

Spatial Identity in the Context of Interior and Building Environment

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Abstract

The research paper explores the concept of "spatial identity" within an interior and building environment. It aims to determine how physical and psychological elements contribute to spatial identity in interior design and architecture. The study primarily uses literature review and synthesis, discussing on theories like place identity, sense of place, place attachment, and spatial experience. Key findings suggest that spatial identity is shaped by both physical attributes (such as form, materials, and layout) and psychological elements (like emotional ties and memories). The research concludes that a building's design can offer meaningful spatial identity through thoughtful integration of these elements.

Keywords: Spatial identity; interior and building environment; identity theories; spatial experience

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1.0 Introduction

1.1 Research Gap and Issues

The concept of "spatial identity" is a relatively new and evolving term within architectural academia. It has gained some recognition in popular architectural discourse, with prominent design platforms such as ArchDaily and Dezeen frequently referencing it to describe the unique identity conveyed through interior design within a building. Despite its growing mention in such contexts, scholarly exploration of spatial identity remains sparse, especially when applied to building environments or interior settings. Most identity theories have traditionally focused on broader scales, such as urban or regional environments, leaving the nuanced application of spatial identity in architectural and interior contexts under-explored.

Interior spaces significantly influence human socio-psychological development, as individuals spend a substantial portion of their daily lives inside buildings. These spaces shape personal and collective experiences, making the study of spatial identity particularly relevant. Peng, Strijker, and Wu (2020) indicate that recent research trends in place identity have increasingly focused on areas such as architecture, hospitality, leisure, sports, and tourism, reflecting a shift toward examining place products. However, the diversity in theoretical definitions of place and identity complicates the establishment of a unified conceptual framework. Childs (2021) highlights this complexity, emphasizing the challenges in grasping a definitive construct of these interconnected theories. Kalandides (2011) highlights a significant gap in the conceptualization of place identity, noting that the idea of spatial identity remains ambiguous and lacks clear definition.

Additionally, contemporary urban development increasingly faces a lack of meaningful spatial identity, as noted by Ujang (2012), Schegk (2020) and Duan, Lan, and Jiang (2022). Gantar (2024) observes that the unique qualities of spaces are increasingly being lost due to widespread generic development and redevelopment, particularly in rural and peri-urban regions. This absence undermines the ability of designed spaces to foster emotional and cultural connections. Ginting et al. (2018b) underscore the importance of meaningful identity in preserving a nation's cultural heritage, advocating for a more intentional and structured approach to integrating spatial identity into design practices. Thus, there is a pressing need to refine the construct of spatial identity, enabling architects and designers to better articulate and integrate this concept into their work. By doing so, the built environment can more effectively resonate with cultural, social, and psychological dimensions, ensuring it serves both functional and symbolic purposes.

1.2 Research Aim and Objectives

In light of the identified research gap, this study seeks to investigate the concept of spatial identity within an interior and building environment. To achieve this, the study focuses on two key objectives: first, to outline prominent theories related to identity within the built environment, and second, to synthesize the construct of spatial identity within interior spaces using an extensive literature review.

The study is guided by several critical research questions that shape its direction and scope. These include:

- i. What are the essential elements of the built environment that contribute to the creation of a space's identity?
- ii. How do human psychological factors, such as memory, emotion, and perception, influence the development of spatial identity within building environments?
- iii. To what extent do physical attributes in interior design—such as form, materiality, and spatial arrangement—play a significant role in shaping spatial identity?
- iv. What specific aspects of building design contribute to the creation of social spaces that foster engagement among the visitors?
- v. Is there a meaningful correlation between spatial identity and the overall spatial experience of individuals within building environments?

1.3 Research Methodology

With these research questions as the guidance, an extensive literature review has been conducted to examine precedent studies that explore identity theories within built environment. These include concepts such as place identity, sense of place, place attachment, place dependence, and spatial experience. This conceptual paper anticipates to serve as the basis for understanding how identity is constructed, perceived, and experienced within the built environment.

The literature review begins by emphasizing the significance of identity in the context of built environment. It highlights how identity in the built environment influences human behavior, cultural expression, and socio-psychological connections to space. Subsequently, the discussion delves into the key identity theories mentioned above, analyzing their relevance and applicability to spatial identity. Through a comprehensive review of prior studies, the paper identifies common themes, attributes, and dimensions shared among these theories, providing a synthesis that unifies their core principles.

Building on this analysis, the paper outlines a framework for spatial identity specific to building and interior environments. This synthesis is derived from a thorough evaluation of the literature and seeks to establish a clearer understanding of the concept. It also highlights how this understanding can inform future research and design practices. The findings are expected to contribute to a deeper comprehension of spatial identity, enabling architects and interior designers to create spaces that resonate emotionally and culturally with their users. Ultimately, this study seeks to enhance the discourse on the intangible yet profound role of identity in shaping meaningful and engaging built environment.

1.4 Scope and Limitation

This paper provides an extensive discussion of prominent identity theories, focusing on their relevance to the concept of spatial identity within a more narrowly defined scope of the built environment—specifically, interior settings and building design. However, given the wide-ranging and contextual definitions of the theories discussed, this study faces certain limitations. The goal of this study is not to establish a definitive explanation or

resolve the complexities of identity theories across disciplines such as urban design, landscape architecture, human geography, or psychology. Instead, it seeks to identify and extract shared attributes across various theories, using them as a foundation to adapt and define the construct of spatial identity within a building or interior context.

Despite this focused approach, a comprehensive understanding of spatial identity necessitates referencing identity theories in broader contexts. This is due to the lack of extensive scholarly research dedicated to spatial identity within interior design settings, which requires drawing insights from related fields to fill existing gaps.

2.0 Literature Review

2.1 Significance of Identity

Hernandez et al. (2007) highlight the critical role of place identity in fostering a sense of belonging and shaping an individual's social identity. This notion extends beyond personal or communal significance to the identity of places themselves, particularly within the built environment. Place identity serves as a cornerstone in how spaces are perceived and valued. In the context of tourism, identity shapes visitors' perceptions through both tangible elements, such as architecture and landscapes, and intangible aspects, like cultural narratives and traditions (Marković and Fuerst-Bjeliš, 2015). The preservation of place identity is equally crucial for safeguarding cultural heritage, which adds a unique character to a location while also contributing to sustainable tourism development (Ginting and Rahman, 2016; Ginting et al., 2018b; Cafuta, 2024).

Furthermore, Saad (n.d.) emphasizes that retaining a meaningful identity within urban design is vital for navigating and supporting the process of urbanization. A meaningful architectural identity stems from a deliberate and thoughtful design process that combines originality, narrative depth, and conceptual innovation. Childs (2021) underscores that such an approach not only enriches the architectural output but also fosters emotional and psychological connections for its users. Duan, Lan, and Jiang (2022) note that the spatial identity of historic urban areas significantly influences residents' psychological states and behavioral patterns, fostering a distinct sense of belonging, identity, and way of life. They describe the spatial identity of these areas as an urban form rich in humanistic qualities, reflecting its deep cultural and social attributes.

Designers play a pivotal role in shaping human behavior and well-being by embedding a purposeful identity within the environments they create (Gehl, 2011). These environments have the potential to influence how people interact with spaces and how they perceive their social and psychological place within them. In essence, spatial identity is an amalgamation of physical, cultural, and experiential elements that interact dynamically to create a sense of place. This layered understanding underscores the importance of designing environments that are not only functional but also resonate emotionally and culturally with their users, preserving the integrity and uniqueness of the spaces we inhabit.

2.2 Experiential Condition of Being in a Place

The concept of identity in the built environment is inherently broad, encompassing a myriad of interrelated ideas. At its core is the notion of "place," which begins with physically being present, or in situ. Peter Zumthor's architectural philosophy advocates for understanding a place through direct, existential engagement with its environment, emphasizing the importance of sensory experiences. A place's identity is derived from various components, including its physical features, historical significance, cultural attributes, and collective experiential connections. Experiential ties, formed through physical presence and interaction, are fundamental to establishing a meaningful sense of identity (Barelkowski, 2017; Childs, 2021).

Cafuta and Sitar (2017) expand this idea, suggesting that the image of a city arises from shared uses of space and the collective spatial experiences of its inhabitants. In a recent study, Cafuta (2024) notes that contemporary tourists seek to engage with their surroundings using all their senses, often desiring a glimpse into the everyday life of a place. It's crucial for even the most ordinary locations to stay true to their identity as to offer wholesome experiential connections with the tourists. Similarly, Tang, Acedo, and Painho (2021) assert that the sense of place is shaped by the interplay between the physical environment and individuals' spatial experiences. From the perspective of environmental psychology, spatial perception is inherently tied to direct experience—highlighting that one must engage with a place firsthand to fully comprehend its identity.

2.3 Theories of Identity in the Built Environment

Some of the most prominent theories of identity in the built environment include place identity, sense of place, place attachment, and place dependence. These theories provide a framework for understanding the interplay between individuals, communities, and their spatial environments, highlighting the psychological and social dimensions of how people interact with and interpret places.

2.3.1 *Place Identity*

From an environmental psychology perspective, Proshansky et al. (1983) define place identity as "the way in which a place informs the identity of a person or people." This concept underscores the deep connection individuals or groups develop with specific places, which contribute to their sense of self and belonging. Damayanti and Kossak (2016) expand on this idea, explaining that place identity emerges from the interaction between people and the physical elements of a place, as well as the activities occurring within that environment. Bott, Cantrill, and Myers (2003) further suggest that place identity is shaped by the interplay between the tangible attributes of a space and the values or meanings it embodies.

From a socio-psychological perspective, Twigger-Ross and Uzzell (1996) outline four key principles that form the foundation of place identity:

- i. Distinctiveness – The unique characteristics that set a place apart.
- ii. Continuity – The role of a place in providing temporal stability to an individual's sense of self.

- iii. Self-esteem – How places contribute to a person's pride or sense of worth.
- iv. Self-efficacy – The ability of a place to support one's goals or lifestyle.
- v. These principles underscore the intricate and multi-dimensional ways in which place identity influences personal and collective experiences.

2.3.2 *Sense of Place*

Closely related to place identity, sense of place is another vital theory in the study of spatial identity. Adams (2013) describes it as the emotional connection and relationship that individuals or groups have with a particular place. Nasab (2021) adds that a sense of place arises within meaningful locations through social interactions and context, emphasizing the critical role of community and shared experiences in shaping these connections. Nasab identifies key indicators of a sense of place, including the intimacy of place, experience of place, and personality of place.

Francis et al. (2012) argue that sense of place acts as an umbrella concept encompassing place identity, place attachment, and place dependence. For instance, Shamsuddin and Ujang (2008) identified critical factors such as diversity, vitality, accessibility, safety, and distinctiveness as essential contributors to a sense of place in urban contexts, such as Kuala Lumpur's bustling shopping districts. This demonstrates how environmental features, coupled with emotional and social connections, foster a robust sense of place. Nasab (2021) further highlights that a sense of belonging and emotional ties to a place strengthen the connection between people and their environment.

2.3.3 *Place Attachment*

Place attachment represents the emotional bonds that individuals or communities form with specific places. Devine-Wright and Clayton (2010) posit that a well-established place identity often fosters a strong sense of place attachment. Ujang (2017) defines this attachment as "the development of affective ties or relationships between people or individuals and certain places, expressed through interactions and emotional connections." These bonds are forged over time and can manifest in different ways, including through memories, traditions, or repeated experiences in a space. Kamani Fard and Paydar (2024) highlight that social interaction plays a key role in the development of place attachment, with this relationship being particularly pronounced in low-income or deprived neighborhoods where the environmental quality is lower. In these areas, the social context becomes essential for enhancing place attachment. Urban policymakers could leverage this insight by focusing on improving social aspects within such neighborhoods to foster stronger place attachment between residents and their environment (Kamani Fard and Paydar, 2024).

Place attachment can help mitigate the negative impacts of environmental stressors on an individual's well-being. Environmental stressors refer to elements in one's surroundings that contribute to psychological or emotional strain, such as extreme temperatures, noise, overcrowding, or crime. Studies have shown that a strong emotional connection to a place can reduce the harmful effects of these stressors, fostering a sense of comfort and security

that helps individuals better cope with challenging environmental conditions (Kamani Fard and Paydar, 2024). There are other positive implications of having the sense of place attachment. Dang and Weiss (2021) found through their qualitative analysis that there are empirical evidences supporting a significant connection between place attachment and various factors. These factors included willingness to pay, loyalty, risk management behavior, land management practices, civic participation, pro-environmental actions, and pro-tourism behaviors such as intentions to revisit or recommend a destination.

2.3.4 Place Dependence

The foundational work of Stokols and Shumaker (1981) introduces the concept of functional bonding between people and places, commonly referred to as place dependence. This aspect of place attachment focuses on the practical reliance individuals have on a place's features and conditions, particularly in facilitating necessary or daily activities. Williams and Vaske (2003) further elaborate that place dependence reflects the functional suitability of a location for meeting specific needs, such as work, leisure, or community engagement.

To further elaborate on the concept of place dependence, research highlights the practical role that a location plays in meeting both functional and social needs. For instance, Ujang (2012) explores how public spaces foster both functional reliance and affective attachment by accommodating economic, social, and cultural activities. Static users, such as shopkeepers or residents, demonstrate a direct dependence on places for livelihood and routine activities, whereas mobile users like tourists or shoppers rely on these spaces for leisure or specific tasks. This dual perspective underscores how place dependence extends beyond utilitarian needs to influence social behavior and perceptions of a space's value.

3.0 Findings and Discussion

3.1 Synthesis of Shared Attributes among the Identity Theories

Through an literature synthesis, several patterns emerge among the intertwined identity theories discussed earlier. These shared attributes provide a foundation for understanding how spatial identity is constructed and experienced within the built environment, particularly in architectural and interior settings.

3.1.1 Emotional and Perceptual Attributes

One of the prominent themes is the emotional and perceptual responses of individuals to their environment. Sense of place, as discussed by Stedman (2003), emphasizes the interaction between the physical characteristics of a location and the emotional reactions or perceptions it evokes. Tilley, cited in Childs (2021), reinforces this by highlighting that material forms play a pivotal role in shaping perceptions of place identity and fostering emotional connections between people and their surroundings.

Supporting the emotional component, Heydari and Jamshidi (2021) assert that "individual feelings and the spatial configuration" significantly influence place attachment

and identity. Similarly, Raymond, Kyttä, and Stedman (2017) describe sense of place as an outcome of the dynamic relationship between perception, action, and social construction, all of which are shaped by experiences within specific locations.

3.1.2 Cognition and Memory as Key Components

Another recurring theme is the cognitive and memory-based dimensions of identity theories. According to Childs (2021), “meaning and memory can be translated into architectural form through the design exploration of the past and present, critical regionalism, and embodiment.” This suggests that meaningful connections to a place often draw on its historical and cultural narratives, which resonate with people through tangible forms and spatial experiences.

Morello and Piga (2015) expand on this by noting that “the physical and sensory experiences of a place contribute to the construction of its mental image.” This underlines the significant role of sensory interactions, particularly visual perceptions, in forming memorable and meaningful spatial experiences. Such experiences not only contribute to the architectural identity of a place but also nurture individuals' sense of belonging and self-esteem. Ginting et al. (2018a) emphasize that memory, along with the sentimental and physical elements of a place, is vital for maintaining the continuity of place identity. This highlights that designing for memorable and meaningful spatial experiences can effectively sustain place identity over time.

3.1.3 Physical Elements and Embodiment

While emotional, perceptual and cognitive components are integral to identity theories, the physical attributes of a space serve as the foundation. Most identity constructs converge on the idea that physical elements are indispensable for creating a meaningful sense of identity. Damayanti and Kossak (2016) stress that physical attributes, coupled with social interactions, construct a place's identity, making the physical embodiment of spaces a critical focus for understanding spatial identity.

In urban design contexts, Damayanti and Kossak (2016) further emphasize the interplay between visual constructs and human interactions, noting that physical design features significantly influence the social and emotional connections individuals form with their environments. These insights are directly applicable to the study of spatial identity within a building and interior setting, where the physical layout, materiality, visual aesthetics, and other aspects of embodiment play pivotal roles.

3.1.4 Towards Spatial Identity in Interiors

In conclusion, the synthesis of identity theories highlights the interdependence of emotional, cognitive, and physical attributes in constructing spatial identity. Emotional connections arise through perceptual and experiential engagement with spaces, while memory and cognition root identity in meaningful historical and cultural contexts. Above all, the physical embodiment of spaces remains the definitive element that interlinks these facets, creating environments that resonate deeply with individuals. It is also important to

note that the physical attributes are also the foundation for the social attributes within the space. This understanding provides a vital framework for exploring the construct of spatial identity within buildings and interior settings, guiding designers in creating spaces that are not only functional but also profoundly meaningful.

3.2 Spatial Identity within an Interior and Building Environment

The previous discussion emphasizes that physical attributes are fundamental to the construct of identity in the built environment. Consequently, this study asserts that embodiment, encompassing the tangible physical qualities of a space, forms the cornerstone of spatial identity within buildings and interior settings. Childs (2021) similarly emphasizes this point, stating that physical elements are "an existential condition in the construction of any sense of identity." According to Childs, the architectural and interior quality of a design manifests its success through the values and aspirations it instills in occupants and visitors. Moreover, Dixon and Durrheim (2004) argue that the physical environment plays a vital role in shaping self-identity, reinforcing the idea that the built environment extends beyond aesthetics to influence human psychology and behavior.

The impact of physical design on human behavior is well-documented. Jones and Evans (2012) demonstrate that spatial configurations and environmental features significantly affect how individuals interact with and perceive a building. Similarly, Goodwin et al. (2009, as cited in Ginting et al., 2018a) highlight that physical components such as form, construction, materiality, ventilation, furniture, and environmental science elements collectively establish a building's unique architectural identity. The building's form is particularly critical, serving as a defining element of design that distinguishes one structure from another (Goodwin, Tonks, & Ingham, 2009). Ginting and Rahman (2016) add that aspects like accessibility, historical significance, cultural products, local materials, signage design, and functional elements such as parking spaces contribute to a place's identity, making it meaningful to its users.

In the realm of interior design, these principles manifest in the detailed orchestration of elements like rhythm, spatial configurations, and conceptual coherence. Amelia, Nuraeny, and Arvanda (2020) assert that the quality of an interior space—its rhythm, spatial flow, and attention to detail—helps articulate spatial identity. Hillier (2001) emphasizes the importance of space planning and configuration, noting that the arrangement of interiors significantly affects visual dynamics and occupant movement patterns, thereby enhancing the spatial experience.

Physical spaces do not exist in isolation but function as enablers of activities and interactions. They provide a stage where human activities unfold, thus creating a more profound and meaningful spatial experience. The interactions between people and the physical environment, facilitated by existential senses, forge these connections. Environmental elements like lighting, ventilation, thermal comfort, and acoustics interplay with physical design to create a holistic spatial identity that transcends mere physicality.

Ujang and Zakariya (2015) provide a comprehensive framework for understanding this interaction, identifying three primary components of a place: physical form, activities, and

meaning. Together, these components create a dynamic interaction between individuals and their environment; where physical form supports functional programming, activities diffuse space with purpose, and meaning ties the place to its cultural and psychological context. This interplay illustrates that spatial identity is not only about design excellence but also about fostering connections between people and places, thereby contributing to both individual and collective experiences of identity.

4.0 Conclusion

Spatial identity, in its entirety, emerges from the intricate interaction between individuals and the environment, shaped by the physical and psychological elements that give meaning to a space. This interaction forms the foundation of how spatial identity is understood, with its significance gauged by the direct, in situ experience of individuals or groups within a space. The process involves not only the tangible aspects of the physical environment but also the intangible; emotional connections and experiential ties that develop through engagement with the space.

This study proposes that the construct of spatial identity within a building and interior setting is anchored in physical elements or embodiment, which serve as the core of architectural and interior design. The embodiment provides the structural and functional framework to accommodate human activities, forming the backdrop against which social interactions occur. The physical attributes also serve as visual markers within a space, comprising essential design components such as form, color schemes, spatial layout, and circulation patterns. These aspects define the aesthetic and organizational qualities of the environment, contributing to its identity.

However, spatial identity is not confined to physical features alone. Within any given space, these attributes are dynamically intertwined with environmental elements, such as lighting, air circulation, thermal comfort, and acoustic conditions. Together, they shape the spatial ambiance, creating an atmosphere that evokes emotional responses, fosters comfort, and generates lasting memories. For instance, the interplay of lighting and materiality can influence mood and perception, while effective ventilation and acoustic control contribute to a sense of well-being. These combined effects give rise to experiential ties, binding individuals to the space and enhancing its meaningfulness.

The interaction of these components—physical elements, environmental attributes, and the resultant psychological and emotional connections—defines the essence of spatial identity. This construct offers a more comprehensive understanding of how spaces resonate with individuals and groups, transcending mere functionality to create environments imbued with significance. Figure 1, presented below, visually encapsulates this multidimensional concept, illustrating the interconnected roles of design, environment, and human experience in shaping spatial identity. By addressing these facets holistically, this study enriches the discourse on spatial identity, providing a robust framework for analyzing and designing meaningful spaces.

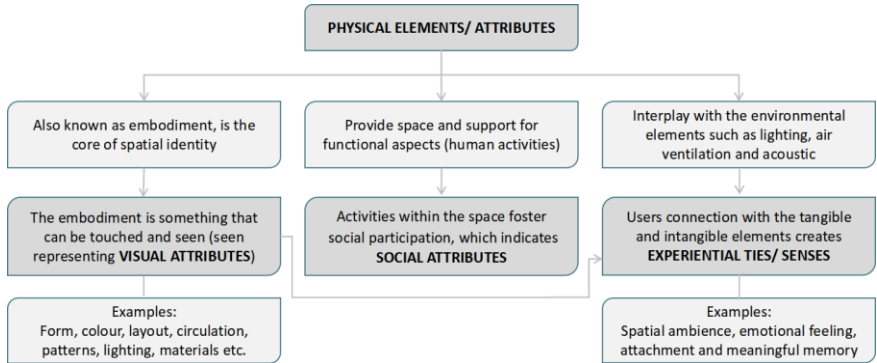


Figure 1: The construct of spatial identity within interior and building environment
(Source: Authors, 2024)

5.0 Reflection

This study underscores the crucial role of people-place interaction in shaping architectural and interior design, emphasizing how identity emerges through the spatial experience. This identity is a harmonious synthesis of physical and psychological elements, brought to life through human engagement with the environment. This interplay highlights the enduring value of spaces that are not just functional but also emotionally resonant and reflective of human presence.

Peter Zumthor, a celebrated architect, eloquently articulates this sentiment in his reflection on the transformative power of architecture:

"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."

This statement captures the essence of a meaningful space, one that evolves and deepens its identity over time, enriched by the imprints of human interaction.

This concept finds resonance across architectural theory and practice, where a space's physical characteristics—its materiality, form, and design—become interwoven with its psychological impact, such as the sense of comfort, belonging, and memory it evokes. Spatial identity, therefore, emerges as a layered construct, shaped by both the tangible and intangible elements of a place. Through this lens, architecture and interior design transcend mere aesthetics or utility to become profound mediums of human connection and narrative.

Article Contribution to Related Field of Study

This study aims to deepen the understanding of spatial identity, particularly as it relates to the design and experience of buildings and interior environments. By exploring how spatial identity contributes to the intangible aspects of environmental psychology within interior and architectural spaces, this research may provide valuable insights for architects and interior designers. It has the potential to enhance problem-solving approaches in design, addressing not only functional requirements but also emotional and psychological connections to spaces. Furthermore, the findings could serve as a foundation for future empirical studies, fostering a broader exploration of spatial identity and its applications in diverse contexts of architecture and design.

Authors Declaration

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