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Research paper

BEYOND THE BUILT ENVIRONMENT: THE SOCIAL LIFE OF PUBLIC SPACES

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Abstract

This research explores the dynamic social life of public spaces, focusing on the relationship between spatial organization, human territoriality, and community well-being. By examining the physical characteristics of public spaces such as street networks, squares, and other urban environments, the study aims to understand how these elements influence social interaction, place identity, and the quality of life within communities. Central to this investigation is the concept of "third places" – informal gathering spots outside of home and work – and their role in fostering a sense of belonging and community cohesion. The study seeks to identify the key factors shaping the spatial organization of public spaces, such as design features, accessibility, and functional diversity, and how these contribute to social behavior and territorial practices. Additionally, it investigates how the configuration of public spaces affects users' perceptions of identity and attachment to place. The research contributes to a deeper understanding of how the built environment goes beyond physical infrastructure to support social networks and cultural identity, offering insights into designing public spaces that better serve communities. Through a comprehensive analysis of spatial characteristics and human activity, this work provides a framework for evaluating the social performance of urban public spaces and the ways in which they can be enhanced to improve community quality of life.

Key words: *Urban public spaces; Social life; Social networks; Social interaction; Spatial organization; Human territoriality*

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1. INTRODUCTION

The built environment is understood as the material and spatial context created by humans, encompassing not only buildings and infrastructure but also intermediate zones—parks, squares, streets, and other urban spaces, altogether forming a complex network of public and private territories. In architectural and urban discourse, it is perceived not only as a physical phenomenon but also as a cultural, social, political, and economic construct that defines ***societal functions and interactions***. Today, public urban spaces are regarded as places for social activity, recreation, and cultural exchange; ***in various studies, they are even described*** as social "containers" where identity and a sense of belonging are constructed [1, 2].

The contemporary definition of public spaces is multilayered and ***remains*** a subject of intensive debate, encompassing both the physical characteristics of the space and its social, political, and cultural functions. These concepts ***have been evolving*** alongside transformations in the modern city and occupy a central place in the research of leading theorists and scholars [3, 4, 5, 6].

As early as the late 19th century, utopian models such as Ebenezer Howard's garden cities [7] and Frederick Law Olmsted's democratic parks [8] laid the foundation for socially oriented urban planning. Nevertheless, with the rise of modernism and functionalism during the first half of the 20th century, the concept of public space acquired a more utilitarian character. Jacobs [2] states that architects such as Le Corbusier and Mies van der Rohe primarily envision public spaces as functionally segregated zones, prompting sharp criticism ***concerning the diminished role of immediate street-level interactions*** as a foundation for social vitality

From the second half of the 20th century onward, social theories further developed the perspective of public space as a "social construct." Henri Lefebvre [9] formulated the concept of "produced space", reflecting and generating social conflicts, while Michel Foucault [10] introduced the notion of "heterotopias"—alternative spaces that disrupt dominant societal orders. Concurrently, sociologist Ray Oldenburg [11] proposed the theory of "third places"—informal environments between home and work where civic status and a sense of community are cultivated. In the contemporary era of urbanization, sustainability, and digitalization many researchers claim that the focus has shifted toward ***human-centered, inclusive, and digitally augmented*** public spaces [12, 13, 14, 15].

Through the prism of these historical layers, the present study examines and traces the main social and intangible aspects, beyond the built environment and its physical characteristics that are crucial for the spatial organization of public spaces. The research ***conducts a theoretical overview*** of the "human-space" relationship, employing a complex methodology that tracks and synthesizes various theoretical perspectives and studies on the subject.

2. THE CONCEPT OF TERRITORIALITY: A THEORETICAL OVERVIEW

The concept of territoriality has become a **crucial interdisciplinary tool** for understanding how space is produced, controlled, and contested across different social contexts. **Fundamentally**, it integrates biological, anthropological, psychological, and architectural perspectives to reveal the complex interrelations between material structures,

cultural practices, and power relations. In today's rapidly urbanizing, mobile, and digitized world, territoriality gains **new dimensions**, as it evolves from a mere description of "physical" territory into an ongoing process of reshaping and negotiation [16, 17].

2.1 Origins of the Concept: Biological and Behavioral Context

The notion of "territoriality" first emerged in ethology, describing the innate impulse of animals to mark and defend areas for survival and reproduction [18, 19]. ***However, in human societies,*** the concept is enriched by cultural and social dimensions. Early behavioral and cultural-anthropological studies initiated the expansion of the concept beyond biology. In his research from 1966 Edward T. Hall [20] explored how different cultures use spatial distance as a form of social regulation. According to him, the space around the body functions as an extension of personal territory and is subject to cultural modulation.

Building on his study, Hall introduced proxemics, demonstrating that through four zones of interpersonal distance (intimate, personal, social-consultative, and public), cultural norms regulate interactions between individuals and their "personal territory." ***Thus, Hall shifted the focus*** from describing "physical distance" toward understanding space as a socially constructed reality, where every boundary carries symbolic and regulatory functions. He distinguished two types of spaces: **sociopetal** (social-communicative) and **sociofugal** (socially non-communicative) [21].

Hall's boundaries for the different space types were based on his own research, interviews, and surveys, gathering information about the cultural and social aspects of various communities. Although this raises questions regarding their universality across cultures, these measurements ***serve as fundamental references*** for assessing the social sustainability of architectural spaces.

According to Lui [22] such perspectives also include the visualization of the social distances defined by Hall. This supports interpreting proxemics both as physical territory (the spatial arrangement of objects relative to humans) and as personal territory (the interpersonal distances in social interactions).

When defining spatial organization and, consequently, architectural form (geometry and scale) factors such as proximity, arrangement, and furnishing shape become crucial. ***On a broader level,*** it is necessary to define environmental models and structures as processes: passive (observation) and active (action-movement) uses of space.

2.2 The Social-Psychological Theory of Territoriality

While Hall established the foundations of cultural proxemics, Irwin Altman [23] developed the idea further by considering territoriality a social-psychological mechanism for controlling access to space and protecting personal and group identity. The first systematic study of territoriality as a social-psychological phenomenon was conducted by Altman [24] in his book *Environment and Social Behavior: Privacy, Personal Space, Territory, and Crowding* (1975). According to him, territoriality is the way individuals and groups regulate access to space to achieve control, security, and identity. He identified three primary types of territories and Edney [25] believes that they have become a ***classic typology***:

- **Primary territories**: Spaces with a high degree of personal ownership and control, such as the home.

- **Secondary territories**: Semi-public spaces regularly used by specific groups, such as offices or schools.
- **Public territories**: Open-access spaces like parks or streets, where control is minimal and temporary.

Altman emphasized that territorial behavior involves both preventive actions (e.g., marking a space) and reactive actions (e.g., defending against encroachment). His theory laid the foundation for understanding territoriality as a ***dynamic, situational, and socially mediated*** process rather than fixed possession. Altman's theory is fundamental to understanding the interaction between people and space, particularly in urban environments and public spaces.

2.3 Territoriality in Architecture and Urbanism

The concept of territoriality has found ***rich and diverse applications*** in architecture and urbanism, where it helps interpret and design urban environments as culturally structured and socially regulated spaces. One of the first major contributions was Oscar Newman's *Defensible Space: Crime Prevention Through Urban Design* (1972), where territoriality was identified as a key factor in creating safer residential environments [26]. Acording to Donnelly [27] Newman argued that clearly defined boundaries and a strong sense of ownership among residents stimulate active surveillance and maintenance of spaces—a conclusion he illustrated through his analysis of the Pruitt-Igoe housing project in St. Louis.

Alongside Newman's architectural-functional approach, Amos Rapoport [28] developed a cultural-anthropological perspective, emphasizing the idea of understanding space as an expression of the inhabitants' cultural logic. According to him, territoriality is not imposed by external authority but arises through culturally meaningful practices that imbue the architectural environment with symbolic value [28]. Thus, architectural forms are interpreted as carriers of cultural codes articulating social norms, identities, and rituals.

Tim Ingold [29] extended the view of space as a process rather than a fixed structure, criticizing the concept of space as a "container". Instead, he described space as a flow of interrelations among people, materials, and environments. This approach seeks to shift architectural thinking toward designing flexible, adaptive spaces that evolve in line with urban life rhythms and usage patterns.

Similarly, Margaret Crawford in *Everyday Urbanism* emphasized the micro-practices of residents, from informal arrangement of street elements to individual tactics for personalizing public space [30]. Her empirical observations demonstrate how everyday acts of appropriation transform urban spaces, imbuing them with meaning and building collective identity.

The contributions of Ingold and Crawford expanded classical notions of territoriality by adding concepts of ***processuality, fluidity, and individual expression***. They highlight the significance of everyday interactions in constructing socially vibrant spaces.

At the beginning of the 21st century, these ideas evolved into more complex socio-material and temporal frameworks, exemplified by Kärrholm [16, 31] and his concept of "territorial complexity," analyzing how material elements—benches, barriers, pathways—and rhythms of use create and stabilize multilayered territorial structures in public settings. Kim Dovey [17] contributed with the notion of public space as a socio-spatial assemblage where identities, power relations, and everyday tactics co-shape processes of "reterritorialization"

and "counter-territorial" practices. His analysis highlights how social and spatial structures are ***deeply interconnected and constantly renegotiated***.

In architecture and urbanism, contemporary territoriality studies go beyond conventional defense and boundary-demarcation models.. They incorporate cultural-symbolic, processual, and tactical dimensions, through which public spaces become a stage for continuous social production. Analyzing the different theoretical approaches and their intersections is essential for deepening our understanding of social dynamics within urban environments.

3. SOCIAL DYNAMICS OF PUBLIC SPACES: SPATIAL-TERRITORIAL SIGNIFICANCE

In the context of architectural theory and urbanism, territoriality is no longer perceived solely as a *"psychological"* possession of space (as in the classical paradigm) but rather as a dynamic, multidimensional, ***socially-networked***, and material process. Studies of human territoriality have traditionally focused on physically defined space [32]. Significant shift in the conceptualization of human territoriality occured in the 1980s, when it began to be understood as serving to organize human behavior [33]. Within these perspectives, physical space is associated with social and communal functioning, in relation to individual and personal behavior. The primary theories are based on, and examine, human perception of space, particularly concerning personal boundaries, definitions, and accessibility.

In this context, contemporary research on public urban space observes a shift from a focus on ***linear models of territoriality*** to more nuanced, multidimensional approaches. Rather than focusing on unilateral access regulation, these approaches emphasize on ***the coexistence and cooperation of multiple spatial "productions."***

3.1. The Influence of Altman's Theory on Public Space Studies

The theory of territoriality formulated by Altman represents a significant conceptual framework for analyzing spatial behavior and its reflection on social dynamics. This theory finds broad application in architecture, urbanism, and ecological and organizational psychology. According to Brown & Altman [32], territoriality functions as a mechanism for regulating social distance and personal space by structuring three primary types of territories—primary, secondary, and public. Contemporary interpretations by Gehl [5] and Wortley & McFarlane [34] employ this three-tiered taxonomy to analyze and design public spaces aimed at enhancing ***feelings of security, social cohesion, and belonging***.

In the urbanist context, the application of the theory emphasizes the role of physical indicators—such as benches, vegetation, and visual barriers—in shaping "personal zones" within public space. These elements facilitate social regulation and can help reduce crime, in alignment with the principles of "defensible space" formulated by Newman [26].

Territorial behavior also finds applications in other disciplines. In organizational psychology, it manifests through the personalization of workspaces, a factor that according to Hole et al [35] and Wells [36] enhances employee satisfaction and productivity. In an urban study from Iran Mohammadi et al [37] trace how the architectural connectivity between buildings and public spaces supports social cohesion and the functionality of the urban fabric.

Contemporary empirical research confirms the relevance of Altman's theory. In a study by Huang et al. [38] the territorial typology is applied to residential complexes, emphasizing the importance of the emotional and cultural aspects of primary territory previously explored by Brown & Capdevila [39] and Taylor [40]. In a systematic review of over 150 empirical studies Wang et al. [41] , identified territoriality as a key factor for ***social connectedness and collective identity*** in public environments.

The importance of spatial design has also been highlighted by Taylor [42], who, using the Role Construct Repertory Grid technique, analyzes the applicability of the territorial taxonomy across various urban contexts. His analysis underscores ***centrality and temporal stability*** as essential dimensions in the social organization of space.

Modern developments of the theory incorporated new methodological approaches. Sepe & Fletcher [43] as well as Hole et al. [44] propose a theoretical synthesis between territoriality and the concepts of sociopetal and sociofugal configurations. Nguyen & Correa [45], employing the Space Syntax approach, demonstrate how physical and tactile boundaries assist in the stabilization of secondary and public territories, fostering social interaction and security in the urban environment.

In summary, Altman's theory continues to serve as a relevant and interdisciplinary analytical framework for understanding and designing urban public spaces. Its applicability extends beyond its original psychological context, encompassing architecture, urbanism, social theory, and organizational culture, thereby emphasizing the need for complex, interdisciplinary approaches in contemporary urban planning.

3.2 Proxemics – The Hidden Dimensions of Communication

Proxemics, introduced by Edward T. Hall [20, 21], offers a foundational framework for analyzing nonverbal communication and social dynamics in everyday and public spaces. Hall defined four primary zones of interpersonal distance—intimate, personal, social–consultative, and public—that structure the ways in which people interact and position themselves within space. Building on these ideas, Jan Gehl [12] adapted the proxemic model into the concept of “human scale”—the capacity of the urban environment to combine movement and pause through forms and dimensions corresponding to Hall’s defined zones. In his classic analysis of the Piazza del Duomo (Santa Maria del Fiore) in Siena, Gehl demonstrates how the proportions of space support both social–consultative and public interactions by creating conditions for encounters and mobility.

Contemporary urban design continues to apply proxemic principles in the development of inclusive spaces. According to the Gehl Institute [46], modern approaches distinguish between “zones of proximity” (around benches and street furniture) and “zones of accessibility” (along pedestrian corridors), aiming to ensure an ergonomically and psychosocially comfortable environment for diverse user groups.

The COVID-19 pandemic prompted a rethinking of these traditional frameworks. Mehta [47] introduces the notion of a “new proxemics,” adapting Hall’s classical zones to the need for 1.5–2 meter physical distancing. Solutions such as ground markings, mobile barriers, and modified street furniture have been proposed to preserve social interaction without compromising safety.

New norms for social distancing have also been integrated into urban practice through proxemic diagrams. For example, the Urban Design Lab [48] employs visual codes to designate different zones, which aids in the clear zoning of urban spaces.

In the context of urban density research, Chen et al. [49] introduce the concept of "density intensity," related to the feeling of overcrowding or spatial openness. Their analysis shows that the deliberate use of proxemic zones can mitigate the negative effects of high built density. With the evolution of digital technologies, the idea of "digital proxemics" has emerged, expanding the classical zones through virtual layers of interaction, such as the use of chatbots in intimate zones or geolocated social hubs in public spaces, described by McArthur [50].

Proxemics is one of the "hidden dimensions" of communication—a spatially structured yet often unconscious foundation of social interaction. By defining interpersonal distances, it shapes how we express closeness, power, or belonging. In the urban context, proxemics serves not only as an analytical tool but also as a design framework for creating socially active spaces. From the scale of the piazza to digital interactions, proxemic principles continue to mold the cultural and technological transformations of publicness and coexistence in the city.

3.3 Territorial Complexity: Overlapping and Cooperation

The theory of ***"territorial complexity"*** redefines urban public space, presenting it not as a homogeneous "public" or "private" zone but as the result of multiple interwoven relationships among various actants and material interventions. In his 2005 study of three squares in Lund, Sweden, Mattias Kärrholm [31] introduced his concept and tested it by analyzing public space as a product of diverse forms of territorial production. .

At the core of this theory lies the understanding of territoriality as ***"spatially divisible forms of control"***, characterized by specific rules or recurring behaviors. Kärrholm [31] distinguishes four primary forms of territorial production (Table 1):

Таблица 1: Forms of territorial production by Mattias Kärrholm

	Impersonal control	Personal control
Intended production	Territorial strategy: *planned and delegated mechanisms of control*	Territorial tactics: *immediate acts of marking or appropriation*
Production through use	Territorial association: *conventional uses and functions associated with particular groups or activities*	Territorial appropriation: *production through repetitive use without explicit intent to own*

Methodologically, Kärrholm approaches public space as a multilayered configuration resulting from processes of production, stabilization, and complexity. According to him, territorial complexity arises from the overlapping of different territorial layers that develop across time and space. Thus, the same location can serve a variety of functions, marketplace, parking lot, site for social protests, or recreation area, through the interaction between material elements (e.g., benches, pavements, signage) and societal norms of use [31].

Kärrholm's empirical observations demonstrate how minor architectural interventions, such as the organization of street furniture, can significantly influence the types of territorial production. A notable example is the transformation of Mårtenstorget in Lund during the

1990s, where subtle material interventions (so-called "open institutions") proved more effective in creating open and accessible public spaces than neutral, unmarked zones [31].

In 2007, Kärrholm [16] expanded his theory by integrating the notion of material actants and the Actor-Network Approach (ANT), highlighting their roles in the formation and stabilization of territories. In doing so, he built on classic theoretical frameworks - Hall's human ethology [20], Sack's political geography [51], and and Lefebvre's social production of space [9] - through the lens of Latour's Actor-Network Theory [52]. ***By transcending the traditional public–private dichotomy, Kärrholm [31] offers a dynamic, processual, and materially engaged vision of public space.***The concept of territorial complexity finds broad application in contemporary research, examining how territories are formed and transformed through social practices, events, and temporal rhythms. For instance, Lu [53] explores the temporal aspects of territoriality, while Citroni [54] emphasizes the role of events as factors that ***complicate rather than simplify territorial structures***. In specific urban case studies such as Turro (Milan) and Norra Fäladen (Lund) districts, Citroni and Karrholm [55] trace how bordering public and commercial zones lead to increasing territorial complexity. Meanwhile, Plant [56] applies the idea of managing complexity in the context of sustainable territorial planning.

Therefore Kärrholm's theory is established as an effective framework for analyzing and designing urban spaces, ***uniting material conditions, social interactions, and spatial design into a cohesive analytical model***.

4. DISCUSSION - PUBLIC SPACES AS A SOCIAL PROCESS

The conclusions drawn from the previous sections emphasize that public spaces function not merely as physical territories, but as social processes, in which territoriality manifests through dynamic interactions between people, objects, and meanings. They are neither fixed nor unambiguous; rather, they serve as multidimensional scenes of coexistence, where boundaries, identities, and forms of belonging are continuously negotiated. The comparative analysis of the three discussed concepts reveals both complementary and contrasting perspectives on the social dynamics of space. While Hall and Altman focus on more structured and regulatory models—through distance and access control—Kärrholm, in contrast, presents a procedural and networked vision of territoriality, emphasizing co-use, rhythms, and material mediation. Proxemics contributes an understanding of spatial communication and the human scale, crucial for ergonomics and social comfort. Altman's theory emphasizes identity and a sense of security, defining clear types of territories. Kärrholm builds on these approaches, presenting public space as a field of overlapping territorial practices that are formed and transformed according to use and context.

In summary, contemporary understandings of territoriality in public spaces demand a shift from fixed categories to a dynamic, situational, and materially engaged perspective. A successful public space is not defined by rigid zoning, but rather by its capacity to be flexible, accessible, and socially polysemous—a space for collective belonging, temporal rhythms, and multiple uses. These comparisons clearly show that territoriality is no longer seen solely as "ownership" but as a relationship—between human and non-human factors, social practices, and material conditions. In contemporary architectural and urban theory, it is defined as:

- Networked – rather than isolated;
- Processual – rather than static;
- Temporary and situational – dependent on use, time, and meaning;
- Infused with power – from state regulation to spontaneous actions;
- Materially mediated – through objects, infrastructure, and rhythms of use.

5. CONCLUSION

In the creation of contemporary public spaces, a key role is played not only by shaping the physical environment, but also by understanding its "social biography"—the ongoing interaction between people and place, manifested through overlapping territorial practices, inhabitation, memories, and everyday gestures. The design of public spaces should be understood as a dynamic process of social construction, weaving together cultural norms, historical layers, and power relations. It shapes the physical boundaries of publicness, while simultaneously mediating symbolic representations, social memory, and collective identity. As Lefebvre emphasizes [3] [9], space is not a neutral fact, but rather a product of the interaction between environment, use, and power. In this context, territoriality, as this study shows, has evolved from a static model of possession to a multidimensional, processual, temporary, and materially mediated practice. Public spaces acquire meaning not only through their architectural form but through how and by whom they are used—becoming a stage for social rituals, a dialogue between past and present, and a field for negotiation between individual and collective identities. As Tim Ingold [29] writes, "Places do not exist as fixed locations but arise as nodes in the flow of life"

Future research should focus on a deeper understanding of the discussed interconnections—between space, use, culture, and memory—as well as the development of methodologies to capture the fluidity of public territoriality in the context of continuous urban transformation.

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