

Biological: Psychophysical and Aesthetic Categories for Space Modeling

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Abstract

The main goals of the research in this paper are to explain the role of biological - psychophysical and aesthetic in the conceptualization of the architectural space. Research in this direction has been and still is a constant focus of researchers, and in this way, it grows from an initiation into a basis for application in everyday architectural practice. The only possible orientation in this case is interdisciplinary – the use of fundamental knowledge and new research from the fields of human sciences, such as psychology, aesthetics and others. Exploring the architectural space modeling categories, we examine all scientific disciplines that directly and indirectly influence design, planning, design, but also the experience of space as essential parameters in architectural theory and practice.

Keywords: Architectural space, interiors, modeling levels, biological level, psychophysical level, aesthetic categories.

1. Introduction

The goal set in the project consists in the possibility of establishing project parameters that should help us in better solving the interiors. The projects are only abstract projections of the walls of the building, which have reality only on paper, and are justified by the necessity of measuring the distances between the elements of the construction for their practical implementation.

The facades and sections of a building help determine its height. However, architecture does not consist only of the width, length and size of the structural elements that surround the space in which man lives and moves. The key to understanding a building is to understand its interior space. No matter how beautiful, a house, church or palace are only "boxes" formed by the walls - the content is the space inside. For the realization of the set goal, all categories that model space are examined.

Tab.1. Overview of the implemented activities that achieved the goals and the indicators that monitored the realization of the goals and the achievement of the results

Objectives / activities Time frame for the realization of the project (months)	Objectives / activities Time frame for the realization of the project (months)											
Objectives / activities	1	2	3	4	5	6	7	8	9	10	11	12
1. Investigation of biological parameters for space modeling		R1										
1.1. Anthropometric research on space	I1											
1.2. Ergonomics of the space	I2											
2.0 Psychophysical parameters for space modeling	I3											
2.1 Psychological perception of space		I4										
3.0 Aesthetic categories for modeling the architectural space	I5											
3.1 Perceptual – mental mechanism		I6										
3.1 Elementary perception of the aesthetic		I7										
3.2 Structural perception of the aesthetic									R2			
3.3 Formal perception of the aesthetic			I8							I12	I12	

*I – filled indicator

*R – delivered result

The subject of research in the project is the study of architectural space modeling categories that are equally important as understanding the space as a whole. In a perceptual or three-dimensional sense, the categories add a new dimension and truly define the totality of the interior.

The research gives freedom to explore deeper into the history of architecture, to emphasize the forms that are exclusively derived from the relationship between man and nature, namely nature and the biological-psycho-physical traits of man.

Primitive objects were certainly not burdened with an enormous number of requirements and categories, as they are today. They were only supposed to provide biological and psycho-physical protection to primitive man. However, the need and the way to their fulfillment were so immediate, that forms instinctively arose that even modern architects find it difficult to discover.

The same applies to the more recent history of man, that is, to traditional architecture, where the relationship between nature and the biological - psycho-physical characteristics of man were precisely the objects for living. Modern architecture hardly achieves this kind of synthesis. Because of that, interiors move away from the real needs of people, that is, from the functional level of space modeling. Any disproportion in this segment as a result brings disproportion in the immanent structure of the interior. For that reason, these researches should make a contribution in the direction of confirming the theoretical assumptions.

Tab.2. Detailed review of the realization of the research and the achieved results

Goals / activities for the realization of the goal	Indicator for monitoring the realization (I)
1. Research of biological parameters for space modeling	
1.1. Categorization of space	Obtained data and parameters for the space in which the person lives/works
1.2. Biological level of space modeling	Obtained data on the biological parameters of the space in which the person lives/works
2.0 Psychophysical parameters for space modeling	Obtained data on the relationship of man to his environment and vice versa
2.1 Psychological perception of space	Obtained data on the psychology of
3.0 Aesthetic categories for modeling the architectural space	Man in space, environment
3.1 Perceptual – mental mechanism	Obtained analyzes of the aesthetic levels that help the modeling of the space
3.2 Elementary perception of the aesthetic	Obtained data from the perceptual-mental mechanism
3.3 Structural perception of the aesthetic	Obtained data on aesthetic perception
3.4 Formal perception of the aesthetic	Obtained data on structural perception
3.5 Perception of beauty	Received-data on formal perception

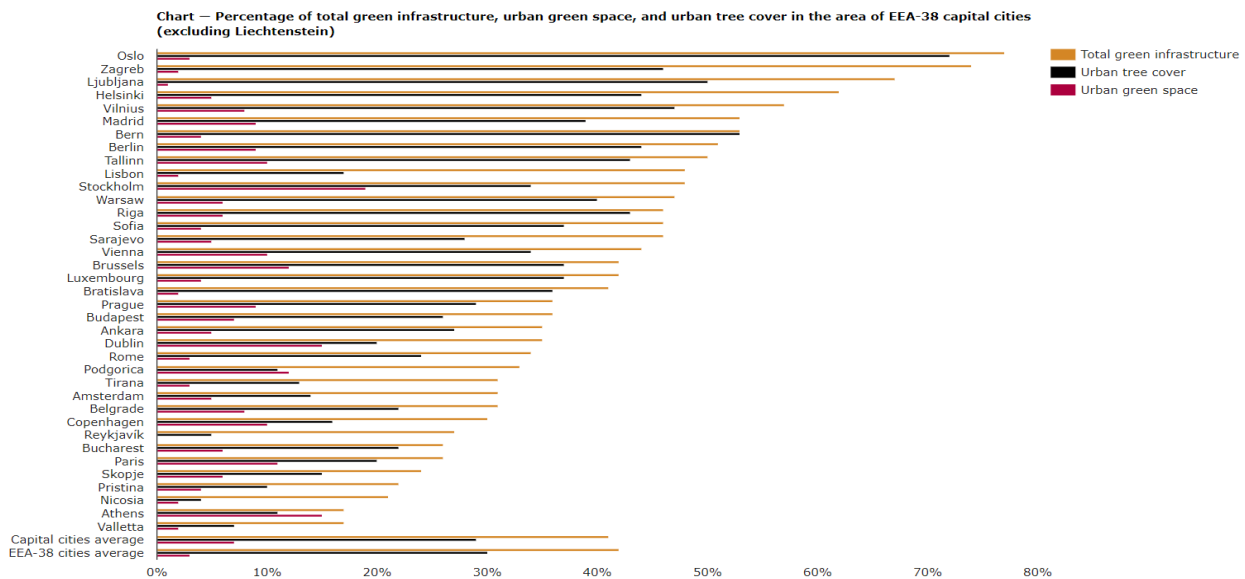
Environment - living space

Despite the fact that in further considerations about space we will come to its abstract dimensions in this research, the competencies of this topic remain within the framework of the human environment. The problem of the environment integrally covers: spatial planning, the shaping of the city landscape, architecture, industrial design and visual communications. What is significant in this definition is that environmental issues are complex. The study of environmental problems aims to indicate their interdependence, expansion and negative consequences if they are not taken on time. Human life and society depend on the natural and artificial world and its increasingly intense transformation, which is the result of human intervention in the biological world. This transformation therefore contradicts itself because instead of improving people's environment, they find themselves in constant danger of losing balance and destruction, living in fear of a dystopian future. Hence, the most important parameters of the targeted and stable organization of the environment are: planning, shaping and control. In the context of such considerations, it is important to highlight the aspiration for the architectural totality of the artificial world, namely the orientation towards interdisciplinarity along the lines of urbanism, architecture, design.

In the process of establishing balance, a detailed acquaintance with the peculiarities of the living space helps us the most, because it enables an accurate approach during its planning and design, in which the biological, psychophysical and aesthetic parameters occupy the most important place. The organization of the living space established in this way is a condition for the biological and social existence of man. People's interest in space has a vital significance, it extends into the deep past, where together with consciousness it has its roots. It stems from the need to understand the life processes in the environment, with the understanding of natural laws to design it. By his nature, man is adaptable to his environment as much as his biological and psychophysical being arises from the general biology and physics of the

environment. His attitude towards the objects that surround him can be: cognitive, active and creative. In all cases, the relationship of man to the environment should be oriented towards creating a dynamic balance between these entities.

Tab.3. This graph shows the percentage of total green infrastructure, green urban areas and tree cover of 37 capital cities (EEA-38, excluding Liechtenstein) as a percentage of their total area. It further shows the processes for all the cities included in the Urban Atlas 2018 database as well as for the corresponding 37 capital cities.



Most human actions also have their own spatial aspect, in the sense that objects of orientation are categorized by relationships, for example: "inside" and "outside", "far" and "close", "together" and "separate"., "continuous" and "dashed".

2. Research Materials And Methods

According to what was stated in the introductory part, space is not only a separate category of orientation, but one of the aspects of any orientation - people spatially orient themselves. In order to be able to realize his intentions, man must understand spatial relations, and then unite them into a single spatial concept. For a better understanding of spatial relations and space in general, there are a number of theories that have been historically analyzed since the old century. According to the theories of the Greek philosophers, the entire space is unique, geometric and measurable. With Einstein's teaching, knowledge of space takes on new dimensions, so that today we can make a global division:

- concrete physical space (micro, everyday and macro) and
- an abstract mathematical space that is assumed in science to describe the physical space with a certain degree of approximation.

Writing about the living space, certain authors insist on the division of the existential space in order to highlight and free its details for study (Georges Patricx, Design et environment, 1975), so for example Patrick divides the living space into:

- space for current life;
- space for research;
- travel space.

The first is a space that people regularly use and whose boundaries are mobile and changeable (apartment, house, office, places to rest, places to socialize, places of one's own choice). These are spaces in which man navigates with his eyes closed (Georges Patrix, *Design et environment*, 1975). The second, exploration space, is unpopulated space. A place where you can't go at the moment, but a space that can become a living, working or resting place. For example, when we change the place of residence, work, etc. Without definite boundaries or determinate dimensions, this space creates the impression of spatial freedom. The third, travel space, is manifested through the desire to leave the space of everyday life and does not touch the everyday space.

The psychology of space can be explained by introducing a system of abstract concepts (Schulz, *Existence, space and architecture*, 1999). Taking into account the human experience in relation to its environment, we can say that the perception of space is a complex process because we do not see the world as the same and unique for all of us, but we perceive different worlds, which are the product of special motivations and accumulated experience. Thus, in Schulz's theory, the term "scheme" defines attitudes, behavior, noticing events in the four-dimensional space-time. Spatial "patterns" are composed of elements that have a certain immutability, such as universal elementary structures and certain personal idiosyncrasies. All of this together composes the image of man about his environment as a stable system of three-dimensional relations between objects of different importance. Accordingly we unite these patterns in our concept of existential space.

Such reactions are formed together with the mental development of the individual and with the interaction between the individual and the environment. This is how the process of assimilation and accommodation, i.e. absorption and adjustment, occurs. Opposing the passive subjugation of the environment, man changes it to his liking, imposing a certain structure. The adaptation of man in the world that surrounds him could be defined as a balance between assimilation and accommodation (Schulz, *Existence, space and architecture*, 1999). There is no pre-defined complete perception of space at the very beginning of the mental development of man, but noticing the space is a gradual and constructive reaction. It is a normal process of behavior that means acceptance of the three-dimensional world. So the awareness of the space results from the experiences and connections made with the surrounding world.

The research methodology in this paper was carried out by applying the adequate methodological approach suitable for this type of research. Basically, the research was divided into three phases, that is:

- a. research on the biological level of space modeling;
- b. research on the psychophysical level of space modeling;
- c. research of aesthetic categories for space modeling.

The methods used were: historical analytical; comparative method; measurement method.

3. Results And Discussion

3.1. Biological level of space modeling

Modeling the architectural space is the most sensitive of all the tasks that are set before the architects. Its complexity stems from the obligation to study all the factors of the human environment beforehand, especially those that are decisive for the life and health of people – the biological modeling of space. The built architectural space appears as a regulator of external influences on the biological constitution of man. In the basic structure of the interior, the elements for realizing the regulation are incorporated. It would be most natural for the biological and the psychophysical in man to go together. We take the bi-

ological characteristics of man as biological factors for modeling the space. One of the most pressing problems of all humanity today is the relationship of man to the environment; how to keep the earth's biosphere functioning; how to save from overpopulation and hunger; how to protect against extreme pollution/ecosystem destruction. Today, these basically ecological preoccupations take on a dramatic form as a result of environmental pollution and the danger to human life.

Sticking to the line of ecology, we would say that building an object in the natural environment also means taking away from nature itself, that is, usurping the ecosystem.

Environmental Quality Monitors AQI (a unit of measure for measuring the effect of pollution – the amount of pollution divided by the material standard of living and all multiplied by one hundred to get the amount of pollution in percent) doubles every 13.5 years . if this rate of growth continues, the total ecological demand will increase by 32 times in 66 years - this means the destruction of the ecosystem.

The factors of the natural environment do not derive solely from the biology of nature, but have a decisive influence on the biology of man. In all the histories of architecture, it is stated that the first buildings that man made were the result of his opposition to nature, that is, as a result of protection from natural phenomena. Their elementary explanation should not take up more space in this research, some of them are: air, water, insolation, vegetation, heat, relief, earthquake and other weather disasters. The factors of the built environment are the result of natural and human intervention in nature, such as: temperature, humidity, microclimate, aeration, insolation, greenery, noise, vibrations, pollution.

Factors arising from the biological psychophysical characteristics of a person are difficult to consider in isolation because they are causally related. Today, more than ever, it is clear to everyone that architecture is much more than modern construction technologies. The motto "man is the measure of all things" has long been incorporated into architectural theory and practice, which means that everything that is built is built for man and that his measures should be an integral part of architecture. In the world of design, it has long been clear that ergonomics, meaning again the human relationship with objects of daily use, is a driver of design. So first the human needs for greater comfort when using the object, then how to achieve them with which technologies and from which materials - there is no doubt here. It's just that all disciplines on the way of design are intertwined (interdisciplinary approach).

Tab.4. This table shows the basic human needs from the environment, and therefore also from architecture.

Table of basic biological needs of man
Conditions in the working and living environment - this includes:
Lighting, air conditioning, ventilation, heating, cooling, radiation, plumbing, cleaning, maintenance
Nutrition – food preparation, food preservation, serving, serving, eating, accommodation and storage of food.
Hygiene – washing, cleaning, cosmetics, massage, gymnastics.
Care – first aid, treatment, therapy

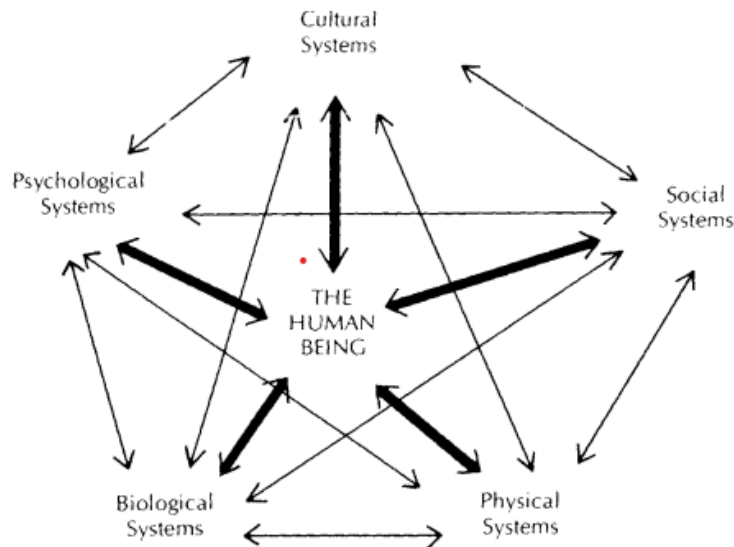
3.2. Biological Anthropology

Physical anthropology or the biology of man is a science that studies the biological properties of man, issues related to the growth and development of the human population and its structures in space and

time. The research of this scientific discipline is dedicated to man and his adaptability under the influence of the environment – all the morphological features of the human body are the result of the interactive action of genetic factors and the environment. One of the branches of human biology is anthropometry and ergonomics. The first deals with the measurements of the human body and the second with the relationship between the human body and the objects it uses. The results of research in these disciplines have a direct impact on space modeling and furniture design.

The term anthropomorphism in architecture and planning is the identification of human peculiarities and characteristics with those of the objects in the city. In the field of design, anthropomorphism means taking into account human psychological reactions and ways of use when designing objects or space. It means creating an atmosphere that can be unique for the entire city, settlement or village.

Fig. 6. The graph shows the interrelationships between scientific disciplines and man.¹



3.3. Psychophysical level of architectural space modeling

All construction interventions essentially always have a single goal, and that is the need of man to adapt to the environment. On one side is man with his biological, psychophysical, intellectual, emotional and other needs, on the other side is the environment with its natural characteristics, but also with its social, political, cultural and economic orientation. Architecture is one of the possibilities of adaptation to these needs. This means that the architectural space should be designed in such a way that it satisfies human biological and psychophysical needs together with the natural and social needs of the environment in which we intervene.

Modern psychology has the same views as architecture regarding the need to help man adapt to the environment. The real purpose of psychology is to help man to know himself better, how he could achieve a harmonious balance between his personality and society. The questions that psychologists try to answer are reminiscent of those that architects ask themselves: what do we know about man, what are the possibilities for expressing that knowledge, what inspires man towards creativity, in what kind of

¹ the interrelationships of man and the mutual action between separate scientific disciplines as well as human interaction with them can be better understood as a set of disciplines - systems.
<https://home.snu.edu/~hculbert/points.htm>. Accessed 11 February 2024

interaction does man have with objects, what should be the objective world so that man feels satisfied and secure in it?

Psychophysical as a phenomenology in itself and put in the title of this research refers to the sensitive processes in the human psyche during its interaction with the outside world. We perceive a number of complex sensory impressions of colors and shapes, light and darkness, speech, music, taste and others – based on sensitive, sensory perception.

3.4. Psychology and architectural space

Architectural space from the perspective of architectural theory has long been analyzed not only on the basis of spatial geometry. Contemporary studies on the conception of architectural space tend to bring man into the center of research and not only because of the "psychological dimensions of space", the impressions, feelings or effects that space leaves on the human user. Deeper than that, the researches in psychology itself are carefully followed, and the conclusions of these researches complement the architectural science (Lynch, City sense and city design, 1995).

For the basis of their architectural content, scientists use current philosophical and psychological studies (Schulz, Existence, space and architecture, 1999). More specifically, the studies are based on Gestalt - psychology and behaviorism. Gestalt-psychology - explains the phenomena in their entirety, without trying to separate them from the whole which they are integrated and outside of which they mean nothing. Gestalt psychologists emphasized that people notice complete patterns or configurations, not individual components, in other words - the Whole is more than the sum of its parts.

Behavioral theory studies the reactions of humans/organisms that can be objectively observed and measured in response to stimuli originating from the environment that surrounds them. In other words, it is behavioral science.

Psychology has always been contained in architectural theory, regardless of the messages of architecture throughout history, successive psychological interpretations have been observed. For example: Egypt - the age of fear, during which man devoted himself to the preservation of the body without which he could not be reincarnated. Antic Greece period was a century of beauty, a symbol of contemplative rest in the game of passions. Antic Rome period was the age of power and its symbols and pomp. Gothic period was the age of mystical aspirations. Christian era period was the age of piety and love. Renaissance period was the age of elegance. Baroque period was a century of predominant power over elegance and styles... (Zevi, Architecture as Space: How to Look at Architecture, 1993).

For researching the psychophysical level of architectural space modeling, it is best to examine what kind of interaction relationships exist between man and space. The dialectical explanation in this case would be that the space is shaped according to the psychology of the people, but also vice versa, the psychology of the people is formed depending on the environment.

The analytical approach could be considered in the following ways:

- Man's attitude towards certain spatial situations, using the knowledge of behavioral psychology (plurality).
- Through the analysis of the spatial structures and situations to single out constants suitable for separate study, we want to analyze the psychological aspect of the elements that participate in the architectural totality (shape, material, color and others).

The issue of human behavior towards certain spatial situations is two-way – how the spatial structure of the architectural space affects the psychophysical constitution of the human being. In the scientific sphere of psychology, the behavioral approach is perhaps with the answer, while simultaneously

researching what is common in people's demands as well as what is common in different spatial situations.

The psychological constitution of a person often goes back to the memories of the earliest childhood, which further creates predispositions in a person, that is, sympathy or antipathy towards certain values. The difficult establishment of contact between today's man and the new architecture mostly stems from the relationship between man and matter. People really instinctively love old materials (stone, wood) old styles and constructions, maybe due to the fact that when they were near these objects, they felt safe. On the contrary, in modern architecture materials (concrete, steel, glass, aluminum, plastic, and composites) are products of industrial processing. Therefore, contemporary architecture creates forms that compete with nature. In this way, the old clash of abstraction and naturalism is repeated; in which things that are easier and faster to understand prevail.

3.5. Aesthetic categories of architectural space modeling

Common to the categories of space modeling (biological, psychophysical and aesthetic) is that they are regulators of the relations between man and his environment, between the person and the outside world. The aesthetic category is realized through the usual instruments: composition, proportion, rhythm, ornament, texture, color, etc. Architects under the pressure of the aesthetic category are constantly in a situation to decide between the useful and the beautiful, actually towards the efforts of balance between their joint actions. If the final modeling of the space contains less aesthetic value, we are immediately ready to claim that the appearance was not taken into account. But a careful analysis will show us that it is not only about aesthetic values, the modeling has failed on many other levels (for example, we say that a dark space is not beautiful because it is dark - biological level).

Unlike other fine-spatial arts, architecture and design realize their primary meaning through their utility. Sometimes we declare the useful, the honest, the thought-out, the real as beautiful. The mentioned attributes refer to the architectural space that man experiences through the mental mechanism of perception; hence the aesthetic properties of the space have primarily a psychological impact on the observer.

3.6. Beauty and science

Theoretically, an answer is still being sought as to whether aesthetics (beauty) is an objective or subjective category. Namely, does it exist objectively or is it inside the person observing the work of art or nature. According to the first assumption, the aesthetics of nature or of a work derives from their properties; the same are imposed on the observer as an objective reality. This attitude is known in philosophy and aesthetics – the attitude that the aesthetic exists in the objective world, outside and independent of us.

If we are looking for a pragmatic scientific confirmation of this fact, then the stated formula is the basic mathematical formula for designing in the golden section or in the proportions of the golden section. Man recognizes and chooses proportions in the golden ratio over others because he perceives them as beautiful, and he perceives them as beautiful because the entire structure of the human body, at the cellular level, is in the golden ratio. All nature that surrounds us, all plants and animals are built in the golden ratio.

Subjective aesthetics disputes the existence of external beauty independent of the organic and thinking nature of man. In subjective aesthetics it is claimed that the only aesthetics we can talk about exists in us, passes through us and for us. The beauty of objects and organisms is not only created by their existence outside of us, but it is our way of thinking about their qualities. According to subjective

aesthetics, objects cannot be beautiful or ugly on their own - they are what they are, and their perception of beauty comes from us, the observers, that is, from outside them. Therefore, the beauty of an object does not depend on the nature of the object but on the thought process of experiencing the object by the observer. Hence, the same object evokes different feelings in different people.

From the complexity of the relationship to beauty in subjective aesthetics, we can say that it is only one chapter in psychology. Such a dual concept when we have an object that is the object of observation and an observer who evaluates the aesthetics of the object cannot give an answer to what beauty is, because the answer is found in their union.

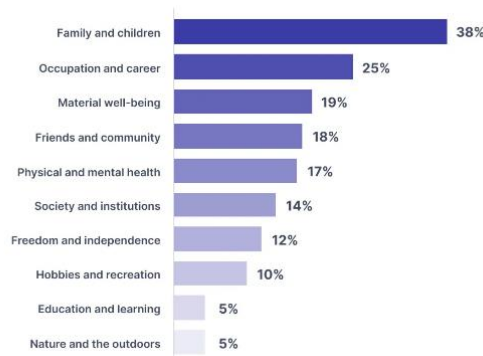
Aesthetics should be inseparable; it should be both objective and subjective. The laws of beauty are not found in the objects that are observed, nor in the subject that is the observer, but in their mutual relations represented as one of their many reactions.

Of particular interest to architects is the question of the relationship between the beauty of nature and the beauty of the artificial environment, as they work under pressure not to degrade natural beauty with their creation. And this problem creates really very complex and problematic relationships. In addition to the many ways of adapting the object to nature, they are constantly under pressure to seek balance in an aesthetic sense. Even when we succeed in our effort and the object fits perfectly into the environment and perfectly fulfills the requirements and functions there are still aspects of communication between the natural and the artificial world. The attitude of the observers of the people who only see the work is very important here.

Mixing these two types of beauty is one of the most widespread and harmful illusions. The value of a picture is appreciated simultaneously because of the colors or the ratio of the volumes, but also because of the youth and pleasant face of the model who posed in the studio. In a novel, style, composition, and the presence or absences of lovable and brave heroes are placed in the same plane. Namely, the wide audience of a work wants to find the same persons or objects that are used in everyday life. It does not know or does not want to have two types of admiration for two identical values, which cannot be compared (C. Lalo, Introduction a LEstetique).

Transferred to the spheres of architecture, this would mean that the adoption of certain situations from nature (bionic) and certain materials, automatically makes the work palatable to a wider audience. People like and love more what they can understand, that is, what does not require much intellectual effort to understand.

Tab.5. This graph shows us which values are most important to people in developed countries²



²https://miro.medium.com/v2/resize:fit:1400/format:webp/1*h95DrX_hfPo717bQNsnx7g.png Pew Research Center, What Makes Life Meaningful? Views From 17 Advanced Economies, 2021

The aesthetic category in the architectural work can be analyzed at: elementary, structural and formal level:

- It basically contains the aesthetics of pure "architectural" instruments: composition, proportion, harmony, color, texture, etc.
- It is structural in the beauty of the union of spatial values with the values of architectural space modeling and
- Formally, it is the aesthetics of the overall undertaking and its relationship to the environment in the broadest sense of time and space.

3.7. An illustration of the psychological experience of beauty

From a psychological point of view, beauty can be an instrument for discovering the higher level of reality or the depth of life. Our feelings become aesthetic if they reveal the deep essence better than the nature of things. The first step in the analysis of any phenomenon/thing is to come to an understanding of the main problems. since we are studying beauty here, we will try to give some definition. The word beauty, which means so much to all of us and which we use so often, is difficult to define, it is easier to describe the feelings about something we call beautiful. We treat what is beautiful with an emphatic, pleasant and long-lasting interest. such a balance is of great importance for our physical constitution, because if it were not so, the world would seem tasteless and boring to us (V.K.Bal, The art of interior design, 1982). To better understand the interplay/dependence between an object/object and the person/observer who likes that object it is desirable to study the sequence that psychologists use to illustrate the human experience.

Table 6. Interaction between the subject / object and the person / observer.

W	World, environment, surroundings,
S	Stimulus
O	Our organism with its receptors – brain and muscles
R	Answer
W	World, environment, surroundings

If the bell rings, it happens because someone in the neighborhood pressed it. This stimulus is received by our ears. then through the nervous system the impulse goes to our brain. The brain is able to give a physical response to the stimulus transmitted through the muscles. This is the simplest experiential reaction to external impulses, if we only replace the stimulus of ringing a bell with the beauty of an object we observe, we will get the same chain reactions.

In the experiential experience of beauty, the world (W) may or may not be physically present as the source of the stimulus or stimulus (S). In the completely imaginary experience of beauty, the world is far away. we call upon beautiful thoughts and representations from the rich archive of our consciousness. In experience, the response to beauty (R) is not always the result of visible action. Such action is an indirect result of experience. The whole cycle of experiencing the beautiful can begin and end in consciousness. The simplest response to beauty is often much more than mere sensitivity, as it requires mental activity. Enjoying beauty does not cause bad consequences and has no repercussions on the object of our interest, nor does it mean depriving the pleasure of other observers. reactions to beauty are irrational and emotional, always completely personal, corresponding to the quantum of experience contained in the

consciousness of each individual. It is often difficult to understand the reasons why we find things beautiful. It is equally difficult to convince someone to see beauty where we see it.

Of course, as architects, interior designers, we should orientate ourselves towards that beauty that is affirmed by consumers around the world. The designer should create to his satisfaction but also to the satisfaction of the client. This process is not simple. Despite the fact that the experience of beauty does not require greater intellectual activity, the perception of beauty is not as simple as delighting in it. In fact, we are often more sensitive for simpler reasons than for complex ones that are harder to understand. Analyzing the complex nature of beauty should help us create an environment that will reflect our ideas, but which, in addition to the rest, should satisfy the aesthetic needs of its users. Although beauty is felt quickly, the response to the initial impulse arises from other responses. reactions are basic or primary depending on the source of the impulse for the beautiful.

Whether we like it or not, interiors attract our attention. The design of furniture and everyday objects as well. For example, after seeing a color in it, we can say that it makes us feel happy. The perception of color is primary, and the evoking of joyful feelings is a secondary response or reaction to the impulse of beauty through the color element. If we appreciate a color as harmonious with its surroundings, we react in a more complex way. If we say that a color is beautiful, we value the color, but this depends on a number of other factors. But can we be sure that someone else will find the color beautiful? No, if we don't know in advance how that person reacts to the given color in other situations. And so a single small component of the complex puzzle called the interior entails a lot of thought.

The idea that beauty is caused by stimulation alone can mislead us and call into question all previous analyses. The experience of beauty, although it does not require the conscious use of higher brain centers, can result from the stimulation of only a certain part of the brain. Our analysis of beauty indicates that the same object is not equally beautiful to everyone, referring to the organism (O) factor. In the physical sense, based on the accumulated experience, no two persons are the same. At any moment the physical, mental and emotional status of two different individuals looking at the same object can be completely different. The individual is influenced by the environment and changes over time. Hence it can be said that the experience of beauty is more a dynamic than a static phenomenon.

4. Conclusion

The dimensions of architecture expanded through the discovery of perspective and the graphical representation of height, width, and depth as applied to architecture. Time has thus become four-dimensional which imposes images on objects viewed from different perspectives – again due to the needs of the users, of man.

The experience of space, which we have indicated is characteristic of architecture, is also typical of the city, of streets, squares, alleys and parks, in playgrounds and gardens, wherever man has enclosed space by delineating or limiting the void. If in a building space is limited by six planes (floor, ceiling, four walls), this does not mean that five planes instead of six determine it, because, for example, a courtyard (without a roof) or a public square cannot be considered equal to the inside of the building – the treatment and experiences in that space are different. Each architectural volume, each partition, represents a boundary between space and its environment, that each building is a machine that creates two types of freedom: its internal space, which is completely determined by the building itself, and the external or urban area, which is determined by the building and its environment.

Constant scientific and technological progress has enabled the dissemination of poetry and literature, paintings, sculptures and music on a vast scale, enriching the spiritual heritage of an ever-increasing number of people. While sound reproduction has almost reached perfection, the progress of color photography indicates that the next few years will see a distinct evolution of general education in chromatic values, an area of visual experience in which the average level of understanding is still below that of with the drawing and the composition.

The projects are only abstract projections of the walls of the building, which have reality only on paper, and are justified by the necessity of measuring the distances between the elements of the construction for their practical implementation. The facades and sections of a building help determine its height. However, architecture does not consist only of the width, length and size of the structural elements that surround the space in which man lives and moves. The key to understanding a building is to understand its interior space. No matter how beautiful they are, a house, church or palace is just a box formed by the walls - the content is the space inside. However, architecture remains isolated and alone. The problem with the representation of space is not even stated yet, far from being solved. The concept of architectural space is not clearly defined or conceptually marked/named. The most common methods of representing buildings in art and architecture histories are plans, facades, elevations, and photographs.

5. Summary of the Results

From the proposed research, it is expected to obtain basic knowledge about the quality of the living space, the architectural space, and considering that, the space of the interior. Based on the research results, the modeling levels of the architectural space will be defined in accordance with national standards and European norms for this matter. Research in the direction of the biological level of space modeling will provide information for better use of space.

These researches are expected to cover an important segment in the field of contemporary researches on the architectural space – especially the interiors. The expected positive results from the research will be the basis for a better understanding of the interior, gaining greater knowledge about the way of designing, planning and realizing it.

The project can be drawn and interpreted in a hundred different ways, it changes the way the individual looks at the space, the procedure and its purpose to show an abstract concept of space, essentially greatly affects the user - the person. It seems that only the human scale has been overlooked in order to feel that space – the outside and the inside. A person's area in relation to space is determined by their dimensions. Man in reality sees and experiences much more than space, for example a photograph of a building captures only its volume and appearance, which completely excludes the perspective of man as he moves inside and around the building. The key to understanding the complex relationship between man and architecture is precisely the interiors. The essence of human desires and needs from architecture today is determined by interiors.

From the point of view of evolutionary psychology, beauty is not a cultural construct and the appreciation of beauty is not learned, but rather a biological adaptation, part of universal human nature. That beauty is a biological adaptation is shown by numerous examples from nature, even more than that, but that innate sense of beauty can become an engine of evolution, pushing animals to aesthetic extremes. In other cases, certain environmental or physiological constraints direct the animal to an aesthetic preference that has nothing to do with survival. So if beauty has nothing to do with survival,

then it is a biological category and a biological adaptation (Prum, *The Evolution of Beauty: How Darwin's Forgotten Theory of Mate Choice Shapes the Animal World - and Us*, 2017).

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