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Environmental Factors in Shaping Sustainable Social Communities within the Neighborhood Context

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Abstract
The Industrial Revolution and the resulting urban migration transformed cities into hubs of cultural and social diversity. One major consequence has been the erosion of human and social bonds and the fading of the neighborhood concept, leading to growing social problems. Recognizing the critical role of social structures in the sustainability of traditional urban forms, this study explores environmental factors that influence the creation of sustainable social groups—referred to as *communities*—in the urban context.
The first part of this article defines sustainable social communities, explores their historical roots, and identifies elements that foster their formation. It also examines how such communities contribute to identity formation and strengthen interpersonal relationships in architectural complexes such as neighborhood units. The study seeks to answer the question: why are face-to-face and intimate relationships within urban communities considered a value?
Drawing on the environment-behavior theory, which assumes a reciprocal relationship between spatial form and human behavior, the research offers design strategies for residential environments aimed at enhancing social ties. These strategies are presented in the form of architectural elements that must be addressed in the design of interstitial spaces between residential units to achieve this goal. The study adopts a comparative methodology based on literature and document analysis.

Keywords: Sustainable Social Communities, Sense of Belonging, Social Identity, Neighborhood Architecture

Introduction

A review of traditional Iranian residential fabrics reveals that these architectural settlements, despite their diversity and abundance, functioned as integrated physical units with distinct identities and shared lifestyles. They offered residents a favorable and lasting environment that not only preserved but actively promoted social interaction. The spatial structure was deeply aligned with people's temperaments; houses were often inherited and known by the owner's name, and entry into a neighborhood felt like entering a private realm.

The survival of these neighborhoods over time was driven by a central quality that forms the essence and spirit of all human life, cities, buildings, or even untouched nature. It is clear that a house or a city does not gain vitality solely from its physical form, decoration, or plan, but through the quality of events and experiences it enables. A neighborhood was never just a physical structure, a cluster of dwellings, roads, and a central plaza—it held a deeper significance. While providing shelter was a passive function, the more active role of the neighborhood was to create an environment that reflected the inhabitants' way of life.

Industrialization and modernization radically altered social interactions and neighborhood life. Migration to cities brought diverse ethnic and cultural populations together, weakening tribal and kinship bonds and

reducing the potential for creative social interaction. Wealthier populations moved to homogenous urban areas, while the poor were concentrated in older districts, leaving the middle class in between. This shift emptied neighborhoods of their social meaning, gradually impacting their physical form as well. Neighborhoods became open-access systems with scattered social interactions, diverging from their former compact and socially vibrant structures. Today's urban divisions are based more on technical standards set by planners than on intimate social relations.

Sociologists now speak of a social crisis marked by alienation and disconnection in urban life. The concept of neighborhood has faded, replaced by living among strangers. In such a setting, individuals exist as isolated persons rather than members of a collective. Urban stratification has disintegrated to the point where people blend into indistinct masses—what planners call "social anonymity." The notion of privacy has dissolved, and boundaries have lost their clarity.

Multiple sociological studies point to growing isolation and dysfunction in modern societies. These studies advocate for ideal communities where mutual understanding is possible, and roots of belonging remain intact. The term *community*—especially since the societal changes of the 18th century—has been tied to this aspiration, representing the longing to revive the intimacy of rural relationships in urban settings. The following sections will define this term, analyze the factors involved in its formation, and explore how architectural design can support such communities.

Literature Review

Yoo and Lee (2016) investigated how built environment features, such as access to public spaces, land-use diversity, and walkability, influence social capital and neighborhood sustainability. Their study revealed that both the objective physical characteristics and residents' perceptions of their environment are critical in fostering interpersonal interactions, social trust, and collective participation. The research emphasizes that neighborhood design can actively promote community cohesion and strengthen social bonds, illustrating that sustainable urban neighborhoods require deliberate consideration of spatial and functional aspects to support continuous social engagement and shared experiences.

Hayward et al. (2015) examined the interplay between social and built environment factors within public housing settings. Their findings suggest that the configuration of buildings, the quality of shared spaces, and neighborhood connectivity significantly affect residents' social interactions and overall well-being. The study highlights that social cohesion is not solely dependent on the presence of neighbors but also on environmental affordances that facilitate face-to-face encounters, cooperative behaviors, and mutual support, reinforcing the idea that built design can act as a structural mechanism for nurturing sustainable social communities.

Gomez et al. (2015) focused on how neighborhood social and environmental characteristics, including safety, accessibility, and public amenities, shape collective behavior and social interactions. They argue that well-designed urban environments can enhance community engagement by providing spaces that encourage spontaneous encounters and shared activities. Their research demonstrates that urban settings are not neutral backdrops but active contributors to social dynamics, with implications for urban planners aiming to strengthen community identity, trust, and resilience through thoughtful spatial and functional arrangements.

Social-ecological innovation (2016) explored how adaptive social-ecological responses to urban environmental conditions can foster local participation and cohesion. The study emphasizes that communities responding collaboratively to environmental challenges, such as shared resource management or neighborhood sustainability projects, develop stronger interpersonal bonds and social capital. The authors argue that integrating ecological considerations with urban design encourages community-oriented behaviors and reinforces the continuity of social interactions, highlighting the importance of designing spaces that support collaborative initiatives and enable residents to collectively shape their environment.

Future Cities and Environment (2016) discussed the design and planning of urban spaces to promote social sustainability and active engagement among residents. The study argues that future city development must consider both physical infrastructure and social networks, as spatial configurations that facilitate shared experiences, gathering spaces, and interaction opportunities are essential for community vitality. Emphasizing the integration of social and environmental factors, the research suggests that urban planners can enhance collective identity and belonging by prioritizing neighborhood cohesion and spatial inclusivity in architectural and urban design strategies.

Suglia et al. (2016) examined the role of neighborhood social environments and physical design on residents' behaviors and interactions. Their research indicates that accessible green spaces, safe walking routes, and communal areas not only promote healthy behaviors but also strengthen social cohesion and a sense of belonging. The study demonstrates that social capital is closely tied to environmental design, as neighborhoods with more opportunities for interaction encourage trust, reciprocity, and mutual support among residents, reinforcing the need to integrate social and spatial strategies in urban planning for sustainable community development.

Zhu (2015/2016) analyzed the relationship between perceived communal spaces and residents' attachment to their neighborhood. The study found that high-quality shared spaces, such as parks, squares, and pedestrian-friendly streets, significantly enhance residents' emotional connection and participation in community life. Zhu emphasizes that the mere existence of public spaces is insufficient; their accessibility, safety, and design directly influence how residents interact, form relationships, and maintain collective identity, suggesting that spatially and socially responsive planning is critical for nurturing resilient and cohesive urban communities.

McInerney et al. (2016) explored how the built environment, socio-economic conditions, and access to neighborhood resources influence collective behavior and social interactions. Their findings indicate that neighborhoods with higher connectivity, functional diversity, and equitable access to amenities encourage cooperation and strengthen communal bonds. The study highlights that urban design is not merely a backdrop for social life but a determinant of participation, belonging, and social capital. These insights underscore the importance of integrated approaches that consider both environmental and social dimensions to sustain community networks and engagement.

Applied Geography (2015) investigated the effects of walkability on neighborhood social dynamics. The research showed that neighborhoods with pedestrian-friendly layouts, connected streets, and accessible destinations facilitate frequent social interactions and promote a stronger sense of community. Walkable environments encourage spontaneous encounters and collective activities, which in turn enhance trust, reciprocity, and shared norms among residents. The study provides evidence that spatial configurations directly affect social cohesion, reinforcing the argument that urban design should prioritize accessibility and connectivity to support sustainable social communities.

International Journal of Law, Crime and Justice (2015) examined the effectiveness of built environment interventions, including street networks and public access design, in improving social cohesion and reducing crime-related fear. Their study found that well-planned physical environments encourage regular community interactions, establish informal surveillance, and foster trust among residents. The authors argue that these environmental interventions are crucial for nurturing social norms, mutual responsibility, and neighborhood engagement, suggesting that urban design strategies can directly shape community resilience and collective well-being.

Social Science & Medicine (2016) focused on older adults and demonstrated that quality of the built environment, combined with neighborhood social cohesion, significantly impacts quality of life. Their findings highlight that accessible communal areas, social support networks, and inclusive spatial design enhance social participation, psychological well-being, and a sense of belonging. The study underscores the critical role of spatially grounded community interventions, indicating that physical and social design features can work synergistically to promote sustainable urban communities, particularly among vulnerable populations.

Erdem et al. (2016) investigated how neighborhood social cohesion moderates the relationship between socio-economic inequalities and psychological distress. The study showed that cohesive neighborhoods mitigate stress and foster mutual support, emphasizing that social capital and emotional connections are essential for sustaining community resilience. The authors highlight that urban design can facilitate these connections by providing accessible, inclusive, and interactive spaces, reinforcing the importance of integrating social cohesion principles into architectural and planning practices to maintain sustainable and engaged communities.

Historical Background of the Community Concept

The earliest model of social groupings—or *communities*—recognized by scholars as an ideal form is the **Polis** of ancient Greece. The Polis represented one of humanity's first efforts toward democracy, manifesting as a small geographic unit sustained economically through agriculture and centralized around military, political, and religious functions. In many ways, it can be seen as analogous to the structure of traditional neighborhoods.

From the 8th century onward, urban development gradually transitioned from tribal systems to larger regional settlements. Though no single universal *community* has existed historically, the ideal model envisions a distinct population, self-governed, and democratically structured within a small territory. Religious and spiritual unity among inhabitants provided cohesion, bringing people together through shared beliefs, pride, and lifestyle. The conditions for forming a Polis were more psychological and anthropological than physical. Despite personal differences and occasional conflicts, citizens coexisted peacefully with shared goals.

Plato and **Aristotle**, as foundational political theorists, developed their philosophies based on this Polis model. Plato's ideal city-state consisted of around 5,000 male citizens, supported by wives, servants, slaves, foreign workers, and children, all united under a virtuous elite leader. Aristotle emphasized community as a structure based on density and valued individual freedom and personal interests. Although Plato and Aristotle differed on how to form the Polis, they agreed that it was built upon face-to-face relationships that addressed moral and political needs, particularly within public urban spaces.

Centuries later, **Cicero** described a diminished version of the Polis, shifting the basis of community from shared faith to mutual respect for binding laws. A "common law" became the new foundation for collective life.

Thomas Aquinas later introduced the idea of the *community* as an organized system, requiring a shared element among members. He argued that a community could form regardless of size or scale, provided that members share common experiences, goals, and sentiments.

This diversity of thought across centuries has led to conceptual ambiguity. At times, a *community* is imagined as a small, localized unit, while in other contexts, it is seen as encompassing the entire world.

In the modern era, the most influential theory of community was developed by **Ferdinand Tönnies** in 1887 in his seminal work *Gemeinschaft und Gesellschaft* (Community and Society). He identified two primary forms of social relations:

- *Gemeinschaft* (community): organic and self-sustaining, often based on kinship or shared territory, marked by continuity across generations.
- *Gesellschaft* (society): contractual, rational, and impersonal, found in political parties, classrooms, and administrative structures.

According to Tönnies, *community* is characterized by familiarity, unity, emotional ties, and traditional norms, whereas *society* is defined by strangeness, individuality, and codified laws. He asserted that urbanization and increasing social roles led to the dominance of Gesellschaft, where relationships are more pragmatic and less intimate.

Later theorists like Jan Gehl (1996) built on these ideas by classifying human interactions across a spectrum—from deep friendships to formal social encounters in public places.

Another landmark study was conducted by **Robert Bellah** and his colleagues in *Habits of the Heart (1985)* and *The Good Society (1991)*. They emphasized the importance of place and emotional rootedness in helping individuals understand and engage with collective decisions. Bellah advocated for the revitalization of local communities through institutions such as urban cooperatives, churches, and families to sustain trust and social cohesion.

In summary, the evolution of the *community* concept over time reveals a consistent emphasis on shared experiences, emotional bonds, and spatial or functional unity, although the precise definitions and applications have varied across historical and cultural contexts.

The Root and Meaning of the Term Community

The word *community* derives from the Latin *communitas*, meaning similarity or commonality, which itself stems from *communis*, meaning shared, general, or mutual. *Communis* is composed of the prefix *com-* (together) and *Munis* (obligations or services rendered for others). Thus, a *community* is a group of people working together toward a common goal.

According to the Merriam-Webster Dictionary, a *community* may be defined as:

A group of people living in a specific area.

The area or town where they live.

A social unit within a larger society that shares common interests, professions, or identities, such as the academic community.

A coalition of ethnicities, nations, or states united by shared traditions or goals.

Batten (1967) describes a community as a group of people collaborating on a project to meet their needs more efficiently. They identify more with "we" than "I", a transformation that occurs when a project truly functions as a community initiative.

Ed Schwartz adds that unity is essential, emphasizing shared activity and the influence of group dynamics on individual behavior and decision-making. Without these elements—even among people with shared ethnicity, culture, or nationality—a true community cannot form.

Howard Kaufman outlines three essential elements in defining a community:

1. A group of people connected to a specific place (*community as a location*),
2. A shared way of life reflecting common customs and goals,
3. Repeated group activities around shared concerns.

George Homans approached the concept by analyzing people's mental associations with the term "community." His findings identified three defining characteristics:

1. Shared activity
2. Mutual interaction
3. Emotional connection

Thus, a community consists of individuals united by a common purpose, mutual actions, and a shared emotional sense of "we." (Rafipour 1998)

These dual physical and social dimensions of community explain why in sociology and psychology it is discussed as a social group, while in urban planning it is treated as a *neighborhood*. The Persian linguist Dariush Ashuri (Ashuri1995) translated *community* as **"bāhamestān"** (with-together-place), combining both social and

spatial connotations. Similarly, **Amir-Hossein Aryanpour** [2] argued that a community is a geographically grounded form of society (*society + place*).

Of course, in the digital age, communities can form virtually, without physical proximity. Still, in residential contexts, spatial grounding remains essential—even if temporary—for cultivating social bonds. This raises key questions: What conditions are necessary to create a community? And what factors ensure its continuity and sustainability?

Structural Factors in the Formation of a Community

Based on the definitions presented earlier, three structural elements can be identified as foundational to the formation of a *community*:

Commonality

A human community is only defined when its members are capable of establishing meaningful and continuous communication. Sometimes, this shared element is geographic—residents living in the same location, such as within a neighborhood unit. However, in communities formed around shared interests or ideologies, the commonality extends beyond geography. Factors such as religion, ideology, culture, gender identity, or even a shared enemy or common goal serve to unite people into a cohesive whole.

This sense of shared identity contributes significantly to the development of group identity, as seen in expressions like "we Tehranis," "we Semiramis," or "we Iranians." In traditional neighborhoods, shared characteristics among residents—such as similar occupations or social status—were the first markers of homogeneity and social unity.

Shared Activities and Mutual Interaction

Another defining element of any community is the presence of shared activities or mutual interactions among members. Mutual interaction refers not to parallel activities occurring independently but to actions where the behavior of one individual prompts a response from another.

As Max Weber explains, shared action alone does not constitute a community. For example, if a sudden rainstorm causes many people to simultaneously open umbrellas, this does not signify a social group. The interaction must involve emotional, verbal, or physical exchange.

Sense of Intimacy and Belonging

When a community forms, it fosters both freedom and security. In 1972, George Homans stated that every community contains a shared emotional component—greater interaction leads to greater affection. In turn, a strong emotional bond enhances the depth of social relationships.

Research also shows an inverse relationship: the stronger the emotional connection, the more robust the social ties (Rafipour 1998).

Three human traits significantly contribute to this sense of belonging:

- **Tolerance** – A curiosity and respect for others, and a willingness to listen and learn (Walzer, 1997).
- **Reciprocity** – Helping others without expecting immediate returns, often driven by altruism (Putnam, 2000).
- **Trust** – Belief that people and institutions will act honestly and fairly.

These elements form what **Putnam** calls **social capital**—the spirit of community and collective values that enable people to help each other. For example, in a neighborhood, social capital might manifest when a resident feels responsible for checking on a neighbor's house during their absence.

Secondary Factors in Community Formation

Structure and Role Distribution

A group must have an internal structure that distinguishes it from other social groups. The more responsibilities and defined roles members have, the more invested and connected they become to the group.

Leadership

Communities naturally seek leadership that reflects their values and meets their needs. Two criteria are typically used to select such leaders: **competence** and **popularity**. These qualities often overlap in practice.

Neighborhoods also had leaders, either appointed by government authorities or emerging through social and religious influence. These local leaders often resolved conflicts without the need to involve external legal systems.

Norms

As interactions within a community increase, so does the complexity of social relationships, which can lead to conflict. To maintain order, **social contracts**—unwritten or formal rules—are established (Abrahams 1984)

Sociologists identify two main factors that reinforce adherence to norms:

1. **Fear of informal sanctions**, such as ridicule, ostracism, or public shame.
2. **Internal norms**, or values embedded through tradition and custom, which individuals follow even in the absence of formal punishment.

According to Max Weber, norms are either **internal** (customs, habits) or **external** (laws imposed by governing bodies). In traditional neighborhoods, internal norms prevailed, often enforced through a strong culture of surveillance and community pressure. While this system promoted conformity and cohesion, it was criticized for infringing on personal freedoms (Nasrin 1995)

Place

The concept of *place* is deeply intertwined with community. Every society produces its own spatial identity. Christopher Alexander defines *community* as a spatial phenomenon, with designated centers that help decentralize power.

In German, two words represent the concept: **Gemeinde** (community as place/neighborhood) and **Gemeinschaft** (community as emotional/social connection). Similarly, in English, distinctions exist between the spatial and social dimensions of community.

While modern virtual communities challenge the spatial requirement, residential communities still require a physical base. Even temporary or transitional residency establishes spatial bonds and influences behavior.

Inherent Qualities of a Community

A genuine *community* fosters a unique sense of social life that becomes its defining trait. One of the best-known studies in this area comes from McMillan and Chavis (1986) at Vanderbilt University's Peabody College. They identified four core components of community belonging:

Membership

This refers to a sense of belonging, where individuals view themselves as rightful members of a group. This generates:

- **Boundaries**: Physical or symbolic elements (e.g., dialects, architectural features, gates) that define the community and provide security.
- **Emotional safety**: Intimacy fosters emotional security and may even lead to inter-neighborhood rivalries or conflict (Jenkins 1922)
- **Identity**: Social identity emerges from the interplay between individual and collective identities.
- **Investment**: Time or financial commitments deepen members' engagement and the perceived value of the group.
- **Common symbols**: Shared signs (e.g., logos, architecture, traditions) that reinforce collective identity.

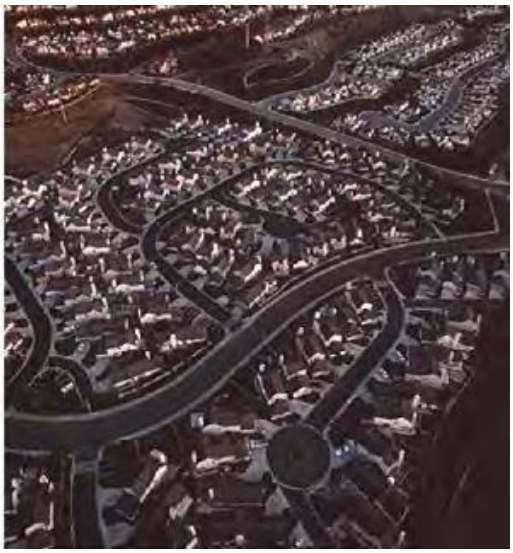

Figure 1. Physical and symbolic boundaries in neighborhoods

Influence

Influence operates bidirectionally: members are motivated to participate when they feel their voice matters, and communities influence members through shared norms. As **Cooley** and **Mead** note, people's behaviors are shaped by how they believe others perceive them.

Integration and Fulfillment of Needs

Communities provide reinforcement and rewards for members—status, skills-sharing, and social recognition—all of which strengthen group cohesion.

Shared Emotional Connection

This includes shared history, space, events, and symbolic experiences. The more common experiences members share—particularly during crises—the stronger their emotional bond.

The Neighborhood Unit: A Modern Strategy for Rebuilding Communities

In urban planning literature, the term *neighborhood unit* frequently appears in connection with the idea of *community*. The neighborhood unit represents modern society's attempt to reintroduce community structures in today's urban environments.

Historically, humans have always lived in some form of social grouping. In ancient China, neighborhoods were as old as familial and kinship systems. Egyptian hieroglyphs depicted cities as circular forms divided into four segments—symbolizing neighborhoods. In ancient Greece, neighborhoods with clear boundaries served to distinguish religious and social classes. Roman cities were organized into *vici*, each with its own center and marketplace (Mumford, 1961). Similarly, in traditional Iranian cities, neighborhoods were one of the most distinct characteristics of urban form.

The structural and social changes of the 18th century led to new urban crises, which in turn spurred efforts to establish communities in new forms. One such effort was the design of neighborhood units tailored to the structure of modern cities.

The initial idea appeared in **Ebenezer Howard's Garden City Diagram (1898)**, which envisioned the city as a cluster of "cells" with 5,000 people each, containing shops, schools, and other services. This idea laid the groundwork for neighborhood unit theory. Later, in 1939, **Clarence Perry** proposed a refined model with six core principles:

1. **Size**: A residential area with 3,000–10,000 inhabitants, ensuring that children can walk to school without crossing major streets—within a quarter-mile radius.
2. **Boundaries**: Major roads form the perimeter, keeping local streets safe and quiet while clearly defining the group's spatial identity.
3. **Open spaces**: Small parks and recreational spaces are interspersed throughout, ideally 15% of the total area, especially near schools. No resident should be more than 150 meters away.
4. **Institutions**: Each unit includes facilities such as libraries, clubs, sports centers, religious buildings, and community halls.
5. **Shops**: One or two small commercial centers (one shop per 100 residents), placed on the periphery for accessibility but not embedded in residential cores to avoid traffic and logistical congestion.
6. **Street System**: Instead of grid systems, Perry recommended radial and circular streets with cul-de-sacs, responsive to residents' actual movement patterns.

Figure 2. Fairy Neighborhood Unit Pattern

Critiques of the Neighborhood Unit

Despite its strengths, the neighborhood unit model has drawn considerable criticism:

1. **Fixed, top-down design** fails to reflect the dynamic and diverse needs of modern urban life. Assuming that people will behave as designers intend undermines individual autonomy. Newer planning paradigms like *Community-Based Planning* and *Participatory Design* emerged in the 1960s–70s in response, emphasizing user engagement and rejecting environmental determinism.
2. **Physical form alone cannot produce community**. If residents lack the will or cultural foundation to connect, built environments cannot create social bonds.
3. **Rigid modularity and cellular design** conflict with the fluid, interdependent nature of real life. Cities are not just collections of self-contained units but interconnected wholes requiring coherent integration.
4. **Service centralization** in a single hub often fails economically (under-used facilities) and socially (too large for emotional closeness). Later adaptations expanded population sizes to 10,000+ for viability, which diluted social cohesion. Thus, newer models shifted toward *clusters of cul-de-sacs*, creating more intimate micro-neighborhoods.
5. **Uniform design neglects diversity**. A fixed population size or distance standard cannot suit all demographics. People differ in mobility, spatial needs, and social habits (Khaksari 2006)
6. **Neighborhoods must connect to the broader urban system**. The original model underestimates the effects of mobility, tenancy changes, and urban dynamics. Flexible, adaptable design is crucial.

Macro-Scale Urban Design Ideogram

The failure of overly prescriptive physical designs highlighted the need for flexible ideograms—conceptual frameworks that suggest principles rather than dictate forms. One such ideogram proposes:

1. A half-mile pedestrian grid—optimized for walking distance and proximity to services.
2. Avoiding rigid, hierarchical blocks in favor of overlapping residential layers.
3. Placing public service nodes (schools, clinics, etc.) at grid intersections, with size and function tailored to nearby populations.
4. Defining flexible residential clusters, shaped by real social groupings, identified via interviews and observations.F
5. Environmental affordances should promote interaction—shared history, religion, profession.
6. Neighborhoods should "move" rather than stay fixed—allowing people to reconfigure spaces based on collective decisions.

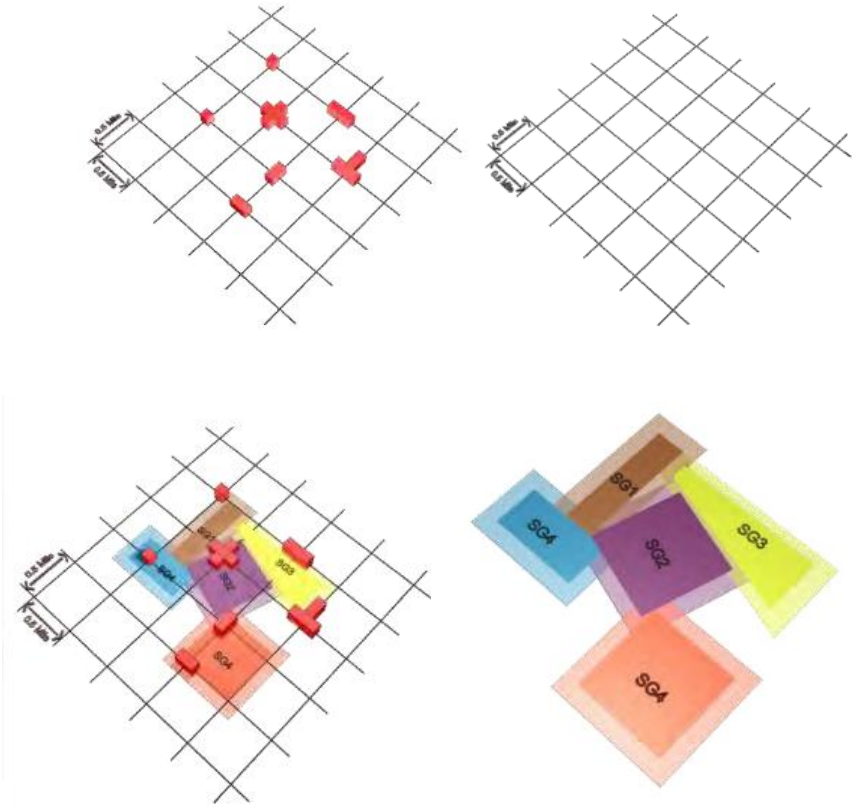

Figure 3. Presentation of a model for the location of urban services

Environmental Design Factors at the Neighborhood Scale

Research has identified environmental elements that promote social cohesion:

Norm Establishment and Social Control

As Rapoport (1982) noted, physical environments communicate non-verbal messages. **Perkins and Taylor (1996)** found that localized signs—e.g., gardens, porch layouts, territorial cues—convey behavioral expectations.

In Baltimore, a 30-block study showed that clear demarcation between public and private spaces significantly reduced crime. In neighborhoods with active social ties and visible boundaries, strangers were more easily detected and discouraged.

Conversely, disorder leads to social withdrawal and reduced participation (**Wilson & Kelling, 1982**). Environmental design should therefore support daily norms, such as:

- Designating children's play areas.
- Managing parking zones for residents and guests.
- Sharing maintenance responsibilities.

Pedestrian Orientation

Walking fosters incidental encounters and strengthens emotional ties. According to **Gehl (1996)**, pedestrian-oriented design enhances community life through:

1. Minimizing vehicle use via design.
2. Ensuring essential services are within walking range.
3. Designing human-scale streets with room to stop, talk, and observe.

Superblock models—pioneered in Radburn—separated pedestrian and vehicle flows. While green paths were added, pedestrian routes at the rear of homes created confusing, poorly monitored spaces. Residents trapped between blank fences and overgrown hedges experienced isolation (Bentley et al., 2003).

A better solution is shared streets with controlled car access. Streets should change direction every 30–50 meters to slow vehicles. Cul-de-sacs (culs-de-sac) naturally reduce through traffic and are ideal for child safety and neighborhood identity.

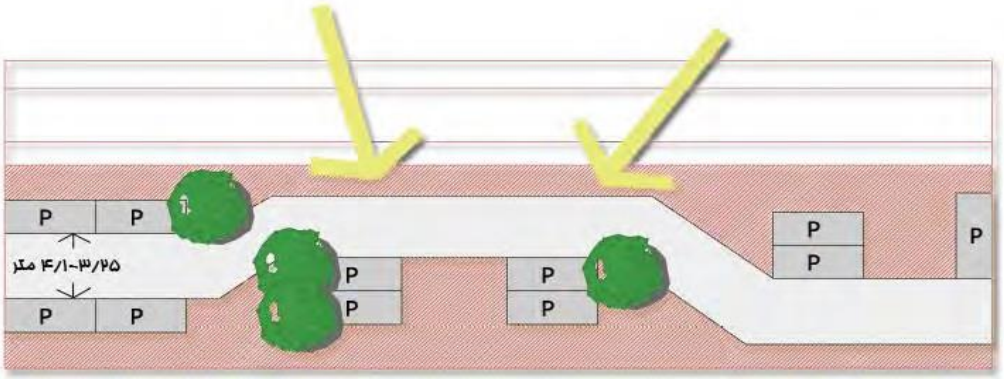

Figure 4. Pedestrians caught in the chaos between lifeless fences and privacy trees in the backyards of houses.

Figure 5. Rerouting of thoroughfares to reduce vehicle speeds

Shared Outdoor Space

A key design principle is enabling neighbors to meet informally. These semi-public spaces—neither as private as homes nor as open as parks—foster group identity and responsibility.

Effective shared spaces have:

- **Clearly defined boundaries** by resident consensus.
- **Recognizable entrances** separating them from general public areas.
- **Design features for all age groups**—e.g., classic seating for elders, colorful play areas for children.
- **Surveillance**—ensured when homes face shared spaces, enabling passive control.

These areas are especially important in low-income settings where private entertainment options are limited.

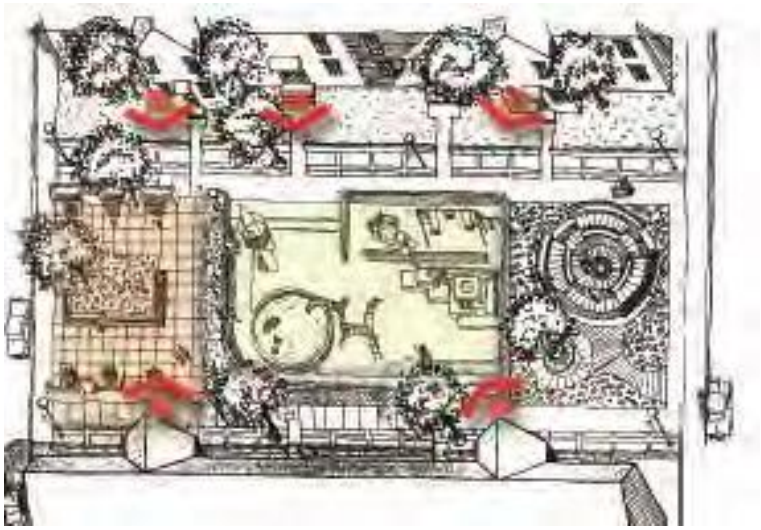

Figure 6. Designing a shared outdoor space for all age groups and creating visibility and control over the complex

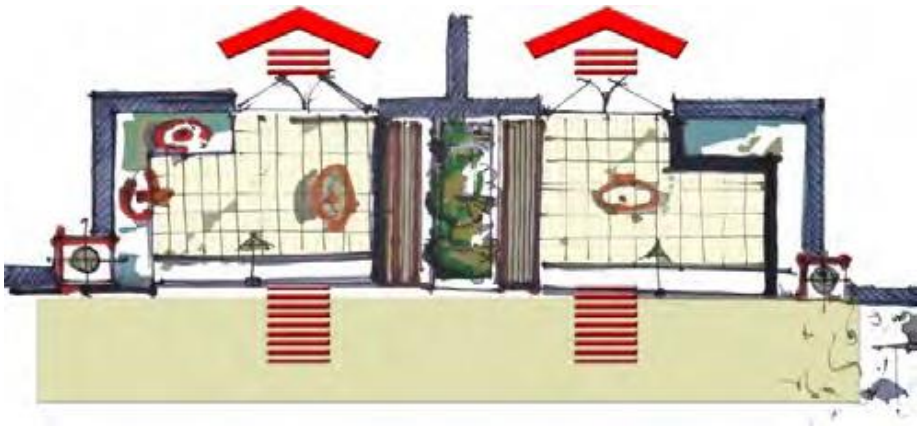

Figure 7. Semi-public space in front of houses

Gans (1962) and **Michelson (1976)** found that small-scale architectural details—such as window placement or entrance orientation—significantly affect interaction. Semi-public spaces in front of homes (e.g., porches, stoops) create spontaneous encounters and increase familiarity.

Conclusion

Creating social communities, especially in residential areas, remains a social and emotional necessity. People long for connection with neighbors—not to feel imprisoned in their homes or surrounded by strangers. Community offers a larger, safer, familiar social context.

Symbolic boundaries not only define urban morphology but also foster emotional security. Trust and intimacy lead to personal investment—time, money, and effort—toward neighborhood development. Internal social norms promote passive regulation, where shared presence enforces behavioral standards.

In crises, community members do not feel alone; they know others will help. However, **physical design alone cannot ensure community formation**. Designers must respond to existing social layers beneath the urban fabric—layers that are themselves dynamic.

The number of families who can form a face-to-face neighborhood group is limited. **Oscar Newman** suggests 8–12 families. This varies by culture but emphasizes that small, emotionally intimate groups are ideal.

Environmental elements—when properly designed—can foster interaction and belonging, helping transform mere housing into sustainable, human-centered communities.

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