Human Brain and Real Estate: Analyzing the Relationship between Qualitative Space and Price

Nada Ibrahimi\textsuperscript{a}, Gjergj Ruci\textsuperscript{b}

\textsuperscript{a}PhD Candidate, Municipality of Tirana, Sheshi Skenderbej, Nr.2, Tirana, Albania
\textsuperscript{b}Lecturer, Faculty of Architecture and Urbanism, Rr. Muhamet Gjollesha, Tirana, Albania

Abstract

There is a personal approach to each individual in terms of experiences that categorize his experiences in urban space. That is, the built environment, among the cognitive processes, affects the human brain. Regardless of this report, the purpose of this research will be to further analyze this relationship by studying the interplay of qualitative space - mental health in Real Estate terms.

Focusing on theoretical, analytical, experimental aspects based on the principles of neuro-architecture, methodologically the study will be divided into three phases. The first will be a theoretical background based on the main characteristics that define the qualitative space. In the second phase, based on the above definitions, will be aimed the urbanization of urban areas of Tirana. In the third and final one, different solutions will be tested in the sales terms, answering the main question that arises from the study: Does the impact of urban space affect real estate? So does the category of emotions we experience in the neighborhood affect the price of a real estate? Testing will be conducted between type surveys accompanied by occasional interviews.

In conclusion, inspired by empirical approaches that affirm the optimal relationship created between qualitative spaces and the human brain in emotional terms, the study will concretize this connection between all data collected in the area.

Keywords: real estate, mental wellbeing, neuro-architecture, brain, public space;

1. Introduction

The reciprocal relationship between the built environment and the individual as well as the way in which this dependence affects human well-being, proves the fact that it is the environment that forms our life. For this reason it should be emphasized that the design of space has a crucial role in defining human well-being, to further identify the fact that the bond between this binomials is strong. A similar approach is also noted in the thoughts of Richard Neutra and especially in the 1954 edition of "Survival through Design". Concretely, he states that as human beings we can only be separated from our environment in the abstract way in which we separate the water of two tributaries which have flowed together in a common river bed.

Beginning from the tendencies that suggested the collaboration processes of designing with other disciplines, today are clearly evidenced the human-oriented attitudes of architecture and urban planning. Alvar Aalto, who in
1940 in "The Humanizing of Architecture" explained beginning from the functionalism and rationalism the path towards humanization of architecture, says:

“It is not the rationalization itself that was wrong in the first and now past period of modern architecture. The wrongness lies in the fact that the rationalization has not gone deep enough. Instead of fighting rational mentality, the newest phase of Modern architecture tries to project rational methods from the technical field out to human and psychological fields... Technical Functionalism is correct only if enlarged to cover even the psychophysical field. That is the only way to humanize architecture.”

So there is an interaction of many disciplines which, by virtue of having the essence of the individual, work to achieve an effective environment-human being relationship, which aims the improvement of mental well-being to enhance the quality of life.

The study is focused on the space and man, two different but closely related elements that will be oriented towards real estate terms. Specifically, based on the organization of common public spaces in the neighborhood as a special element of urban space, the relationship created by the sale of property and the quality of the space will be further studied.

2. Methodology

Methodologically in terms of its theoretical and practical point of view, the study is dealt with in two quarters, which will determine its basic pillars.

First, research considers the individual as a human structure and specifically identifying the principles of Gallese (2015), which considers brain-body binomial as inseparable. As a trained neurologist, he claims to be unjust the separation of these two notions. To avoid false guesses, Gallese suggests not sharing the brain from the body and vice versa, but their treatment as a compact nucleus that interacts with the surrounding space.

Second, research studies the relationship between the brain-body and the environment in the real estate terms, to determine in the local context the elements of the space that will have a greater impact on the sale of private property. This discourse will be implemented practically through resident surveys, which after defining the strengths with which the urban development space will be provided, will be expressed for the possibility of selling the apartment after a possible implementation of these requirements.

Practically, research refers to two main moments. First, in collaboration with the students of the Faculty of Architecture and Urbanism, at the Polytechnic University of Tirana, it has been experimented in the common public space formed by the prefabricated residential block at Str. "Kongresi i Lushnjës", near the "21 Dhjetori" Sqr. Final products that generate public space at two different levels, based on passive and active urban development criteria, aim to create a qualitative space that intends to increase the inhabitants living standards. Thus, the space will be dealt with based on two theoretical concepts. The first uses the empty space of the residential block based on active urban development parameters where mostly rhythmic activities will be generated; while the second uses the same space which based on the passive urban development parameters expects to generate sedentary activities.

The second stage is related to the testing of the respective proposals. The same student, using the survey type model, interviewed the residents of the area in question to get conclusions that would be related to the approach that the quality of the space and the organization's way of dealing with the sale of property in the area.
Thus, conclusions emerged from the individual - public space - real estate relationship, based on the biology of the human structure, the principles of neuroscience and on the way how the individual experience the space, to understand the pace at which property is acquired or sold in a defined context.

3. Theoretical and Experimental Background

This study orients theoretical approaches to the principles that define the quality of the common space by focusing on the relationship created between the built environment and the human structure. Through the principles of neuroscience affected by the behavior of the brain - body in relation to the surrounding space, the research aims to show how the individual perceives and reacts to the quality of the built environment. Further, in the last part, a special importance will be given to the interaction between space quality and the logic of the sale of property.

So, as well as research in general, theoretical and experimental discourse will be based on the analysis of its main points, elaborating concretely the trinomial of the human structure - built environment - real estate. This attitude will be treated in two directions, in terms of theoretical and experimental practical views to be considered:

- The logic of the qualitative space for the common property, i.e. the so-called public space in the neighborhood, through which it is given a certain character through typical interventions based on the typology of the functions it needs.
- The way that the quality of space affects the mental health, focusing on the collaboration of architecture with other sciences oriented to enhance its human trait. Thus, the space-to-brain connection will be evidenced.
- Space functions that claim to increase the quality of life by increasing the quality of space. Thus, the common space will be treated according to two different approaches that relate to its use and the activities to be carried out in it, offering a square of active or passive character. Depending on the proposed case, theoretical basis is practically tested by conducting residential and transit tests in the area. So, the study will be oriented towards the solution of the common space to increase its quality.
- The logic of selling property as well as how the quality of the common space affects its value. Further, this approach will be verified practically between resident and random passers-on surveys that will be expressed on the perception of the public space, its quality and the tendency of property sales based on these aspects.

3.1 Qualitative Space

Public space should not be defined solely as a gap between buildings of a residential block or beyond. It is characterized by a proper capacity to generate social activities or communication between residents or passers-by, which turns it to a fundamental space for demanding the social life of the city in general. Thus, it is evident that this type of space is of particular importance as regards the quality of life of individuals and especially their mental well-being. This is one of the reasons why it is worth considering the quality of urban space, focusing on their comfort and attractiveness. So, it is worth considering the assessment made by PPS - Project for Public Spaces (2018), which developed the Place Diagram as a tool to help people in judging any place based in its qualities.
It should be emphasized that regardless of the study data, the quality of the public space depends on the relationship it creates with the users. Above all, there is a spiritual connection between space and individual who possess the ability of “from space to place” translation. This shift would be further oriented toward a more accurate definition of qualitative space, also based on the concept of genius loci and derived from Norberg-Schulz (1980), which emphasizes that a concrete term to refer to the environment is place, addressing the latter as an integrated part of human existence. Further, by asking the question of what this term means, he claims:

“Obviously we mean something more than an abstract location. We mean a totality made up of concrete things having material substance, shape, texture and color. Together these things determine an “environmental character” which is the essence of place.”

Thus, there is a clear relationship between the envy and the space where he lives, works or frequents, a relationship that affects the quality of his life, as a result of the way the human structure perceives the character of the space surrounding it.

Figure 1 The Place Diagram by Project for Public Spaces, which advice to imagine that the center circle on the diagram is a specific place that you know: a street corner, a playground, a plaza outside a building. You can evaluate that place according to four criteria in the orange ring. In the ring outside these main criteria are a number of intuitive or qualitative aspects by which to judge a place; the next outer ring shows the quantitative aspects that can be measured by statistics or research.

Source: What makes a successful place?, Projects for Public Spaces.
3.2 Built environment and mental wellbeing

In his Edition, *Built Environment and Mental Wellbeing, More Than Bricks and Mortar?* (1995), David Halpern analyzing the reciprocal relationship between the two components above, poses some fundamental questions, which have a special value in the design process. Specifically, he asks:

“Was it really true that we, as designers, only had to concern ourselves with aesthetics? It seemed like a wonderful freedom, but what if we were wrong? What of people who had to live in our designs? Was it really so arbitrary if the building was for ten people or a thousand, if the road went straight or around, or the city was built in one way or another? Was it really true that the built environment did not affect our social behavior and well-being?”

Thus, no matter how little the social elements are dealt with in the project practices or in the Albanian university curricula in general, their true value can easily be evidenced. To make a clearer picture of these two dimensions, namely the built environment and mental health, it is important to give the relevant definitions.

- Mental health and wellbeing is the state in which the individual realizes his or her own abilities, can cope with normal stresses of life, can work productively, and is able to make a contribution to his or her community (World Health Organization)
- The term built has been defined as "the human-made space in which people live, work, and recreate on a day-to-day basis." (Journal of Environmental Health.)

Clearly can be understood the reciprocal relationship that these two elements creates with each other, significantly affecting the quality of life of the individual.

3.3 Qualitative Space in Terms of Mental Wellbeing

After highlighting the importance of space characteristic in the quality of life as well as the relationship between the built environment and mental health, the study aims the concentrating on the public space as part of the built environment. Further, after the consideration of local context, the research aims at defining the architectural characteristics with which the areas should be developed. Concretely, as noted above, the public space determined by the prefabricated residential block at Str. "Kongresi i Lushnjes", near the "21 Dhjetori" Sqr, has been studied.
This space has been reviewed in collaboration with graduate students at the Faculty of Architecture and Urban Planning in Tirana, who have given their ideas on two types of development of the public space in the residential block. The first uses the empty space of the residential block based on active urban parameters where mostly rhythmic activities will be generated while the second uses the same space based on the passive urban development parameters expects to generate sedentary activities. Thus, variants of different nature functions have been processed, which are further tested on the inhabitants of the area, to reach the main conclusion of the research. It is this moment that examines the typology of the public space as well as its qualitative characteristics versus the relevant context which is defined by the way of life of the inhabitants. So initially, between the interventions, the quality of the common space has increased, while residents have been questioned to decode the typology of intervention that best affects their quality of life, regardless of the quality of its own. It should be emphasized that the main purpose of the study remains to examine in a defined context of mental health - constructed environment, by specifically testing intervention categories based on existing design theories.

3.4 Qualitative Space in Terms of Real Estate

As Evans (2003) published in the Journal of Public Health, the built environment has direct and indirect effects on mental health. The way in which our human structure is made and moreover how the space generally affects the human brain, categorizes the life quality of individual. The latter, however, remains a personal approach which has been identified in the study as a result of field surveys.

On the other hand, the aim of the research was to find out how much the residents of the zone or different transit zones in the area were generally sensitive to the quality of the public space but also the sale and purchase of their property if it only analyzed the quality criterion built environment. So, to set it apart, the study has analyzed the trinomial mental health - built environment - real estate or otherwise says brain - space - real estate.
4. Interventions in the Relevant Area

4.1 Qualitative Space in Terms of Active Area
4.2 Qualitative Space in Terms of Passive Area
5. Results and Conclusions

After the survey on the area, residents of the zone and transient were obtained results based on the sections under which the survey was conducted. So, after being questioned by a total of 150 individuals, of whom 90 were residents and 60 transitional, the outcomes were:

5.1 Residents (90 people)

- The quality of life in general varied from so-so to good, where 46 people seemed to have a so-so quality of life and 14 considered their quality of life as good one. The rest believed that the quality of life was very good, very bad or were indifferent to the phenomenon.
- The economic situation in general ranged from so-so to good, where 61 people said they had a so-so economic situation, while the other part, 19, consider their economic situation as a good one. The rest believed that the quality of life was very good, very bad or were indifferent to the phenomenon.
- The urban perception of the public area, so the impression of the the public space in their housing block ranged from so-so to good, where exactly 12 residents had a so-so impression of the public space in the block where they lived and 52 people felt that this space was well treated. The rest believed that the quality of the public space was very good, too bad or were indifferent to the phenomenon.
- The spiritual connection that the inhabitants have with the area under the study, perhaps inspired by the autochthonous residents in the area, 53 residents were strong connected with the neighborhood, while 10 others were very strong. The left part was largely indifferent.
- The desire to sell the apartment, considering only public space, was perceived by 58 people, ie by more than half of the respondents.
- The preferred typology for organizing the public space in the area where they resided was almost half a half, where 42 people were chosen active and 38 passive ones. The rest remained indifferent to the phenomenon or did not want to intervene in the area.
- Re-evaluation of the desire to sell the apartment, if the public space was organized according to the case selected by the respondent, was approved by 56 respondents.

5.2 Passersby (50 people)

- The quality of life in general varied from so-so to good, where 28 people seemed to have a so-so quality of life and 11 considered their quality of life as good one. The rest believed that the quality of life was very good, very bad or were indifferent to the phenomenon.
- The economic situation in general ranged from so-so to good, where 43 people said they had a so-so economic situation, while the other parts, 12, consider their economic situation as a good one. The rest believed that the quality of life was very good, very bad or were indifferent to the phenomenon.
- The urban perception of the public area, so the impression of the the public space in their housing block ranged from so-so to good, where exactly 16 residents had a so-so impression of the public space in the block where they lived and 34 people felt that this space was well treated. The rest believed that the quality of the public space was very good, too bad or were indifferent to the phenomenon.
- The spiritual connection that the inhabitants have with the area under the study, perhaps inspired by the autochthonous residents in the area, 22 residents were strong connected with the neighborhood, while 8 others were very strong. The left part was largely indifferent.
- The desire to sell the apartment, considering only public space, was perceived by 21 people, ie by less than half of the respondents.
• The quality of public space in the area where they live, comparing it with the area where they are passing, is valued from more than half of the residents as the worst. Especially 41 people see the public space of the area under the study as a bit better. The rest consider it the best or are indifferent to the phenomenon.
• The preferred typology for organizing the public space in the area where they resided was almost half a half, where 37 people were chosen active and 38 passive ones. The rest remained indifferent to the phenomenon or did not want to intervene in the area.
• Re-evaluation of the desire to sell the apartment, if the public space was organized according to the case selected by the respondent, was approved by 40 respondents.

6. References


