talisation examples. It included mainly one-sided, physical (construction) regeneration of the town on account of neglecting other urban characteristics. New flagship approaches of urban revitalisation are somewhat different and attempt to include or adopt themselves to specifics of local urban space (for more see Plaza, 2000; Hočevar, 2000; Uršič, 2003, Honigsbaum, 2001).

For sources and literature turn to page 46.
Translated by Aleksander Jankovič Potočnik.

Alenka TEMELJOTOV SALAJ

The synergetic effect of the observer on the built environment

1. The relationship between the observer and the environment

Living space can be divided into the micro and macro environment. The micro-environment is the space of our immediate surroundings, where we live, work and spend our leisure time. The properties of the micro-environment, especially the living and working environment, can significantly affect our quality of life. (Rus, 1997) The physical environment is the environment that exists independent of »human intervention«, while the designed environment is the opposite. Numerous components of the present physical environment are nevertheless directly or indirectly the consequence of human intervention. (Rus, 1997)

Kovič (1992) defines the macro-location of buildings by the area's macro-climate, latitude and elevation above sea level, which are also the factors that define the general typology of architectural form. She nevertheless points out that artificially transformed cities demolish the precarious balance of natural climate and form the so called urban climate that is characterised by typical increase in temperature, which is caused by a city's operation, i.e. larger accumulative capacity of the built urban structure, increased absorption of sun rays because of multiple reflection and absorption, hindered emission of reflected heat in the night time, increased reflection, vicinity of buildings and reflection of heat from smog layers above the city, weakened and damaged vegetation, quick draining of rainwater, lack of water surfaces, windless and dormant air layers above the city and constant additional heating.

The city is a space that indivisibly connects three elementary environmental components: natural environment, which provides the basis with its terrestrial form, structure and properties, water, vegetation, fauna and climate; social arrangement, which includes the individual and community, activities, institutions, culture with folklore and habits; physical products, which form the societal culture, with buildings, apparatus and means. Together they express the comprehensiveness of occurrences and nature«s participation, beings and objects in a dynamic process of change and renewal, which doesn«t exclude the past or the future oriented development. Nevertheless, in modern man, the artificial environment, which has become the dominant living environment of the post-industrial, consumer society, has been building a great void, a sense of social disparity, lack of communal spirit, local identity and spiritual dimensions of life. (Siregar, 2002)

Social behaviour in a given living space is affected by physical properties, such as size, distribution of spaces, sound, colour, age, height, views, orientation, access to communications, shops and other services, size, arrangement and form of furniture, heating, humidity, availability of communication utilities, spatial use, neighbourhood status etc.

Trstenjak claims that the visual sensation is dynamic (1987). The individual person doesn«t notice only colours, shapes, motion and size of objects, one doesn«t perceive only the »visual object«, but also oneself as the observer, albeit in the visual sense object orientation is the most pronounced. When observing space one is in expectation: perception depends on the viewing position, method of motion, time and duration, scope and form of pre-information. Urban perception can be structured according to the course of deliberate action, availability of information and sequence of perception. Perception adds only a barely significant part to objective reality, while memory only a part of the past, but imagination expands the data and describes the image of the world.

Psychological environmental studies deal with interaction of the individual with the physical environment and particular features of that environment. Hereby the subject is the mutually dependent relationship or environmental effect of the environment on the individual and vice versa. Piaget (1965) described this interactive process by the process of assimilation (adaptation of something to oneself) and accommodation (adapting oneself to the environment). Socialisation as the social implication of interaction between the individual and the physical environment is the result of factors

from the physical and social environment and the individual itself. Socialisation processes are therefore those concerning social influences and those about social learning (Rus, 1997).

1.1 Models for researching the relationship between the observer and the environment

The fundamental questions of environmental studies are: how are different environments linked to social behaviour, what are the interactions between the environment and social behaviour and, how do they adapt to the affected changes. Interaction models between humans and the environment apply to analyses of social variables (the individual and the group, personality, culture, roles, organisation, social and economic characteristics) with respect to the influences of physical factors and to the analyses of variables in the physical and designed environment (architecture and landscape features, characteristics of environmental processes, scope and frequency of various events in the environment).

We are accustomed to cognitive and decision making models of interaction between man and the environment. Cognitive interaction models mainly deal with issues, such as the relationship between environmental characteristics and personality, how do differences in cognitive perception and categorisation of the (physical) environment by representatives of different social and cultural groups manifest themselves in their social and spatial behaviour (e.g. physical distance in mutual communication), attitudes and stereotypes about the physical environment and features of social representation of various macro-objects and macro-events.

The function of cognitive environmental models is in the reduction of environmental complexity. Environmental categorisation, as an expression of the cognitive interaction model between man and the environment, displays general features of categorisation, such as:
– Reduction of complexity, better understanding and predictability,
– Psychodynamic function, seen as satisfying the need for security – the sense of security is greater in environments we understand and can predict events in it.

The decision making model of interactions between man and the environment applies to »choice within the unsure« (Rus, 1997). In the decision making model the main issues are:
– How to assess usefulness of various possibilities?
– How are decisions taken concerning various predictable and unpredictable events in the physical environment?
– How do experts in comparison with other experts assess risk in decision making about various development priorities?
– These questions deal with application of used models and »solutions« in real problem areas.

Spatial behaviour is one of the characteristics of non-verbal communication: proximal communication is the type of non-verbal communication that applies to spatial properties of non-verbal behaviour – one of its manifestations is the physical distance between the communicators. Personal space is individual territory, but also a kind of protector of one«s »personal integrity« (Rus, 1997). Territoriality, as type of behaviour in a given »territory«, and social interaction are linked variables that are both influenced by environmental properties. Physical proximity should alleviate and in certain cases stimulate social interaction, but the link between physical and psychological distance is not single-sided. Sometimes vicinity is the reason causing psychological and social distance. Then again, psychological and social distances act as defence mechanisms against overt vicinity, because it becomes physically disturbing.

2. The observer's values

Market changes are linked to the concepts of value and worth. Value can be an economic category, while worth is a psychological category. Price for example is a value expressed as money, but worth is interpreted psychologically as a preferred concept of desire. Nevertheless, the economic concept of values and psychological concept of worth are mutually tightly intertwined.

According to Rokeach (1960) worth is a sustainable belief, specific form of behaviour or finite state of existence, which is individually or socially the more desired behavioural form from the opposite form of behaviour or finite existence. Thus the term »value system« is defined, which is a relatively robust organisation and structure of beliefs that pertain to the more desirable individual and social forms of behaviour and finite states of existence in the continuum of relative significance.

2.1 Property assessment

The principles of property evaluation are distinguished into subjective and objective, yet intertwined categories: principles that are derived from user«s perceptions and those that are linked to the market environment. Value can be attributed to property at any given moment of it lifecycle: planning, initiation (birth), growth, renewal, decay and demise. The position of property – land, conditions its usage. This position in the urban or non-urban area defines the primary vision of use. From the moment when a property, with its traffic directions, infrastructural arrangements and setting, is positioned as the leading element in the mental process cycle within the civilisational map, begins the process of planning, which ends upon completion. Planning and development are important elements of this process, similarly as the past, present and future development of the entire micro- and macro-environment.

When observing the surroundings and acquiring opinions about it, we have to mention attitudes, which is the relationship that one has with someone or something. Attitudes for someone or something can be represented as relationships that have three properties: cognitive, emotional or evaluative and readiness for action. Allprot (1954) defined attitudes as states of mental readiness organised as an experience, which directly affects the individuals responses concerning objects or situations that he is related to. Attitudes are closely linked to personal values.

The property market is a situation, which more than any other emphasises the instrumental aspect of satisfying needs and action-based orientations to the property goal. This is why social-psychological theory of social interaction also deals with instrumental aspects of common and individual behaviour within the framework of the term »market«. The instrumental aspect cannot be »mechanically« eliminated from the »construct« termed motivation cycle. In fact, the

instrumental cycle is the one that significantly affects the individual«s methods of satisfying needs (Rus, 1997). Thus one determines (social, economic, cultural) status, as well as relations to oneself. Social (market) interaction isn‹t without actors (social, economic) and roles (demanders and providers). The roles and pertaining status are expressions of the group«s structural characteristics or situations. The theory that deals with market (social) interaction cannot equate roles to status (since both are defined only as expectations). In developed markets behaviour patterns expected from demanders and providers are clearly defined and goal oriented. They are defined with numerous (formal) rules, norms, regulations and even procedures (which strive to be economic and rational). Even contemporary social change theories are based on principles of change (*equity change* in *equality change*), which is basically a different expression for issues of social justice.

From the social psychological aspect, readiness for purchase or sale is dealt with within the framework category of attitudes: within the framework of the three-component model of attitudes, readiness for particular behaviour (sale or purchase) implies the third attitude component. Moreover, readiness for purchase is the certain phase in a consumers purchasing behaviour, which precedes the action (purchase). First the potential consumer has to be aware of the good or service, awareness has to provoke interest and when he/she decides to buy, it has to meet fruition. Readiness is an expression for determination or belief in the purchase. Those that have already »decided« can change their minds. The probability of the latter is inversely proportional to determination or readiness. Readiness for purchase thus becomes a real economic or market category when backed by credit capacity. The motif for fulfilling readiness for purchase and individual decision for purchase (*attention/ interest/ desire/ action*) is the perception of difference between utility of the good and the utility of money: the greater the difference in favour of the good, the greater the mentioned economic motif. The perceived advantage the good«s utility has over the money«s is termed »the consumers gain«. Therefore this category is also »economic and psychological«. Marketing property itself is a process, by which individuals and groups satisfy their needs and desires, whereby property and connected services created, offered and exchanged (Falk, 1997).

3. Perception of the built environment

Herewith several results from researches dealing with the issue of property in relation to the physical and social environment are presented. A two-part questionnaire devised by Velko S. Rus and associates was applied. The first part encompassed basic demographic data and data about the property, while the second part dealt with perception of realised individual values, satisfaction with personal psycho-social needs, estimates about ones« lifestyle, psycho-social entrepreneurial blockades etc. The research was fairly widely set, but only three sets of results are shown, mainly those dealing with examples of living and working space and the urban and social living space.

Three groups of participants were polled in the research:
1/ owners and employees in private property agencies in the Republic of Slovenia (n=31, average age 43 years, share of men: 0.6 »realtors«);

2/ Slovene men and women employed in influential positions, relatively publicly well-known and significant in influencing public opinion (n=24, average age 39 years, share of women: 0.6 – »others«);
3/ employed experts (civil engineering and architecture) from Maribor (n=28, average age 37 years, share of men 0.43 – »experts«) the poll was conducted by Tina Škrinjar from Maribor).

The presented group of results follows different aspects of the posed questions – the significance of social and value orientations, perceptions of lifestyle and national stereotypes, which they carry at the initiation, preservation or changing of social perceptions concerning space, the environment and property.
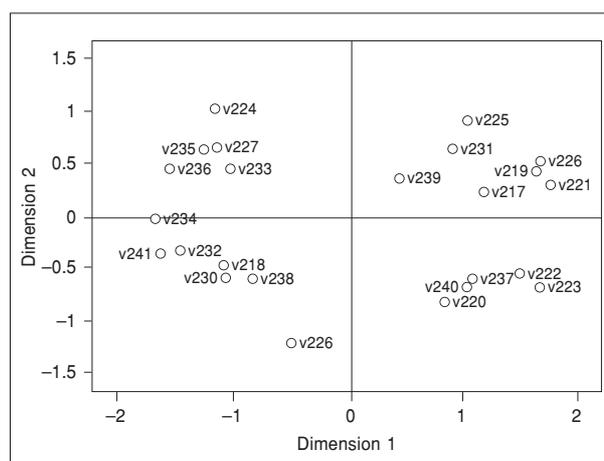

Figure 1: Comparison of results of ideal/non-ideal living space
Euclidian distance model of ideal/non-ideal living space
Numerous = 48, Stress = 0.12, RSQ = 0.94

Note: 'IDEAL SPACE': v217- lower floors, v218 – higher floors, v219 – built from modern materials, v220 – clad with wood, v221 – with big windows, v222 – privately owned, v223 – in a house, v224 – in an office building, v225 – in a city, v226 – in a village, v227– along the main access road, v228 – modern architectural concept; 'NON-IDEAL SPACE': v230- lower floors, v231 – higher floors, v232 – built from modern materials, v233 – clad with wood, v234 – with big windows, v235 – privately owned, v236 – in a house, v237 – in an office building, v238 – in a city, v239 – in a village, v240– along the main access road, v241 – modern architectural concept;

The table clearly shows that perception of ideal living space is connected to the following characteristics: a) it is in a house, privately owned, clad in wood, but doesn't lie close to a main access road; b) it is in a city, on lower floors, with a modern layout and built from modern materials and has big windows.

As put by Pogačnik (1986) the aspiration of people in wealthier countries is to live in a detached house in a clean, green environment close to the city, to which one commutes to work. Contemporary urbanistic and architectural practise conceptualises mixed high density housing estates intersparced with detached homes, terraced homes and houses with roof gardens.

The need for private property was undertaken by Dominique Lassare (1986) in a research titled »Owning a house or property or renting«. It showed different attitudes to property, depending on the property status of the surveyee – both from the economic and psychological sense, owners invested much more in their homes than renters. To manage the high costs they diminished expenditure in leisure activities, but also interpreted their homes and surroundings as their primary leisure activity. The chosen lifestyle followed the pattern of deciding about one's home. They also chose their home much more carefully than renters. Transition from a renting arrangement to ownership was a step in achieving the desired goal, which was to build one's own detached house.
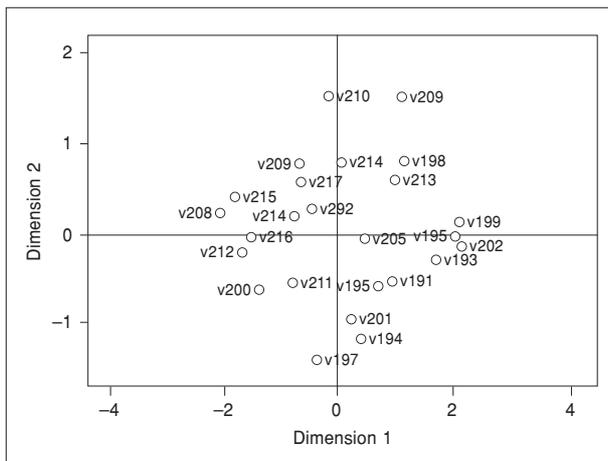

Figure 2: Comparison of results of ideal/non-ideal living space
Euclidian distance model of ideal/non-ideal living space
Numerus = 50, Stress = 0.16, RSQ = 0.87

Note: 'IDEAL SPACE': v191- lower floors, v192 – higher floors, v193 – built from modern materials, v194 – clad with wood, v195 – with big windows, v196 – privately owned, v197 – in a house, v198 – in an office building, v199 – in a city, v200 – in a village, v201– along the main access road, v202 – modern architectural concept; 'NON-IDEAL SPACE': v204- lower floors, v205 – higher floors, v206 – built from modern materials, v207 – clad with wood, v208 – with big windows, v209 – privately owned, v210 – in a house, v211 – in an office building, v212 – in a city, v213 – in a village, v214– along the main access road, v215 – modern architectural concept;

Apparently two principles of desirability of working spaces appear – in the urban environment, in buildings with modern design and large glass windows, or quite the opposite – in a village or close to a main access road, clad in wood, privately owned and on lower floors.

The variety in placing working spaces also depends on the activity preformed by individuals; for example in the urban environment there are less green areas, higher density of urban units, larger confusion with parking spaces, traffic regimes etc.

Tall buildings symbolise social and economic power, prestige and national progress (Barnard, Correa in Moser, 1987), but Chuen (1996) on the other hand claims that the construction of a tall building implies blocking of views and the

severance of natural sunlight and air flows, meaning that the quality of life in them is lower. However, in such environments communication with other companies, institutions and services is easier. In the daily rhythm of modern man optimisation of time needed by a working person for different chores is therefore very important.

The research about utility of health care buildings (Jenso and Haugen, 2005) dealt with the utility of buildings from various user aspects: patients, employees and other experts from the field of building medical facilities. The research encompassed various attitudes to particular elements of human and material resources in the process of the building's design, construction and use. From the aspect of the user three key factors emerged: efficiency, capacity and satisfaction.
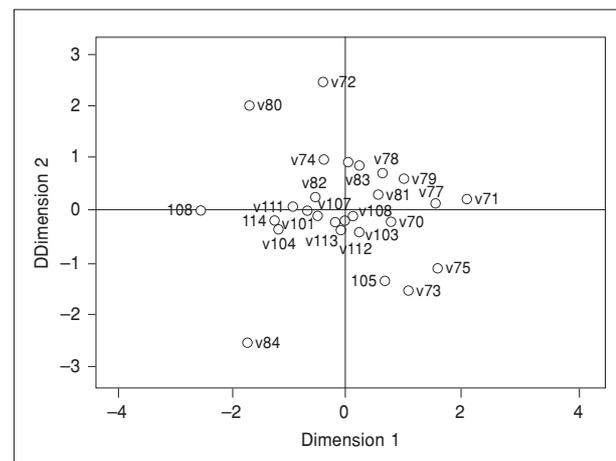

Figure 3: Comparison of results – opinions concerning place of residence and about the people that live there
Euclidian distance model of opinions concerning place of residence and about the people that live there
Numerous = 84, Stress = 0.17, RSQ = 0.88

Note: 'PLACE OF RESIDENCE': v70 – clean or polluted, v71 – well- or badly supplied, v72 – culturally interesting or uninteresting, v73 – quiet or noisy, v74 – amusing or boring, v75 – peaceful or steeped in violence, v76 – friendly or unfriendly, v77 – pleasant or unpleasant, v78 – social or non-social, v79 – open or closed, v80 – lives with tourism or not, v81 – blooming or decaying, v82 – well- or badly managed, v83 – good or poor offer, v84 – dynamic or rigid, v85 – cooperates or doesn't with locals, 'PEOPLE LIVING IN THE PLACE OF RESIDENCE«: v101 – optimistic or pessimistic, v102 – active or passive, v103 – independent or dependent on others, v 104 – worthy or unworthy of copying, v105 – calm or disturbing, v106 – oriented to the future or the past, v107 – interesting or dull, v108 – oriented to the day-to-day or unusual, v109 – living in harmony or disharmony with oneself, v110 – successful or unsuccessful, v111 – open or closed, v112 – prudent or imprudent, v113 – convinced or unconvinced about value of personal goals, v114 – introvert or extrovert.

If we observe the most consistent results we can see that the most connected spatial characteristics are: clean or polluted, amusing or boring, social or non-social, open or closed, blooming or decaying, well- or badly managed, good or poor offer. The most connected characteristics of people living in an area are: optimistic or pessimistic, interesting or

dull, living in harmony or disharmony with oneself, prudent or imprudent, convinced or unconvinced about value of personal goals.

In the research presented by Chris Heywood (2005) perceptions and expectations of observers were assessed on the example of a library. The point was that perceptions and expectations of users have to be assessed from the subjective, objective, but also psychological aspect. He stated that measuring and assessing user expectations is an important step towards successful and efficient management. In the development of buildings and the environment investors, urbanists and architects should pay heed to objective value indicators, but subjective and psychological value indicators as well.

4. Conclusion

This was the first research conducted in Slovenia that encompassed the issue of property in connection with the perceived social climate and indicators of efficiency. The issue of property is inseparably linked to issues in the physical and social environment, ecology, economy, sociology, law, transport, civil engineering, urbanism and architecture, as well as social-physical aspects that are tied to various characteristics of property.

Any environment surrounding »humanity« has certain features, characteristics that need special attention, simply because they are very important for humans, their life, survival, living, leisure and work. All of these »directed« attentions of the viewer can be evaluated, both in the sense of satisfying their personal needs, as well as economic indicators, which will be the topic of further research.

The completed research points out the interdisciplinary nature of property, whereby solutions for property issues have to be tackled also from the social-physical aspect. The latter is a mesh of wishes, consciousness, desires intertwining with production-technical issues of day to day life.

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Translated by Ivan Stanič.

Barbara GOLIČNIK

Environment-behaviour studies: A synergetic bridge between designers and users of open space

1. Introduction: People and places

The paper focuses on questions such as: How much urban planners and designers really think about potential future users of places, whether considering strategic decisions about spatial changes or being concerned about their implementations, actual planning and design? Where in the planning process is the thought about a spectrum of variety of future users, even more, about those questions as to how they use places, what kind of co-habitation may they perform, how much space and time do they need and use by any such engagement, what kind of places do they seek for play or rest on their daily routine through the city etc.? How much and how well do then planners, architects, landscape architects and urban designers, actually collaborate with their most numerous and most frequent clients, users of urban open public spaces? How much do they actually know about that what spatial elements do stimulate or inhibit certain use or more of them, and what possible co-habitation and events might be expected in different places?

Carmona *et al.* (2003) see urban design as a means of manipulating the probabilities of certain actions or behaviours which should be an activity that provides people with choices, rather than denying them choice. Thus, it reflects the provision of opportunity and managing its use and involves urban designers as professionals who can master increasing space potential to create a meaningful, significant and desirable place. From this point of view, Carr *et al.* (1992) emphasise a need for a theoretical frame of reference and a way of working that helps designers and managers to see the dynamic relations between people and public space clearly, so as to manage change effectively. To suggest the way of looking at this relationship, Carr *et al.* (1992) stress further, that not abstract human needs or place qualities but the human dimensions of public space are intended to provide such framework, and emphasise that user and human dimensions of places can become the focus and subject of spatial analysis.

Goličnik (2005) remarks the importance of the expression of physical structure of places with usage spatiality and stress, that in this context it is important to know potential behavioural patterns in urban landscape. Talking about the spatiality and articulation of places in the language of patterns of usage is seen as a key challenge in design practice. On this basis Goličnik (2005) emphasises the role and contents of empirical knowledge about usage-spatial relationships. These relationships are addressed from two angles: firstly, in terms of actual use of squares and parks in city centres, and secondly, on the basis of urban landscape designers' views, beliefs and perceptions about public open spaces and their uses.