the context of traditional urban environments by using an explanatory narration mechanism. He says that he “traced the phenomenon by re-illuminating its impact evidenced in the perpetual existence of traditional neighbourhoods in urban areas, despite apparent developmental neglect in some of those neighbourhoods. Consequently, place attachment to the traditional urban built environment was shown to be higher than in new urban developments, as a result of satisfaction with the liveliness, neighbourliness and diversity of such environments” (Muhammad et al., 2021). Asia (2017) writes how understanding transformation in a city affects sense of place. Her focus is to comprehend how these transformations have impacted commuting, leisure, and city-wide movement of Tashkent residents, as well as the effects, if any, on the sense of place and public memory of a historically significant area (Asia, 2017). McCunn and Gifford, (2021) have demonstrated how the notion of feeling of place in urban communities change as a result of spatial navigation and place imageability. They have evaluated the morphology of the neighbourhood in terms of socio-behavioural aspects and a sense of place. The findings reveal that a neighbourhood’s socio-behavioural dimensions have a strong influence on place attachment, social bonding, and the overall amount of time residents spend in the local spaces, and *vice versa*. The morphological characteristics of a neighbourhood also appears to have a significant influence on the socio-behavioural dimensions. Khosravi, Bahrainy and Tehrani, (2020) recommend that the “urban planners should apply policies that support the development and implementation of mix land-use to attract different groups of people and activities”.

2.1 Sense of place

Sense of place refers to an appreciation of the environment and the formation of an emotional response in the audience to the place (Parker & Doak, 2014). Rapoport (1990) argues that the unique experience a person has in a specific environment is sense of place. According to Steele (1981), sense of place refers to people’s impressions of place and their feelings toward it (Altman & Low, 1992). Relph (1976) claims that when places are not culturally identifiable, they suffer from a lack of a sense of place. Indeed, the concept of sense of place is associated with human beings, environment and cognitive behavior. It is commonly known that sense of place is complex and is influenced by a variety of intricate social, cultural, and physical elements. It is the cognitive behavior in a given environment with which users are in contact with, be it a natural or a built environment (Canter, 1977).

Here the research reviews Some terms that could be used to define the nature of people’s relationships with a place. Among them, identity of place is a significant concept.

2.2 Identity of Place

Identity of place is defined as “those dimensions of self that define an individual’s personal identity in relation to a physical environment through a complex pattern of conscious

and unconscious ideas, beliefs, preferences, feelings, values, goals, and behavioral tendencies and skills that are relevant to this environment” (Proshansky, 1978). In the same way, gender identity and role identity are substructures of a larger self-identification. Thus, 'place identity' is a substructure of a larger self-identification.

2.3 Social bonding

According to Al-bayyar and Kitapci, (2020: 52) “social bonding refers to the social relationships users have with each other, users have with the community, and users have with culture. It consists of two aspects: (1) the strength connection users have with the people and places, and (2) users’ sense of belonging to places. Thus, a solid connection to the place emerges due to the shared history, interest, or concerns”. Social bonding could be considered the social-cultural place attachment construct that creates a sense of place.

2.4 Place dependence

Wilkins and de Urioste-Stone (2018) say that “place dependence is a functional attachment to a place because of its features”. According to Boerebach (2012), when a spatial environment meets the goals, needs, and expectations of a user, it is said to have place dependence—a perceived advantage over the other settings

Stokols and Shumaker (1981) define place dependence as an "occupant's perceived strength of association between himself or herself and specific places". However, they say that this degree of association isn't always a good thing. “Place dependence is more likely to be an advanced stage of sense of place for users. When a place is experienced for a longer period of time, the users perceive its functionality and suitability for supporting the actions and activities they need to do in that place. The desired responsibility to be taken towards a place from its users can probably be observed when there is a place dependence relationship” (Al-bayyar and Kitapci, 2020: 49)

2.5 Place attachment

Attachment, according to Riley (1992: **Page number**), is an "active relationship between humans and the landscape that goes beyond intellect, preference, or judgment". Others have proposed that attachment entails "an interaction of affect and emotions, knowledge and ideas, and behaviors and actions in relation to a location". According to Relph (1976), attachment to a place develops through time and is dependent mostly on relationships with the people in the setting rather than the physical environment. We are most attached to places when we have had a diverse range of experiences.

2.6 Sense of belonging

According to Strayhorn (2021:**page Number is needed**). “Sense of belonging is a basic human need, sufficient to drive human behavior. It takes on heightened importance at times, in settings, and places where individuals are prone to feel vulnerable for alienation, social isolation, or rejection”

2.7 Familiarity

“Familiarity is the next layer to developing deeper sense of belonging, Familiarity encourages further interactions with the environments, whether it be social, physical, etc.” (Teng et al., 2020).

2.8 Nature bonding

One of the important and prominent aspects of the process of feeling a place, which embodies the feeling of relaxation is Nature bonding. “Nature bonding means implicit and explicit connections to some parts of the environment, based on history, emotional response or cognitive representation” (**where is the citation with the page number?**)

It is comprised of:

- Deep feeling to Nature
- Attached to environment
- Relax spending time in environment” (Kyle, Graefe and Manning, 2005)



Fig 1: Sense of Place and it sub components
Source: Author

3.0 Urban Environments

According to Özdemir, (2019) “urban environments are places where most of the people in our contemporary society live”. Therefore, they address social interactions, the results of human activity, global and local difficulties, and problem-solving approaches from a holistic perspective. Three environments—natural, built and socioeconomic—combine to form the urban environment. Each environment's subsystems interact with those of the other environments (Sénécal, 2007).

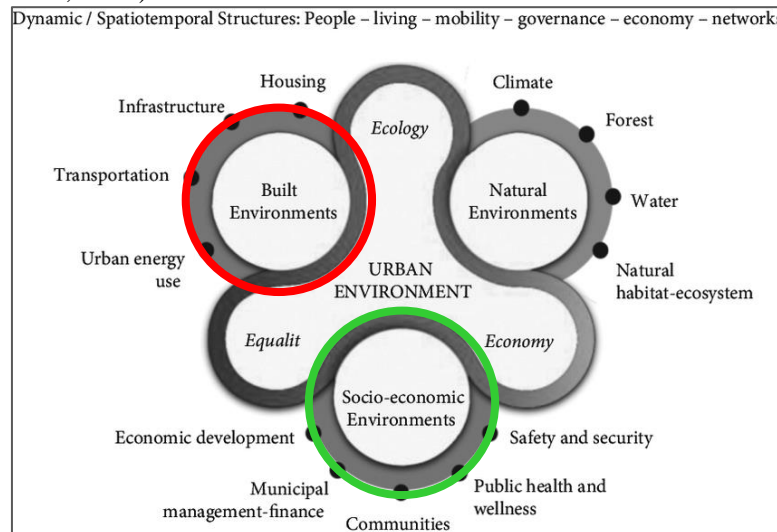


Fig 2: Urban environments and structures
Source: Helbich & Arsanjani, 2015

According to Qasim, et.al., (2012), the components of an urban environment are

- human dimensions
- spatial dimensions

- timing dimensions

The components of an urban environment are the basis for belonging to the urban environment linked to identity. The patterns that the people who founded a city chose to use define its identity. These patterns serve as a fossil record of the inhabitants of a region. By putting together the patterns of a place, one can infer its history, culture, and sustainability.

4.0 Social Environments

Human/social and cultural issues contribute to why people build. According to Massey (year), it could be a mix of these three factors: (1) Social ties, (2) societal expectations, and (3) systemic, cultural, and traditional conventions (Gadai et al., 2018)

5.0 Urban Pattern

The term "urban pattern" refers to the characteristics of a built environment, such as the roadway network, building blocks, and the forms of open spaces. Urban pattern is a dynamic structure that changes through time in response to the changing demands and preferences of a society.

In general, urban patterns emerge from the user requirements, which are subject to change depending on the user's culture, socio-economic status, and physical surroundings. According to Kostof (1991), urban patterns result from the interactions of people with their social, economic and physical environments.

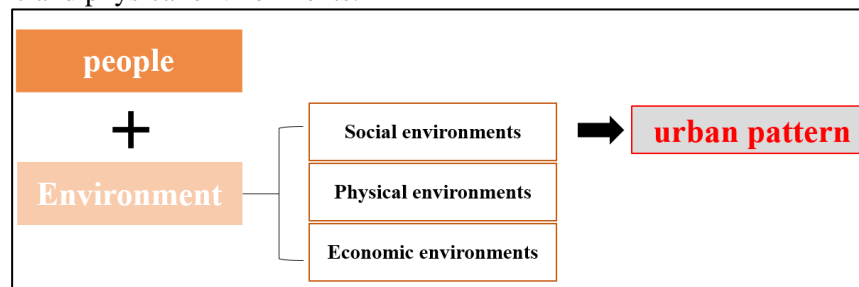


Fig 3: Formation of urban patterns
Source: Author

Towns and communities are defined at the outset of the language by certain patterns. These patterns can never be created or built in one single swoop, but careful piecemeal growth, planned so that every individual act always contributes to or generates these broader global patterns. (Alexander and Ishikawa, 1977). An urban pattern contributes to both the function and feel of an area and creates a sense of place. "Pattern languages encapsulate human experience, and help us cope with complexity in our environment" (Salingeros, 2000).

Urban pattern indicators include culture, merging housing and working together, city centers, community, neighborhood, network of learning, life cycles, activity nodes, old People, children in city, and the family teenage society, as shown in the following diagram 4.

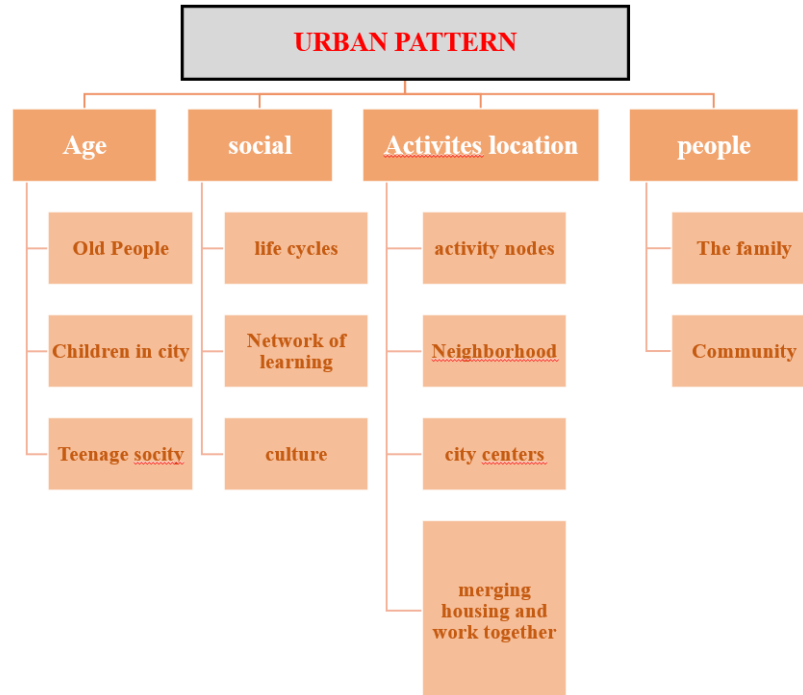


Fig 4: Urban pattern indicators
Source: Author

7. Research Methodology

The city of Basmaya was taken as a case study, and the indicators of the theoretical framework were applied to it. The research employed the following measurement methods.

1. Analytical method (analyzing Basmaya city plans)
 - Analysis of location plans:
 - Analysis of spatial plans:
 - Analysis of urban pattern:
 - Analysis of human pattern:
2. Questionnaire method

A questionnaire was administered to 50 Basmaya residents, 25 of whom were between the ages of 6 and 15, and 25 of whom were between the ages of 25 and 49. All of them were familiar with the city. Participants were asked to score their levels of sense of place for the Basmaya city. The questionnaire was translated into Arabic: the native language of the residents of Basmaya. Twelve indicators have been tested: place identity, place dependence, Nature bonding, social bonding, sense of belonging, familiarity, place attachment, age, social activities, locations and people.

Findings and the Discussion

Basmaya city plans

Location of the Project: Bismayah New City is located near the Baghdad-Kut Highway, on the left side of the southeastern Baghdad gate accessed through the interstate and Baghdad-Kut Highway approximately 10 km SouthEast of Baghdad (Mada'in), 25 km SouthEast from the center of Baghdad.

Following is the analysis of the location.

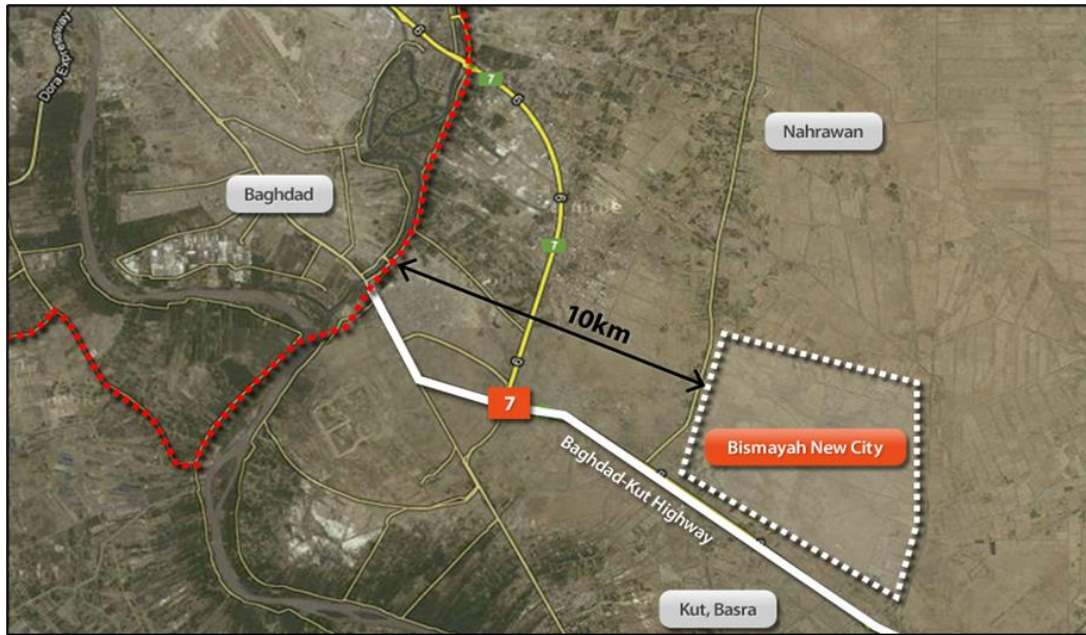


Fig 5: Site Location

Source: Al-Jawari et al., 2020

Analysis of spatial plans

The Basmaya residential project is divided into eight sectors, each of which is divided into a number of blocks that each contains a number of housing units in buildings at ten levels, with twelve apartments on each floor, as shown in the Fig 6.

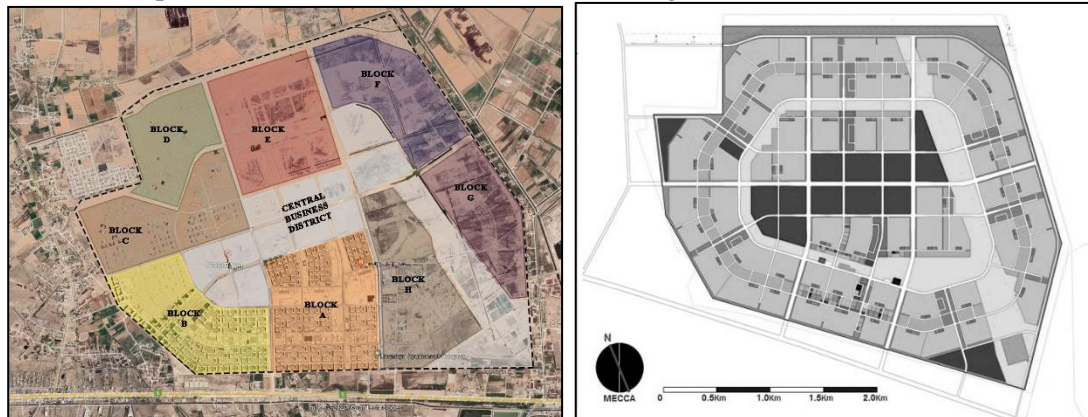


Fig 6: Town plan.

Source: Author.

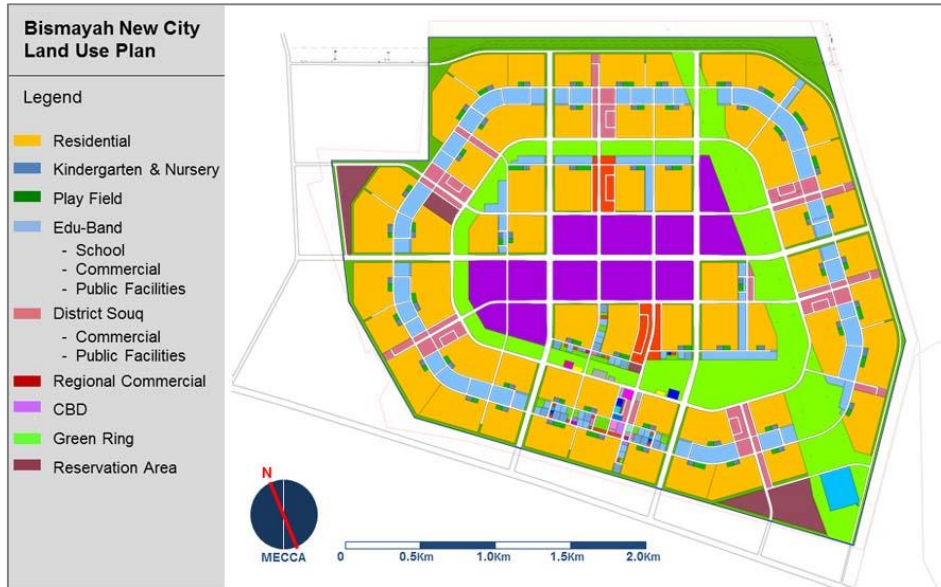


Fig 7: Land Use Plan
Source: Author

Analysis of the urban pattern

Buildings, building blocks, and roadways make up the urban pattern, which adjusts to the changing situations. Although the geometrical elements of the urban patterns are differentiated by the local peculiarities of communities, some fundamental principles exist in all the patterns. These characteristics were investigated by categorizing spatial elements into three groups: the three components of an urban pattern—buildings, building blocks and roads.



Fig 8: Boundaries of the location & Land Use plan
Source: Author

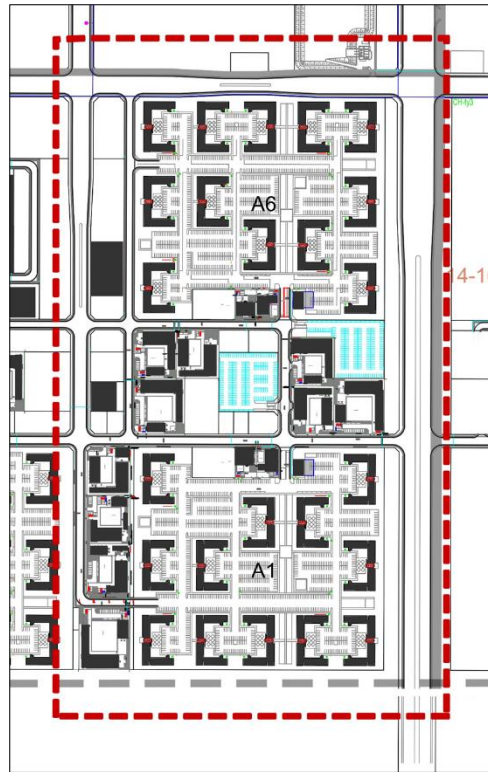


Fig 9: Urban pattern plan (building, roadway, building block)
Source: Author

Analysis of the human pattern

Based on the field survey of the city of Bismayah (the field survey by on-site visits and Autocad plans of the Hanwha Company) and the analysis of human patterns, the human social interaction patterns plan was established. The plan shows the spaces of social interactions of the residents of Basmaya city and shows the activities held in these spaces, They are as shown in the following figure.



Fig 10: Human social interaction patterns
Source: Author

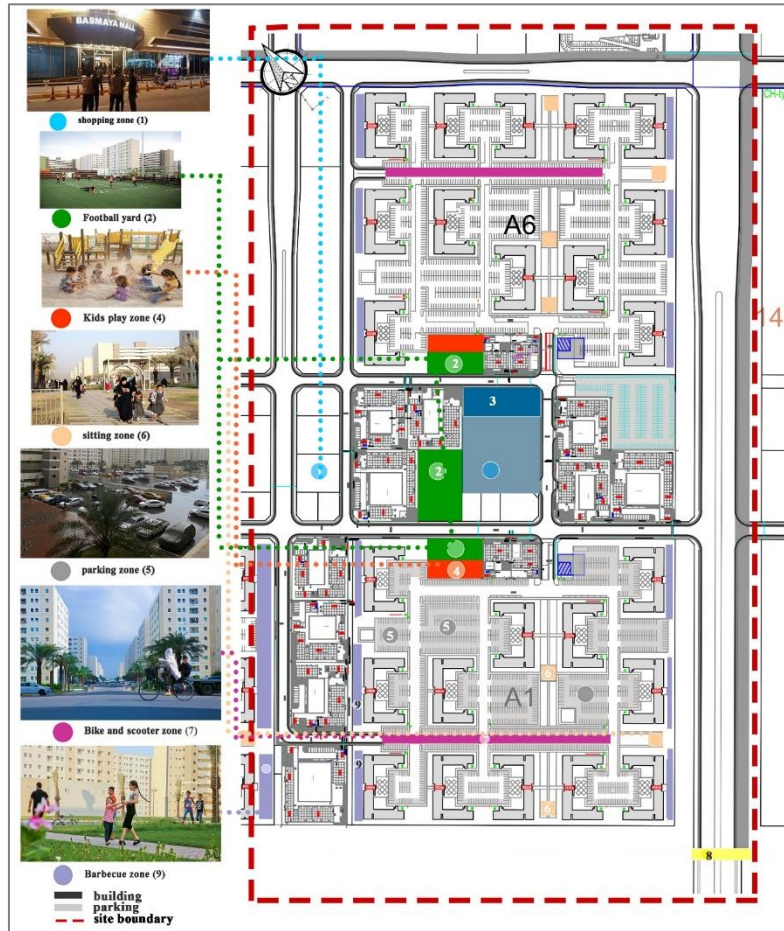


Fig 11: The main spaces in which the level of sense of place was measured
Source: Author

- The high-quality performance of urban pattern indicators increased the sense of place in the city of Basmaya.
- Basmaya city provides a diversity of people of ages, income levels and cultures
- Identity in the city of Basmaya is achieved by memory.
- The characteristics of the city are evident in the manner of the built environment.
- Basmaya culture is realized through its commercial city status.
- Most of Basmaya residents agreed that social bonding is achieved through satisfaction and social interactions that take place in the city.
- Basmaya is a family friendly city.
- Basmaya city contains streets and walking paths, which give the city a diversity and a mixture of activities.
- There is a direct impact of activities and the formation of activities in the city pattern on the sense of place
- There is no strong distance from Nature, but the green space contributed to enhancing the sense of place through interaction and communication between its inhabitants and the practice of various activities and events there.
- Provides pedestrian and cycling paths in a comfortable and safe way.
- Provides public spaces for practicing various activities and events.
- It recognizes the identity and culture of people by providing a unique user experience and providing basic comfort requirements.

			animals	●
	○ Teenage society	●	Cottage	●
			Apprentice	●
			Town and region	●
			Small work	●
			The family	●
			Network of learning	
social	○ life cycles	●	Community	●
			Experience	●
	○ Network of learning	●	Kindergarten	●
			School	●
			University	
	○ culture	●	Religious	
			Historical	
			Commercial	●
			Habits	
Activites location	○ activity nodes	●	Pedestrianpath	●
			Public square	●
			Nodes	●
			Cooperating facilities	●
	○ Neighborhood	●	Type of apartment	●
			Apartment Form	
			Color and façade	
			Public square	●
			Accessible green	●
	○ city centers	●	Activity nodes	●
			Shopping street	●
			Promenade	
	○ merging housing and work together	●	Green street	
			Network of path and cars	●
			Main gateway	●
			Road crossing	●
			Bike path and racks	●
people	○ The family	●	Private realms	●
			Common space	●
			Communal household	●
	○ Community	●	Human experience	●
			Human life	●

Conclusions:

Sense of place is important and necessary in the spaces of different cities, which gives the city its identity, symbolism, and distinctive characteristics. All the elements of urban patterns are affected by the different indicators of place and thus affect the process of making the place.

- Data suggest that the residents of the city of Bismayah were present in the urban spaces of the city as a result of the presence of various events and activities and the presence of people of different ages. This contributed to strengthening the interdependence between people and between people and their city, which leads to improving the daily lives of people and enhancing the cultural and social aspects of the city. The parks in the city also contributed to strengthening the connection in the city and the desire to spend more time in the city.
- Diversity is an important term and an influencing factor in the index of place identity, social bonding, and place dependence. It appeared at a high rate in the city of Basmaya city which provides diversity of people of all ages, income levels, and cultures. It is an

important aspect that requires its presence when planning the urban patterns because of its contribution to making the place.

- Identity in the city of Basmaya is achieved by memory, and aesthesi). The aesthetic index got 40%, which is an important indicator in creating the identity of place and thus contributes to creating a sense of place.
- Place characteristics are an important indicator in creating a sense of place. Place characteristics in Basmaya city are evident in the manner of the built environment.
- Safety, knowledge, and belonging appeared strongly in dependence on place and contributed to creating a sense of place.
- Weakness of the culture indicator in the social dimension and in the formation of attachment to the place is an important indicator for creating a sense of place.
- Basmaya culture is realized through its commercial city status.
- Most of Basmaya residents agreed that social bonding is achieved through satisfaction and social interactions that take place in the city.
- Basmaya is a family friendly city by 76%. It is an important indicator for creating sense of place.
- Street, parks, walking paths and bicycles, public spaces are important elements that must be present in the city's urban pattern to create a good sense of place.
- Needs, lifestyle, communication, education are the most important vocabulary that emerged in the results and strengthened people's attachment to the place.
- There is a direct impact of activities and the formation of activities in the city pattern on the sense of place.
- This study contributes to the need to focus on building, building block, and roadways to create a heightened sense of place when designing cities

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