IOSUD - Universitatea Politehnica Timişoara
Şcoala Doctorală de Studii Inginereşti

A SHORT HUMANISTIC GUIDE FOR ARCHITECTS

Why do architects and Laymen Have Divergent Perceptions?

Doctoral thesis - Abstract

in view of obtaining the title of 'Dr.' and a doctorate at
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1. INTRODUCTION

Context

In 1969 Robert G. Hershberger revealed in the experimental part of his doctoral dissertation that architects do not have the ability to anticipate the reactions of non-architect users to new works of architecture. The study of the young American architect, which later became a seminal reference, revealed that the largest discrepancies were recorded in the evaluation of "pleasure" and "interest and excitement" caused by the architecture of buildings. Almost half of these evaluations have significantly different scores from the group of architects and non-architects. Moreover, sometimes the scores were at the extreme opposite poles of the evaluation grid. Specifically, in 30% of cases, when architects rated a building as "good, beautiful, interesting, or exciting", non-architects considered the same building was "bad, annoying, ugly, boring, or common". The schism between the opinions of architects and those of non-professionals seems to be a topic of past reflection in academic research, beyond the plethora of empirical evidence recorded by architects or users. Most often, the most anecdotal situation emerged with the appearance of landmark buildings that signaled a change in architectural styles. The building designed by Adolf Loos in Michaelerplatz, Vienna in 1909 is emblematic for a new architecture without historical traditional ornaments, which led to its label as "monstrous"[1] at the time.

Limiting ourselves only to single-family residential architecture, empirical observations indicate that while architects lament the high precarious quality of the built mass without being able to have direct and firm control over its conformation, lay people look skeptically, distantly and are sometimes intrigued by houses validated as successful by the professional elite.

On the other hand, the professional culture of architects tacitly encourages originality, individual creativity and absolute novelty to the detriment of the connection of inspiration to the assimilated styles that are familiar to ordinary people. Even if contextual integration is explicitly

[1] K. Rykl, „Stenographischer Bericht über die öffentliche Sitzung des Gemeinderates vom 22 Oktober 1910 (Shorthand report on the public meeting of the municipal council of October 22, 1910)," Amstblatt der k.k. Reichshaupt und Residenzstadt Wien 19 (1910): 2558., Wien, 1910.

declared as one of the fundamental values of high-quality architecture, most of the celebrated buildings resulted show a clear decontextualization. Architectural historian Harry Mallgrave (2018) states that, in recent decades, "the idea of novelty has become the real business card of many architects" who "seek to eradicate and deconstruct any resemblance to the metanarrative order." This difference, between the “authored” architecture that constitutes the exception and the anonymous architecture that constitutes the norm, deepens continuously and feeds itself. As much as elitist architecture seeks new forms of expression, the profane cannot imagine living and appropriating foreign spaces, finally appealing to those willing to shape a world familiar to them, which they can call "home". And while the award-winning houses - whether uprooted by context or, on the contrary, carefully inscribed between neighborhoods - are few, the mass of "compromise" houses proliferates, becoming the reference of the familiar for the laymen.

Questions. Objectives

As the subtitle of the thesis indicates from the beginning, the corollary question of the research focuses on the reasons that determine architects and those without professional training in the field - the so-called laymen - to perceive the built world so differently. Structuring the research around the motivations of human behaviors that have as determinants at least three layers, the thesis divides the corollary question in three other secondary interrogations.

The first question refers to the existence of a possible universal preference for a particular characteristic of human habitat. In the context of the thesis, by human habitat we mean the entire range of ecological niches people live in, starting with the natural unaltered environment where tribes of hunter-gatherers still live and ending with large metropolises made up almost exclusively of artificial objects. So, is there a common area of intersection between the characteristics of the habitats preferred by architects and laymen? And if it really exists, what does this area include?

The following investigation narrows down searches from the wide range of diverse human habitats to somewhat finer-grained categories: particular construction cultures. How does cultural affiliation influence the populations’ way of building, and what is the role of cultural affiliation in forming perceptions and implicitly in motivating the choices of a certain building style?

The last part of the research focuses on the individual perception of the subjects. Using the validated results of neuroscience research, the thesis aims to clarify some of the aspects that work together to shape the perceptions of the aesthetic aspects of architecture. More precisely, the work is thoroughly explaining the neuropsychological mechanism by which the attributes of architectural objects end up being received and interpreted in a disjoint manner by architects and laymen.

Methodology

The major explanatory theory that structures the research premises is eloquently reflected in the model proposed by Geert Hofstede (1980) for the motivations of human behavior. Hofstede G., Hofstede GJ and Minkov M. (2010) describel behavior as "mental programming", human manifestations depending directly on three major factors: human nature, cultural affiliation and personality.

Starting from the elementary tripartite principle that motivates human behaviors, the thesis is structured in three main directions of investigation. These directions materialize in three main chapters, called: "The Ancestral Substratum", "The Cultural Substratum" and "The Personal Substratum" in which the causes that generate both different construction behaviors and distinct preferences towards constructions are pursued.

In addition, the research uses the "abduction" or "retroduction" method as a tool[2]. This tactic presupposes a reasoning that starts from a particular condition that is considered to be a representative case, this representativeness not necessarily being doubled by solid evidence, but which, through "educated prediction"[3], can lead to general patterns of relationships specific to fundamental hypotheses.

In the present thesis, the representative cases that generated the primary principles are three authentic life stories: the theoretical vision of architect Richard Neutra, ignored by the professional elite, the construction of houses as a symbol of success in the community of Certeze and the episode of a scholar's grief on visiting a house validated as a success by the professional elite of Romanian architects. The three evoked experiences have a double role. They have led both to the author's identification of the three primary principles, but the narratives also help the reader to more easily intuit the connections between the theoretical argument and its practical implications.

2. THE ANCESTRAL SUBSTRATUM

The first level of investigation aims to find out if there is a universally preferred characteristic that characterizes the habitats in which we live. As universality presupposes innate behaviors, the research delves deep into the evolution of the human species, in order to assess and compare the extent of the periods in which our ancestors lived in nature, under the open sky, and the times when they began to build their first shelters. The study of "living" under a "roof" is done by researching the prehistory of housing and the critical stages that structured the evolution of this artifact, capital for survival. Knowing that there is a relationship of interdependence between habitat, the individual and the artifacts made by him, Chapter 2 follows in parallel the evolution of the three phenomena, in order to understand the integrated dynamics that has shaped this triad over time. In the end, two hypotheses are tested. The first was formulated by John P. Eberhard and starts from the icon of the iconic house with a roof that all children can draw, the architect considering that the drawing is generated by an innate mental model. This hypothesis, however, does not seem to be validated by any set of solid evidence, as Eberhard is relying his assumption on a limited set of empirical evidence. The second hypothesis is strongly intuitive and automatically results from comparing the magnitude of the evolution time the hominids spent in the raw nature, in the absence of the roof with the evolution time spent by the hominids under the built shelter. This hypothesis stipulates a universal preference for the organic world, but the accumulated evidence proves that nature has a broader effect than the simple cross-cultural aesthetic role.

The study of this chapter proves that, even if the influence of the built environment is unknown, as long as our basic needs are met we tend to feel better in the vicinity of nature than in the vicinity of built space, that is, we maintain a revitalizing relationship with the primary environment in which we formed as a species. It has also been shown that there is a positive correlation between our well-being and access to nature. Moreover, evidence has been provided that perception through the window, however limited, of even unspectacular natural

[2] Although the words have not been assimilated in Romanian with their meaning in the context of the research, the translation of the words "abduction" and "retroduction" from English appears as such in various scientific publications in Romania. See, for example: „În căutare de principii. Epistemologie și metodologie socială aplicată" [In search of principles. Epistemology and applied social methodology (t.n.)]. Petru Iluț (ed.), 2013, Iași: Polirom

[3] D. Wang, „Chapter 11. Logical Argumentation," in Architectural research methods.–Second Edition, Hoboken, New Jersey, John Wiley & Sons, 2013, pp. 379-415

scenes has a palliative effect, that the presence of nature balances the mind, increases cognitive acuity and satisfies aesthetic needs much more easily than built environment does.

3. THE CULTURAL SUBSTRATUM

Chapter 3 seeks to understand how cultural affiliation can influence the motivations and methods underlying building behaviors. To this end, general cultural phenomena are deciphered in an evolutionary key, an explanatory model that offers unity and clarity in the overwhelming diversity that the human cultural world exposes. Although the number and sophistication of cultural behaviors make it difficult to discern the adaptive role, following the red thread of becoming an artifact over a long period of time, we will almost always discover that the object was born of an adaptive need. Island societies, those geographically isolated or geo-politically enclaved that have had little contact with agents and artifacts belonging to other cultures can be eloquent examples of the adaptive role of culture. Japan values the ascetic lifestyle and minimalism reflected in the way of living in small single-family homes, in the style of furnishing the interiors, in the tolerance of congestion, because the frequency of natural disasters required detachment from material surplus and preparation for evacuation and survival.

And if cultural practices truly are adaptive, this involves modeling cultural behaviors by two factors: *the* geographic and social *habitat* that creates environmental pressures and human *biology*, the sum of people's innate abilities to create appropriate responses to alleviate those pressures.

Vernacular architectures can demonstrate perhaps the most convincing that the particular geography of an environment has a major influence on the type of cultural response of a population. Yemeni architecture in the land is a technology that has been perfected and perpetuated for more than 2000 years, and it remains valid today, given the extreme isolation of the country and the logistical difficulties of disseminating any other cultural variants of construction. Yemeni building which may involve the erection of houses that are up to 11 levels, we use nothing but earth, it proves another unique quality of human culture: the cumulative nature.

Artifacts or ideas are not transferred from one individual to another and from one generation to another in identical forms, the cultural spread of a considerable number of imitative behaviors that are accompanied by far fewer gestures of improvement and innovation.

In order for an idea to gain cultural magnitude, it must be practiced on a collective scale, and the imitation or conformity of individuals ensures this spread. The cultural variants proving their utilitarian value proliferate, giving rise to cultures specific to territories, populations or groups.

Cultures are never frozen in a definitive form and do not self-preserve. Again, building practices eloquently prove this. People have needs and desires, and as soon as they encounter a new cultural variant they evaluate it, giving it a value or a score of use. If the new variant is perceived as more efficient in relation to its expectations, the cultural agent has no reservations in adopting the new construction solution and abandoning the old one. Thus, vernacular building techniques or valuable components from the architectural heritage end up disappearing.

Culture is a dynamic phenomenon, because the actors who disseminate or transform it through loans are living beings with urgent needs, with fluctuating identities and with permanent social contacts that expose new ideas and life solutions.

A cultural system, however, has a natural inertia, and the adoption of a new set of practices and beliefs does not happen overnight. The most powerful cultural system is the one based mainly on the so-called vertical transmission, which involves the children's acquisition of the set of cultural practices, from their parents or caregivers. Within this system, important cultural beliefs are transmitted, which the child takes in an unfiltered form from those who have the ascendancy of age and the credibility conferred by life experience. In the next stages of life, the effect of cultural transmission branches out. The child becomes an adolescent and then a young adult, who, through contact with other agents who manipulate cultural variants different from the parental ones, creates the premises of oblique transmission or of a deviation from the set of parental, traditional values. However, this is the individual mechanism of cultural change, and for a cultural system to change at the population scale, it is necessary for a multitude of agents to choose one and the same cultural variant. The reasons that lead people to collectively deviate from a traditional or old variant of construction can be grouped into three categories (Richerson and Boyd, 2005):

-cultural change due to the content of a cultural variant perceived as more advantageous than the previous practice;

-cultural change due to the frequency of the presence of the new cultural variant;

-cultural change due to the ascendancy or influence that a human model has on a community. If the new variant confers prestige or strengthens the personal or group identity of the adopter, it is possible that the influential model be imitated by a significant number of cultural agents.

One of the most inconvenient conclusions for architects is that the subculture of academic architecture has a minor impact on the culture of housing construction. The conclusion is all the more contradictory as official statistics show that the vast majority of architects are mainly concerned with the design of individual homes. A 2018 study by the Council of European Architects shows that more than 54% of the types of projects carried out by professionals are private homes[4]. However, multiple sources indicate that the activity of housing construction is carried out in an overwhelming proportion without the contribution of architects[5][6][7][8], estimates indicating that probably between 70% and 98% of existing homes have not been built as a result of any architect's input. In other words, the role of architects in building culture is insignificant.

If we start from the premise that the three solutions for cultural change proposed by Richerson and Boyd (2005) are valid and try to analyze the operating rules of the academic architecture subculture in relation to these criteria, we begin to understand why elite architecture does not spread on a collective scale.

Valuing and encouraging through an exclusive system of rewards with high symbolic value projects that have a considerable dose of creativity, absolute originality and uniqueness - academic architecture misses the opportunity to create typologies and prototypes that can generate the adoption of such cultural variants based on frequent presence in the built landscape.

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[4] https://aceobservatory.com/M_Sectors.aspx?Y=2018&c=Europe&l=EN

[5] H. Davis, The Culture of Building, Oxford: Oxford University Press, 2006/1999, p.77

[6] https://www.dezeen.com/2017/12/04/finn-williams-opinion-public-practice-opportunities-architects-ordinary-briefs-ordinary-people/.

[7] https://buildingadvisor.com/your-team/architects/

[8] http://www.harvarddesignmagazine.org/issues/12/seventy-five-percent.

Regarding the adoption of cultural variants based on content, i.e. based on indicators such as high use value, architects rarely produce objects that have this quality. By emphasizing stylistic innovation at the expense of economic profitability, ease of installation or familiarity with the image of the proposed home, architects miss the chance to quickly adopt based on their content the cultural variants created in the design workshops.

Probably the most contradictory situation is created by the method of cultural change based on models. The case study of the construction culture in Certeze shows that people often redefine their identity, and the house along with other artifacts on public display can be an identity avatar. Or, if the architects have as major desideratum the originality and the unique creativity of their creations, the works very frequently end up being the designer's identity marker and very rarely represent the user's identity. The architect tries to create a portfolio based on a personalized, recognizable architectural style, unique only to him/herself, while the users would like the house to reflect their desires, preferences and sensibilities. The house thus becomes the object of the tacit claim between the user and the designer, with the added obligation to tailor the proposed object to the urban contextual framework.

4. THE PERSONAL SUBSTRATUM

Chapter 4 of the thesis focuses on the individual experience of the perception of architecture. The narrative thread of this part of the research follows the logic in which the stages of perception formation follow one another. The human brain, the organ responsible for the way we perceive the world, is highly plastic, unlike the brain of other species, even compared to that of a chimpanzee, which shares 98.8% of our DNA.

This pronounced plasticity due largely to the human newborn's lack of precocity is also a consequence of the maturation of brain networks under the strong influence of the external environment, in contrast to the development of other species in the in-utero controlled environment. Thus, the formation of neural repertoires is strongly influenced by the environment in which the individual develops. Brain maturation is thought to end at almost 3 decades of age, with complete myelination of the axons.

All these things prevent the relationship of identity between the neural networks of two brains. Since there can be no perfect identity between two external environments, two identical brains cannot develop ex-utero and, consequently, there can be no two perceptions or two coincident *quale*[9]. This is not even possible in the case of monozygotic twins who, despite sharing the same DNA, cannot develop the same neural connectivity trajectories, given the direct influence of the external environment.

Therefore, a proximate, concrete and immediate cause of different perceptions is the biological distinction between the mechanisms that support the creation of these distinct experiences: the neurological networks. But beyond the formula of "brain networks" quite unfamiliar to architects, there are ultimate causes of the way in which the visual perceptions of places are structured.

[9] *Qualia*, the personal, unique, subjective and infallible experience of a fact. ***Qualia*** derives from the Latin adjective *quālis* (plural form, neutre) which means "of what kind" or "what kind of". Transformed into a noun, it became ***qualia*** or in its singular form ***quale***, the current translations of the two terms being "qualities" for ***qualia*** and "quality" for ***quale***.

A perceptual experience is formed by the contribution of two types of information: bottom-up information or information from the outside, from sensory organs, and top-down information, based on hypotheses (or endogenous signals brought into play by the processes of attention, memories or associations). While bottom-up processing theoretically provides us with a fraction of a quasi-similar experience from one individual to another, top-down processing has the quality of stressing the lived perception.

Based on a raw (bottom-up) low frequency image of stimulation rapidly perceived by the eye, the brain activates a number of (top-down) contexts of memory that the raw replica of the subject could be associated with. The "essence" of the scene is compared to the "patterns" built by the brain over a lifetime by extracting statistical regularities from the most common situations. For example, the erroneous perception of the length of lines in the Müller-Lyer illusion is the result of the association of drawings with the ubiquitous three-dimensional components of the "constructed world", a world of rectangular objects and parallel sides. Populations of hunter-gatherers with life experiences spent in the natural, non-anthropized environment are much less susceptible to error. Their brains did not aggregate a Cartesian neural model of the world, but one devoid of orthogonal regularities.

As a result of the continuous interaction between the bottom-up and top-down processing coherent perceptions are finally formed through the unifying mechanism of associative learning. We know that if the perception of a fact, object, or place occurs simultaneously with the perception of another fact, object, or place, then the two entities and their corresponding ideas will become associated with each other, causing the ensuing perception of one of the entities to be automatically evoked and associated with the other, with all its corresponding feelings. Moreover, it has been shown that the default working pattern of the brain is to permanently map where we are. The moment we enter a space, the brain activates specific populations of neurons that "describe" the particular characteristics of the place, without us being aware of it: where the limits are, what past or present threats or rewards that space poses, the orientation of the head in relation to a major landmark, etc.

What is important to note is that the memorization of an event (along with all its details: participants, the time of the event, the experienced emotions) is always done in solidarity with the evocation of the place where everything happened. In other words, any extraction of a fact from memory implicitly activates the memory of the place where the experience took place.

Thus, place recognition regions (e.g., the parahippocampal area of places) are not specific stations for processing places per se, but are more closely related to memory associations, associativity thus becoming an inherent component of scene perception. In other words, according to the "proactive brain theory"[10] when we perceive an object, the brain does not look for the answer to the question "WHAT is this?" but seeks a solution to solve the problem of "WHAT is this SIMILAR to?"

In summary, there is a set of major ideas that characterize the personal perception of places and implicitly of architecture:

-the perception of places is inherently associative;

-associativity engages the individual's set of previous experiences, giving the perception a personal semantic and affective meaning;

[10] M. Bar, „The proactive brain: using analogies and associations to generate predictions," *Trends Cogn. Sci.*, vol. 11, nr. 7, pp. 1-10, 2007.

-places are containers and linkers of memories, therefore implicit presences in mnemonic evocations.

At the beginning of the twentieth century, modernist artists and architects started to cultivate a new aesthetic language based on abstract, geometric shapes, primary colors, straight lines and planes. Architects give up ornaments and design comfortable homes in clean volumes, devoid of decorative "cosmetics" and the traditional volume of the roof. Modeling and reduction of works to elementary forms has relied, according to part of the modernist elite, on a perception whose purpose was to be a universal, immediate experience, such as that of a child, a purely sensory aesthetic experience.

However, this fissure between what artists assumed that viewers should feel and the inherently associative perception process which was based massively on users' previous experiences and on the strongly preserved memories of previously inhabited houses isolated the subculture of public architects. The currents that followed: brutalism, postmodernism, deconstructivism did nothing but turn the fissure into a fracture and produce divergences of opinion that today appear irreconcilable.

The laymen of architecture, deprived of the enculturation facilitated by training in architecture, perceive the products of this profession through the filter woven by the associations with their own homes and with the familiar places which they have lived in or visited. Accepting a new type of housing is done by integrating the model into the subject's previous knowledge set. This acceptance is conditioned by the fine connection to typologies that contain a necessary dose of familiarity and an acceptable addition of novelty. Beyond the associative nature of perception, we prefer specimens that are often very familiar to us, to which we have been most often exposed, because this tendency is adaptive in nature, since it leads to safe choices, not risky ones.

At the same time, however, people have had and still have a great fascination and attraction for the new, unfamiliar, and original, partly to avoid the effect of saturation, partly to evolve. The preference for novelty is therefore also adaptive and the example of facilitating learning by exposing children to novelty is edifying for the adaptive role of innovation. Even if experimental studies have shown that familiarity and novelty are in a negative correlation, this correlation is not perfectly disjoint. According to the users' perception, it is possible to increase the design innovation of a product provided that it retains its typicality. We tend to appreciate products with an optimal combination of typicality and novelty, but the "optimal" dosage of the two ingredients depends a lot on the user's personality. In general, populations tend to be extremely conservative when it comes to their own home, which is a personal "homeostatic" mechanism[11] and accept a higher dose of innovation in the built environment they do not live in.

Finally, no kind of intellectual discourse that aesthetically packs the approach of architecture that recklessly deviates from the prototypicality of housing has no impact on the public. And the receptivity to this discourse has almost nothing to do with the user's level of education, as long as his/her training is not related to the field of architecture. The alienation is felt so personally and viscerally that the influence of this discourse is nil.

[11] Architect Daniela Luciana Negrişanu defines residential homeostasis as "an internal regulation in the living of an organism, be it individual or family, so that regardless of the alterations that take place in the internal or external environment, it manages to maintain a state of some internal stability" Negrişanu , Daniela Luciana (2017), *Locuirea ca introiecţie a familiei* [Living as an introjection of the family]- Doctoral thesis, Timişoara: Politehnica Publishing House, p.104

5. GENERAL CONCLUSIONS

The final chapter is materialized in a guide that summarizes the most relevant ideas of research in relation to the practical activity of architects, completed by the structure of a future direction of research that should include the affective component of perception.
1. The only aesthetic preference universally supported by a robust volume of scientific evidence is that for the natural environment.

2. The views towards nature (window, loggia, terrace, garden) have an essential role in obtaining and maintaining the mental and physical health of the inhabitants of the house, compared to the role played by the views towards the built space.

3. A significant number of researches extrapolated from the corpus evidence of biophilia converge towards the idea that there is a human preference for structures that benefit from a differentiated complexity, such as fractal structures. This tendency supports the hypothesis of the organic human need for ornament and decoration, a need denied by the theoretical ideas of modernist architecture that are still extremely influential.

4. We are biological beings with an acute visual sense, and the capabilities and limits of our perceptions affect the abilities and limits of our imagination, the perceptual and imaginative process relying on one and the same brain mechanism. As a consequence, we have the biological reflex to perpetually and incrementally create an artificial environment with a hypertrophied visual dimension, a habitat that differs fundamentally from the natural environment in which we have evolved and adapted. The consequences of sensory deprivation may lead to a new adaptation with atrophy of the under-stimulated senses.

5. The subculture of academic architecture has a minor impact on the global building culture. The refusal to create prototypical products, the valorization of originality and absolute novelty as well as giving up the connection to the cumulative cultural gain of the previous generations have as a consequence the practice of elite architecture in a narrow niche, irrelevant for the general public. For a cultural product to proliferate, it must be visible through the frequency of its presence, easy to understand and easy to replicate.

6. Cultural behaviors are adaptive practices. Building cultures are not self-preserving monolithic units. People have practical and psychological needs, and when a building tradition no longer meets these needs, it is abandoned without regret and a new way of building replaces it. In particular, when the identity of individuals is substantially redefined, the identity avatar represented by the home becomes the subject of this transformation. The home can become the subject of the identity claim tacitly disputed by the user and the architect.

7. There are never two coincident perceptions of the same fact. Qualia or the subjective and ineffable experiences of the world are biological products of each individual's unique brain repertoires.

8. To create a perception, the brain uses both external sensory signals and internal data in decrypting information, data coming from the rich informative baggage provided by the viewer's previous experiences.

9. The brain permanently and unconsciously maps the places we are in. This permanent spatial modeling is done through structures dedicated to this task (site mapping cells) concentrated in the hippocampus, the locus of memory. This fact determines that the evocation of any fact, regardless of its nature, will automatically trigger the evocation of the space in which the event took place. Thus, places and implicitly architecture become containers and binders of our memories.

10. The perception of architecture through the lens of the general perception of places is an inherently associative process. When we perceive a new home, the "proactive brain" seeks the answer to the question WHAT exactly IS this new home SIMILAR TO? The act of perception activates previous experiences with their whole set of semantic and affective characteristics that have been associated with the various dimensions of perceived architecture in the past.

11. There is no purely sensory perception of architecture and no privileged path to the "pure", asemantic and non-affective perception. Those who live in our houses are not white sheets of paper waiting passively to receive the proposed architecture, but are people with a past and strong motivational affections.

12. No packaging of architecture in an aesthetic, intellectual discourse can affect the impact generated by the evocation of the associations learned during previous experiences through sensory stimulation.

Future research directions

Human perception is a complex process, not yet fully understood. Even if the unveiling of the associative dimension of the act provided little clarity on how we relate to places, the thesis is far from fully elucidating the broad topic of the aesthetic perception of architecture. However, we have seen that performing an aesthetic assessment task involves not only activating the neural regions responsible for the interaction of top-down and bottom-up signals, but also recruiting the areas involved in emotional responses. This supports the view that "both contextual associations and affections are fundamental constructive units"[12] of perceptions.

A necessary addition to theses and should aim *affective component* of architecture experience, especially since emotions are the result of strong motivational biological mechanisms, automatic and pre-conscious. Thus, emotion is the critical and silent ingredient of

[12] A. Shenhav, L. F. Barrett și M. Bar, „Affective value and associative processing share a cortical substrate.,” *Cognitive, affective & behavioral neuroscience*, vol. 13, nr. 1, p. 46–59, 2013.

all our attitudes or as the architect Richard Neutra (1954) visually stated, “our neuromental activity manifests itself on a stage with multiple acts, like a medieval piece with mysteries. Emotion is present at almost every level and never goes away”.

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