


DESIGN INTERVENTIONS TO CREATING IN-BETWEEN SPACES FOR HEALTHY NEIGHBOURHOODS: CASE OF MERSİN, HALKKENT NEIGHBOURHOOD

Sağlıklı Mahalleler İçin Arada-Mekânlar Yaratmaya Yönelik Tasarım Müdahaleleri: Mersin, Halkkent Mahallesi

Asude BOLAT * 

* Department of Urban and Regional Planning, Istanbul Technical University | Şehir ve Bölge Planlama Bölümü, İstanbul Teknik Üniversitesi

Abstract

Restrictions on public life during the Covid-19 pandemic caused the spatial organization to be questioned in the modern city and revealed the importance of "in-between/border spaces". This study was designed as an explanatory article; It aimed to develop design interventions to create in-between/border spaces for the Halkkent neighbourhood in Mersin province, Türkiye. Although the problem area has many possibilities in its mass organization, it is weak in terms of spatial hierarchy and social levelling. The method of this study is quantitative research; the potential and problems of the problem area have been analysed through 6 spatial criteria that the spaces should contain, and the current situation has been revealed by using schematic representation techniques and a base map. In the study, schematic representation, and photographing techniques were used. Based on the identified problems and potentials of the space, the study was concluded with a proposal urban design scheme for the creation of semi-public and semi-private spaces in the study area within the framework of spatial needs.

Keywords: In-between Spaces, Healthy Neighbourhoods, Social Levelling, Spatial Hierarchy, Pandemic

Özet

Covid-19 pandemisi sürecinde kamusal yaşama getirilen kısıtlamalar, modern kentte mekânsal organizasyonun sorgulanmasına neden olmuş ve "arada/sınır mekânların" önemini ortaya çıkarmıştır. Açıklayıcı bir makale olarak tasarlanan bu çalışma; Türkiye'nin Mersin ilinde yer alan Halkkent mahallesi için arada/sınırdaki kalan mekânlar yaratmaya yönelik tasarım müdahaleleri geliştirmeyi amaçlamıştır. Sorun alanı, kütleli organizasyonunda birçok imkâna sahip olmasına rağmen, mekânsal hiyerarşi ve sosyal kademelenme açısından zayıftır. Bu çalışmanın yöntemi nicel araştırma olup; problem alanın potansiyel ve sorunları, arada mekânların barındırması gereken altı ölçüt ile analiz edilmiş; şematik gösterim teknikleri ile halihazır harita kullanılarak mevcut durum ortaya konulmuştur. Çalışmada şematik gösterim ve fotoğraflama teknikleri kullanılmıştır. Çalışma, mekânın tespit edilen sorun ve potansiyellerinden yola çıkılarak, mekânsal ihtiyaçlar çerçevesinde çalışma alanında yarı kamusal ve yarı özel mekânların oluşturulmasına yönelik bir öneri kentsel tasarım şeması ile sonuçlandırılmıştır.

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Correspondence | İletişim:
bolat18@itu.edu.tr
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INTRODUCTION

During the Covid-19 pandemic, many societies, which were confined to the concept of high-rise-point block housing with isolation measures, preferred roofs and balconies for activities. This situation actually became an indicator of a significant problem and brought to mind the question "Is a space between home and public space possible?" The changing housing typologies and the organization of the house in the space in the 20th century have created a sharp distinction between private and public spaces. Although we perceive a lack of these spaces in our everyday lives, the necessity of these spaces has become apparent during the pandemic period. Courtyards, gardens, and traditional neighborhood organization, which are characteristic of traditional house typologies, have begun to be reconsidered in Türkiye and around the world.

When the concept of "health" is considered, it often comes to mind as an individual and physical concept and is mostly perceived as the absence of diseases and disorders in the body. However, in the 1946 constitution of the World Health Organization (WHO), the concept of health was defined as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". Similarly, Lawrence (2002) defined health as a human condition resulting from the interrelationships between people and their biological, chemical, physical and social environments (p. 396). Stokols (1992) emphasized that health has many layers in socio-ecological perspective and listed these layers as physical health, emotional well-being and social cohesion (p. 8). When individual and collective health are examined from a social point of view; It is known that negative living conditions are effective in reducing the stressful consequences. Many studies emphasize that there is a positive relationship between the social environment and mental and physical health (Berkman and Syme 1979; Moos 1979). According to Stokols (1992); "What has been omitted from much earlier research on psychological and behavioural factors in health are structural features of the socio-physical environment that affect individual and collective well-being, either directly or interactively in conjunction with biopsychobehavioral factors. These envirogenic processes in health and illness subsume geographic, architectural, and technological features of the physical environment and sociogenic qualities of the social and cultural environment that influence the etiology of health and illness " (p. 12).

The relationship between the social and physical environment and health is a topic of significant interest. What are the factors that have a negative impact on mental, social, and physical health? Humans have certain needs that must be met for survival. An individual who is unable to meet their physiological needs will not be able to survive. Furthermore, their inability to meet their other needs, or to do so adequately, causes withdrawal symptoms, which in turn negatively affects their health. Given that the social structure and the cities we have established are essentially the result of some basic needs, it is necessary to address human needs in more detail in order to create healthy individuals and societies and thus to ensure social sustainability.

Relation Between Spatial Needs of Human and In-Between Spaces in Neighbourhoods

This article was analysed within the context of urban design, with a focus on the concept of urban open space needs. All architectural spaces have been designed with and for people, evolving from their initial formation during the transition to settled life to the present day. The initial urban settlements were established in response to the necessity for the storage and protection of surplus products. When the formation of Greek cities in ancient times is examined, it can be said that the cities were chosen and shaped by needs such as protection, defense, proximity to water and fertile lands. Social and dynamic human beings are able to interact and communicate with other individuals, and thus have needs to integrate with their environment, age and culture. Given that the urban open space is the setting in which social interaction and life occur, it has gained its functions as an environment in which social needs are met and the human-environment relationship is established, and it forms in accordance with environmental conditions.

A considerable number of researchers have addressed the user needs in urban open spaces. (Kaplan, 1987; Greene, 1992; Kürkçüoğlu, 2009; Göregenli, 2013; Omar et al., 2015; One Community, 2018). The research findings permit the classification of spatial needs into six categories (Bolat, 2022).

- The physiological needs category encompasses the basic biological requirements for survival: Comfort.
- The need for security and safety is a fundamental human requirement. The need for protection from threats, the avoidance of fear and chaos, and the recognition and orientation of the surrounding environment.
- Social needs include activities such as watching, listening, speaking, resting, communication, socializing, participation in groups, belonging to society and place, entertainment, learning, gaining experience, and interaction with the environment and nature.
- The need for comprehension is a fundamental aspect of human development. To know, to understand, to examine, to wonder, to explore.
- The need for self-realization is another fundamental human need. The expression of self, the utilization of talents and potentialities, the sharing of ideas, the attainment of status and recognition, the acceptance of oneself and others, the development of the self, and the pursuit of happiness are all aspects of the human condition that can be considered self-realization needs.
- Aesthetic needs are those related to the appreciation of beauty and the pursuit of sensory pleasure. The satisfaction derived from the visual perception of beauty and the sensory pleasure derived from the stimulation of the senses.

The concept of comfort encompasses the experience of physical, psychological, and thermal comfort. This is associated with the survival instinct. Physical comfort is defined as actions that are performed with ease and minimal exertion, resulting in optimal efficiency. Psychological comfort, on the other hand, is associated with a state of calm, equilibrium, and tranquillity, and is distinct from

negative emotions such as fear and stress (Trettenero, 2017; Ertez Ural, 2018). It is evident that a location that lacks physical, psychological, or thermal comfort can elevate the stress levels of its users, inducing feelings of mental restlessness and anxiety.

Security is defined as "the situation where people can live without fear" (TDK). As one of the basic human needs, the survival instinct is associated with Appleton's (1988) theory of visual dominance-visual preservation and Hall's (1969) theory of personal space. Hall (1969) and Göregenli (2013) posit that users require a personal space whose boundaries are defended due to the need for security and protection within the space. They further assert that individuals feel secure in environments where they have a dominant presence and whose borders are clearly delineated. In the absence of a secure environment, individuals experience feelings of apprehension and unease. This situation has a negative impact on the users' mental well-being.

Humans are social creatures and require contact with other individuals to fulfil their social needs. Although there are times when solitude is desired, loneliness is not a natural state for humans. It is evident that humans have an innate desire to interact with other individuals, as well as with the natural world and animals. This interaction can be passive, involving observation, hearing, or simply viewing, or it can be active, encompassing greetings, communication, and shared activities. These interactions collectively fulfil a fundamental human need, which can be defined as a social need. The nature of social interactions is contingent upon the level of social communication. The family, romantic partners, close friends, and other acquaintances represent the most basic social units, forming the foundation of larger social structures. These units are further stratified by the presence of neighbours and strangers, which collectively constitute the most diverse social layers. The diverse relationships that emerge within social groups give rise to a multitude of needs. It is possible to define a multitude of activities as social behaviour. While communication, conversation, and idea exchange with family, friends, neighbours, romantic partners, or strangers are examples of active social behaviours, being in the company of others, observing or listening to them, and engaging in passive social behaviours such as nature-based activities like wind-blowing, fresh air, sunbathing, and petting a cat are also forms of social interaction. The inability to fulfil such social needs and the absence of environmental stimuli can result in significant mental health issues, including isolation, depression, and dementia.

Although the need for self-actualization may appear to be a luxury in underdeveloped countries like Türkiye, it is essential for an individual to be able to meet this need in order to realize their potential and abilities. One can posit that an individual who spends the majority of their time in front of the television may experience feelings of aimlessness and a lack of direction. However, individuals also experience a need to expel the energy from their bodies. The pursuit of physical and mental vigour can be achieved through a variety of activities, including natural movement and interaction, sports, travel, participation in competitive events, artistic endeavours, and musical and dance performances. These activities provide individuals with the opportunity to realize their full potential and maintain a healthy, active lifestyle. A lack of physical

activity and direction in one's life has been linked to an increased risk of obesity. However, it is also associated with negative mental effects.

The human factor is inclined to avoid situations that lack clarity, coherence, and logical coherence. This inclination is linked to the survival instinct and the need to feel secure. When an imperceptible, chaotic situation or environment cannot be associated with a specific context in the human brain, the individual experiences a sense of vulnerability. This situation increases stress and uneasiness, leading to a psychologically restless mood.

Aesthetic needs are associated with the concepts of pleasure, beauty, and sensory satisfaction. Aydınlı (1986) posits that environments that fail to evoke a sense of pleasure can prompt behaviours that are perceived as aggressive and destructive. Conversely, environments that engender a sense of pleasure can serve to reduce tension and facilitate a state of mental equilibrium (p. 35). Although the concept of aesthetics is largely subjective, the formal aesthetic approach in architecture is evaluated using design principles and gestalt principles (Aydınli, 1986). According to this approach, the individual is equipped to perceive the world as organized, and thus the composition of space is perceived as aesthetically pleasing. Aesthetic environments provide individuals with sensory and emotional experiences. They offer people a new perspective and the opportunity to experience the world in a different way. Consequently, it has a positive effect on mood and has a positive impact on psychological well-being. In his 2011 study, Gehl proposed a classification system for urban open spaces, emphasizing the importance of establishing a hierarchy among these spaces. He defined urban open spaces as private, semi-private, semi-public, and public spaces, based on their ownership status. It is therefore necessary to inquire as to the necessity of such a spatial hierarchy. The division of our social world and the spaces in which we live into public and private spheres is one of the defining characteristics of how a society is organized. This has implications for the mental states and experiences of individuals, the regulation of their behaviour, and the long-lasting structure of human societies (Madanipour, 2003).

In the context of social sustainability, the relationship between private and public space represents a crucial aspect that shapes the social characteristics of daily life at the neighborhood level. The boundary of this interaction, which is called semi-public and semi-private, is a key element that can provide balance and well-being in the social and personal life of the individual (Vassilaki and Ekim, 2015). As Gehl (2011) posits, In the absence of inter-building activity, the lower end of the contact scale also disappears. The diverse transitional forms between solitude and social interaction have been eliminated. The boundaries between isolation and contact become increasingly distinct, with individuals either alone or in the company of others on a relatively demanding and exacting level (p. 17). What, then, are the various levels of social relations that exist at this profound distance between the individual and society? There are familial and emotional bilateral relations, friendship, other distant friendships, and neighborhood relations between the individual and the stranger. As Gehl (2011) posits, the intensity of social interaction diminishes as it progresses from the individual to the society, that is, from the private to the public, within this social levelling.

In-between spaces are utilized in various ways within the literature, including as "border space," "interface," "semi-public/semi-private space," "threshold space," and "transition space" (Newman, 1996; Gehl, 2011; Madanipour, 2003; Vassilaki and Ekim, 2015). As their nomenclature suggests, these spaces exhibit characteristics of both private and public domains at specific levels. These grey spaces, which cannot be separated into distinct categories, can be considered "private spaces" when their private characteristics are more pronounced and their public characteristics are less so. Conversely, when the public characteristics are more pronounced and the private characteristics are less so, they can be regarded as "public spaces." In order to create intermediate spaces and to determine the spatial needs that must be met to a greater or lesser extent in these transition areas, it is necessary to analyse the spatial needs of private and public spaces.

In the context of sociology, the term "private" is defined as "belonging only to a person or certain persons, not open to the public, not belonging to the state" (TDK). In the literature, the private sphere is associated with the territorial instinct of behaviour, which can be observed in both humans and animals (Göregenli, 2015; Vassilaki and Ekim, 2015; Madanipour, 2003). Humans have a natural inclination to seek out and maintain a territory of their own, which serves as a protective and defensive buffer against external forces beyond their control. Such ownership affords individuals the capacity to regulate their surroundings and satisfy their security requirements, thereby fostering an environment conducive to peace and well-being. The territorial instinct is manifested in the form of property in settlements. Since the property belonging to an individual or family is only used and shaped by the individuals residing there, it can be argued that it actually becomes a part of that person's character and experiences. It is to be expected that people will become familiar with a place they have and will therefore feel a stronger sense of belonging. One of the fundamental spatial needs is the desire to belong, which strengthens the attachment to a particular place (Madanipour, 2003; Göregenli, 2015).

Nevertheless, private spaces also fulfil individuals' needs for privacy. Privacy can be defined as the "right to be alone" (Ernst and Schwartz, 1962), which is an essential aspect of an individual's autonomy. Individuals find the opportunity to be themselves and listen to themselves in their private spaces. Privacy provides individuals with a sense of comfort and security, allowing them to relax and rest. Nevertheless, the loss of privacy is associated with stress, anxiety, fear, and discomfort (Madanipour, 2003). The intensity and crowding of modern life are perceived as a violation of privacy, which in turn leads to social isolation.

Another defining characteristic of private spaces is their capacity to foster an intimate atmosphere. In addition to the privacy afforded by private areas, the shared experiences, lifestyles, and ideas of a group of individuals in close proximity to one another foster a sense of intimacy. Intimate spaces are environments where shyness is no longer a barrier to openness and communication. Gehl (2011) defined these relationships as "high-intensity relationships" and stated that the controlled, formal, and social norms observed in public areas were replaced by complex and emotional relationships in private spaces (p. 15).

In accordance with Wolley (2003), the public space is defined as a shared domain with strangers, individuals who are not relatives, friends, or colleagues. The public sphere, where impersonal encounters occur and formal relations are established, both expresses and conditions our daily experiences, civic culture, and daily discourse. The Oxford and Cambridge dictionaries define public as pertaining to people or society as a whole. It is also defined as shared, open, accessible, and used by all members of society. Sociability, defined as a performative exchange between strangers, is arguably a fundamental aspect of contemporary urban society and one of the most basic needs of human beings as social beings (Madanipour, 2003).

The capacity to explore and experience the world and other living things with a genuine sense of curiosity is a universal human trait. However, the inclination to eschew intimate, familiar relationships and engage with strangers gives rise to the formation of relationships that are characterised by a stable and consistent formal dimension, based on sympathy, courtesy and social norms. These tranquil, predictable, and orderly social relationships constitute the everyday urban experiences in which friendly relations can be established. Public spaces fulfil various social needs, including communication, participation, and experience. They allow people to interact actively or passively with other individuals (Gehl, 2011). Social interaction and communication provide opportunities for individuals to become acquainted with one another and to be recognized, as well as to express themselves. Even in the absence of active communication, the mere act of being in the presence of others has been shown to have a positive effect on one's mood, reducing feelings of loneliness and promoting mental resilience (Wolley, 2003). The coexistence of individuals enables the sharing of experiences of the world.

Socially common experiences and activities serve to increase the sense of community and consciousness. They also satisfy the need for belonging to society and the place. Humans are biologically predisposed to act in certain ways. Physical activity and exercise are defined as the sum of actions that improve an individual's health, which can be utilized as a tool of the preventive health approach. These actions serve to maintain the improved state and increase resistance against fatigue and diseases. A lack of exercise and a low level of physical fitness represent significant risk factors for morbidity (Wooley, 2003). Public spaces provide the opportunity to engage in a variety of actions and behaviours, given their diverse types and functionalities. The diversity of stimuli in the public environment provides an opportunity to break away from the confines of routine and the comfort zone, allowing individuals to experience a sense of freedom in the world. Furthermore, the diversity of people and activities in the public sphere contributes to mental activity. The active recreation function of the public space has been demonstrated to enhance cardiovascular development and muscle strength, and to prevent obesity by providing opportunities for exercise such as walking, running, and participation in sports. Additionally, the passive recreation function provides opportunities for interaction with nature, which is biologically adapted to humans, and for feelings of peace and rest. It also prevents stress and anxiety (Gelter, 1999).

In-between spaces constitute a transitional zone between the private and the open common areas, serving as a meeting point for people. Consequently, this

border serves to regulate communication and to establish the relationship between two opposing regions. However, border spaces are of particular significance as they occupy a mediator and descriptive role between the two areas.

The creation of permeable boundaries serves a number of functions, including the shaping of behaviour, the control of access, and the serving of various social groups. These border spaces between the individual and strangers, that is, private and public, serve to protect and provide privacy on the one hand, while simultaneously facilitating communication on the other. In contrast to the rigid boundaries of solid walls, this dialogue between the two spaces fosters a civilized ambivalence that can only enrich social life. In-between spaces permit practical and social flexibility, with a degree of permeability that facilitates interaction and communication.

Neighbourhoods are expected to provide opportunities for the socio-spatial needs of a small group of people who may be aware of fewer city residents. Unlike the rest of the city, these residents use the immediate surroundings of the house in common, live together, and are more or less familiar with each other. In-between spaces serve to create a kind of separation and communication and interaction between a group of people in the middle of the impersonal urban world. It is therefore desirable that these spaces allow for partial access and are therefore less public than those in public city centres. Border spaces can be defined as collectivist spaces with localization. The process of perceiving one's place of residence and the city occurs gradually, with individuals gradually becoming accustomed to the public and crowded spaces of urban areas. Neighbourhoods, as the intermediary between the house and the city, are the sections of the city where the hierarchy of transition from public space to private space is anticipated to be observed. In-between spaces are threshold spaces that permit residents to transition from their domicile to the surrounding neighbourhood environment.

It is evident that the most fundamental and fundamental rule in the formation of in-between spaces is the spatial hierarchy. The hierarchy principle plays a pivotal role in defining the components, providing identity, and distinguishing them from other functions. The hierarchy of social relations in urban space is also reflected in the hierarchy of common spaces. This spatial hierarchy serves to reinforce the desired social structure of the neighbourhood, both visually and functionally. The social hierarchy in space can be defined as a systematic transition from semi-private to semi-public and finally to public space. The establishment of this organization, which stratifies and regulates social relations, allows for the transition from smaller, more intimate groups and spaces to larger, more public ones. This transition occurs from more private spaces to increasingly public spaces, which contributes to a greater sense of security and a stronger sense of belonging. Furthermore, this hierarchy facilitates the formation of social ties within the region and contributes to a sense of attachment to the place. (Gehl, 2011).

This process serves to enhance social cohesion and collective responsibility, which are currently in decline. It also contributes to the formation of a healthy social structure. It is of paramount importance to subdivide residential areas into

smaller, more clearly delineated units in a hierarchical order. As posited by Gehl (2011), the function of in-between spaces is to provide living space between buildings, daily unplanned activities, pedestrian traffic, short stays, play, and simple social activities. Such spaces facilitate the development of additional communal life, as residents are able to interact with one another more effectively and solve mutual problems. The familiarity, interaction, and communication between the individuals who utilize these spaces contribute to the formation of a sense of community. In light of the aforementioned considerations, it becomes evident that the question of which spaces are in-between spaces is of paramount importance. The question thus arises as to how these spaces are created. Colonnades, front porches, front and back gardens, passages and foyers, facades, courtyards, and cul-de-sacs are examples of in-between spaces that can be functionally semi-public or semi-private (Madanipour, 2003; Newman, 1996; Gehl, 2011).

The most common example is the mass organization of a group of buildings and the creation of transitional spaces serving that group of buildings. Furthermore, the creation of partial access through the implementation of various physical interventions or spatial pockets formed through the use of different building typologies represents an additional method of establishing in-between spaces. In-between spaces may be either semi-public or semi-private, as previously stated. The question thus arises as to how one might determine whether a given space will be designated as semi-private or semi-public. At this juncture, the specific building types, their mass organizations, and the number of families who share this space collectively define the space. Newman (1996) conducted a study that classified buildings into three categories: single-family houses, walk-ups, and high-rise residences. In the case of a detached single-family house, it is reasonable to assume that the front and back gardens will be considered private spaces, given that they are solely owned by the family residing in the house. However, the nature of the garden facing the street or directly into a public space can be described as a semi-private space due to the reduction of privacy and control. The distinctive configuration of single-family residences also affects the quality of front and back gardens. In the case of semi-detached single-family houses, the front or back gardens are shared between two families, thereby conferring a semi-private character upon the space. Conversely, if the gardens are used separately, they are private areas. In the case of high-rise apartments, which are defined as those with 10 floors or more and elevators, as described by Newman (1996), the common areas are of a public nature, given the high density of families living in these residences. For instance, 150 families reside on a single block comprising 15 floors and 10 apartments per floor. This situation results in a reduction in control over the open area serving the residence, the challenge of establishing privacy in this area, a decline in security, and a reduction in the sense of responsibility and belonging to this area. Given the difficulty of establishing familiarity and connections between 150 families, it is challenging for them to develop intimacy and make acquaintances. Nevertheless, the presence of three or four distinct entrances to the aforementioned block can impart a semi-public or semi-private character to the area, as it allows for the restriction of access to the open spaces surrounding it (p. 17). Walk-ups are typically two to four stories tall, with two or three apartments per floor. These houses, which are shared by approximately four to twelve families, represent an

optimal setting for the establishment of neighbourly relations. This is due to the fact that a relatively small number of families live together and utilize the area in common. The open space serving this residence assumes a semi-private character, as it serves a small number of families. Given the assurance of security and privacy afforded by the shared environment, residents of these apartments are expected to assume greater responsibility for the management and control of the shared space. The configuration and spatial organization of the walk-ups also influence the quality of the space they define in this direction. The courtyard, which is formed by a cluster of several walk-ups, can assume a semi-public or public character, depending on the number of families residing in the cluster.

As a result, it can be said that the fine line between semi-private and semi-public space is created by the number of families who share the space. In other words, the basic condition that makes a place semi-public or semi-private is the social levelling of that place and the satisfaction of the social needs of the social level it serves; however, it is expected to satisfy other spatial needs as well. It has been noted that semi-private and semi-public spaces do not have clear boundaries. For this reason, when defining the spatial needs in these spaces, it was found appropriate to make a definition based on how public or private they should be more or less. Semi-private spaces are spaces that serve a small group of several families.

With reference to Newman (1996), it is possible to define as a semi-private space an open space that serves a dwelling or a group of dwellings of 2 to 15 families. These spaces, which have a high quality of private space, are expected to meet the security and control needs of the people who use them (Madanipour, 2003, Gehl 2011). This need can be met by providing limited access to the space and by providing a view of the entrance, windows, and balconies of the houses. However, in order to satisfy the need for belonging and provide privacy, the space must be defined as a territory and be partially, if not completely, closed. This degree of closure also makes it possible to create an area of privacy between the users of the space.

Another important need in semi-private spaces is to establish friendly social relations and social interaction in this small group of neighbours and family members who are familiar with each other; conversing, eating, drinking, playing, etc. Small activities can be done. This means that the semi-private spaces that serve a small group of people are sized according to the human scale in the second and third dimensions; they need to be supported by urban furniture and landscape elements. Semi-private spaces should not only be a place where neighbourly relations develop, but should also serve the spatial needs of families or each individual in the family. Semi-private spaces, where privacy can be provided, should also serve the passive recreational needs of residents, such as resting, being alone with nature, getting fresh air, and sunbathing. These areas can often be thought of as a residential garden or terrace.

Semi-public spaces, on the other hand, are spaces formed by the clustering of several houses and serve a larger group compared to semi-private spaces. With reference to Newman (1996), it is possible to define the open space that serves the number of families that varies between 15 and 80 as a semi-public space.

These spaces, which have a high public quality, are spaces that are expected to allow more activities and to be wider than semi-private spaces, since they serve more people and residential groups. Although there are areas that serve a large number of people, it is not expected to have a fully public character as it serves the residential cluster that defines the space. Again, because it serves a specific group of people, it must meet their needs for control and security. This requires limited access and closure even in semi-public spaces. However, this level of access and closure should not be as intense as in semi-private spaces.

The most common mistake today is to close these spaces with a door or wall and turn them into a "gated community. This situation isolates the space from the city and creates social segregation by creating a city within the city. The basic logic in semi-public spaces is to create a sense of community and ensure a sense of belonging to the neighbourhood. Social relations in semi-public spaces are more formal than those in semi-private spaces. Considering that acquaintance and intimacy of 80 families with each other is not equally possible; it is possible to say that relations in this place are realized with more passive contacts, greetings and courtesy. Semi-public spaces, because of the social group they serve and their size, have fewer personal and intimate relationships; however, they are areas where more collective activities can take place. These areas, which can provide more opportunities for active recreation such as sports, games, and dance, are areas where volunteer projects, social responsibility projects, and social awareness and responsibility can be developed. Courtyards, which are the common areas of housing clusters, can be used as an example of these areas.

What Happened in Modern Neighbourhoods During the Pandemic Lock-down?

To what extent did we achieve social sustainability during the Covid-19 pandemic? In addition to the biological effects of the pandemic and the general fear and anxiety it has spread throughout the world, this process has also given us the opportunity to observe the deep gap between home and public space from the small window of our homes!

Social distance and isolation during the pandemic process have negative psychological effects because they damage social relationships and human relationships with nature, and also condemn people to a closed, limited physical environment. Quarantine, isolation and social distance confine individuals to a limited area and cause a decrease in social relationships and a lack of stimulation. Social relationships, a safe and rich environment are important for mental and physical well-being. Quarantine and isolation have a similar effect on people under house arrest. The loss of freedom creates a sense of imprisonment, a sense of isolation, anger due to inhibition, and a high level of stress. The longer the period of isolation, the higher the risk of stress disorder, depression, panic disorder, and post-traumatic stress disorder (McCormack et al., 2022). Could these effects be mitigated? Yes. The quarantine that accompanied the pandemic response was repeated in the form of isolation in many parts of the world. Because there was no alternative for people to leave public spaces and seek shelter outside their homes.

With the automobile-oriented transportation system that developed in the 19th century, the single-family suburban settlements that began to develop in the 19th and 20th centuries, and the multi-story tower blocks, a sharp distinction was made between public and private space. This so-called modern functionalist approach formed the basis of 'desert planning'; social disintegration, alienation and social behavioural disorders have increased worldwide. In such cities, there are buildings and cars, there are few people, and the exteriors are large and impersonal. Because of the large distances between buildings, there isn't much to experience outside. Under these conditions, most residents are forced to spend time indoors in front of the television or on their balconies or other similar private outdoor spaces. Although these urban planning and design problems have existed and been discussed for a long time, their importance has been better understood during the pandemic process. During the pandemic process, it became clear that people need open spaces outside of a public space, but also outside of the home. Spaces where a few friends, family members or neighbours can spend time together, walk, breathe fresh air or just rest comfortably are important for the health, well-being and social sustainability of individuals and communities.

METHODS

Urban designers have a role in the creation and detailing of spaces that mediate and promote a civilized relationship between the collective needs and private interests of different groups and individuals living together in cities. The study was carried out on the scale of urban design; the method of this study is quantitative research; the spatial problems and potentials of the selected problem area were analysed through the 6 spatial parameters that the interspaces should have, and the current situation was revealed by the mapping method. Schematic representation, graphic representation and photographic techniques were used in the study. Based on the identified problems and potentials of the space, the study was concluded with an urban design proposal for the creation of semi-public and semi-private spaces in the study area.

In the problem-potential analysis for the problem area, 6 spatial design parameters presented by different researchers were used to design the interspaces:

- Housing typology and number of families living in the house: According to Newman (1996), since the number of families living in multi-storey buildings (10 floors and above) is high, the open spaces serving these houses gain a public character. According to Newman, the most appropriate building typology for creating interstitial spaces is the low-rise (2-4 stories) walk-up. While the open spaces serving buildings of about 2-15 families gain the quality of semi-private spaces, the open spaces serving about 15-80 families become semi-public spaces.
- Mass organization and spatial closure: According to Gehl (2011); The structures organized around an open space provide a living space between the dwellings and provide space for unplanned daily activities. Since this organization creates a closure around an open space, it increases the

residents' sense of security, gives them a stronger sense of belonging, and creates a collective responsibility for the space. In other words, the area is defined as belonging to the people who live there. According to Sitte (1945), a successful urban open space must be partially enclosed and achieve a certain degree of closure. The lack of space-defining elements in the third dimension creates a perceptual effect of openness and vulnerability. According to Booth (1983), as the distance between facades decreases, more closed spaces are defined; as the distance between facades increases (weak facade relation), the defined spatial form disappears and weak spaces are formed. The mass organization of the buildings is formed by the coming together of the building facades at different speeds or the organization established with each other at different angles (Booth, 1983: 132-151). By associating different building typologies with each other, an open space can be constructed by creating different formal fictions in the space. One of the most effective ways to create space is to use different building forms. L, I, E, T, H, or U-shaped structures can create successful spatial organization (Longstreth, 2000: 18). Spatial closure is possible with urban open space elements as well as building blocks. Trees, lighting elements, and furniture organized in a certain proximity and order also create closure and are effective in organizing space.

- Access: According to Madanipour (2003); that these spaces have partial access so that semi-public and semi-private spaces can be created; in other words, it must be distinguishable from a public space. This partial access ensures that the neighborhood and its surroundings mainly serve the residents of the neighborhood. According to Newman (1996); partial access can be achieved with cul-de-sacs, and cul-de-sacs serve only the people who live there, making the roads through the neighborhood not a transit route. Another method of removing the public character of the space and restricting access to everyone is to define the entrances to the space with semi-permeable boundaries (Madanipour, 2003). These boundaries can be made with planting and landscaping elements, color and material differences, or height differences on the ground, rather than solid boundaries such as a door or wall (Bolat, 2022). These interventions can define, through design, that the space has a different quality than the public space outside.
- Scale: According to Vassilaki and Ekim (2005: 29), "The level of visual connection with the environment directly affects a person's sense of privacy: as one sees better and more detailed, the level of privacy decreases. Physical parameters create an invisible platform that invites people to communicate and interact with their external world. In this platform, light and activity level have a direct contribution in convincing people to stay and spend time on the site". According to Booth (1983), "The proportional relationship between the user's distance (x) from the building facades that define the space and the building height (h) affects our perception of space. This situation is explained by the concept of "human scale". The ratio x/h represents the minimum closure of 3:1; when this ratio increases, the sense of space disappears. Similarly, when the ratio falls below 1:2, high closure occurs and leaves claustrophobic effects on people. In-between spaces are spaces that serve a small number of

people and therefore are not expected to be large spaces. On the one hand, these spaces are expected to provide partial privacy and an environment of trust, and on the other hand, they should be spaces where social relationships can be established. According to Gehl (2011), people's hearing is severely limited above 35 meters. Similarly, between 20 and 25 meters, most people can perceive the emotions and moods of others relatively clearly. Normal conversations, experiences, and meaningful human contact can usually take place between 1 and 3 meters. While high-intensity emotional contact occurs between 0 and half a meter, less intense contact can occur between half a meter and 7 meters. Hall (1969) defined intimate distance as 0 to 0.45 metres and noted that it occurs mostly between people who have emotional relationships. He defined personal distance as the distance between 0.45 m and 1.30 m and stated that this distance is established between close friends and family members. Social distance is between 1.30 m and 3.75 m and dominates communication between neighbours and friends. Public distance, on the other hand, is 3.75 m or more and dominates interaction between strangers.

- Entrances, windows, and balconies; eyes that observe the space: According to Gehl (2011) and Newman (1996), it is important to have eyes watching the place to ensure the safety of the place and prevent crime. The entrances, windows and balconies facing the space will add vitality to the space in the third dimension, and human activities, circulation and communication will strengthen the interaction between the house and the space. In particular, the fact that the building entrances are within these boundary spaces will make the space a frequent destination and save it from being a dead space (Vassilaki and Ekim, 2015).
- Function: In-between spaces are expected to be pedestrian spaces that allow for different behaviours and activities due to their social functions in the neighbourhoods. Accordingly, in-between spaces should be separated from vehicular traffic and parking functions, and should be supported by landscape and urban open space elements that support different behaviours and activities.

Case Area: Halkkent Neighbourhood, Mersin / Türkiye

The study area is located in Toroslar district of Mersin province in the Mediterranean region of Türkiye. Halkkent neighbourhood is a neighbourhood planned in 1984 in the northeast of the city. The reason for the selection of the study area is that unlike the high-rise point block construction, which is the general construction structure of the city, it has the potential to create in-between spaces, which is the main subject of the study, as it has a spatial organization consisting of low-rise walk-ups and a courtyard with its mass organization (Fig. 1).

Since the analyses related to the study were carried out at a scale of 1:500, which is the scale required by urban design, the residential cluster with two courtyards was analysed in a completely similar organization to the neighbourhood and design proposals were developed. According to the



Figure 1. Case Area:
Halkkent Neighborhood,
Mersin/ Türkiye

Sources: Google Earth image
(A), Base map (B)

information received from the Halkkent Neighbourhood Headman, the neighbourhood is mainly inhabited by elderly and low-income groups. According to the interviews with the residents of the neighbourhood, it is known that the people living here are mostly homeowners and have lived in the neighbourhood for many years.

When the potentials in the study area are examined within the framework of the determined six parameters; It is seen that the entire housing typology in the area consists of 4-storey walk-ups (Fig.2). According to the changing housing form, there are 2 or 3 flats/family on each floor. 8 or 12 families live in each house with a separate entrance.

Between 16 and 20 families live in the blocks formed by 2 residences. In total, 76 families live in the eastern housing cluster, while 48 families live in the western housing cluster. Based on these results, each courtyard defined by the residences serves a small group of people; It is possible to say that the number of families using the space is ideal for creating in-between spaces due to the low floors of the houses, and that both courtyards are semi-public according to the number of families they serve.

Mass organization and spatial closure in the area also creates a potential for creating in-between spaces. The residences in the study area are organized/ clustered around an open space. At the same time, it is seen that the space is defined by L and rectangular shaped structures and their different angular relationships.

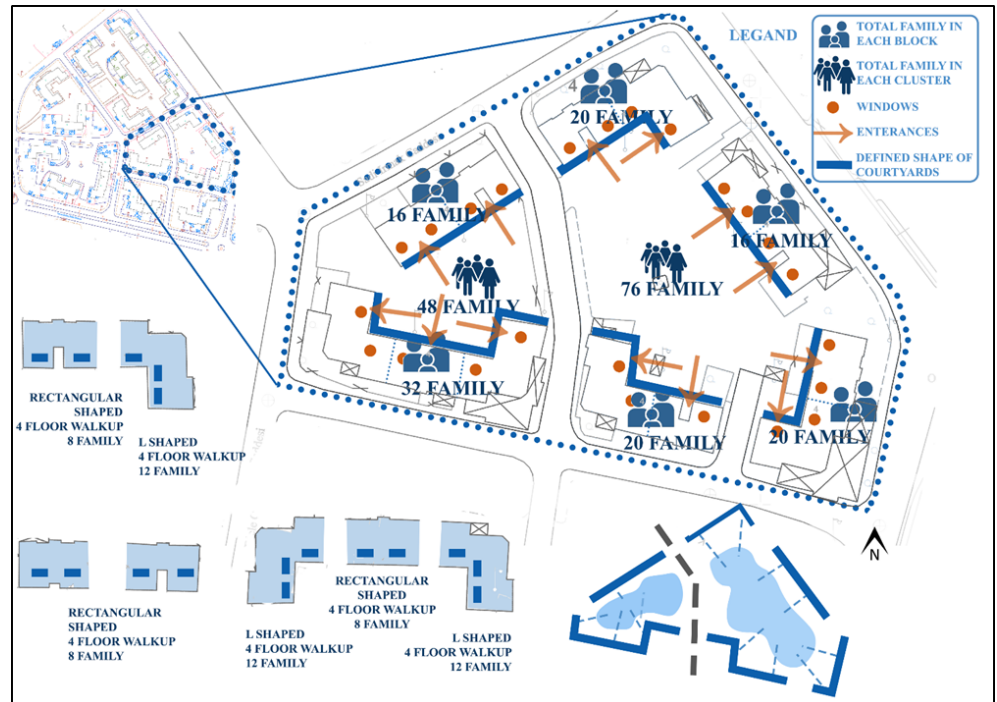


Figure 2. Potentials of the study area

This situation creates a closure with the buildings and ensures that the courtyard becomes a place that serves that residential cluster; it creates a partial privacy area, creating a strong territorial effect; it increases the security of the place, the sense of belonging to the place and the responsibility.

Another potential in the area is the residence entrances and windows facing the courtyard. Building entrances and windows enable families to use the space on a daily basis, and establish a relationship and circulation between the house and the courtyard. Housing entrances and windows and balconies allow the space to be observed, inspected and controlled by users.

Examining the problems of the study area in terms of six parameters, it can be seen that there is direct access to the housing units from the low-quality roads serving the neighbourhood; in other words, the byways in the neighbourhood can be used as a transit pass by anyone (Fig. 3). This situation complicates the controllability of the neighbourhood, invites security problems, weakens the interaction between clusters, divides the neighbourhood by roads and makes it difficult to perceive it as a territory. In this sense, direct access to traffic damages the sense of community and belonging to the place.

Another problem in the study area is that there is direct vehicular access to the residential clusters and the courtyard is directly connected to the road. Since there is no spatial differentiation and no functional differentiation through colour, material or landscape elements, the courtyards are used as open parking lots where everyone can park his car.

Unlike public spaces, semi-public and semi-private spaces are spaces where more intimate relationships and interactions are expected to take place. Again, because these spaces are expected to serve a smaller group of people compared to public spaces, "human scale" is important in these spaces. Courtyard A in the



Figure 3. Problems of the study area

study area is 86 meters long and 45 meters wide; Courtyard B is 50 meters long and 45 meters wide. Considering that the ideal ratio that creates a sense of space is 1:1, and that the ratio above 3:1 creates a sense of emptiness; it can be said that these courtyards, surrounded by 12m high buildings, define large areas above human scale. Since it is known that it is difficult to hear above 35 meters and difficult to see and communicate above 25 meters, it is impossible for people standing near the two ends of this courtyard to communicate and interact. There should be personal and social distances between people in places where sincere and social neighbourhood and friendship relationships are known to be established. However, the working area defines a very large space that does not allow human interaction.

The main problem in the study area is that the courtyards of the neighbourhood, which were originally planned as a courtyard with its mass organization and community-oriented approach when it was planned in 1984, do not serve the intended social function. This is because the courtyards are completely dedicated to the function of parking and are open to direct access by vehicles and do not function as pedestrian spaces.

A total of 76 families lives in the housing clusters that define Courtyard A in the study area, and 48 families live in the housing cluster that defines Courtyard B. These social groups indicate that courtyards can be used in a semi-public function. However, according to the expected spatial hierarchy, there should be a semi-private space organization in the courtyards. Because 76 families cannot be expected to know each other and develop close social relationships. However, there are 8 to 12 families in each block. Each block has 2 entrances and there are 16 to 20 families in each block. Based on the approximate number of families given by Newman (1996), the number of families in each residence is the number in which close social relationships can be developed and an environment of acquaintance and intimacy can be created. However, there is no hierarchy and spatial organization in the courtyards in the study area, where the transition from semi-private to semi-public space can be achieved.

RESULTS

As a result, considering the problems and potentials of the working area, the area has a great potential for designing in-between spaces, both with its mass organization, open spaces with courtyards, and low-floor construction serving a small group of people. However, direct vehicular access to all low-rise streets and courtyards makes the space a pedestrian space. Although there are low-rise buildings, the clusters of houses formed by the combination of large masses have created open spaces with sizes well above the human scale. However, the courtyards are functionally used only as parking lots, and there is no spatial arrangement (such as landscaping, urban furniture, lighting, colour and material design in detail) that can serve the spatial needs of people. All these important problems make the place a dead space, prevent social interaction and togetherness, and increase social isolation and alienation.

DISCUSSION

The construction of the urban open space hierarchy is a policy that is emphasized and implemented in many cities around the world. It is possible to see some of these examples in Skarpnack, Stockholm/ Sweden, Tinggarden, Herfolde/ Denmark, Skade, Hojbjerg/ Denmark (Fig. 4).



Figure 4. (A) Skarpnack, Stockholm; (B) Tinggarden, Herfolde; (C) Skade, Hojbjerg
Sources: Google Earth, 2024

As mentioned in the introduction of the article, the hierarchical structure of space is based on human needs and emphasizes the importance of social levels between the individual and society. In-between spaces, individual and society; it is the balancing element between the private and the public. We may all sometimes want to sit in an open space, to sit with friends, family or neighbours, to chat or just to be together. But most of the time a park or a square in the city centre is not suitable for this. Because we are also looking for some peace, comfort and privacy.

On the other hand, they are important in terms of individual and collective health and social sustainability to strengthen human relationships, increase social interaction and contribute to people's mental, social and physical health. These spaces can be a small garden or a small courtyard behind our house. Although they have simple details and small areas, they are of great importance in preventing social isolation, alienation, health problems such as depression, anxiety and obesity.

The area chosen as the study area is different from both the city of Mersin and the general building structure in Türkiye. This is because the existing zoning system in Türkiye leads to the production of projects that are developed either on the basis of a single plot or in the form of a closed mass housing model, and

this situation produces urban textures in which private and public spaces are sharply separated.

The Halkkent neighbourhood, on the other hand, was designed as a planned area in 1984, as a social housing project according to the urban planning approach of the time, and residential clusters with courtyards were designed with a community-oriented approach. However, in terms of the problems analysed, the space does not have the qualities it should have and has become a completely dead space. In this respect, the article concludes with design proposals for the area (Fig. 5).

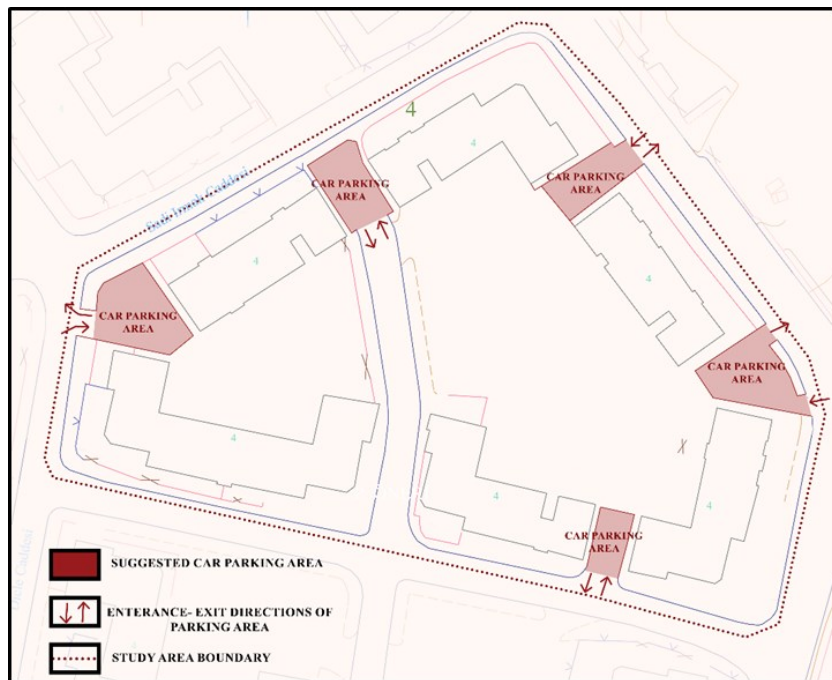


Figure 5. Suggested Car Parking Areas for Study Area

Design Interventions and Suggestions

In accordance with the analyses, the first design intervention will be to construct the space hierarchy, to define the space functionally and to organize the hierarchy of semi-public and semi-private spaces. In this direction, first of all, the means by which the territories in the space will be defined through design will be mentioned; then, the qualities that the defined spaces should have will be defined with design approaches aimed at increasing social, physical and mental health.

Using Urban Design Tools to Define Territories

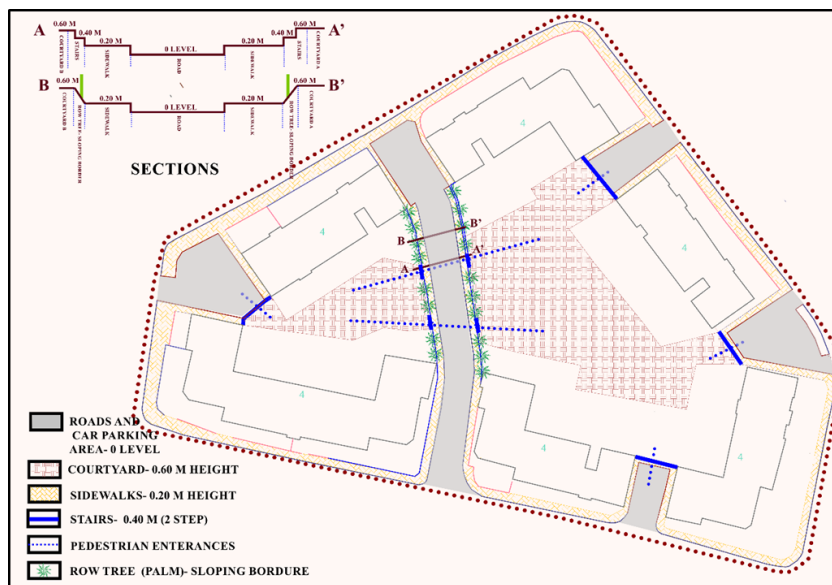
Transportation Interventions

The first design intervention to be made in the space is to prevent direct vehicle access to the courtyards (Fig 5). In terms of accessibility, it is proposed to give the area a single entrance from the main street and to solve the other streets scattered to the residences with cul-de-sacs in order to make the neighborhood more pedestrian-oriented at a higher scale, increasing the safety and sense of belonging in the neighborhood. Cul-de-sac solutions will transform low quality

streets into safe streets that serve only the people who live there, and will give the streets a semi-public space character.

The second accessibility intervention concerns direct pedestrian access to the courtyards (Fig 6). Courtyard A has direct vehicular access with a width of 9 meters, with direct pedestrian access through a 25-meter wide sidewalk. Courtyard B has direct vehicular access with a width of 5m and walls of 30m. Converting the yard into a parking lot with direct vehicle access is problematic, and the fact that the space is surrounded by solid walls completely limits the interaction between the yards. For this reason, it is recommended that the courtyard be raised two steps (about 40 cm) from the road and pavement, the material difference between the road, pavement and courtyard, and the pedestrian entrances to the courtyard should be given in 2 parts, north and south, with 3 meters each. It is recommended to create permeable borders with planting and afforestation to the remaining 26m (Courtyard A) and 29m (Courtyard B) entrances. These permeable borders will increase the perception of the courtyard as a "zone" and increase its privacy, and will not divide the interaction between the spaces as they are flexible borders.

Figure 6. Pedestrian accessibility and elevation heights of the organized land.
 Left : Courtyard B;
 Right : Courtyard A



Interventions for spatial hierarchy

The second design intervention to be made in the space is the fictionalization of the spatial organization to ensure the spatial hierarchy in the courtyards. For this, the distance-height data required by the human scale were used.

Establishment of semi-private spaces: Semi-private spaces are spaces that are expected to serve the number of families ranging from 2 to 15, serve the intimate and social relationships of familiar neighbours and family members, mostly passive recreational needs, and are expected to be small intimate spaces. In accordance with the physical parameters of human scale, when the x/h ratio is less than 1:2, it creates a high degree of enclosure and wall effect; since the area within this range will be in direct contact with the first floor of the houses, it will prevent the privacy of the house and the comfortable use of space. On the other hand, the 1:1 ratio offers an ideal closure and provides an ideal distance and

privacy between the first floor of the house and the room. For all these reasons, 12 meters of the residence opening to the courtyard should be designed as a semi-private space, taking into account the height of 12 meters; it is suggested that the first 6 meters of the house opening to the courtyard within the 12 meter area should be used as a common garden (Fig 7). The 12m wide semi-private space can be defined by a different flooring material from the rest of the courtyard; with trees and planting elements, a permeable enclosure can be created where privacy and security can be provided. It is recommended that access to these areas is only from the entrance of the residence it serves.



Figure 7. Semi-private spaces: Community gardens and social pockets

The establishment of semi-public spaces: Semi-public spaces are expected to serve a number of families varying between about 15 and 80. They are spaces that serve a larger social group and neighbourhood cluster compared to semi-private spaces. Since the number of people, it serves is higher than in semi-private spaces, it should be larger in area. In this direction, semi-public spaces are places where spatial qualities are expected to be more diverse. In semi-public spaces, the level of familiarity and intimacy is less than in semi-private spaces. Consequently, passive communication and interaction between neighbours is expected to be more common in these spaces. However, if the area is large enough, semi-public spaces can also serve as places where active recreation needs can be met. Spaces with x/h ratios between 1:1 and 3:1, in line with the physical parameters of human scale, are ideal in terms of creating a sense of space. A ratio of greater than 3:1 tends to engender a sense of emptiness. In this context, the initial 3-4m following the transition from semi-private to semi-public spaces, with reference to the social distance of 1.30-3.75m, is recommended as a semi-public pedestrian path where individuals from the surrounding community may congregate to walk or engage in sports. In contrast, the central area of the courtyard is designated as semi-public and should be enhanced with landscape design and water features (Fig 8).



Figure 8. Semi-public spaces: Pedestrian paths, green areas and water elements

Creating Health-Oriented In-Between Spaces

Community garden and social pockets as semi-private spaces: Community gardens, which will serve a small group of residents in each residence, will contribute to residents' mental well-being by allowing them to interact with nature. They will also be effective in preventing stress and anxiety. Furthermore, community gardens will facilitate physical and mental vigour by providing opportunities for daily activities such as planting, mowing, and watering. The cultivation of diverse plant species, encompassing a spectrum of colours, sizes, and forms, within community gardens will afford individuals the opportunity to engage in the production and growth of living organisms. Additionally, these gardens will facilitate passive social interaction with other living beings. Furthermore, the presence of diverse natural elements will contribute to the visual diversity and aesthetic appeal of the natural space. Social pockets are defined as spaces where security and privacy can be ensured, as they are spaces with high closure and defined by trees and other planting elements.

Social pockets, which are comfortable and convenient spaces in this respect, are areas where individuals can relax and rest. These spaces, which range in size from 30 to 60 square meters, are of significant importance in terms of social health, as they serve as locations where intimate social interaction and communication can be established between neighbours. It is believed that social pockets are an effective means of preventing social isolation and social behaviour disorders in neighbourhoods. Social pockets may be furnished with single or multiple benches, chairs, or tables. Such spaces may also include newsstands and magazine holders, as well as radio and coffee-making facilities. Individuals may choose to relax in these compact areas, take in the fresh air and bask in the sun, or engage in light-hearted activities such as chess. Should the dimensions of the designated area permit, a portion of the space may be allocated for the practice of yoga or meditation. It is recommended that wood or

stone be used as flooring materials in social pockets. The use of lighting pontoons and poles will facilitate the creation of a more convivial and secure environment. In contrast, the seating areas are constructed from natural wood, which contributes to a more intimate ambience within the space (Fig 9).



Figure 9. Social Pocket (Left) and Community Garden (Right) (Source: Pinterest)

Pedestrian paths, active and passive green areas and footpaths as semi-public spaces: The 3-4 meter wide pedestrian paths, which will serve a larger social group than semi-private spaces, will meet the active recreation needs of people engaged in sports, jogging, and walking. These paths will help protect the physical health of community members who may be physically active. Exercises such as running and walking will contribute to muscle development and will meet the need for physical activity. They will also prevent the occurrence of cardiovascular diseases. Engaging in physical activity, exposure to fresh air and sunlight has been shown to contribute to mental health by facilitating the secretion of dopamine and serotonin hormones. However, these pedestrian paths will expand from place to place and offer areas where people can sit and rest alone or in groups. This will contribute to the interaction and communication of the housing cluster members who are less familiar with each other.

The incorporation of human-scale lighting elements into pedestrian paths will enhance safety and foster a convivial ambience. It is recommended that the flooring material be of wood or stone, with the exception of semi-private spaces. The pedestrian paths will form a ring, encircling the entire courtyard of the residential cluster. The central portion of the courtyard, encircled by the pedestrian path, is designated as a passive green area. One-meter-wide soil paths, intermittently accessed from the pedestrian paths, are proposed. The green area, which serves the entire residential cluster, provides an opportunity for residents to engage in leisure activities such as strolling, walking with their dog, or reading a book under a tree (Fig. 10 and 11).

Figure 10. Semi-Public space: an example of green area and it's main and minor paths





Figure 11. Proposal design scheme

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