A*icQoL2022Penang*

Exploring the Concept of Spatial Identity within a Building Environment

Syazwani Abdul Kadir [1], Nurul Nabilah Aris [1], Nurlisa Ginting [2]

[1] Centre of Studies for Interior Architecture, Faculty of Architecture, Planning and Surveying,
Universiti Teknologi MARA (UiTM), Malaysia
[2] Department of Architecture, Faculty of Engineering,
Universitas Sumatera Utara, Indonesia

syazwani179@uitm.edu.my, nabilaharis@uitm.edu.my, nurlisa@usu.ac.id
Tel: +603-3258 6100

Abstract

This paper discusses the spatial identity theory for a smaller scope of the built environment - a building design. The research objective is to explore the concept of spatial identity theory within a building and interior setting through literature analysis and synthesis. A literature review is a primary methodology for this research paper, which considers extensive precedent studies associated with place identity, sense of place, place attachment, and spatial experience. The synthesis towards the end of this study may better comprehend the concept of spatial identity for a building design and interior environment.

Keywords: Spatial identity; building environment; sense of place; spatial experience

1.0 Introduction
1.1 Research Background and Issues

The term 'spatial identity' is an emerging vocabulary in architectural academia. Some articles on the well-known architectural and design website, such as ArchDaily and Dezeen, use the 'spatial identity' term to refer to the identity of interior design in a building. However, despite the broad discussion of identity theory in terms of the bigger scale of the built environment, there is a lack of study on spatial identity, particularly for a building environment or interior setting. Identity in the interior also plays a significant part in human socio-psychological development as people spend a lot of time inside a building daily. Moreover, there are many facets of definition on the theories related to place and identity, which make it somewhat difficult to grasp one definitive construct of the theories (Childs, 2021).

Another issue that initiates this study is the increasing number of design interventions that is lack meaningful spatial identity in today's urban development (Ujang, 2012; Schegk, 2020). Having a meaningful identity is crucial in sustaining the nation's cultural heritage (Ginting et al., 2018b); thus, there is a need to explore a more apparent construct of spatial identity so that designers may better articulate the concept of identity in their built environment design.

1.2 Research Objectives and Methodology

Considering the above research gap, this study is conducted to explore the concept of spatial identity within a building environment. The objectives of this paper are to first, outline some prominent theories of identity in the built environment context, and second, to discuss the

construct of spatial identity for an interior setting through literature analysis and synthesis. Questions being asked as the direction of research include; what elements of the built environment create the identity of a place or space?; do human psychological factors contribute to the spatial identity within a building environment?; do the physical attributes in an interior design play significant roles in creating a spatial identity?; what aspects of the building design may construct a social space that attracts many visitors?; does spatial identity significantly correlate with the spatial experience of a building environment?.

With those research questions in mind, a literature review has been conducted on the precedent studies associated with some significant identity theories, including place identity, sense of place, place attachment, place dependence and spatial experience. This conceptual paper will first address the significance of identity in the built environment and proceed with discussing related theories of identity. The paper will then synthesise the shared attributes among the identity theories from the precedent studies analysis. The paper concludes by outlining the construct of spatial identity within a building and interior environment, which is retrieved from the literature review synthesis. The finding towards the end of this study may better comprehend spatial identity theory for a building and interior setting.

1.3 Scope and Limitation

This paper broadly discusses some prominent identity theories regarding the spatial identity theory for a smaller scope of the built environment - a building design. The intention is not to resolve the exact definition of identity theories in the built environment but rather to extract the shared attributes among the theories. The construct of spatial identity within a building or interior setting is adapted from the shared attributes of the precedent studies. Because of the various contextual definition of the discussed theories in this paper, the limitation of the study includes having to project careful opinion on identity theories in other settings, namely urban design, landscape architecture, human geography, psychology and so on. This study, however, must be discussed by going through the other contexts due to the lack of scholarly studies of identity theory in an interior setting.

2.0 Significance of Identity and Its Experiential Condition

Hernandez et al. (2007) establish that place identity is a necessity in the process of acquiring a sense of belonging and building a social identity as a person. Having an identity is not only crucial for an individual or a community but also vital for a place and the built environment. In the tourism context, identity moulds the tourist perception of the place through the tangible and intangible elements that the place embodies (Marković and Fuerst-Bjeliš, 2015). Maintaining place identity is also significant in preserving the place's uniqueness of its cultural heritage (Ginting and Rahman, 2016); while simultaneously sustaining the tourism development (Ginting et al., 2018b). Saad (n.d) expands the importance of maintaining identity with the purpose to sustain the evolving urbanisation process. Architectural design with meaningful identity results from a well-thought-out design process, namely the design originality, architectural narratives, and conceptual ideas (Childs, 2021). As a whole, designers have the power to influence people's behaviour and psychological well-being through a meaningful identity within the built environment of their creation (Gehl, 2011).

Identity in the built environment encapsulates a broad outlook of diverse interrelating concepts. The theories as a whole begin with the notion of a place. The first condition in understanding a place is by being *in situ*, which can be referred to as physically being in the place. Peter Zumthor's works advocate that truly meaningful architecture refers to the idea of being in the place to understand it through existential senses. A place's identity can be seized from the physical features, historical values, cultural characteristics, experiential ties, and other collective aspects within the environment. The sense of identity can only be created by having experiential ties when being in the place (Barelkowski, 2017; Childs, 2021). Cafuta and Sitar (2017) claim that the image of a city is constructed from the common use of the place and an individual's spatial experience. Furthermore, Tang, Acedo and Painho (2021) establish that the sense of place and its conceptions are constructed from the physical environment and the individuals' spatial experience within the place. From the environmental psychology approach, an individual's spatial perception can only be acquired by experiencing it *in situ*.

3.0 Identity Theories in the Built Environment

Some prominent theories of identity in the built environment include place identity, sense of place, place attachment, and place dependence. From the environmental psychology discourse, "place identity is defined as the way in which a place informs the identity of a person or people" (Proshansky et al., 1983). According to Damayanti and Kossak (2016), place identity is the connection people develop with the physical elements of a place and the activities that occur within it. Place identity is perceived as the result of the relationship between the physical attributes of a place and the values that it embodies (Bott, Cantrill and Myers, 2003). From the socio-psychological outlook, place identity is formed by four principles - distinctiveness, continuity, self-esteem, and self-efficacy (Twigger-Ross & Uzzell, 1996).

The next concept in identity theory that is equally significant is the sense of place. Adams (2013) refers to the sense of place as the emotion and relationship between the people and place. Similarly, Nasab (2021) indicates that a sense of place is created within meaningful places through the social context and social interaction in a physical environment. The author also lists the most significant indicators of a sense of place as "intimacy of place, the experience of place and personality of place" (Nasab, 2021). Francis et al. (2012) establish that sense of place is the concept that encompasses the three main theories in identity - place identity, place attachment and place dependence. A study by Shamsuddin and Ujang (2008) found that the criteria of "diversity, vitality, accessibility, safety, and distinctiveness" are the factors contributing to the sense of place in two of Kuala Lumpur's busiest shopping areas. Sense of place can also be generated from the individual's emotional relationship and sense of belonging to the place (Nasab, 2021), which are pretty similar to the next theory discussed in this literature review.

As introduced above, another theory often discussed concerning identity in the built environment is place attachment. Devine-Wright and Clayton (2010) claim that a successful place identity may result in a good sense of place attachment. Ujang (2017) defines place attachment as "the development of affective ties or relationships between people or individuals and certain places that are expressed through interactions and emotional attachment". One of the earliest studies on attachment, Stokols and Shumaker (1981), established that attachment can be seen through the functional bonding between people and place, more accurately referred to as place dependence. Place dependence refers to the functional reliance on the features and conditions that the place provides in completing necessary daily activities (Williams and Vaske, 2003).

4.0 Synthesizing the Shared Attributes

Through literature synthesis, some similar patterns are found among the intertwining theories discussed above. Firstly, some attributes highlight the emotion and perception of humans towards their environment. Sense of place considers both the physical form of the place correlated with the emotional reaction and human perception to a place (Stedman, 2003). Tilley (as cited in Childs, 2021) indicates that material forms are essential tools to create a perception of place identity and eventually evoke an emotional connection between people and place. In support of the emotional attributes in the identity construct, Heydari and Jamshidi (2021) constitute that "the factors of individual feelings and the configuration and body of space had the greatest impact on both attachment to the place and the identity of the place". Moreover, Raymond, Kyttä and Stedman (2017) assert that a sense of place can be seen as "a property of the relationship between perception - action and social construction processes both within and across place-based experiences."

The second synthesis of shared attributes among the discussed concepts is the cognitive and memory of individuals. Childs (2021) indicates that "meaning and memory can be translated into architectural form through exploring the design qualities of the past and present, critical regionalism and embodiment". Moreover, according to a study on mental images, "the physical and sensory experience of places, which includes a multiplicity of aspects, contributes to the personal construction of the mental image of places" (Morello and Piga, 2015). This means that mental images of a place are significantly formed by the human visual senses. The meaningful and memorable experience of a place interplay in the process of creating a solid architectural identity while also building a sense of belonging and self-esteem for the individuals (Childs, 2021). A study on the continuity aspect by Ginting et al. (2018a) found that a place's physical elements, memory, and sentimental values contribute to the continuity of the place identity. Hence, it can be safely said that creating a memorable and meaningful spatial experience is an efficient strategy in sustaining place identity.

In general, most of the identity constructs project the same idea of having both physical and psychological components in creating meaningful identity. Above all, the shared attributes of identity theories are rooted in one definitive aspect: the physical elements or embodiment. The physical conditions of a place interrelate with the social interaction within the space and therefore construct a meaningful identity to the encounters (Damayanti and Kossak, 2016). In addition, physical elements and visual constructs are the significant variables with the human interaction in an urban design environment (Damayanti and Kossak, 2016). This highlight on physical elements directs this discussion towards the construct of spatial identity within a building and interior setting.

5.0 Spatial Identity within a Building Environment

The previous discussion concludes that physical attributes are the most significant component in the construct of identity. Hence, this study establishes that embodiment is the fundamental aspect of the spatial identity within a building and interior setting. This is parallel with Childs (2021), who also regards physical elements as "an existential condition in the construction of any sense of identity". The author also asserts that the physical quality of a building and interior design manifests its architectural success, which is shown through institutional values and aspirations felt by the building occupants or visitors (Childs, 2021). Dixon & Durrheim (2004) also propose that the physical environment significantly contributes to self-identity. Furthermore, the human behaviour and activities in a building are influenced considerably by the physical design of the space (Jones and Evans, 2012). These corresponding findings enhance the idea of embodiment as the underlying aspect of people-place interaction through its interplay with other components of spatial identity.

The physical elements in spatial identity may be composed of the form, body of construction, materials, ventilation system, interior scheme, furniture detailing and of the environmental science aspects - which differentiate the architectural design from the others (Goodwin et al., 2009 as cited in Ginting et al., 2018a). The building form itself is a crucial aspect of architectural design (Goodwin, Tonks, & Ingham, 2009). Based on Ginting and Rahman's (2016) study, other physical aspects that are essential principles of place identity include accessibility, historical building, cultural product, local product, signage design, and parking space. In interior design, interior quality such as the concept and application of rhythm, represents the spatial identity (Amelia, Nuraeny and Arvanda, 2020). Hillier (2001) emphasises that space planning and configuration in interior design may affect the visual and occupants' movement within the space.

Physical aspects of a place itself are the primary support for the programming or the activities intended for the spatial design. The physical space provides means for the people activities within the place which then creates a more meaningful spatial identity. While within a place, there is people interacting with people, there is also people interacting with the space through their existential senses. This is accomplished by the interplay of physical elements with the intangible environmental elements such as lighting, air ventilation, thermal comfort, and acoustic. Considering the other attributes of spatial identity, a place as a whole can be identified by the "physical form, activity and meaning" (Ujang & Zakariya, 2015), whereby those components create the interaction between people and their environment.

6.0 Conclusion

The spatial identity as a whole is the result of people-place interaction constructed by the physical and psychological elements that embody a space. Collectively, spatial identity looks at how significant the space means to an individuals or groups by having them experiencing the space in situ. This study establishes that the construct of spatial identity within a building and interior setting consists of physical elements as the fundamental of the architectural or interior design, which provide space and support for human activities. The physical elements also represent the visual attributes in space, namely the form, colour scheme, layout and circulation. Within a space, the physical attributes interplay with the environmental elements such as lighting and air circulation in creating experiential ties to the individuals such as the spatial ambience, emotional feeling and meaningful memory. Together, this construct explains the concept of spatial identity better, as visualised in Fig. 1 below.
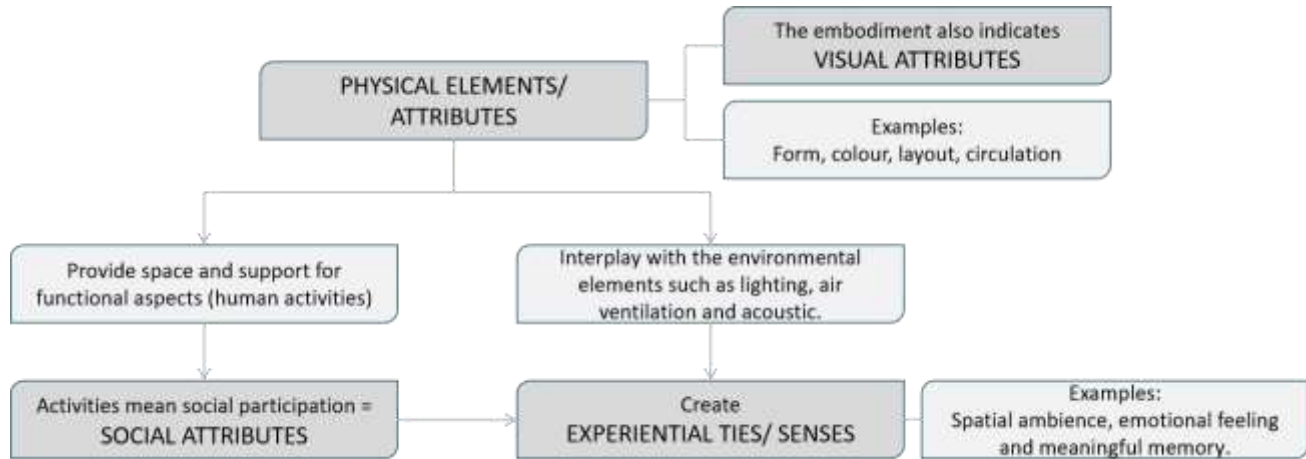

Fig. 1: The Construct of Spatial Identity within a Building and Interior Environment
(Source: Author, 2022)

This study highlights the crucial aspect of people-place interaction in architectural and interior design. The identity is encapsulated within the spatial experience where the physical and psychological elements interplay in harmony, as Peter Zumthor manifests that:

"I am convinced that a good building must be capable of absorbing the traces of human life and taking on a specific richness… I think of the patina of age on materials, of innumerable small scratches on surfaces, of varnish that has grown dull and brittle, and of edges polished by use." — Peter Zumthor.

7.0 Paper Contribution to Related Field of Study

This study may better comprehend the concept of spatial identity within a building and interior environment. It may assist designers in architecture and interior problem solving, especially concerning the intangible aspects of the environmental psychology of building space. The findings may also be adapted in future empirical research on spatial identity.

References

Adams, J. D. (2013). Theorizing a sense of place in a transnational community. *Children Youth and Environments, 23*(3), 43-65.

Amelia, R., Nuraeny, E. & Arvanda, E. (2020). The Effect of Rhythm in Music and Interior on People's Movement. *AIP Conference Proceedings 2230,* 040026. https://doi.org/10.1063/5.0002634

Barelkowski, R. (2017). Reforging Spatial Identity for Social Sustainability. *International Journal of Sustainable Development and Planning, January 2017,* 39-49. DOI: 10.2495/SDP-V12-N3-395-405

Bott, S., Cantrill, J. G., & Myers, O. E. (2003). Place and the promise of conservation psychology. *Human Ecology Review, 10*(2), 100–112. doi:10.2307/24706959.

Cafuta, M.R. & Sitar M. (2017). Rethinking the City Spatial Identity through the Eyes of the Observer. University Of Zagreb, Faculty Of Architecture, *Scientific Papers 25,* 316-327.

Childs, A. (2021). *Space for Place: A method towards architectural place-making.* Thesis for the degree of Master of Architecture (Professional), Victoria University of Wellington, School of Architecture.

Damayanti, R. & Kossak, F. (2016). Examining Spatial Identity of Kampungs Through Young Adults' Perception In Surabaya – Indonesia. *Journal of Architecture And Urbanism, 40*(1), 18–28. doi:10.3846/20297955.2016.1150222

Devine-Wright, P. & Clayton, S. (2010). Introduction to the Special Issue: Place, Identity and Environmental Behaviour. *Journal of Environmental Psychology, 30*(3), 267 70. DOI:10.1016/S0272-4944(10)00078-2.

Dixon J. & Durrheim K. (2004). Dislocating identity: desegregation and the transformation of place. *Journal of environmental psychology, 24,* 455–473.

Francis et al. (2012). Creating Sense of Community: The Role of Public Space. *Journal of Environmental Psychology, 32*(4), 401–9. DOI:10.1016/j.jenvp.2012.07.002.

Gehl, J. (2001), *Life between Buildings: Using Public Space*, 5th ed., The Danisch Architectural Press, Copenhagen, Denmark

Ginting, N., & Rahman, V.N. (2016). Preserve Urban Heritage District based on Place Identity. *Asian Journal of Environment-Behaviour Studies, ajE-Bs, 1*(1), Maiden, December 2016, 67-77.

Ginting, N., Rahman, V. & Delianur, A. (2018a). Re-maintaining Authentic Place Identity through Continuity: Sipiso-Piso, North Sumatera. *Environment-Behaviour Proceedings Journal, 3*(8), 75-82.DOI: 10.21834/e-bpj.v3i8.1399

Ginting, N., Rahman, N. V., Subhilhar, S., & Wahid, J. (2018b). The role of place identity in planning heritage tourism. *The Indonesian Journal of Planning and Development*, *3*(2), 56-66. doi:10.14710/ijpd.3.2.56-66.

Goodwin, C., Tonks, G., & Ingham, J. (2009). Identifying heritage value in URM buildings. *Journal of the Structural Engineering Society of New Zealand, 22*(2), 16–28.
Hernandez, B., Hidalgo, M., Salazar-Laplace, M. and Hess, S. (2007). Place Attachment and Place Identity in Natives and Non-natives. *Journal of Environmental Psychology, 27*, 310–19.

Heydari, A.A & Jamshidi, F. (2021). Analysis of the relationship between the two concepts of place identity and place attachment in urban open spaces (Case Study: Eram Garden of Shiraz). *Journal Research and Urban Planning, 12*(44), 173-188. doi: 10.30495/jupm.2020.4303

Hillier, B. (2001) A theory of the city as object: or, how spatial laws mediate the social construction of urban space. Presented at: *3rd International Space Syntax Symposium, Atlanta, Georgia, USA*.

Jones, P. & Evans, J. (2012). Rescue Geography: Place Making, Affect and Regeneration. Urban Studies, 49(11), 2315–30. DOI:10.1177/0042098011428177.

Marković, I. & Fuerst-Bjeliš, B. (2015). Spatial identity as a driving force in tourism development: Comparative analysis of the Bjelovar and Čakovec regions. HRVATSKI GEOGRAFSKI GLASNIK 77/1, 71-88. DOI: 10.21861/HGG.2015.77.01.04

Morello, Eugenio; Piga, Barbara E. A. "The Image of Productive Landscapes: A Method for the Perceptual Analysis of Industrial Heritage" in: Kepczynska-Walczak, Anetta (ed.), *Envisioning Architecture: Image, Perception and Communication of Heritage*. Lodz: Lodz University of Technology. 2015. p. 92-93.

Nasab, S.S.H. (2021). The Interaction of University and The City; A Socio-Spatial Bond. Journal of the Punjab University Historical Society, 34(01), 227-235.

Prince, D. (2014). What about Place? Considering the Role of Physical Environment on Youth Imagining of Future Possible Selves. *J Youth Stud*. 17(6), 697–716. doi:10.1080/13676261.2013.836591.

Proshansky, H.M., Fabian A.K. & Kaminoff, R. (1983). Place-Identity: Physical World Socialization Of The Self. Journal of Environmental Psychology (1983) 3, 57-83.

Raymond C.M., Kyttä, M. & Stedman, R. (2017). Sense of Place, Fast and Slow: The Potential Contributions of Affordance Theory to Sense of Place. Front. Psychol, 8,1674. doi: 10.3389/fpsyg.2017.01674

Saad, S.A. (n.d.).The Spatial Identity of Historic Cairo. Part two: Must Prominent Buildings be Enframed. *International Journal on The Academic Research Community Publication,* 183-194.

Schegk, I. (2020). Making Places: In Search of Identity. Conference: Cities and Cultural Landscapes:between recognition, preservation and usage, CICOP 4th International Conference the Importance of Place, 2017, Sarajevo, Bosnia and Herzegowina, City Hall Sarajevo (Vijećnica) and Faculty of Architecture, University of Sarajevo. March 2020, page.1-13.

Shamsuddin, S., & Ujang, N. (2008). Making places: The role of attachment in creating the sense of place for traditional streets in Malaysia. Habitat International, 32(3), 399–409. https://doi.org/10.1016/j.habitatint.2008.01.004

Stedman, R. C. (2003) Is it really just a social construction? The contribution of the physical environment to sense of place. *Society & Natural Resources*, 16(8), 671-685.

Stokols, D., & Shumaker, S. A. (1981). People in places: A transactional view of settings. In J. Harvey (Ed.), Cognition, social behavior, and the environment (pp. 441-488). Hillsdale, NJ: Erlbaum

Tang, V., Acedo, A. & Painho, M. (2021). Sense of place and the city: the case of non-native residents in Lisbon. Journal Of Spatial Information Science, 23, 125–155.

Twigger-Ross, C. L., & Uzzell, D. L. (1996). Place and identity processes. *Journal of Environmental Psychology*, *16*(3), 205–220. doi:10.1006/jevp.1996.0017.

Ujang, N. (2012). Place Attachment and Continuity of Urban Place Identity. *Procedia-Social and Behavioral Sciences*, *49*, 156-167.

Ujang, N. (2017). Place Attachment and Continuity of Urban Place Identity. Asian Journal of Environment-Behaviour Studies, 2(2), 117.

Ujang, N., & Zakariya, K. (2015). Place Attachment and the Value of Place in the Life of the Users. *Procedia - Social and Behavioral Sciences*, *168*, 373–380.

Williams, D. R., & Vaske, J. J. (2003). The measurement of place attachment: Validity and generalizability of a psychometric approach. Forest Science, 49(6), 830–840.