



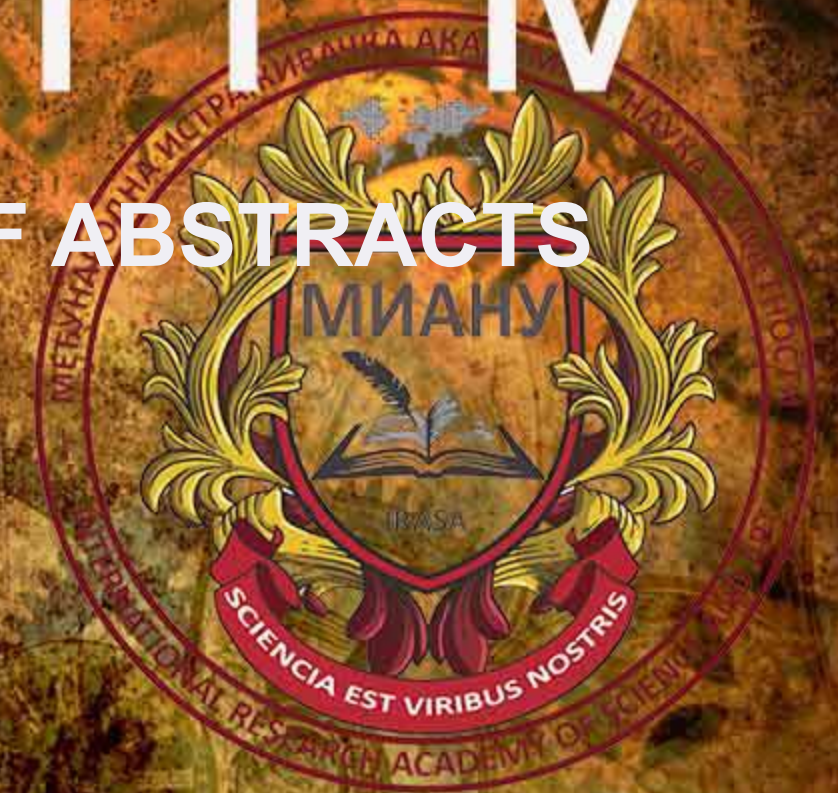
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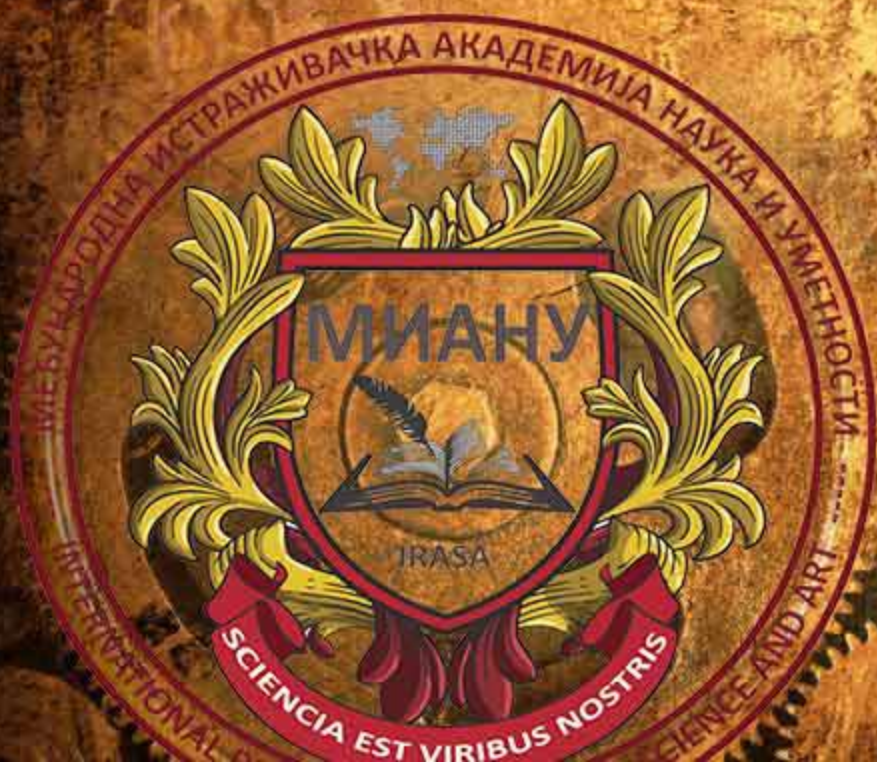
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THE INFLUENCE OF THE BORDER MATERIALITY ON THE EXPERIENCE OF TERRITORIALITY IN HOUSING

Sanja Simonović Alfirević¹⁶²; Đorđe Alfirević¹⁶³

Abstract

The notion of territoriality is very widespread and crucial in many areas of human activity. The term is usually associated with the need to delimit the space, when individuals or groups use and over which they have certain types of competencies. So far, various parameters that determine the scope of the experience of territoriality have been investigated in science, among others, regulation, security, personalization and protection of space.

This paper will examine the extent to which spatial boundaries provide different degrees of privacy and enable people to control their own activities and the activities of others. Deductive methods and comparative analysis of certain characteristic examples of housing - housing communities, housing units and residential units will be used. The physical and functional framework and the social structure of space can increase or decrease the possibilities for the activities of the tenants.

The aim of this research is to consider the relationship between the perception of the territoriality of an individual or group in housing and the character of the boundaries that determine the domain of the territory, ie. certain spatial levels. Also, to reconsider the thesis that one of the key parameters that affect the experience of territoriality in housing is the character of the border. If the border of the territory is more material, solid, more explicit or closed, the experience of territoriality is more present, while if the borders of the territory are more ephemeral, flexible or open, they reduce the experience of territoriality and have the opposite effect.

Key words: *Territoriality, housing, spatial border, experience.*

Introduction

The term "territoriality" basically represents a pattern of behaviour of a person or a group, which is based on the need to control the physical space (sometimes an object or an idea) [1]. The term was established and shaped primarily in biology and sociology, where it is recognized as the "instinct for territorial possession" and

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"territoriality of the human species" as a spatial strategy of an individual or a group aimed at subordinating, influencing and controlling people, phenomena, relationships and activities in order to achieved what we call territory and/or place, or location [2, 3, 4, 5]. According to Petar Bojanić, one of the key features of territoriality is property, whose existence implies the inclusion and/or exclusion of someone else, i.e. the presence or restriction of someone's presence, which indicates the necessity of some form of a boundary [6].

Observing from the aspect of political geography, Filip Tunjić believes that "space is not a territory, but an absolute natural fact and hence the scene of territorial phenomena, processes, relations and activities." (...) It is not enough to interpret them at the level of "absolute space", the concept of relative space should be followed, where the distances between points are socially defined and vary depending on many factors". According to Tunjić, territory is "a space that is defended, conquered, sought, against the demands of others, while control of the territory and/or access to it is the original need and strategic demand of all political formations and always related to security needs and concepts." - military, economic, cultural, ecological and others" [7]. According to Petar Kurečić, who also observes the term on a broader level, "territoriality can be considered a strategy accepted by all states that claim sovereignty. The possession of a certain part of the space is a condition of their sovereignty and the establishment of control over that same space, through territorial strategies" [8]. The research of Duško Vrban is of particular importance for this topic, which considers the role and importance of boundaries in the experience of territoriality (in the domain of political geography) and according to which territoriality is closely related to the concept of (state) boundaries, which make and represent differences in space. Vrban looks back at the origin and interpretation of natural boundaries in the past, in order to emphasize that boundaries in the present primarily mean physical (material) barriers [9]. In addition to the above, there are numerous other studies that significantly shed light on the interpretation of territoriality in the field of geography and geo-political relations.¹⁶⁴

In the field of architecture, primarily housing, there are significantly fewer studies in which the appearance of territoriality in individual or some form of common (shared) living space is considered, although its appearance is very much present and affects the concepts of spatial and functional organization. When speaking about the defensibility of the space of the residential community, Iva Balgač states that territoriality is "the capacity or ability of the physical environment to create a sense of belonging to a certain neighbourhood among residents and thus increase the surveillance of that area by the residents themselves" [10]. The way residents determine the domain of their territory (property or neighbourhood), for Balgačeva is both a physical and a social phenomenon. According to the author, boundaries can be physically defined (by walls, fences, etc.), and they can also be ephemeral, i.e. implied by the user's presence, activities or surveillance, which also sends a clear message to others. In this research, it is important to note that there is a dual character of the "boundary of territoriality", i.e. that boundaries can be material and immaterial.

¹⁶⁴ See: Johnston, 2003; Zorko, 2018; Lyman, 1994; et al. [35, 36, 37]



According to Petra Hruškar, on the one hand, territoriality is aimed at strengthening the sense of ownership of legal users of space, and on the other hand at discouraging illegal users and is based on the idea that people instinctively defend the space they consider their property. The use of clear boundaries between public and private space and the use of physical elements increases the sense of ownership, and thus the sense of security [11]. Aleksandar Ristić and Vladimir Nešić consider the aspect of territoriality within the research of crime prevention through the design of residential environment. The authors emphasize the role of territoriality and the importance of boundaries in terms of giving preference to private property. No matter how small or fenced it may seem, private property creates a sense of belonging, and therefore protection, and sends a clear message to potential intruders that the space is occupied and defended [12]. Also interesting for this topic is the research by Đorđe Alfirević and Sanja Simonović Alfirević on the role of territoriality in the spatial organization of the coliving community, in which it is pointed out that the primary parameter from which different concepts of coexistence in a shared space arise is the "experience of territoriality", i.e. the level of user tolerance and willingness to share the same spaces and contents with unknown persons [13]. (Tab. 1)

Table 2: Presentation of characteristic interpretations of the term territoriality

Application	Territoriality ...	Authors
biology	... is the instinct to defend a given area.	Ardrey, 1966
psychology, sociology	... implies a pattern of behavior of a person or a group, which is based on the need to control the owned physical space (sometimes an object or an idea).	Edney, 1974
geography	... is an attempt to influence or control actions, interactions, or access, with the goal of imposing control over a specific geographic area.	Sack, 1986
philosophy	... implies the inclusion and/or exclusion of someone else, i.e. the presence or restriction of one's presence, which indicates the necessity of some form of boundary.	Bojanić, 2009
	... is a form of communication between individuals.	Yilmaz, 2018
political geography	... is the possession of a certain part of the space as a condition of its sovereignty and the establishment of control over that same space, through territorial strategies.	Kurečić, 2014
	... is closely related to the concept of (state) boundaries, which constitute and represent differences in space.	Vrban, 2018
architecture	... is the capacity or ability of the physical environment to create a sense of belonging to a certain neighborhood among residents and thus increase the surveillance of that area by the residents themselves.	Balgač, 2013
	... is on the one hand aimed at strengthening the sense of ownership among legal users of the space, and on the other hand at discouraging illegal users and is based on the idea that people instinctively defend the space they consider their property.	Hruškar, 2014
	... is the experience of owning a space, up to the limit to which someone is allowed or expected to be able to enter the living space, before the user gets a sense of compromised privacy.	Alfirević, Simonović Alfirević, 2019 [14]



From the above, it can be generalized that territoriality is the experience of appropriating or owning a certain space, which occurs as a consequence of ownership or interest claims towards a certain relative space, where the "limit of territoriality" is the domain to which someone is allowed or expected to be able to enter the space, before the user gets a sense of compromised privacy.

Parameters that influence the appearance of territoriality in people

People's experience of territoriality is based on pretensions towards a certain space, primarily on the ownership right over a certain territory, but it can also be stimulated by a sense of possessiveness and attachment to a place [15]. The appearance of territoriality depends on several factors, of which the most frequently mentioned in the literature are: a) security, b) control, c) personalization and d) identification [16, 17, 18]. Security is one of the key factors that influence the existence of psycho-physical security and the feeling of protection of an individual or a group in space. First of all, it depends on the transparency of space (visibility), the existence of clear boundaries and the possibility of controlling space. Control implies the defensibility of space, i.e. the possibility of influencing the creation and management of access to space and the development of activities in it. Personalization implies the appropriation of space and the marking of a place through the personal action of an individual or a group. It can also be defined as the activity of an individual to change the space in accordance with their own preferences. Identification of an individual or a group with the space in which they operate implies a positive attitude of users towards preservation and maintenance [19].

Spatial levels in human behaviour

In 1966, the American anthropologist Edward Hall explained in his book "Hidden Dimensions" how people behave and react in different types of culturally defined personal space [20]. On that occasion, he emphasized the existence of several different spatial levels that are present in human behaviour and treatment of other persons. In the research, Hall mentions:

- a) intimate distance,
- b) personal distance,
- c) social distance, and
- d) public distance.

Intimate space (or distance according to Hall) defines a distance of up to 45 cm, reserved for extremely close people, family members, partners, i.e. people we trust. Getting this close to someone we are not close to can be very unsettling. Personal space defines a distance of 45-120 cm, where we most often talk to friends, shake hands and are able to follow their body language and eye movements. Social space defines a distance of 120-360 cm, which is represented during communication between lesser known or unknown people. On this occasion, speaking is usually louder and eye contact is



essential. Public space implies a distance beyond the limit of 360 cm, which is considered to be without any form of reduced or threatened privacy due to the proximity of other persons [20] [21]. Although the existence of the aforementioned spatial layers around each individual has been confirmed in science, it is important to point out that the boundaries (45, 120 and 360 cm) between these zones are quite unclear, as they depend on the individual experience of each individual. (Fig. 1)

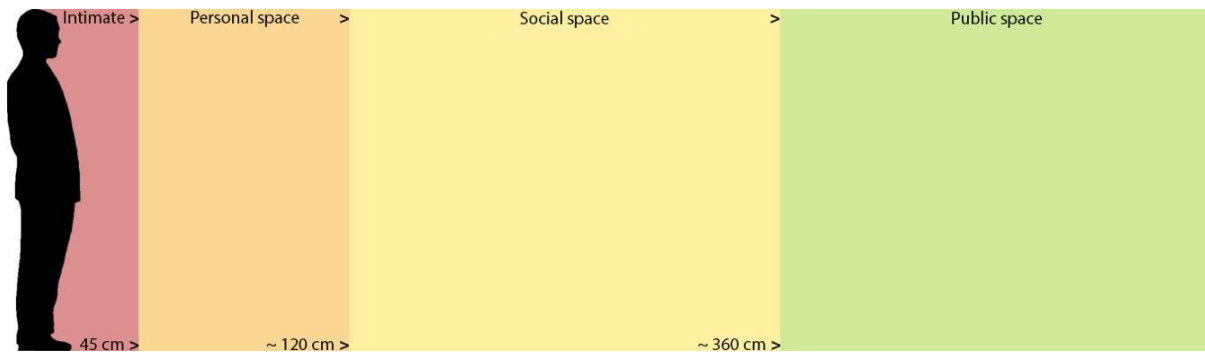


Figure 2. Spatial levels in human behaviour according to E. Hall
(Source: author's archive)

Territoriality in residential space

The mentioned spatial layers imply a specific form of territorial experience in an individual that arises as a consequence of a greater or lesser feeling of threatened privacy due to the proximity of another person. On a broader level, there are spatial layers based on similar principles, which refer to a group of persons in relation to other persons in a certain relative space. Thus, we can recognize the appearance of territoriality: a) in residential communities, b) within a residential building and c) in residential units.

When Ivana Bogdanović Protić talks about free spaces in multi-family housing, she recognizes certain zones of interest that determine the experience of territoriality among users [19]. In her research, the author recognizes four territorial levels in the structure of residential spaces:

- a) *Private area* - an area that is not open to the public, e.g. an apartment whose use is limited to residents (family and their friends), residents are responsible for their maintenance and is controlled by one household;
- b) *Semi-private area* - an area whose use is limited, such as the atrium, roof terraces and staircases in the building; It is also open to visitors of the building, but is most often used by the residents of the building;
- c) *Semi-public area* - an area such as courtyards, playgrounds, gardens, hallways and halls of buildings; there are restrictions on their use, but it is still open to all. This area is available to the residents of the residential complex, but also to the wider community. They are characterized by a lower degree of control; and
- d) *Public areas* - areas that are open to the public and have different purposes e.g. city squares, parks, etc.



The existence of a boundary of territoriality in the residential space in the form of a "social filter" stems from the fact that in every space the experience of territoriality which a person feels towards other people, can occur at different levels, in the form of intimate space, personal space, social space and public space. The mentioned zones represent different zones of feeling well or anxious in relation to other people who are in the same space. Their values are relative because they depend on cultural characteristics and character of the person [22, 23, 24].

Territoriality of the residential community

The term "residential community" is interpreted in different ways in the literature. In a narrower sense, it is an organization made up of all the owners of separate parts of a residential, i.e. residential and commercial building [25]. In a broader sense, it can mean an indivisible and unalterable unit of territory, i.e. grouping of several residential buildings with recognizable characteristics and identity. Larger spatial units (settlements) are created by traffic connection of several residential communities) [26, 27]. In the context of this paper, a broader interpretation of the term residential community will be applied, in order to make a distinction in the architectural and urbanistic sense in relation to a residential building as a legal form of a community of residents.

The territory of the residential community is determined by the boundary of the block. According to Milica Milojević, one of the basic characteristics of the territoriality of the residential community is the control and restriction of access. Access restriction does not have to be implemented only by raising gates, fences or walls, but also by the size and type of surrounding public spaces. Community boundaries are most often determined by the road system [28].

The experience of territoriality in housing is always present in some way, the only question is in what way and how much it is expressed. If the boundaries of the residential community are obvious and clearly defined in the architectural sense, the identification of the residents with the community space is more present. If we compare two characteristic examples of housing communities from two different cultural, social and economic contexts, the "House of Flowers" (Casa de las Flores, Secundino Zuazo, 1932) in Madrid and a block of flats in Wroclaw (Affordable Housing, Arch_it piotr zybura, 2017), it can be noted that their boundaries differ according to the degree of closedness of the block. (Fig. 2)

According to the research by the author team Huang, Mori and Nomura, there are significant differences in the experience of territoriality between open and closed city blocks. The research conducted by the authors on two characteristic blocks in the city of Changchun in China, showed that the residents in the closed-type city blocks have a more pronounced sense of territoriality compared to the open-type blocks, i.e. where the boundary of the territory is scattered and less obvious [29]. Similar conclusions were reached by Nosheen, Ajmal and Ul-Haque in the research entitled "Human territoriality in closed communities", in which the authors point out that the residents of closed communities, which are fenced and have firm boundaries, have a feeling of "extended home" which extends all the way to the block boundary. Residents perceive

a residential community as an organized house of all residents, which is especially influenced by the common use of free spaces that have primacy in social integration [30]. Researches have also established that the absence of the resident's identity with the residential environment and the community, and therefore the experience of territoriality, results from the resident's dissatisfaction with free spaces, which is affected by the neglect and disarray of the common spaces [19].



Figure 2. Experiencing territorial levels in the structure of the housing community:
a) closed block (Casa de las Flores, Madrid, Secundino Zuazo, 1932) (left) and
b) open block (Affordable Housing, Wroclaw, Arch_it piotr zybura, 2017) (right)
(Source: author's archive)

Territoriality of the residential building

Home is more than a house, apartment or some kind of physical structure. It is a part of the building or the whole building, in which a certain individual has invested a significant level of their emotions. Home forms the "core of the experience of territoriality" and, according to Douglas Porteous, provides a person with identity, protection and stimulation [31]. The experience of territoriality within a residential building can be just as complex as when observing the level of a residential community. The structure of the interior spaces that make up a multi-family building is usually divided into: a) private spaces, b) semi-private spaces and c) semi-public spaces [32]. Private spaces include residential units (apartments or houses) with an internal territorial structure, semi-private spaces include common communications and other rooms shared and occasionally used by the residents of the building, while semi-public spaces include entrance halls, courtyards, etc. used by all residents, but also visited by persons who are not residents of the building or complex. A characteristic example of a residential building where the boundaries between the experience of territorial levels are clearly defined is the typical form of a two-track or H-building. Unlike other types of multi-family housing, where private and semi-private spaces dominate, in double-tract connections, the characteristic appearance of an intermediate space (In-between space) between two tracts is usually open to outside visitors, while at the same time belonging to the interior of the building. (Fig. 3)

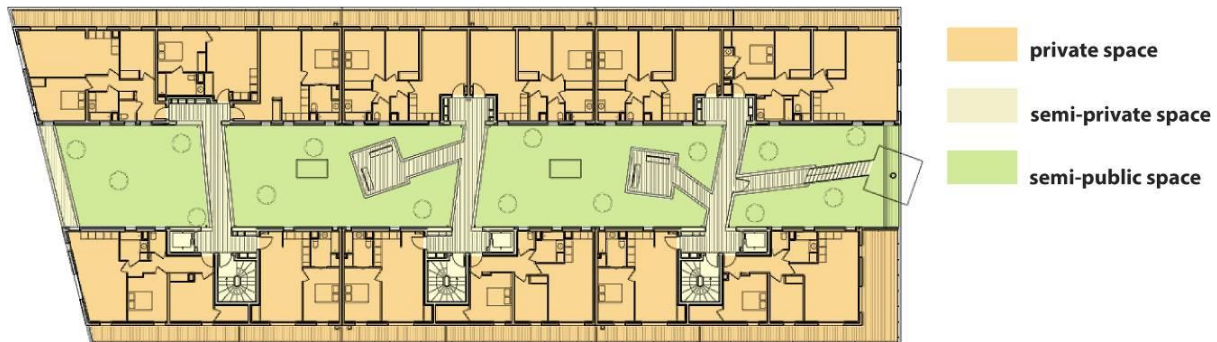


Figure 3. Experiencing territorial levels in the structure of a residential building
(Redline, La Seine-sur-Mer, Pietri Architectes, 2014)
(Source: author's archive)

For this topic, it is important to point out the observation by Oscar Newman, who in his research came to the conclusion that the greater the number of households that share one territory of a building, the fewer users feel that they claim rights to it, which is why in a certain sense there is a diminished sense of territoriality [33]. The boundaries between territorial levels in residential buildings are generally clearly defined and are most often material, in the form of walls, doors and fences. The first boundary, which separates private spaces of residential units from common (semi-private) spaces in a multi-family building, as well as private spaces among themselves, is the "privacy boundary". It is the limit to which the property of one household extends. The second boundary, which separates common (semi-private) spaces and public spaces, or semi-private and semi-public spaces, is the "community boundary". It is the limit to which the territorial interest of the building's residents usually reaches, due to the joint use and investment in the maintenance of those spaces. The third boundary, which is present in certain forms of multi-family housing such as the mentioned double-tract, demarcates semi-public and public spaces, is the "public boundary". It is the limit that determines the degree of access of foreigners and the use of semi-public spaces in the building. If it is not adequately articulated, or if it is not sufficiently material, such a situation can lead to conflicting situations in the interests of residents and visitors, as well as to the appearance of criminality.¹⁶⁵

Territoriality of the residential unit

In a residential unit (house or apartment), as the lowest level of use of residential space, there are also different levels of territoriality, which are on the one hand determined by boundaries, while on the other hand they are conditioned by the relationship between the user and the space. The first level is determined by the physical boundary of the private space of the housing unit towards the surrounding public space and marks the "ownership boundary" of the household. The second level

¹⁶⁵ The terms "property boundary", "community boundary", and "public boundary" are provisionally given in this research, in order to indicate the nature of the analyzed boundaries between different territorial levels.

is present in situations where there is a clear division into social and private spaces in the housing unit and marks the assumed "boundary of hospitality" for visitors. This is the limit to which a guest is usually introduced if he/she is not well known. In the case of complex structures of living spaces, it is usually the boundary around the social spaces of the family, such as the living room, salon or cabinet, less often the dining room and kitchen. The third level is determined by the physical boundaries between intimate and family spaces and defines the "boundary of intimacy" between family or household members. (Fig. 4) A special type of boundary occurs in coliving spaces, so-called "sharing boundary", which separates intimate spaces from other spaces that residents occasionally share (e.g. kitchens and bathrooms), to which residents are particularly sensitive due to hygienic conditions and frequency of maintenance [13].

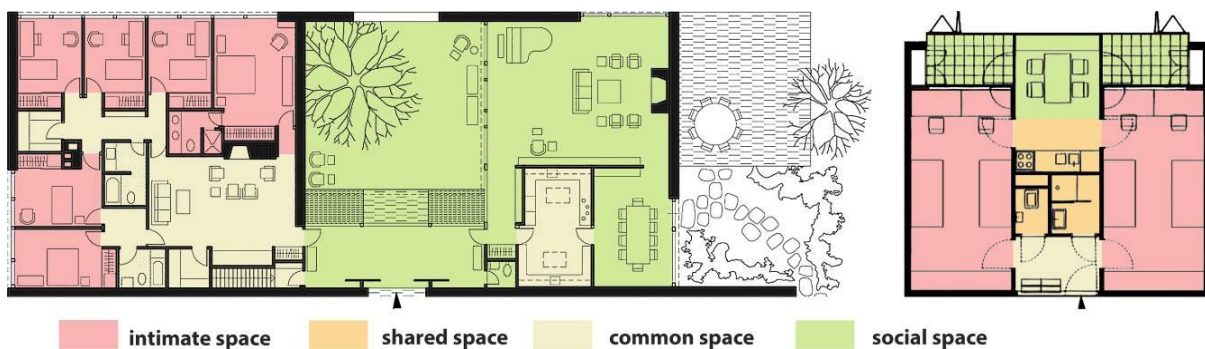


Figure 4. The experience of territorial levels in the structure of the housing unit: a) family housing (Hooper House I, Baltimore, Marcel Breuer, 1960) (left) and b) coliving housing (Student Housing Poljane, Ljubljana, Bevk Perovic, 2006) (right) (Source: author's archive)

In the research conducted by Rachel Sebba and Arza Churchman, aspects of territoriality in the living space of one family were considered. The authors propose the differentiation of territorial zones in the household into: a) individual spaces - which belong to only one person and where that person has the strongest control over the space, b) shared spaces - which belong to a subgroup of the household (parents, common room for children, etc.), c) public spaces - which belong to the whole family and d) areas of jurisdiction - which also belong to the whole family, but are considered to be dominantly used by a certain person (such as the mother's kitchen) [34]. In their research, the authors did not deal with the boundaries of territoriality, but they state that each member of the household knows which area belongs to them and where one zone ends and the other begins. This statement is significant because it indicates that the territorial levels in the housing unit are much more fragmented and interwoven than in other situations, as well as that there are many more intangible boundaries of territoriality that demarcate micro-zones of interest and dominance of the household. Also, it is important to point out that the experience of territoriality can also be noted when using certain elements of furniture.



Discussion

If the results of the research so far are briefly summarized, it can be stated that there are two characteristics of boundaries that determine the experience of territoriality in housing - material and immaterial boundaries. Boundaries occur in transitions between certain zones of interest or areas that have different territorial character. Deductive analysis of the characteristic territorial levels in housing - residential community, residential building and residential unit, established the existence of several different boundaries of territoriality, which are, for easier understanding, marked as: a) intimacy boundary, b) separation boundary, c) hospitality boundary, d) privacy boundary, e) community boundary and f) public boundary. (Tab. 2)

Table 2. Systematization of boundaries of territoriality in housing

Level	Boundary type	Characteristics
1	Intimacy boundary	It demarcates individual spaces or individual and common spaces in a housing unit. Most often, it is material due to the necessary achievement of comfort in the living space.
2	Separation boundary	It demarcates separated spaces, separated from individual or separated from common spaces. Boundaries can be both material and immaterial, depending on the situation and application.
3	Hospitality boundary	It demarcates individual, shared and common spaces from social spaces where visitors are received. Boundaries can be both material and immaterial, which depends on the situation and application.
4	Privacy boundary	It demarcates the premises of the residential unit from the external spaces of a semi-private character. Boundaries are mostly material to preserve privacy in the household.
5	Community boundary	It demarcates semi-private from semi-public spaces. Boundaries can be both material and immaterial, which depends on the situation and application.
6	Public boundary	It demarcates semi-private from public spaces or semi-public from public spaces. It is about the ultimate range of the experience of territoriality towards the public space. Boundaries can be both material and immaterial, which depends on the situation and application.

The presented table shows that the boundaries between territorial levels are arranged hierarchically and that they are present in different forms of housing. Some of them are material and occur in situations where more intensive control is necessary between certain types of users. Different types of partitions are usually used as material boundaries - walls, fences, ramps, elevators, screens, flexible partitions, etc., while urban markers (graffiti, signs), sounds, music, lighting, presence of users, etc. are used as immaterial boundaries. . The hierarchy of territorial boundaries is graded according to the degree to which one is allowed or expected to enter the space, before the user has a sense of compromised privacy. At lower levels of territoriality, these are family members, with whom we are usually more flexible, which is why the categories of common and shared spaces appear, while at higher levels, the boundaries delimiting certain territories are more rigid, because it is assumed that a lesser-known or



completely unknown person will join, which can threaten a person's or a group's sense of security and belonging.

Conclusion

The main goal of the research is met - to consider the relationship between the experience of territoriality of an individual or a group in housing and the character of the boundaries that determine the domain of the territory, i.e. of certain spatial levels. Also, the thesis that one of the key parameters that influence the experience of territoriality in housing is the character of the boundary, i.e. if the boundary of the territory is more material, solid, concrete or closed, the experience of territoriality is more present, and vice versa, if the boundary of the territory is immaterial, ephemeral, softer, flexible or more open, it reduces the experience of territoriality and has the opposite effect. The contributions of this work can be seen primarily in the field of theoretical research of residential architecture, but also in other areas where relations between territorial levels and their influence on the existence and character of boundaries are considered. Further research could be directed towards the empirical verification and systematization of the limits of territoriality in other areas of human activities, but also towards the analysis of the experience of territoriality in a wider range of typology of housing patterns.

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