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On Public Issues and Public Spaces – a Design Course Focusing on the Danube Bank in Budapest

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RESEARCH ARTICLE

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Abstract

This article discusses three theses that explore the public realm in the modern city. Firstly, constructing buildings and places is always a public issue because the level of change within the sociophysical environment always exceeds the simple physical act of building. Public space is a controversial concept in architecture, environmental psychology and also in geography. Although its area in reality is determined by its use and size, our thought system defines public space as a social space rather than a three-dimensional physical space. Second, according to studies, spaces created through a cooperation of architecture and environmental psychology are more gratifying from both a human and an environmental perspective. Lastly, from the shared viewpoint of environmental psychology and architecture, the water and waterside are outstanding environment-shaping factors and focal points for public issues.

Keywords

public issues · public places · environmental psychology · urban design · architecture · education

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1 On public issues

One of the key drivers for sustaining individual life and maintaining it at a humanly suitable level is interest. From a psychological viewpoint, the concept of interest has nuanced meanings. Broadly, it can include biological, primary interests (e.g. adequate nutrition, sleep demand, the need for adequate environmental stimuli), more elevated motivations (e.g. the desire for knowledge, performance motivation), and individual attitude towards the environment (e.g. preference of a location). This study primarily regards most conscious environmental attitudes, social-physical relations towards peers, and regularly used spaces [13] as the basis of manifestations organizing community life, related to the built space. The psychological relationship to the environment is typically not conscious [10], at least on the level of everyday use. However, the quality of life depends on both the individual and the group, the community's awareness of their individual interests, and on their ability to satisfy them. Self-awareness arises during child development, and according to the environmental, psychological approach [13], in an organic relationship with the physical environment. Peer connections developing in time and space allow the individual to gather information, to regulate their emotions, to navigate in the world, and maintain a sense of self, identity. Places that are important for people connect the ingredients of individual and group identity [15]. To integrate the individual and community perspectives of self-awareness, we can use the concept of sense of place [17]. The sense of place incorporates the notion of consciously interpreting the environment and giving an emotional response to it. With the option to "mix" these two processes, it becomes possible to define the types of sense of place. These can also be applied to public spaces, and include satisfaction with the place, "insideness" (familiarity) in the relation to the place, place identification, connection to the place, place consciousness and imagery associated with the community.

The vast differences in awareness and enforcement of interests arise from both the individual and community process of identity formation. We create communities of varying sizes to define our interests and as much as possible, enforce them where they are considered the shared interests of the community,

consequently becoming common issues. The larger a community is, the more significant its common issues, and at a certain point, they become public issues. Public interests always prevail over individual interests, public issues over private issues, and the larger the community whose common interests a shared issue represents, the more important it is to consider it a public issue. One such public issue is the sustainability of the city. A book compiled by the Department of Urban Planning and Design of the Budapest University of Technology and Economics (BME) [1] researches the future of the Hungarian capital; it gives a detailed insight into what Budapest might be like in 2050 if sustainability criteria change radically.

Constructing buildings is always a public issue as the level of change of our physical and human environment always exceeds the simple physical act of building. The construction of even a family home has numerous players, and the environment affected by the construction spreads far beyond the actual plot. The larger the community a building is constructed for, the greater the responsibility towards the environment and the more the activity is considered a public issue. Any construction carried out in public areas owned and used by small or large communities will always be regarded as a public issue that can affect the wider society [5].

The role of psychology is particularly exciting in this matter. Environmental psychology uses the concept of collective ownership [4]. Public spaces (like monuments, public institutions, etc.) are considered collective, i.e. shared/community property, which evoke several psychological paradoxes. One of these is that larger social groups (even a whole nation) may regard public spaces as their own. However, as subgroups and group members (individuals), they do not have control, whether real or psychological, over it; the public space can be the site of numerous conflicts. One such problem can arise when the space's latent emotion evoking quality amplifies aggressive actions; this can lead to conflicts among people and the destruction of the space. In such cases, environmental psychology can act as a bridge between specific, existing problems and working architectural solutions. This is not only from an aesthetic visual viewpoint, but is able to consider the needs and demands of space users and the functions and characteristics of the public space alike. Environmental psychology can help both in solving existing, already developed problems, and through collaboration between architects and environmental psychologists. This cooperation can be productive in nearly all stages of environment shaping [7], particularly in the planning phase where it is essential to consider features of spatial perception, rules of social interaction or environmental attitudes. In the execution stage or specification, the goal is to solve arising problems; whereas, in the final evaluation phase, existing (or assumed) psychological impacts can be analysed in order to give an understanding of the qualities of properly working spaces, and to reveal and correct the inadequate characteristics of existing environments. This information can then be used for the creation of future environments, including public spaces. Our complex teaching method connecting architectural/urban planning and environmental psychology, detailed below, is based on this assumption.

2 On public spaces

How expressive is the Hungarian language? As opposed to the nuanced English language that approaches the concept of urban public space from several directions (public domain, public space, open space, exterior space), the Hungarian architectural language uses only one expression, "közterület" (public area), signalling that it is, above all, a space for exercising shared interests, carrying out common activities and dealing with public issues. It is interesting, however, that we mostly use the word "köztér" (public space) in environmental psychology. Public space is "the common ground where people carry out the functional and ritual activities that bind a community, whether in the normal routines of daily life or in periodic festivities…. [P]ublic space is also used for »private« purposes – for buying or selling things, gardening, self-improvement through exercise, or simply to find a place to exist. It can also be the setting for activities that threaten communities, such as crime and protest." [8, p. xi] Public space is a rather controversial concept in architecture, environmental psychology and also in geography [16].

In urban development texts, public spaces are – geometrically speaking – areas, two-dimensional entities, but they are actually public places, i.e. three-dimensional and spatial. Although its area is really determined by its use and size, our thought system defines public space as a social space rather than purely a three-dimensional physical space, even though from an architectural, urban design viewpoint, public space can be defined as the external continuation of three-dimensional internal spaces created by buildings. An important difference between the two is that public spaces are predominantly open from above; their "height" is determined by the sky. When planning public spaces architecturally, the goal is always such a spatial interpretation, where only one connecting plane is the public area, made three-dimensional by the landscape environment, the facades of surrounding buildings, the masses of green, and the other "masses" in the space – trees, statues and even people. And we have not even mentioned the fourth dimension of public areas determined by seasons, weather, times of day, and the presence and movement of people. Time, despite the difference in terminology, is also a consideration in the public space approach of environmental psychology [19, 27].

3 On systems of public spaces

Just as private issues cannot be defined without public issues, and we use the term "public issue" in plural, so public areas, as the settings for public issues, can only be construed and studied together, within their correlations. Even the smallest intervention in a public space cannot be viewed separately

from the functional and spatial system of its public area environment, and from the temporal process of its change; thus, it is an inseparable, organic part of the public area system. No quality intervention can commence without an awareness of these larger correlations, or be completed through managing the impacts in both of these public and private directions. This architectural perspective is similar to the contextual approach of environmental psychology: analyses and intervention can only be performed if we defined the effective context [24], i.e. the social-physical system of correlations where the space and its users can be understood and later operated together.

4 On public issues of the Danube bank – an example of teaching urban planning with a complex architectural and environmental psychological method

Continuing the previous thought on public issues, everything that happens on the Danube bank in Budapest, be it construction or demolition, erecting statues or planting trees, or whatever human activity, should be regarded as a public issue; thus, a common issue reflecting the shared interests of small or large communities. The organic, coordinated relationship of the city and its river (e.g. flood control, environmental protection, liveable riverbanks) is a city level public issue, therefore, it will be a priority over any public issue representing lower level (corporate, e.g. MAHART; or district level) interests. Therefore in today's two-tier administrative and responsibility sharing system, the present and future of the Danube and its banks must be the prioritized competence of the city government. This is essential in determining the future of the globally unique and priceless Budapest Danube bank in a way that benefits the interests of both Budapest and the whole country.

Two of the courses (Department Design 1 and 2) of the University's Department of Urban Planning and Design revolve around planning public spaces. This is because we believe that urban planning and the quality of our built environment depends equally on the quality of the buildings that form the city as that of the public areas determined by these buildings spatially and functionally, which make up approximately 15-20% of the city's area. According to our planning teaching method, the course starts with a comprehensive environmental-psychological overview of the course topic, in this case, with the public spaces on the Danube bank, as summarised below. It is an important requirement for the students to enforce these aspects in their approach and architectural plans throughout the course.

5 The river as a public space, a public area and a public issue

Aspects including the water's geological, biological and physiological role have not been detailed in this paper. However, from an environmental psychology and architecture viewpoint, water is an important and outstanding environment-shaping factor. "All bodies of water organize the lives of their cities in their own, varying ways. Water does not only draw one near it, but it is also a starting point, it directs and leads people." [3, p. 205] The organizational power of rivers as roads in a mental image of the city is discussed by Lynch in his classical work on the subject [21].

Bodies of water and rivers have inspired several environmental psychology research projects in recent decades. One study examined what associations water purity (e.g. a river) gave people about the city as a whole. Participants of the research judged photographs in terms of preference; they had to choose on a scale how much the situations in the pictures appealed to them. The photographs showed various river banks (lush green foliage, polluted water, partly demolished industrial facilities on the banks, etc.). People clearly prefer open and clear river water, waterfalls, adequately fast streams, and, as expected, they do not like swampy banks, seaweed-filled bays or river banks filled with debris [18]. When researchers [26] gave participants computer-manipulated pictures of riverbanks (polluted water, demolished industrial facilities vs. healthy flora, well-maintained waterfront) to be judged according to their potential recreational value, they got the same result. Several studies show that quality waterfronts ("blue space"; [25]) have a strong, psychologically relaxing effect ("a restorative capacity"; [18]). By regenerating people's attention drained by the complexity and stimuli of the built urban environment, and by relaxing the nervous system, they dilute stress and delight people, which naturally has a strong positive effect on the community's life. Easy access to water (even just a stream or a lake [2]) plays a vital role in this positive effect. According to studies, the closeness of water increased the local residents' environmental sensitivity [12], made them more appreciative towards critical natural resources and increased their willingness to participate in initiatives aimed at improving water quality (Brody, Highfield and Alston, 2004). Urban waterfronts create a need in people and give them the opportunity to "maintain a balance with nature" [11]. More recent studies show that people connect more positively and substantially along several sociopsychological characteristics to waterfronts created specifically for recreational purposes [23]; therefore, in addition to the quality and accessibility of the waterfront, the community's psychological features must also be considered. Cherulnik reports on such a complex riverbank development programme incorporating environmental psychology [9]. The project (Lower Wisconsin River) involved tools like background analysis, management goal setting, environment-behaviour relationship analysis and post-occupancy evaluation (POE) among others.

These environmental psychology results clearly reflect particular geographical-architectural definitions of public spaces. For example, "defining features of urban public spaces are proximity, diversity and accessibility" [28, p. 262]. Thus we can regard urban waterfronts as public spaces, public areas and public issues both from architectural and environmental psychology perspectives; furthermore, this strongly confirms the

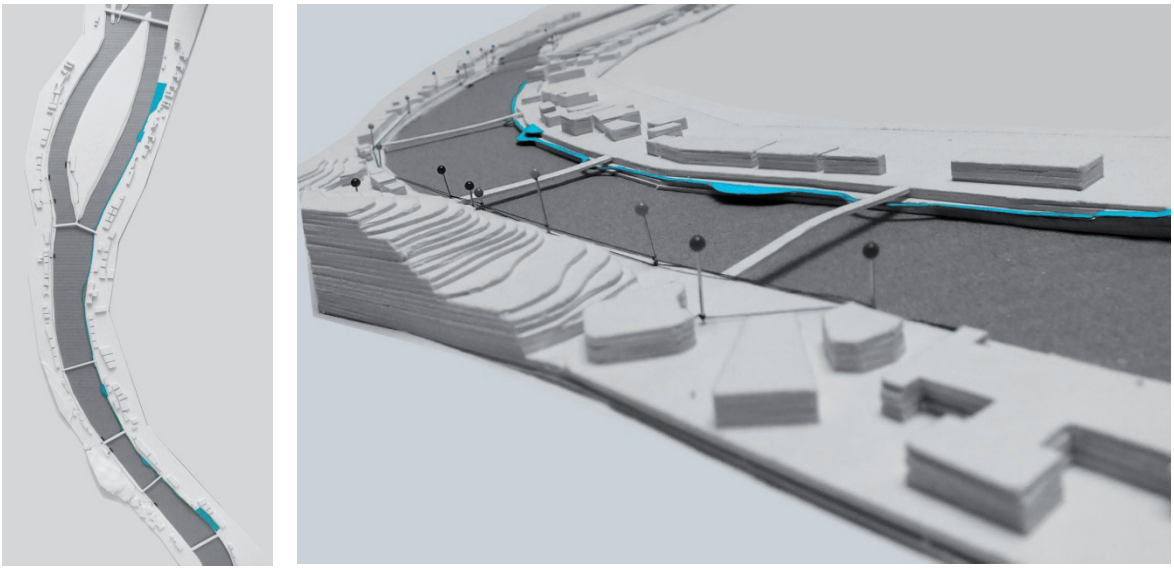

Fig. 1. The design teams joint model (Johanna Kocsis, Julianna Lánczky and Barbara Turuczkai, Mariann Konyek, Kristóf Vanyur and Szilvia Varga, students of the Faculty of Architecture of Budapest University of Technology)

role of environmental psychology factors in the creation and maintenance of urban waterfront public areas. "Rivers can also be said to organize their cities in different ways, and to different degrees. . . . The Danube, escaping from the narrow valley, descends as a wide river to flow through the city. Its arrival is a holiday. Everything in the city aligns with it; it calls the plain and the hillside to itself, as well as the buildings on both banks. The Danube is not living as part of Budapest, rather the two parts of the city live on its two banks. The riverbed of the Danube is the city's accentuated axis to which all boulevards and avenues align. . . . Cutting the city in half, the Danube is also hindering the integrated blood circulation. The two cities were united, but they still live separate lives." [3, p. 205]

6 On systems of public spaces on the Danube bank

As was previously mentioned, the two consequential three-credit courses (Department Design 1 and 2) of the University's Department of Urban Planning and Design revolve around planning public spaces. Department Design 1 starts with the systems of public spaces and continues in Department Design 2 the following semester, when students will design a specific public space in the city. In the spring semester of 2014, the design task of Department Design 1 was the system of public spaces along Budapest's Danube bank. In the first part of the semester, students familiarized themselves with the whole length of the Danube bank in Budapest in teams of three. This provided a suitable knowledge of the entire system of public spaces and their inner connections. With this information in mind, they chose a public space theme and focused on one of the riverbanks, then formulated a development concept that is integrated into the public space system; they summarized this in a draft plan in early April. Two of these are introduced in detail below:

One of the design teams organized their concept around raising awareness to and strengthening the Budapest, "City of Baths" slogan.[1] They envisioned a system of public places on the Buda bank of the Danube that raise awareness of the capital's thermal water treasure and the baths, evoking the bath ships that used to travel on the river. They incorporated this into a themed trail going from north to south, with public space elements placed at its hubs to provide the image of an exciting new system of public spaces.

Another team of students explored the possibilities of creating a continuous "pedestrian ribbon" on the Pest bank, which would be shaped in accordance with the existing features and demands all along the Danube bank, providing a focal element of the concept of a new public space system.[2]

7 On the cooperation between environmental psychology and urban design

The curriculum of our two design courses is shaped through a continuous dialogue between urban design and environmental psychology, mutually expanding the research areas of the two fields and looking for common platforms. In 2012, the site for the design task was the central campus of the University. A publication was compiled from the successful work of that semester:

"The subject of the campus and the high sensitivity of the students elevated the keywords of environmental psychology to the level of programme guidelines over the semester. All of the five plans were motivated by environmental psychology, which had a twofold positive effect on the result of the semester: it reflected the university students' subjective opinion about the current state of the campus and their demands for a possible

1 Johanna Kocsis, Julianna Lánczky and Barbara Turuczkai, students of the Faculty of Architecture of Budapest University of Technology.

2 Mariann Konyek, Kristóf Vanyur and Szilvia Varga, students of the Faculty of Architecture of Budapest University of Technology.

reform, and it could serve as a planning programme for a later, actual design with an approach that is not yet prevalent in public space design practice in Hungary." [22, p. 1]

Environmental psychology as an applied science can be a partner to architectural planning. Its fundamental basis is that "built / natural / virtual locations and their users are in an interactive relationship, thus these are sociophysical environments: human behaviour cannot be understood without its environmental context, and vice versa; such objects and places have psychological meaning. Understanding and considering this interaction can help and enrich architectural design, providing nuanced viewpoints for shaping the environment. As architectural design with an environmental psychology approach also means planning the relationship between places and their users, several space usage processes (e.g. navigation, communication) can be designed this way, which otherwise would remain hidden without the environmental psychology approach. According to studies, such created spaces also work more successfully from a human and an environmental perspective; they better support the behaviour of users (easier orientation, more efficient learning and education, more substantial social contacts, etc.), and the places themselves also benefit (less destruction, more frequent spontaneous maintenance, etc.). All this results in increased loyalty towards a particular location, with the attraction and prestige of the site also enhanced." [14, p. 5]. The mutually stimulating cooperation between urban planning and environmental psychology offers numerous further possibilities in creating successful public spaces.

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