

# SPATIAL THEORY ANALYZIS ON THE BORDER OF PRIVATE AND PUBLIC SPACE TÉRELMÉLETI ELEMZÉS A PRIVÁT TÉR ÉS A KÖZTÉR HATÁRÁN

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## ABSTRACT

One of the foundations of the liveable downtown areas is the well-functioning ground floor zone on the border of private and public space. The aim of the study is to get to know the “urban ground floor” and to summarize the domestic and international technical literature of the topic. In addition, the establishment of a multi-scale typology of the characteristics of the ground floor zone on the basis of the contemporary urban planning literature.

The analysis provides a historical overview of the urban ground floor from the perspectives of spatial, space use and space management from the Middle Ages to the present. It then groups the existing urban ground floor concepts according to the focus of the approach, based on the domestic and international technical literature. Finally, based on spatial, space use, and space management perspectives it explores the criteria of the

human-scale urban ground floor grouped on the scales of the “neighbourhood,” “street,” and “building”.

The study explores the diversity of urban ground floor structures. Nevertheless, it highlights that the interpretations of the urban ground floor by thinkers opposed to modern architecture still provide a stable foundation today. Exploring the criteria of spatial theory, space use and space management on the urban ground floor helps to formulate theoretical and practical, complex development responses. The study draws attention to the importance of continuous monitoring of the changes in space usage concerning the ground floor and the use of progressive tools of urban development and space management. It emphasizes the importance of a foresight strategy for the development of the ground floors, based on emerging local needs, existing functions, and, in addition to social and environmental aspects, management and economic aspects leaves scope.

## INTRODUCTION

Liveable urban open spaces<sup>1</sup> and the living ground floor zone<sup>2</sup> of the connected buildings gain importance in contemporary urban areas. In the study, we examine the border zone occurring on and overlapping the boundaries of external and internal space between private and public areas.

The purpose of the spatial theory analysis is to summarise and approximate the concepts of the “urban ground floor” of the domestic and international technical literature and to draw the attention to the importance of the urban ground floor zone existing as an individual entity in the urban fabric. The introduction to the analysis overviews the changes in the boundaries of the private and public areas and the structures of the transforming urban fabric during history, where it also focuses on the characteristics of space use in addition to the spatial changes of the ground floor zone. It then groups the concepts of the urban ground floor based on the technical literature determining today’s urbanism. The key objective of the analysis is to establish a multi-scale typology about the features of the liveable urban ground floor on the scale of the “neighbourhood”, the “street” and the “building” about the technical literature, where the features of urban space management can also gain ground besides the presented spatial and space usage criteria.

## THE BORDER OF PRIVATE AND PUBLIC SPACE

The quality of the border between private and public areas and the process of its changes in the urban landscape says a lot about the given culture, age or society. We will review the structures of the European urban ground floor historically forming on the border of private

and public areas and its structures characteristic of the given era. The historical overview focuses on the spatial theory and space usage changes of the urban ground floor and the appearance of the space management features.

The urban fabric is structured as an intertwined chain of public and private areas, which we can also characterise with the changes of space usage. The streets and squares, spaces accessible for the public without limits, are the venues of public life while public access to the buildings standing on the connecting plots is partly or fully limited as they are areas of public life. Between the public and private spaces, there are border spaces or transient spaces, where the scale of public access regulates to what extent the space is open or closed to the city dwellers.

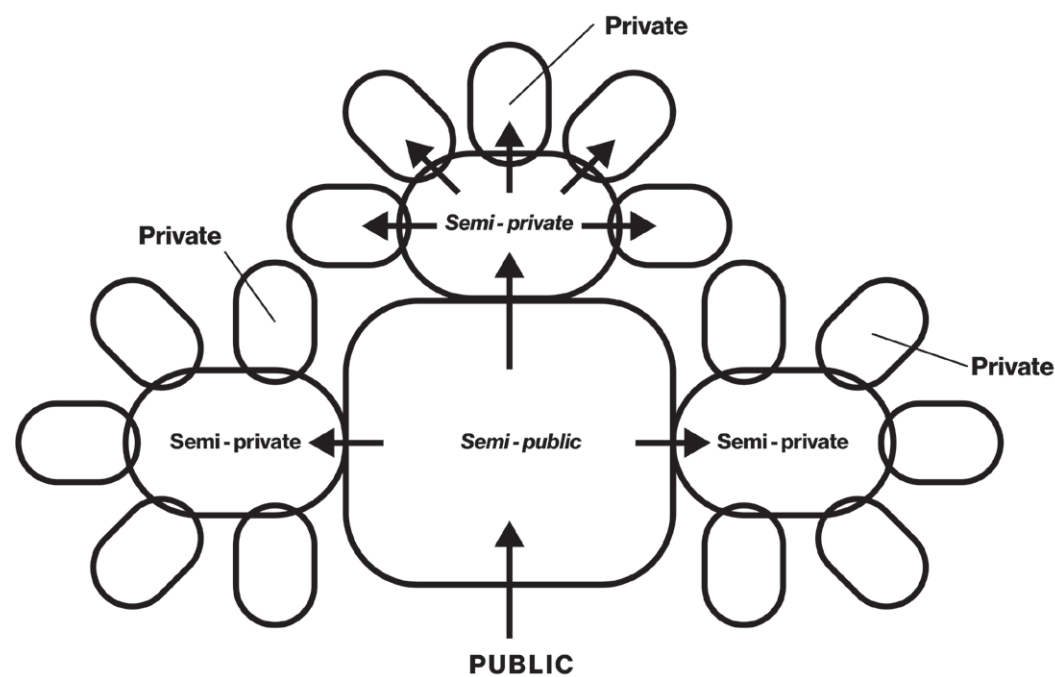
In Newmann’s figure and in his definition regarding space usage, we can see how spaces of private and public use are intertwined, inclusive of transient spaces, which delimit safe semi-private and semi-public spaces (figure 1). This is what Melinda Benkő writes about the topic in her thesis: “The transition itself often becomes a space, delimiting and, at the same time, connecting the areas of varying function and supervision as a kind of threshold. It is a surplus in space with extra functionality: it prepares you for the change, helps communication between community and private areas, and, at the same time, filters the interacting effects of ‘in and out’”. (Benkő, 2005, p. 39.)

## The medieval city

Several factors affect the spatial theory features of the medieval European city. The expansion of commerce is favourable for the development of the cities lying along rivers, seas or trade routes, while it also provide base materials for the evolving artisanal industry, guilds and manufactures. The medieval cities are protected against enemy interventions

<sup>1</sup> Urban open space: the (“empty space”) parts of the unbuilt space in the settlement, formed with landscaping tools and opened up for human use. (Balogh, 2004, p. 9.)

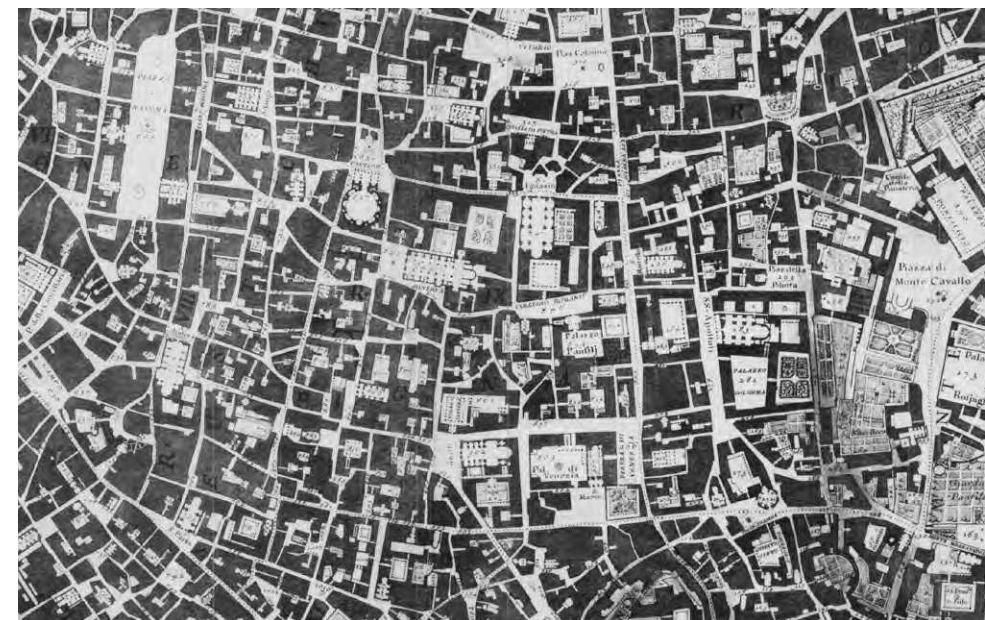
<sup>2</sup> Ground floor zone (plinth): ground floor of the buildings (Krassenberg, 2016, p. 15.)



with defensive walls, which also set limits to the growth of the city and is responsible for the densely built-up urban fabric. In his famous book,<sup>3</sup> architect and art historian of Viennese origin, Camillo Sitte, emphasises the beauty of medieval urban spaces in addition to the ancient agora and forum. The appearance of the streets in the walled medieval cities is affected by the fact that the city functions as a kind of work organisation where the division of labour is advanced. In the organically developed narrow city street, the shop of the merchants and artisans were located on the ground floor, while the upstairs area played the residential function. The boundary of the private and social spaces is blurred; the space of the downstairs shop or workshop forms the semi-private zone within the building, which is periodically open to the general public as well. The semi-public transient space, or human zone, in the street outside the shop is adapted in accordance with the given function and a number of trade signs, boards, shop-windows and shop fronts appear in the streetscape. According to today's determining Danish architect and urban designer, Jan Gehl, the urban open spaces of the medieval city are genuinely of a

human scale and they still offer suitable urban living space for today's people. Giambattista Nolli's map of Rome from 1748 depicts the public and semi-public spaces accessible for city dwellers without or with limitations in white colour, regardless of whether they are public spaces or semi-public spaces in the ground floor area of buildings, while the private spaces are shown in black on the map (figure 2). "Such a representation reveals internal and external relationships that are important to us when they present all the "spiritually open spaces" (Balogh, 2004, p. 9). Nolli's map of Rome and his depiction of the urban fabric is really progressive and it is still a reference basis; the mindset it conveys helps us understand the complexity of the urban ground floor and drives us to examine the relationships of space usage. Regarding the space usage features of the medieval city, it has to be emphasised that the population in certain cities<sup>4</sup> had general freedoms, which means progress compared to the antiquity and it is reflected in the unlimited use of public spaces. The representation of the ecclesiastical and secular power takes place in the main square, where the space is surrounded

<sup>3</sup> Sitte, C. (1889): *Der Städte-Bau nach seinen künstlerischen Grundsätzen*, Vienna, 216 pp.  
<sup>4</sup> *In the free royal towns in the territory of today's Hungary.*



**Fig. 1:** The system of private spaces and spaces open to the public (Newmann, 1972, p. 41.)

**Fig. 2:** Giambattista Nolli – Map of Rome (1748)

by the church, the town hall and the aristocratic palaces. Space usage is thematised by the religious events, celebrations and the weekly organised fairs. The power is concentrated and the weight of public life and politics is shifted from the public spaces to closed buildings, such as aristocratic and religious institutions. (Carmona, 2008, p. 25.) Siena's Piazza del Campo well represents the features of the medieval city, providing a good example to this day for the planning of public spaces of a human scale. The main square, faithfully presenting vivid medieval urban life, was originally built to be a market area and a main square representing secular power. The square is dominated by the Palazzo Pubblico, the town hall, with its prominent belfry and the square is bordered by the palaces of wealthy citizens and these days the ground floor areas are vitalised by commercial and catering premises. The square continuously slopes towards the town hall, which still influences the way the space is used: people like to sit down in the square covered in bricks even without any benches while the restaurants and cafés operating along the edges of the square make visitors stay in the "living-room" open to the public. (Gehl, 2011, p. 41.)

**Industrial revolution and the post-liberal city; intervention by the power**  
 Today's European cityscape is predominantly determined by the urban fabric that formed in the 19-20th centuries and its spatial theory features. During the industrial revolution the crowds flowing into the cities and the technological development posed new challenges to the decision-makers of the era. In 1852-70 the prefect of Paris redesigned the medieval urban fabric; the reasons included the necessity of meeting the requirements of the era, representation, a city that is easier to control and keep clean by revealing the densely built city centre with avenues. The reconstructions in Paris and Rome were followed by Vienna and then Budapest. The avenues cut into the organically developed urban fabric are partly lined by mansions with the shop fronts of elegant stores, catering establishments and cafés in their ground floor areas, serving the aristocracy and the citizenry, creating new urban quality on the boundary of public space and private space. The scale change of the cities greatly influences the usage of the public spaces as traffic for transportation grows on the roads and track-based traffic appears.

There are typically no limitations for the population to use the public spaces, the operation of which is supervised by the local authorities. Large parks are established in order to satisfy the recreational needs of the growing population. The transformation of the society and the spirit of the age is well reflected by the way the London parks,<sup>5</sup> previously exclusively used as royal hunting areas, are opened for the general public while a number of public urban gardens are only accessible for the aristocracy for a long time to come. (Carmona, 2008. p. 29.)

At the turn of the century passages<sup>6</sup> and covered streets are built everywhere in Europe and the semi-public space, accessible with limitations in time, once again evolves the boundary of private and public spaces, primarily playing a commercial role and acting as a determining socio-cultural venue of the city centre of the era. The covered passage imitates the urban street but, in reality, it is an artificial structure created inside the building, which cannot provide the same level of functional diversity and urban experience as a spontaneously developed historical street. "The passage is originally a part of the city, creating alternative connections separated from the streets between the city's various spaces. It is a secondary urban street network, which encourages exploration, invites to have adventure and can be used only on foot, thus providing protection not only from weather but also motorised traffic. It is the ideal venue of walking, commerce and meetings. (...) The space of the passage is a transition between both internal and external, and between private and public spaces." (Benkő, 2005, p. 89.)

#### Modernism - The Athens Charter and Team 10

The space theory features of the urban ground floor evolved along the following criteria. They subjected everything to the physical wellbeing of the individual

by creating a healthy living and working environment, which has sufficient exposure to sunlight and ensures a breezy green living space. The Athens Charter of 1933 encouraged the separation of the urban functions: residence, work, recreation and transport. The goal of Le Corbusier, one of the authors of the Charter, is to rescue the city from the "tyranny of the street"; in his plans, he erects the buildings from the urban ground floor, separates the functions by directing the pedestrians to the connecting hallways and flyovers so that motorised traffic can have enough space in the ground floor areas. He does all this in order to achieve more exposure to sunlight and larger green areas, creating the "liveable city", only forgetting in the meantime that this way the venue of urban interactions, the urban ground floor becomes completely empty. In the modern city of Le Corbusier, as a result of the separation of functions, the private and public spheres are once again separated; the transition between them ceases to exist on the scale of the "neighbourhood", the "street" and the "building" as well, thus the size and number of transient spaces making the urban fabric diverse decrease. The ground floor areas of the prefab housing estates turn their back to the city; the boundary of external and internal spaces disappear in case of houses standing on poles; the arcades and passageways become emptied and, as such, dangerous locations of the ground floor area of housing estates. (Benkő, 2016. p. 326.)

The detachment of functions also appears in the open-air areas and their usage; the spontaneous layering of the city becomes impossible as a result of the separation of pedestrian and motorised traffic, and the separation of residential and city centre areas. The urban functions of the housing estate appear like islands in the urban fabric; nevertheless, they are often built only subsequently and inadequately. As a

<sup>5</sup> Hyde Park, St James's Park, Green Park, Kensington Gardens (Carmona, 2008. p. 29.)

<sup>6</sup> For example: Galleria Vittorio Emanuele II Passage was built in Milan in 1865-67 based on the plans of Giuseppe Mengoni, applying a glass roofing supported with a steel structure for the first time during its construction.

result of the spontaneous process that started in the 1980s and 1990s and reflected the social changes of the era, the missing commercial and servicing functions appeared on the edges of the housing estates, in the ground floor area of the buildings and in the nearby pavilions in public spaces.

The urban principles of modernism and the inversion of the urban ground floor are denied by Lijnbaan of Rotterdam, which is progressive from the aspect of urban ground floors as the first pedestrianized built shopping street. The Rotterdam city centre, damaged by World War II, is rebuilt in 1953 based on the plans of Jo van den Broek and Jacob B. Bakema. Broek and Bakema are present at the CIAM<sup>7</sup> congresses; however, they are members of Team Ten, which argued against the Athens Charter in 1953. In their opinion, the essence of the real city does not lie in the separation but in the integration of the functions and urban life is rooted in the community zones, which are embodied by the urban street. Reviving the Rotterdam city centre, Lijnbaan is an artificially created urban street for pedestrians. There are shops along the shopping street, altering with transient spaces arcades and terraces. On the humanised urban ground floor, the public and semi-public spaces are interwoven, thus the boundary of "outside and inside" becomes almost completely blurred. (Figure 3) (Van der Broek, Bakema, 1956, p. 24-25.)

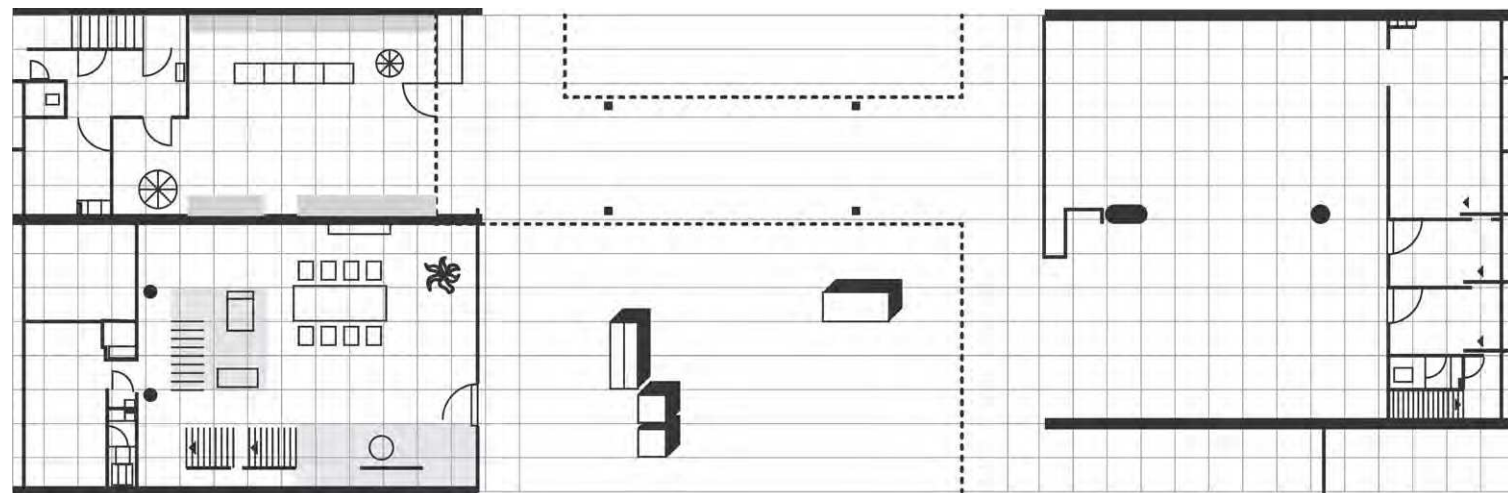
#### Shopping centre

The Vienna-born architect Victor Gruen is primarily recognised as the "father" of the modern shopping centre; however, another aspect of his work also merits mention. We examine Gruen's activity in detail because his works influenced the development of the structures of the urban ground floor from several directions. His early Viennese shop designs are progressive as they

facilitate the establishment of contacts between public areas and the private sphere. His outstanding works include the shop premises and shop front he designed for Singer textile store in 1936, where he humanises the ground floor area by retreating the entrance, positioning the lighted product presentation display case in focus, and presenting the shop-windows like theatrical scenes, thus trying to draw pedestrians' attention. Escaping from the adversities of the war to America, Gruen designs a boutique for Lederer in Manhattan, where he perfects his concept about the "shopper looking for a haven in the jungle of the metropolis". After its opening in 1953 Gruen visits the Lijnbaan in Rotterdam and describes it with great enthusiasm. Magnifying his earlier "haven concept" thousandfold, in 1954 he designs his first shopping centre, which opens in Detroit under the name Northland Centre. Gruen's goal is to adopt the classic European city centre in the spreading overseas garden city of the fifties. In addition to the commercial spaces, socio-cultural spaces are present with the same weight in the first shopping centres. (Baldauf, 2008, p. 5.) Yet the social and economic conditions after the war distort the balance in favour of the commercial functions, where the main objective is to increase business competitiveness and profits while encouraging consumption so many of the social and cultural functions originally designed by Gruen are not realised in the shopping centres. The planned shopping city is originally meant to recreate the functional richness of the Viennese inner city but it results in a completely different, new artificial structure.<sup>8</sup> On the boundary of external and internal space, the shopping centre creates the concept of the privately owned space, open for the public to access with limitations, thus "privatising" the public space. Private operation, filling the spaces artificially with life, and appropriately

<sup>7</sup> *Congres Internationaux d'Architecture Moderne: International Congress of Architects*

<sup>8</sup> Environmental psychologist Andrea Düll explains the duality of shopping centres from the aspect of environmental psychology as follows: "In their strictly controlled semi-public spaces artificially simulating the urban environment, where the goal is to provide comfort and delight our "senses", malls still have a dual effect on people. While there is an overwhelmingly huge choice that stimulates consumption and entertainment, typical features include artificial freedom, security guards on every corner and strongly controlled social contact. The mall is practically a city without the deviant and spontaneous elements of the latter; it is a city-like and largely controlled environment, only it is not as dangerous as real cities." (Düll, 2009, p. 40.)



compiling the tenant mix raises new types of spatial management tasks.

Returning to Vienna in the late sixties, Gruen comes up with the model of the compact pedestrianised city centre but it does not receive positive feedback as the operation of cities are in the process of being reshaped according to car traffic and the shopping centre concept adopted from overseas throughout Europe at the time. In 1973 he defines the Vienna Charter with the aim of taking a position against the Athens Charter. According to the Vienna Charter, the goal is urban design of a human scale in order to create a city tailored to pedestrians that is liveable for people. (Zuccaro, 2017, p. 81.)

#### REDISCOVERY OF CITY CENTRES, THE CRITICISM OF MODERNITY AND THE URBAN GROUND FLOOR

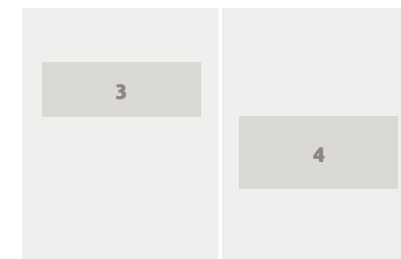
Postmodern urban architecture criticism accuses modernism of destroying the millennial tradition of streets and squares, thus endangering the heritage of our historical cities. The thinkers defining the criticism of modernism set the focus on the space between houses and the space usage patterns of the

society. This era is of determining significance for us as the writings praising the values of the traditional city centre and the urban ground floors full of life still form the basis of the professional discourse. In the next chapter, we will provide an overview of the works of the era on this topic<sup>9</sup> and the interpretations of the urban ground floor based on the international and domestic literature and following the focus of approach: grouped according to spatial, space usage and space management.

#### Space usage approach

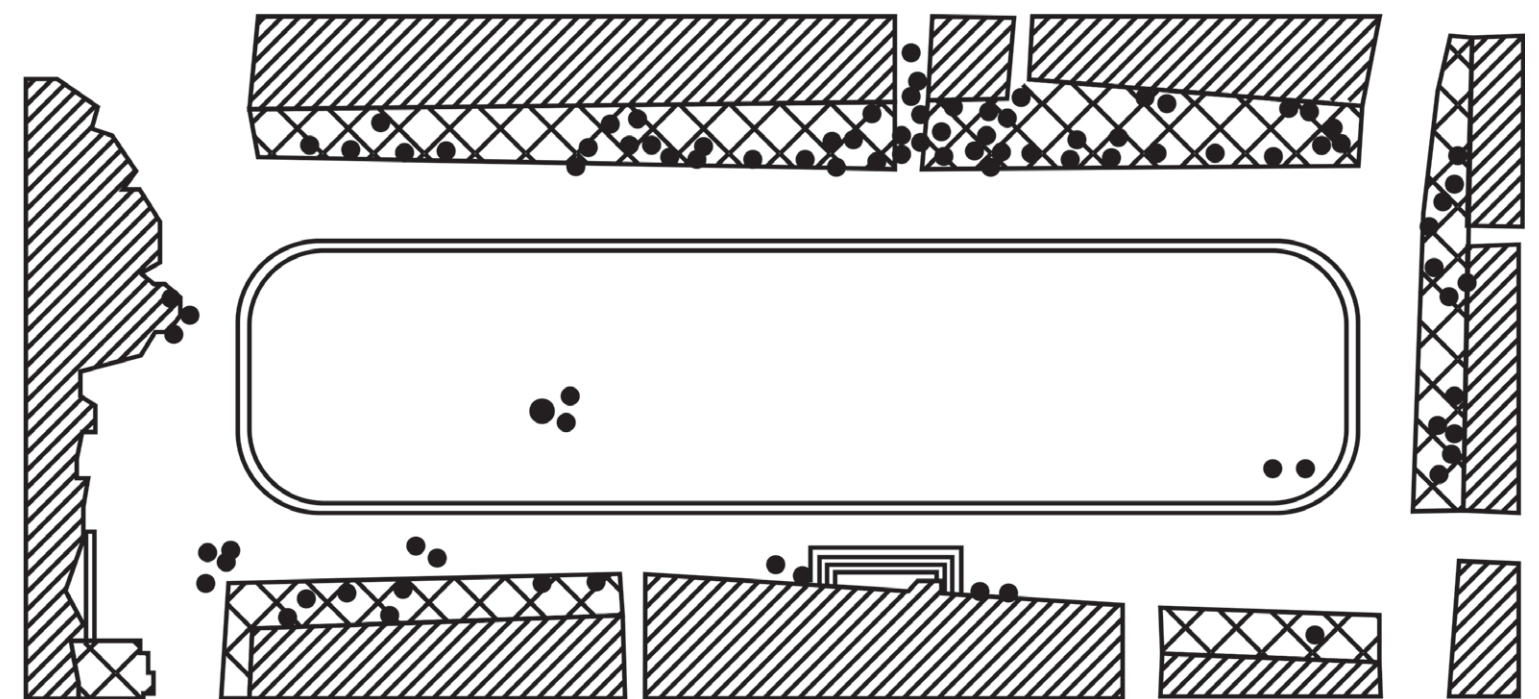
The human point of view puts the focus on the individual using the urban ground floor; its main representative is the urbanist writer Jane Jacobs, who writes critically about modernism in her book titled *Death and Life of Great American Cities* in 1961. She mentions the organically evolved urban ground floor as a quality determining urban life and place identity, emphasising the importance of ground floors rich in functions and the role the “pavement” plays in the city. Besides, Jacobs casts light on the connections between the space usage of the urban population and the safe urban spaces. Like Jacobs, architect and urban planner Oscar Newman also stresses

<sup>9</sup> Highlighting the authors and their works in the text is justified by the main objective of the analysis: the summary of the concepts of the urban plinth and the multi-scale typology set up in the next chapter about the criteria of the “urban plinth” are both built upon these works.



**Fig. 3:** Lijnbaan ground floor detail (Van der Broek, Bakema, 1956, p. 25.)

**Fig. 4:** “Edge effect” (Gehl, 2011, p. 148.)



the relationship between the role of the urban communities and the safe urban spaces. Newman was driven to write his book titled *Defensible Spaces* in 1972 by the examination of the community spaces in the Pruitt-Igoe housing estate built in the sixties – and later to be demolished first. In accordance with the planning principles of modernism, the ground floor and first floor areas of the buildings were left free for community activities. The impersonal “flowing” spaces, staircases and ground floor areas lacking any identity soon fell prey to

vandalism. In Newman’s explanation, the phenomenon occurred because, besides the private spaces and public spaces the housing estates of the modernist movement lacked the transient semi-public and semi-private spaces, which are identifiable and belong to a certain community, thus users regard them as their own.

Sociologist and urbanist William H. Whyte also approaches the topic from space usage. In his 1980 book *The Social Life of Small Urban Spaces*, he presents his research titled “Street Life Project”, in which he studies the behaviour and

space usage patterns of citizens in the crowded public spaces of New York. Whyte considers it especially important that diverse functions appear in the ground floor areas of the buildings and in the public spaces. The point of view of the urban population using ground floor areas, their space usage habits and the environmental psychology aspects related to spaces are emphasised in the works of Jan Gehl, architect and urban planner. In his books *Life Between Buildings* from 1970 and *Cities for People* from 2010, he studies the criteria of spaces of a human scale. In his publications and in case of his urban rehabilitation works, the vitality of the urban ground floor is one of the fundamental premises as he mentions it using various terms like “human zone”, “street level” or “edge”. Gehl refers to the “edge effect”, according to which city dwellers prefer to group along the space walls turning towards the space as visible in figure 4, forming groups along the arcades, by the columns and the façades of the buildings. Thus they are protected by unexpected effects from one side and it is also much more comfortable to wait and talk this way or just watch city life go by. (Gehl, 2011, p. 148.)

#### Spatial approach

In his book titled *Townscape* published in 1961, Gordon Cullen, architect and urbanist, approaches from a spatial theory point of view that puts the focus on the perception of the external space. He lays the foundations of the science *promenadology*<sup>10</sup> with the method of sequential sight analysis and enriches the approach viewing the city statically with the aspect of spatial perception in movement. According to Cullen, external space in the city does not only represent an architectural value but it is also an important basis of the urban population's identity.

In his 1977 book titled *Pattern Language*, architect Christopher

Alexander tries to free humans and encourage them to build for themselves. According to Alexander, everybody can create their own personal space and city to fit their culture using the expounded 253 “patterns”. In the patterns, we can find a number of references to the role edges play in the cities, as well as the significance of the transient spaces and the streets full of functions. Alexander believes that in order for a public city square to get filled with life it is indispensable to have urban activity along the ground floor edges<sup>11</sup> as these stories and events will then radiate to the whole of the public space, filling it with purpose and content. (Alexander, 1977, p. 600.)

Urban planner Allan Jacobs analyses the historically evolved significant urban street spaces in his book titled *Great Streets* published in 1995; he claims that the street is the most important medium of vivid urban life and he regards the semi-public spaces occupying the ground floor level of the buildings as part of the urban street in his richly illustrated book. (Figure 5)

#### Spacial and space usage approach in the Hungarian technical literature

In the domestic literature, István Schneller, urbanist architect, addresses and lays the foundations of the term “urban ground floor”, we are using, in his 1986 study titled “Ground Floor of the City” from a point of view of spatial theory and space usage. He stresses the importance of the border spaces in the urban fabric; as he explains, the urban ground floor is a sort of border space that helps us to make the segmentation of the urban space more perceivable.<sup>12</sup> Architect Gyula Hajnóczy J. mentions the urban ground floor from a spatial theory and space usage approach in his book titled *Vallum and Intervallum* published in 1992. He creates a new term when he calls the space forming between the street and the building and accessible

**10** *The 1971 publication had the title The Concise Townscape*

**11** *“If the edge fails, then the space never becomes lively”.* (Alexander, 1977, p. 600.)

**12** *This is what Schneller writes about the plinths of the urban body in Budapest: “Moving from the overall macro environment – and from the plinth elements determining the image of the city – to the level of micro environments, we can say with slight generalisation that the plinths of the traditional urban body in Budapest are determined by the different types of traditional closed-block layout of blocks and streets with varying levels of built-up density, intensity and height. With its streets and squares as the external public sphere; with its houses and buildings as the border elements separating the external from the internal; and, finally, with the inner yards between the houses, this traditional urban form of development establishes a very simple but well-useable space segmentation model, while naturally turning the plinth areas of the houses into a transient (border) zone that adopts the various urban functions.”* (Schneller, 1986, p. 37.)

for people a fundamental space.

According to Hajnóczy, the “parabolic” space that forms in the space outside the houses between the street and the building attracts people, following from the laws of nature and space creation: it makes them stay, walk across, and sit down, providing the space for the events of everyday life and holidays of the urban existence to take place here.

#### Spatial theory, space usage and spatial management approach

The British urban planner Matthew Carmona and his colleagues tackle the topic applying a complex vision and a spatial theory, space usage and spatial management approach in their 2008 book, titled *Public Space: The Management Dimension*. In the definition of the public space and as part of it, they highlight the external spaces free to access for the urban residents and the internal spaces owned privately and by the community in the urban ground floor zone. They consider the operation of proper spatial management a key issues of liveable community spaces.

The study titled *The City at Eye Level*<sup>13</sup> started in 2012 by TU Delft follows the approach that puts the focus on the critical thinkers of the post-modern and the needs of the urban dweller. They form a new term, the “plinth”<sup>14</sup> to embrace the urban ground floor, marking the semi-public ground floor row of premises in the buildings connecting to the public areas. Under the term “the city at eye level”, the study mentions the ground floor row of premises in the buildings and the connecting public area, similarly to Allan Jacobs' approach. (Figure 6)

The technical literature assigns slightly different meanings to the term. In some cases, it only signifies the ground floor zone of the buildings and sometimes it only means the public area located directly in front of the buildings. However, we can claim that all the

interpretations approach the same urban phenomenon, the “urban ground floor” forming an individual urban entity, from a certain point of view. Our approach is that the urban ground floor forms at the meeting point of the building and the street: one part of it is constituted by the semi-public premises located on the ground floor of the building and opening onto the public area, inclusive of the façade of the building, the gate, the entrance, the outside appearance of the shop front, the pavement section outside the building, the terraces and trees as well. This transient filtering space or edge is partly a public area and partly an internal space accessible to the public with limitations, to be interpreted as one unit on an urban scale and regarding its operation.

#### CRITERIA OF THE LIVEABLE URBAN GROUND FLOOR – ON THE SCALE OF THE “NEIGHBOURHOOD”, THE “STREET” AND THE “BUILDING”

According to William H. Whyte, “people are primarily interested in and attracted by the presence of the other people in a given city.”<sup>15</sup> While Jan Gehl claims that the criteria of the good urban public space can be measured by the number of people visiting it and the types and quantity of the activities that take place there. People are attracted by the presence of the other people and watching others' activities has a stimulating effect in itself. According to Zeisel (1981),<sup>16</sup> the “basic urban needs” that the urban environment must satisfy are as follows: the need for security, the need for orientation, the need for private sphere, the need for social interactions, the need for comfort and the need for identity.

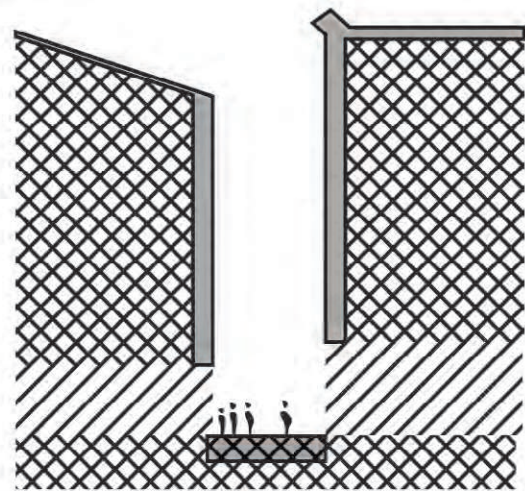
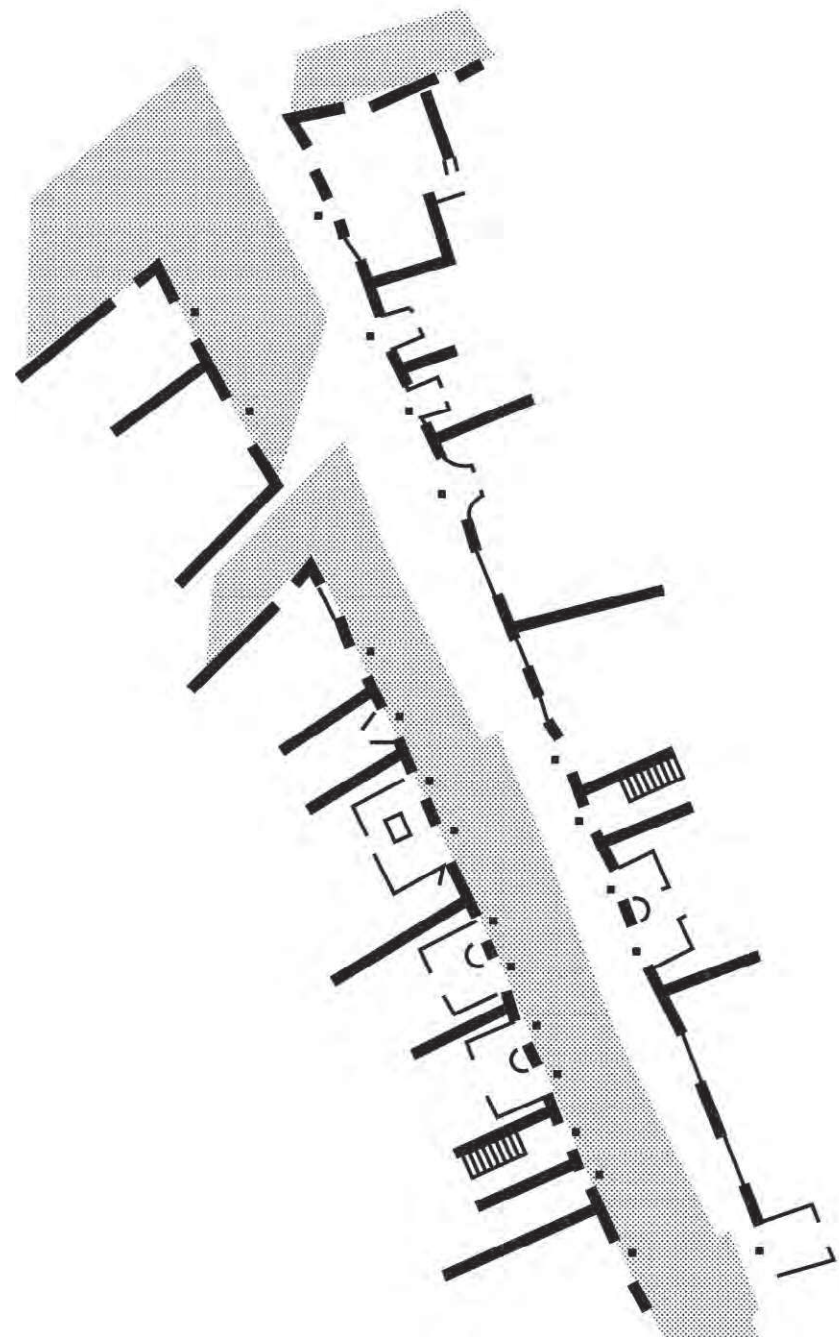
In the next chapter, we will overview the spatial, space usage and spatial management criteria established about the liveable urban ground floor, grouped on the scales of the “neighbourhood”,

**13** *Krassenberg (Et al.)(2012, 2016): The City at Eye Level, Lessons for Street Plinths, Amsterdam, Eburon pp. 338*

**14** *“ground floor of buildings”*

**15** *“What attracts people most, it would appear, is other people.” Whyte (1980, p. 19)*

**16** *In: DÜLL A. (2007): Lakótelepek közterei környezetpszichológiai megközelítésben, Environmental Psychology Workshop, Faculty of Cognitive Psychology, ELTE PPK, Lecture notes*



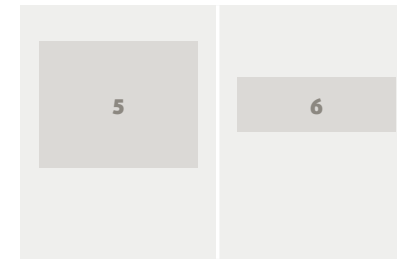
the “street” and the “building”. The body of the technical literature is formed by the writings cited in the previous chapter, including mostly the literature thinking critically about modernism and building upon it.

#### Neighbourhood level

Starting with the spatial theory and spatial structure criteria: in order to talk about ground floor areas filled with life, it is important that the neighbourhood be situated centrally, where the city has a certain level of density

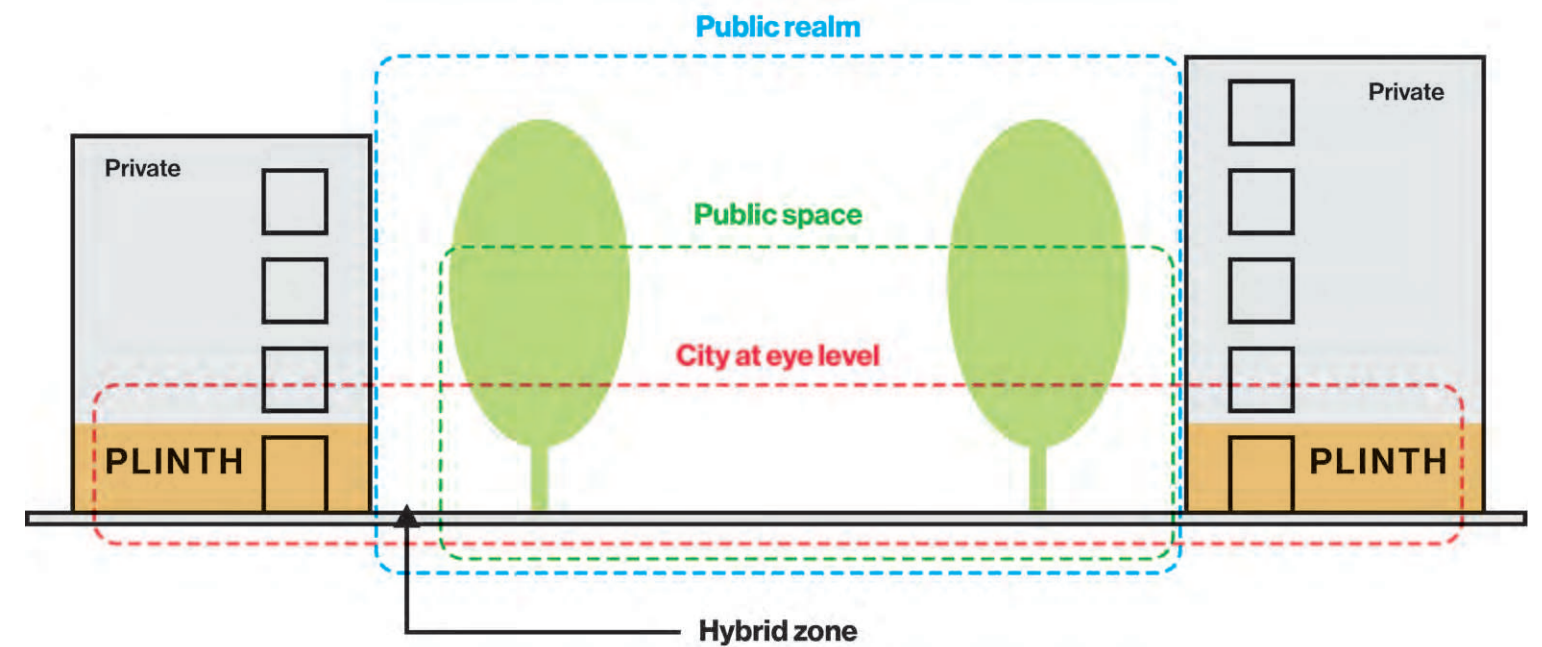
regarding both built-up density and the population (Cullen, 1971, Alexander, 1977). It is an advantageous feature if the neighbourhood is well connected to the urban open spaces and the green infrastructure system (Cullen, 1971, Alexander, 1977), as well as the urban pedestrian and cycling networks (Gehl, 2011). The presence of a centre with social and business functions in the neighbourhood is an advantage.

To continue with the factors of space usage, it is mentioned by both Alexander and Whyte that the well-functioning



**Fig. 5:** The street and the connecting semi-public spaces (Jacobs, 1995, p. 23.)

**Fig. 6:** Interpretation of the urban ground floor and the “plinth” (Krassenberg, 2016, p. 15.)



neighbourhood requires the existence of a local population using the functions present in the ground floor premises. They do their shopping at the grocer's on the corner, regularly drop in at the local greengrocer's and florist's, and meet their friends in the nearby café. These days if we walk the streets of Újlipót-város in Budapest, we can see such ground floor shops including functioning businesses of tailors, hatters or made-to-measure suit-makers whose presence indicates that the local population gives preference to these shops. Jacobs often writes about the vivid urban neighbourhoods and the role of the street in the city, including the various factors that determine the liveability of the street. In her opinion, one of the most important tasks is to have “watchful eyes” over the street. By saying this, she confirms the number one basic urban need mentioned by Zeisel (1981), the need for safety: “We are the lucky possessors of a city order that makes it relatively simple to keep the peace because

there are plenty of eyes on the street. But there is nothing simple about that order itself, or the bewildering number of components that go into it. Most of those components are specialized in one way or another. They unite in their joint effect upon the sidewalk, which is not specialized in the least. That is its strength” (Jacobs, 1961. p. 54.)

The theme of spatial management concerns the players and systems lying behind the operation of the neighbourhood and the urban ground floor. The basis of the future of the liveable urban neighbourhood is whether it was an “owner”; whether the local government has a vision regarding the development of the area and if it has such an organisation whose dedicated task is to develop and maintain the vivid life of the neighbourhood. It is progressive if there are interested and willing partners, civil organisations, communities and business enterprises that care about the future of the neighbourhood as all this

promotes the strengthening of the local identity (Whyte, 1980, Krassenberg et al, 2006, Carmona et al, 2008).

#### Street level

We introduce the spatial criteria with the thoughts of Tamás Meggyesi, architect, who discusses the street as follows: “The street is the form of communication institutionalised in space. (...) When we talk about the street later on, we never mean the street as a “channel” of transportation but the wider zone of space formed by the rows of plots and buildings lining the two sides of the street, as well as the social life evolving around them. The street interpreted this way can also be understood as a group open on its two ends that has a narrow and elongated yard. Unfortunately, we do not have a word to mark this complex formula so henceforth we must take care that the word STREET means something else to us than for traffic planners.” (Meggyesi, 2006, p. 30-31.) According to Cullen (1971) and Alexander (1977), it is an aspect to be stressed that the entrance and end of the street should create a clear and obvious space situation, making it clear where it starts and where it ends. Ensuring comfort depending on the adversities of wind, noise, sunshine and shadow, is a fundamental need, which is emphasised in the literature by Cullen (1971), Alexander (1977), Whyte (1980), Jacobs (1995) and Gehl (1971, 2011). Cullen (1971) and Gehl (2010) write about the importance of the proper ratio of air space, stating that the height of building façades should be at least half of the street width. Krassenberg (et al 2016) considers the proper emphasis of gates, passageways and hubs important, while others highlight the diversity of buildings (Cullen 1971) and the architectural quality (Cullen 1971 and Alexander 1977).

From the aspect of space usage, it is an important criterion to be stressed that the street should make people walk, which is considered crucial by Jacobs

(1961), Cullen (1971), Alexander (1977) and Gehl (2011). According to Whyte (1980), minimum 7 pedestrians should pass by each metre of the street per minute to make the street suitably excellent for the passers-by. Gehl (2011) states that this figure is 10-15 pedestrians/metre/minute and this difference indicates the contrast between the European and American metropolitan milieu. In his works, Gehl (2011) emphasises the negligence of motorised traffic in the crowded and dense urban fabric and the preference given to pedestrian traffic. Cullen (1971) and Gehl (2011) write about establishing a balance between the pedestrian surfaces and the parking facilities. According to Whyte (1980), the criteria of “good places” is that there should be at least “ten” reasons for you to be there, such as: the possibilities of eating, drinking, services, commerce and meeting in one place. He calls this criterion the “Power of ten”<sup>17</sup> and claims that it is important to have 50% of commercial function in the ground floor areas of the buildings. Jacobs (1961) is another ambassador of “mixed use”,<sup>18</sup> who sees the power of the street in the functional diversity present in the ground floor areas. According to Alexander (1977), the appearance of a “new attraction” is necessary in every 45 metres in the street. Krassenberg (et al 2016) believes that 100 metres of building façade should have minimum 10 entrances and a new function in at least every 10 metres to ensure an interesting street. According to Gehl (2011), this figure means 15-25 ground floor functions in every 100 meters so he describes much denser ground floor functions. All the referenced sources mention the possibility to sit down and the importance of benches, street furniture and trees in the public spaces. According to Whyte (1980), a street with ideal tree coverage should have a tree of 8.7 cm diameter in every 7.5 metres.

Regarding the street level, too, it is important to emphasise spatial

<sup>17</sup> “10 mutually reinforcing functions”  
<sup>18</sup> “mixed usage”

management criteria, the organisational background and the players whose presence may greatly influence the success of the street. Landscape architect Kathy Madden, one founder of Project for Public Spaces, claims, “The crowded and vivid area situated near the public space is at least as important for success as planning itself and maintenance.” (Madden, 2008, p. 25.) According to the study titled High Street UK2020 (2016)<sup>19</sup> performed at Manchester Metropolitan University and Madden (2008), the successful operation, maintenance and development of the main street all necessitate proper management, the adjusted activities of the actors responsible for the operation of the street, and planning with community participation. The importance of a suitable society for street management is stressed by Gehl (2011), the team of Projects for Public Spaces and High Street UK2020 (2016), and Krassenberg (et al 2016). Gehl (2011), Projects for Public Spaces (2017) and Krassenberg (et al 2016) propose planning seasonal usage, financing that consists of multiple sources and a well-designed rental policy. The organisation of Vienna’s Chamber of Commerce and Industry managing the shopping streets sets an example to follow in this respect with their decades-long work.

#### Building level

Arriving at the scale of the building, Cullen (1971), Alexander (1977) and Gehl (2011) all highlight the presence of the smaller shop premises or “narrow units” and the importance of vertical façade segmentation among spatial criteria. The presence of transparent active ground floor façades helps the formation of a ground floor zone that is exciting and safe for pedestrians. Cullen (1971), Gehl (2011) and Krassenberg (et al 2016) highlight details that can be perceived while moving at the pace of 5 km/h and the use of architectural solutions adapting to the environment and applying high quality

materials. On the other hand, we should also emphasise the use of not too large glass surfaces because they reflect light and strengthen the noise at the same time (Krassenberg et al 2016). The existence of appropriate signs and inscriptions (Krassenberg et al 2016) help satisfying the needs for orientation, comfort and safety.

As a criterion of space usage, great emphasis is placed on the importance of the well-functioning “hybrid zone” forming on the border of private and public spaces, which is equally stressed by Cullen (1971), Alexander (1977), Whyte (1980), Jacobs (1995), Gehl (2011), and Krassenberg (et al 2016). The border between the building and the open-air area shows a different face in cities depending on the climate, the given season or culture. The main goal for the well-functioning transient zone is to maximise the time spent with various activities along the edges of the ground floor areas, where, according to Gehl, the important thing is: “Easy access in and out. Good staying areas directly in front of the houses. Something to do, something to work with, directly in front of the houses.” (Gehl, 2011, p. 184)

One of the spatial management aspects and an indispensable factor on this scale, too, is that the building should have an owner and the ground floor rooms should be in use. The flexible height of the rooms, which is ideally around 4 metres according to Krassenberg, makes it possible to satisfy various tenant needs. Flexible area usage, the possibility of occupying the terraces and adjustable regulations all facilitate the evolution of functional diversity (Whyte, 1980). Developments suiting the needs of the different players, owners, tenants, the municipal government and the local population, can be helped by the formation of a local organisation of street and space management and the establishment of mutually agreed opening hours, the appropriate tenant mix and functional composition.

<sup>19</sup> High Street UK2020 study: In: PARKER C., NTOUNIS N., QUIN S., MILLINGTON S. (2016): Identifying factors that influence vitality and viability, Institute of Place Management, Manchester, Manchester Metropolitan University

## SUMMARY

The urban ground floor filled with life was an essential element of the urban landscape in case of the ancient agora, the medieval market squares and the streets between the houses that lived together with the external space, at the time of the classical European city renewals, and it still is these days, we must admit. The historical overview of the changes in the relationship between private and public space helped reveal the complexity of the structures of the urban ground floor. The interpretations of the urban ground floor by the thinkers who protected the historically evolved urban ground floor and the system of streets and blocks while taking a position against modern architecture still mean a stable foundation. Based on the works of urban architectural criticism, the analysis has outlined a complex system of criteria about the features of the liveable urban ground floor. Grouping the criteria according to spatial, space usage and spatial management helps the formulation of social, economic and environmental development proposals both in theory and practice. For the urban ground floor to function well in the cities of the future and keep serving the benefits of the urban dwellers, we must continually monitor the changes in space usage concerning the ground floor and we must apply the progressive tools of urban development and space management. It is important that the distinct areas belonging to the identity of a given street or square should have a foresight strategy regarding the development and operation of the ground floor areas, which builds upon the composition of the population in the given location and the existing functions, considers the occurring needs, and leaves scope for management and economic aspects in addition to the social and environmental ones. ©

## Bibliography

- ALEXANDER, C. (1977): *A Pattern Language*. Towns, Buildings, Construction. New York: Oxford University Press. 1171 pp.
- BALDAUF, A. (2008): *Shopping town USA*. Victor Gruen, the Cold War, and the shopping mall. Eurozine. 2008. 02. 13. 1-15 pp. Date of query: 09.04.2019
- BALOGH, P. I. (2004): *A szabadterek szerepváltozása a nagy európai városmegújításokban*. Doctoral thesis. Budapest: Szent István University. 138. pp.
- BENKŐ, M. (2005): *Külső és belső tér közti átmenetek – kontrasztok és áttűnések*. Doctoral thesis. Budapest. 129. pp.
- BENKŐ, M. (et al.) (2016): *Fundamentum – A paneles lakóépületek földszintje*. Építés-Építészettudomány 44(3-4) p. 317-332.
- CARMONA, M. (et al.) (2008): *Public Space: The Management Dimension*. London: Routledge. 240 pp.
- CULLEN, G. (1971): *The Concise Townscape*. Great Britain: The Architectural Press. 199 pp.
- DÜLL, A. (2007): *Lakótelepek közterei környezetpszichológiai megközelítésben*. Environmental Psychology Workshop, Faculty of Cognitive Psychology, ELTE PPK. Lecture notes
- DÜLL, A. (et al.) (2009): *A bevásárlóközpontok környezetpszichológiai ambivalenciái*. Korunk, 3(12). p. 39-46
- GEHL, J. (1971, 2011): *Life between buildings*. USA: Island Press. 207 pp.
- HAJNÓCZI, J. Gy. (1992): *Vallum és intervallum*. Az építészeti tér analitikus elmélete. Budapest: Akadémiai Kiadó. 282 pp.
- JACOBS, J. (1961): *The Death and Life of Great American Cities*. New York: Vintage Books. 458 pp.
- KRASSENBERG, H. (et al.) (2012, 2016): *The City at Eye Level. Lessons for Street Plinths*. Amsterdam: Eburon. 338 pp.
- MADDEN, K. (2008): *Hogyan varázsoljunk újjá egy közteret? Kézikönyv jól működő közösségi terek létrehozásához*. Budapest: Ökotárs Alapítvány. 140 pp.
- MEGGYESI, T. (2006): *Városépítészeti jegyzet*. Notes. Budapest. 68 pp.
- NEWMAN, O. (1996): *Creating defensible space*. Washington, DC: U.S. Department of Housing and Urban Development. 123 pp.
- NEWMAN, O. (1972): *Defensible space: Crime prevention through urban design*. New York: Macmillan.
- PARKER, C. (et al.) (2016): *Identifying factors that influence vitality and viability*. Manchester: Manchester Metropolitan University. Institute of Place Management. 34 pp. <http://www.placemanagement.org/media/57742/HsUK2020-End-of-Project-Reportcompressed.pdf> Date of query: 08.01.2019
- POGÁNY, F. (1960): *Terek és utcák művészete*. Budapest: Műszaki Könyvkiadó. 447 pp.
- SITTE, C. (1889): *Der Städte-Bau nach seinen künstlerischen Grundsätzen*. Bécs. 216 pp.
- SCHNELLER, I. (1986): *A város földszintje – földszintek Budapestén*. Magyar Építőművészet. 1986. 1. sz. Budapest p. 35-37.
- SZENTKIRÁLYI, Z. (2004): *Az építészet világtörténete*. Budapest: TERC. 624 pp.
- VAN DER BROEK, BAKEMA (1956): *The Lijnbaan at Rotterdam*. The Town Planning Review. Vol.27. No.1. (Apr. 1956) Liverpool University Press. pp. 21-26
- WHYTE, H. W. (1980): *The Social Life of Small Urban Spaces*. New York: Project for Public Spaces. 125 pp.
- ZEISEL, J. (1981): *Inquiry by design: Tools for environment-behavior research*. California, Monterey: Brooks-Cole. 250 pp.
- ZUCCARO, M. L. (2017): *Victor Gruen: the environmental heart*. The Journal of Public Space. 2(2). p. 75-84. DOI: 10.5204/jps.v2i2.94 Date of query: 05.04.2019

## TÉRELMELETI ELEMZÉS – A PRIVÁT TÉR ÉS A KÖZTÉR HATÁRÁN

Az életteli telis városközponti területek egyik alapja a jól működő földszinti zóna a privát tér és a köztér határán. A tanulmány célja a városi földszint megismerése, a témában feltárt hazai és nemzetközi szakirodalom összegzése. Mindemellett, a földszinti zóna ismérveiről többléptékű tipológia felállítását a jelenkori urbanisztikát megalapozó, illetve kortárs szakirodalom alapján.

Az elemzés a városi földszintről térelméleti, térhasználati és természetpszichológiai nézőpontok alapján ad a középkortól napjainkig ívelő történeti áttekintést. Majd a nemzetközi és a hazai szakirodalom alapján, a megközelítés fókuszusa szerint csoportosítja a meglévő városi földszint fogalmakat. Végül, térelméleti, térhasználati és természetpszichológiai nézőpontok alapján, a városi „környék”, az „utca” és az „épület” léptékében csoportosítva tárja fel az emberléptékű városi földszint ismérveit.

A tanulmány feltárja a városi földszint struktúráinak sokrétűségét.

Mindemellett, rávilágít arra, hogy a modern építészet ellen állást foglaló gondolkodók városi földszint értelmezései napjainkban is biztos alapot jelentenek. A városi földszint térelméleti, térhasználati és természetpszichológiai ismérveinek feltárása segíti az elméleti és gyakorlati, komplex fejlesztési válaszok megfogalmazását. A tanulmány felhívja a figyelmet a térhasználati változások folyamatos megfigyelésének fontosságára, a természetpszichológiai előremutató eszközeinek alkalmazására. Hangsúlyozza a földszintek fejlődése szempontjából az előremutató stratégia fontosságát, mely alapozza a fellépő helyi igényekre, a meglévő funkciókra, és a társadalmi, környezeti szempontok mellett a természetpszichológiai és gazdasági szempontok is teret nyernek. ©