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PSYCHO-SOCIAL ASPECTS OF SHAPING
THE RESIDENTIAL ENVIRONMENT

The paper discusses selected issues related to designing residential environment in the context of the broadly understood spatial perception. The authors presents selected dependences that emerge between the designed spatial systems and their users. Attention was focused on social phenomena and psychology-related issues that occur in the dynamically changing urban structures. How do we perceive the environment in which we function day by day? What affects the comfort of its use? Which factors determine our attachment to the place of residence, its climate and safety? Does the contemporary architecture foster the creation of places that positively affect our mental condition and emotions? Does it create the possibilities of building integrating spaces? Are we, the users, able to affect it in any way?

Keywords: residential environment space, psychological and social aspects of designing habitats

1. INTRODUCTION

Cities are discovered and analyses in many different ways. One of the most intriguing issues concerning their functioning are the relations between the spatial system and the broadly understood psychological and social relations. Urban space determines the behaviour of residents, affects their emotions and feelings. The uniqueness of the urban situation consists in the concentration of a large number of residents in a relatively small area. Many theoreticians consider this very aspect to be both the reason of the appeal of living in a city and its most significant nuisance.

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It is also a reason of numerous interesting reactions between the users. The manner of shaping the space not only governs the physical order of the surroundings, but also affects the mental condition of the inhabitants. Men shape their relations with the surroundings on the basis of a rich range of various sensations, both physical and mental [Bańka 1997]. The psychological aspects of perception are often underestimated in the creation and valorisation of urbanised systems. The assessments and thought patterns are dominated by formal, functional and technological criteria. And yet the manner of spatial development constitutes, to a large degree, the human's "inner self". It governs its manner of perception of the reality. The studies of cases occurring in residential environment seem particularly important in the context of such circumstances. Housing estates and systems are specific structures in which, subject to numerous factors, various types of behaviours are shaped. The manner of organisation of the space triggers or forces certain attitudes in individuals, stimulates neighbourly relations and to a large degree determines the comfort of life. It may elicit enthusiasm, admiration, indifference or anxiety. A man not only experiences these emotions, but also reacts to them. They can strive to deepen, avoid or reduce them. In actuality, the environment may support, or not support, the growth of its users, and learning it is a complex, Multi-stage proces – starting from stimulation, through orientation and systematisation, to behavioural control and codification [Nęcki 1983]. The architecture can also be a source of the so-called environmental satisfaction, defined as a sense of quality of existence related to inter-personal relations, internal satisfaction, the awareness of development and self-worth [Bańka 1997].

2. THE MAN AND THE PLACE

Various types of dependences are evaluated in a man's relations with the surroundings. The need to identify with one's place of residence is among the most important and desired values. The concept of "place" is tied to the commonly accepted values – tradition, historical and social legacy [Tuan 1998]. In terms of integration, a place can evoke strong or weak dependences. In the case of a group of people using a specific area jointly we can talk about the so-called territorial community. A unique situation arises when close and strong ties appear among residents. This way intimate relations are created and a territorial community arises. The way of defining space fosters the strengthening of neighbourly relations. A phenomenon that is often seen in urban systems is the formal unification of assumptions placed within a certain territory. Housing estates with buildings that have similar features can create territorially distinct complexes [Pawłowska 2001]. The creation of specific relations between humans with their closest surroundings is fostered by developing territorial community and seeking an indivi-

dual expression of space. This is a matter of the sense of familiarity, emotional attachment to a place and a positive reception of an estate, a house or an apartment. Familiarity in residential architecture is one of the most desired features in the context of social reactions and assessments. A number of solutions related to the arrangement of buildings and the surroundings can foster this type of relations. The most commonly named are the legibility of the composition and the way the space is organised, the scale of buildings, the type of architecture, the details, the greenery and the colours. The concept of attachment to a certain area has been addressed by many researchers [Seamon 1982; Tuan 1977]. Most of them have underscored the role of the subjective experience in determining the bond between a person and space. The relation to a space plays an important role in human life cycle, from childhood till old age. It is independent of cultural level; civilisation development or economic status and it is a quality of all people. The sense of having roots stands for a status in which a man has achieved a strong sense of identification with a certain territory [Franta 2000]. Strong ties to a place create conditions for individual and social integration. They constitute a condition for the correct development of individual people and entire groups. They provide a sense of stability within the changes we experience [Bańka 2018].

2.1. Variability and place

The settlement lifestyle, traditional up to recent times, is now being replaced with a mobile lifestyle at an increasing pace. Mobility is becoming necessary in times of economic uncertainty and changing demands in the labour market. Many of us are choosing not to bond for good with just one place. Neighbourly ties are becoming weaker and weaker. The lack of the sense of local patriotism and responsibility for the commonly used space is becoming a widespread phenomenon. In connection with the intensifying migration of societies, the flexibility of residential forms is gaining importance. Paradoxically, the role of the house as a place of work is increasing, which may consequently lead to the demise of boundaries between the two areas. On the other hand, marginalisation of life at home, e.g. for lone people, for whom their apartment is merely a sleeping place, is becoming noticeable[1]. The changes we are both witnesses and participants of affect our relation to the surroundings. New psy-

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[1] "The man's basic situational fields – areas related to work, private life and social life are intersecting. Irregularities in spatial formation of a single area negatively stimulate the man's emotional sphere by causing difficulties and overload. The residential environment to which we return from other situational areas should be particularly capable of neutralising negative impact of these fields. It may compensate the slow rate and low diversity of changes through the abundance of positive stimuli. It may also provide shelter from the excessive velocity of life" [Franta 2000].

chological phenomena, such as temporary identity, are emerging [Hill 1996]. Many relations take place with no distinct location or placement. Traditional, territorial social relations and identification processes crash against new tendencies that have appeared in the world of new media and means of communication. We are becoming, to an increasing extent, an "informational civilisation". The latest technologies affect our perception of the world, the state of our minds and the nature of our relations with others. Social media portals created in virtual reality serve as first-contact places and have become a specific area of integration that initiates a physical meeting. This is where non-formal groups emerge, which then take up various types of initiatives aimed to improve the quality of life. Such groups organise actions aiming to increase the sensitivity of residents to the social aspects of living together. These actions serve as venues where neighbourly bonds can be strengthened, without any connection to specific spaces and particular places.

2.2. The physicality of place

According to some opinions, the more the conditions of globalised life divert from traditional forms of coexistence which became familiar to a man during many centuries of adaptation, the bigger the importance of the physical environment. The more means of communication isolate us from one another, the deeper our longing to be together in the real world. We appreciate the city space for the possibility of direct contact with others. Consequently, the role of the place as an area of affiliation, as a system that has an emotional, symbolic or cultural dimension grows. In circumstances in which we can more and more often live, work and do business virtually, the people's ability to meet in a public space is become the essence of the functioning of the city. The renaissance of the idea of neighbourhood is expected to be the effect of the increasing popularity of electronic communication in work, daily life and contacts with others. Many cultures see neighbourhood as one of the fundamental components of the spatial and social structure, deeply rooted in the residents' consciousness. Huge metropolises create a mosaic of neighbourhoods made up from ethnic groups, people of similar material status, representatives of local subcultures, etc. [Stangel 2014]. Despite the changing conditions, the tendencies to the so-called domestication are not becoming any weaker. They retain their fundamental importance in the process of urbanisation. Having a place of one's own remains one of the underlying conditions for maintaining balance and social order. It is a means through which a man establishes their identity. The ability to have one's own territory that ensures privacy, security and conditions to identify with the environment is a common postulate [Bańka 1996].

The diversification and hierarchisation of space foster the creation of identity. When designing residential environment, it is advisable to determine many different levels of importance, to underscore selected areas and to emphasize boundaries. Space divisions should anticipate its clear arrangement in several, basic ranges. In the public range these are freely accessible areas of integrative nature and a high degree of humanisation. In the neighbourhood range – closed or partially closed areas, only available to certain groups of residents. In the private range – areas which are the family's domain. Defining the features of a residential complex depends on its placement within the urban fabric. The created systems should relate to the locally valid cultural patterns. Emphasis is put on the need to maintain and strengthen regional identity, adapt to the unique location, the district's and the town's history.

It must be kept in mind that universalism and unification of solutions degrade the personal features of residential space that follow the principle "my territory – my personality". Identification is achieved more quickly when its physical structure has more individual features. According to A. Wallis, a man who assesses a system that gives the most benefits searches not only for safety and contacts, but also for attractive spatial situations that are filled with emotions. The city's visual quality is decided by the presence of orientation signs, differentiation of the appearance of selected fragments and the shaping of systems that have been composed as a unity [Wallis 1990].

The style of contemporary architecture often fosters the creation of strong connections between a man and a place. The proposed forms are not always socially acceptable. The strength of the archetype of habitation and models associated with it is very high and clear. Avant-garde solutions often raise doubts. Concepts with extreme features are shunned, such as ones that are overly extended in terms of formality, or excessively ascetic. Modernity does not always have to mean a progress in creating a pro-residential environment. The evolution of the principles of design does not necessarily lead to the creation of solutions accepted by the participants. Assumptions created with the use of traditional, tested principles of hierarchy, harmony and proportions are viewed positively. Activities that put the space in better order by focusing on strong forms and striving for cohesiveness and geometrisation are well accepted. In environmental psychology, the need to exert cognitive control over the surroundings is brought up in such situations.

2.3. The perception of place

If one wants to understand the behaviour of individuals and social groups, it is important for humans to study the perception of space. However, behavioural plane is not the only area of analysis. A second, equally important issue, is the semiotic

plane of the space, namely its significance for the viewing subject. The impact of the valued space on the well-being and self-evaluation of life of individuals and communities counts as the most complex process. It is important not only to elicit a response on how a given individual evaluates the environment, but also why the manner of perception is what it is. The subject of perception is a specific reality that provides various types of information filtered through cultural or psychological factors, among else. Ultimately, it is not the reality that is subject to valorisation, but rather its image in the man's consciousness. "Each era has its own models and in each era, architecture is judged by the society according to certain schemes. A model is perceived as a permanent spatial form resulting from the domination of certain functions, but also of values that were socially appreciated in a given era" [Wallis 1979]. Images and symbols that shape images about a place are created in the viewers' consciousness. It should be noted that this opinion is not permanent and final. The variability of judgements may not only result from spatial transformations, but also from the evolution of tastes. The image, shaped in the public opinion, may have positive or negative connotations. The process of absorbing urban space is becoming harder and harder due to the ongoing degradation, the disappearance of orientation points, information chaos, difficulties in the adaptation of individuals and social groups to quick revaluations caused by, e.g. the development of technology. Stereotypes are a frequently used valuation category – simplified, generalised notions of space founded on incomplete information or outdated data. Stereotypical opinions pushed by media, among else, reinforced for years in the minds of the audience, raise doubts and carry little reliability. Consequently, the confrontation with the results of professional studies that analyse the existing dependences and the actual state very thoroughly.

2.4. The features of the place

A socially accepted space is a space that is convenient and diverse, open to changes and one that provides the maximal freedom in choosing one's behaviours. The residential environment should be composed of systems that are open and closed, public and semi-public, smaller and larger, etc. The varied shaping may provide both anonymity and close contact with co-habitants. The studies show that the feeling of satisfaction connected to being in a certain space may be obtained, among else, by using gentle forms and elements shaped in human scale. The designed objects should express commonly understood ideas. Anxiety and agitation may be caused by spaces that can be perceived as dangerous, by forms with complex configuration or by systems with unclear organisation and extreme contrasts. The so-called "support points", which are characteristic elements that facilitate

remembering the space, play an important role in the cognitive process. Such points may take the form of changes of directions, boundary areas – the beginning and the end, differences in land development and formal solutions [Bańka 1988]. The analyses should also cover issues of interpersonal behaviours in the context of crowding [Altman 1976], density [Hall 1978] and environmental stress [Selye 1963]. Such phenomena are related to the sense of discomfort, unwanted social relations, threat situations and pathological phenomena. The manner of organisation of an estate must create a sense of satisfaction and acceptance by means of maintaining balance between the structure's individual elements. A user should feel satisfaction from living there, whereas their well-being, mental and physical health are affected by other general parameters and building development parameters, among else. The most important ones include intensity, population density, distances between buildings, their height and lighting conditions. The quality of living is also affected by the variability of complementary functions and ways of organising common areas or greenery.

2.5. The place and its social structure

The modelling of residential space has always been accompanied by the idea of building proper neighbourly relations. The key issue in the context of shaping such relations is the search for the suitable social structure of the residential environment. Changes in this regard, e.g. in relation to previous times, can be seen here. The standard for the times of mega-estates was a diversified composition of users. People with various educational levels, different jobs, different customs and from different backgrounds lived close to each other. Now, excessive homogeneity seems to be a prevalent problem. A division into districts for the poor and the wealthy is now taking place, due to economic reasons. Areas with significantly higher and lower standard are appearing. Stability and prosperity areas are now adjacent to less safe places that quickly undergo destruction. On the one hand, cheap, mass architecture solves the demand for apartments, but creates problems related to its use, in the technical and social sense, on the other hand. Many critics claim that "pathologisation" is embedded in the ideology of such assumptions. Given such obvious stratification, a search is ongoing for systems where a diversified human composition with distinct features can be created. There are also attempts to combine people of different ages and social and material status. Estates with diversified standards are being constructed. There are proposals for areas that allow being together. The co-housing idea is gaining momentum. Areas are being created where the community life of the habitants of the complex or the estate concentrates. Sports and recreational areas, playgrounds, leisure-oriented greenery areas and similar play an exceptional role in inte-

gration. A similar role is also played by various auxiliary functions, such as service, commercial or educational functions. The detailed solutions underscore the significance of connecting spaces, namely areas with shared communication, accesses to buildings, exits to yards. A concept of the so-called social volume in multi-family buildings is used in the context of neighbourly relations. The concept determines the conditions of neighbourly relations. Their intensity is regulated by the relation of the volume of open space for a certain number of inhabitants, as well as other spatial parameters, such as the proportions of interiors, the height of the buildings and the manner of fragmentation. The extent of the open spaces (public, group or private ones) should be adjusted to the number of users and the nature of interactions among them. It is not advisable to create too many of them or to use an excessively large scale of the space. Such situations only limit the number of contacts and lead to disintegration and anonymity.

2.6. The security of the place

Issues related to security belong to the most important social problems in terms of the organisation of the habitat. Various types of dependences on the manner of managing the space are taken into account. Systems that impact a lower or higher level of security are highlighted. Criminal behaviours may be fostered by the excessive density of buildings and a high population density. Such systems may lead to the development of unfavourable phenomena and social conflicts. The maps of behaviours of big city dwellers, created in the 1960's, showed that the highest crime concentration would be found in city centres and would gradually diminish moving to the suburban areas [Mc Harg 1969]. Such concentrations were used to be called pathogenic areas [Bańka 2019]. These dependences changed as cities grew. The areas of large estates and residential complexes have become places that provoke pathological phenomena. The vast majority of them were located in peripheral areas. The security issue was commonly associated with the specific way of organisation of this type of assumptions. The comments underscored the excessive scale and anonymity of the open space, the unification and the low standard of solutions that lead to the loss of the sense of belonging and attachment to the place of residence. The lack of proper social infrastructure and venues where residents can pursue various activities not only fostered apathy, alienation and indifference, but also bred vandalism and crime.

The conclusions of these observations show that tightening of neighbourly relations along with proper spatial arrangement is instrumental in achieving a safe residential environment. The ultimate goal is to give the residents direct supervision over the are, by shaping it adequately in terms of architecture and urban design.

The scale of assumptions is an important parameter, as it guarantees recognizability and terrain orientation, along with a limited number of apartments. Smaller groupings can give better social control and involvement in common life [Newman 1973]. The role of elderly people, as a group of social supervision, is highlighted. The way of shaping common spaces is also beneficial to the security of residents. Hence the return to the idea of streets and the traditionally shaped urban quarters. The detailed design guidelines related to maintaining safety indicate the need to keep visual contact with zones like playgrounds, green terrains and access roads leading to them. It is also important to adequately form communication systems, ensure the areas are illuminated and that entrances to buildings are shaped properly. The ultimate goal is to eliminate solutions that may foster criminal behaviours. Burglaries, theft and vandalism are often the effect of poorly designed space and street furniture elements that facilitate the penetration of residential areas.

Certain solutions that are preferred by the so-called new urbanism also breed doubts in the context of the proposed solutions aiming to raise the safety. The concepts addressing the variability and density of buildings may greatly increase the risk of crime. On one hand, the postulated differentiation of functions by expanding the programme with additional non-residential elements evoke interactions and increase the activity of users, but, on the other hand, limit the effectiveness of social supervision. They may attract strangers and foster undesirable behaviours. The disadvantage of such systems is the loss or significant limitation of the users' control.

The conditions for shaping optimal interpersonal relations and the safety issues are related to the problem of building so-called gated communities. Such assumptions raise numerous controversies due to the social consequences of spatial isolation within urban environment. Negative phenomena related to behavioural issues may accompany the improved safety or the feeling of its improvement. A phenomenon of the so-called circle of fear has been observed among individuals experiencing the feelings of anxiety and threat. As the level of isolation rises, so may the sense of insecurity and fear, all leading to an increased need for protection. Disconnection from the surroundings, hampered contacts with the residents of neighbouring complexes and the homogenisation of the structure of residents constitute serious risks for experiencing social life. The level of alienation could be reduced by maintaining good relations with other co-habitants. At the same time, attention should be paid to social divisions related to the idea of fencing of the space. The consequences may include various types of conflicts between groups of various socio-economic statuses. Growing up and living in such "ghettos for the wealthy" may negatively impact the shaping of a child's personality. There is a possible threat that traits like the feeling of superiority, aggressiveness and the need to alienate may develop. Individuals raised in such specific conditions may have problems in establishing relations with others and understanding their needs.

2.7. Making shared decisions about the place

The shaping of the urban space and residential environment is increasingly more dependent on us. The city's purpose is to serve its inhabitants. Everyone should be able to not only enjoy the city's benefits, but also to participate in deciding how the city transforms. The common interest in issues related to urbanisation stems from the diversity and dynamics of changes that we are facing. Their range and nature are constantly growing and becoming increasingly palpable. City inhabitants realise that urban planning is a too important and responsible task to be left solely to specialists. Society's participation in organising the space is becoming a common and natural phenomenon. It is appreciated and taken into account by local administrations, decision-makers and designers.

The increased interest in issues related to the growth of cities is often associated with the 1960's and 1970's. Fuelled by the defiance and disenchantment of urbanistic modernism, the issues of urban environment planning became the subject of a widespread public debate and numerous discussions. Innovative design methods that draw from the participation and involvement of residents (e.g. placemaking) have emerged. The approach to shaping and managing the urban space was to have multiple aspects, with the central role played by the residents themselves. The most pressing problems were supposed to be identified by the residents, who would supply information about places that they regularly visit. The goal was to create a common, friendly space that would foster social integration, ensure comfort of use and consequently bestow people with health, happiness and well-being. The traditional way of thinking was breached, according to which the members of a local community did not have a say with regard to the places they inhabited. The new approach showed the planners how to overcome stereotypes and occupational patterns. Observing people, listening in to their points and questions. Up until recently, social participation mostly applied to the physical attributes of the physical attributes of the urban structure. It applied to the way of managing the space, improving the city's aesthetics and, generally, to organisational changes. Today, in the era of quick and unlimited exchange of information, the city dwellers' opinions gain special importance. The accessibility to all sorts of data and modern media translates into a higher efficiency of our activities and the possible participation in transformations. Cities are created for the people and by the people, through digital platforms and virtual reality elements. Smart apps are being developed to handle information in real time. A city that functions as a network is thus ready to promptly react to the needs of its inhabitants. As users, we can also openly evaluate the proposed solutions, an opportunity we take frequently. The inhabitants' postulates are taken into consideration and implemented. They concern various aspects of managing the space, most frequently applying to the issue of arrangement of integrating space, expanding green areas, limiting the impact of communication in residential areas.

Designing contemporary urban and residential structures in the context of psycho-physical conditions and social relations is a specific process. The newly created places are often expected to "efficiently" impact the users' behaviours. This task seems difficult, if not simply impossible. We are being flooded with models of varying quality. Globalisation, trans-culturation and multi-contextuality have become dominating forces. The designed systems have no finiteness features. The exchange of elements and completing the structure by the users has become a natural occurrence. Oftentimes, the completed assumptions are random and defective components of the bigger picture [Bańka 2018]. We are losing our bearings with regard to priorities and values. In this situation, the process of learning and subordinating the urban environment is becoming increasingly complex and its way of affecting users difficult to foresee.

LITERATURE

Altman I., 1976, *Environmental psychology and social psycholgy*, „Personality and Social Psychology Bulletin", 2.

Bańka A., 1997, *Architektura psychologicznej przestrzeni życia*, Wydawnictwo Gemini, Poznań.

Bańka A., 2018, *Psychologia środowiskowa jakości życia i innowacji społecznych*, Wydawnictwo Stowarzyszenia Psychologia i Architektura, Poznań.

Franta A., 2000, *Tożsamość środowiska mieszkalnego: pożądana, możliwa, realna?*, in: *„Mieszkanie, dom, środowisko mieszkaniowe na przełomie wieków". VII Ogólnopolska II Międzynarodowa Konferencja Instytutu Projektowania Urbanistycznego Politechniki Krakowskiej*, Kraków.

Hall E.T., 1978, *Ukryty wymiar*, PWN, Warszawa.

Hill J., 1996, *At home in theWord*, „Journal of Analytical Psychology".

Jastrząb T., 2009, *Struktury urbanistyczno-architektoniczne w procesie przekształceń przestrzeni współczesnych miast na przykładzie Poznania*, Wydawnictwo Politechniki Poznańskiej, Poznań.

Mc Harg I., 1969, *Design with nature*, Natural History Press, New York.

Newman O., 1973, *Defensible space*, Colier, New York.

Nęcki Z., 1983, *Komunikowanie skuteczne*, Kraków.

Pawłowska K., 2001, *Idea swojskości miasta*, Wydawnictwo Politechniki Krakowskiej, Kraków.

Seamon D., 1982, *The phenomenological contribution to environmetal psychology*, „Journal of Environmetal Psychology", 2.

Selye H., 1963, *Stres życia*, PZWL, Warszawa.

Stangel M., 2014, *Kształtowanie współczesnych obszarów miejskich*, Wydawnictwo Politechniki Śląskiej, Gliwice.

Tuan Yi Fu, 1997, *Przestrzeń i miejsce*, PIW, Warszawa.

Wallis A., 1990, *Socjologia przestrzeni*, Wydawnictwo Nova, Warszawa.

PSYCHOSPOŁECZNE ASPEKTY KSZTAŁTOWANIA ŚRODOWISKA MIESZKANIOWEGO

Streszczenie

Tematem artykułu są wybrane zagadnienia dotyczące projektowania środowiska zamieszkania w kontekście szeroko rozumianej percepcji przestrzeni. Autorzy przedstawiają wybrane zależności, jakie tworzą się między projektowanymi obecnie układami przestrzennymi a ich użytkownikami. Przedmiotem zainteresowania są zjawiska społeczne, a także zagadnienia z zakresu psychologii zachodzące w dynamicznie zmieniających się strukturach miejskich. W jaki sposób odbieramy środowisko, w którym na co dzień funkcjonujemy? Co wpływa na komfort jego użytkowania? Jakie czynniki decydują o naszym przywiązaniu do miejsca zamieszkania, o jego klimacie i bezpieczeństwie. Czy współczesna architektura sprzyja kreowaniu miejsc mających pozytywny wpływ na naszą psychikę i emocje? Czy sprzyja tworzeniu przestrzeni integrujących społeczeństwo? Czy jako użytkownicy mamy na to jakiś wpływ?

Słowa kluczowe: przestrzeń środowiska zamieszkania, psychologiczne i społeczne aspekty projektowania habitatu