

# How to check the quality of handmade architectural spaces from the perspective of aesthetics using the phenomenology method

Mahdi Aliyari

Department of Architecture, Islamic Azad University, Shabestar Branch, Shabestar, Iran Tehran, Iran

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## ABSTRACT

Understanding the environment and the quality of architectural spaces in life is one of the most important issues that thinkers in the fields of architecture and urban planning should pay attention to due to the decline in environmental quality from an aesthetic point of view. They should create an environment that is pleasant and suitable for the spirits and needs of the users, constructing a space where individuals are willing to visit, meet their own needs, and resonate. The background of this research returns to the fields of sociology and psychology since fundamentally the discussed issue related to the sense of architectural space beauty and aesthetic experience is one of the subjects of phenomenological research. In this study, theoretical foundations and initial assumptions for a new design method that will be used in the education of future architects and urban planners have been presented, which will provide a better view of the importance of human factors in architectural spaces and indicate a deep relationship between the quality of architectural spaces and aesthetics, where the cause and effect are intertwined in enhancing the quality of architectural spaces.

## **Introduction**

The quality of architectural space and its components has been raised among researchers since the mid-twentieth century and has evolved and changed based on temporal and spatial conditions. The term "architectural space quality" has various applications in construction planning, satisfaction, comfort, and user security. The environment is composed of natural and man-made elements that may lead to criticisms by certain groups regarding architectural or urban spaces recognized in environmental psychology concerning behavioral quality (Kudryavtseva, 2021). This issue will also refer to the study of space application, a theory introduced half a century ago by A.T. Furthermore, theories by Edward Hall will be utilized in this research. According to scientific reasoning, space "speaks," and this occurs through behavior and common human relationships and relations between humans and their surroundings (Ujma-Wasowicz, K et al, 2018). Moreover, since the background of this research returns to the fields of sociology and psychology. Beyond this, fundamentally the discussed issue related to the sense of environmental beauty and aesthetic experience is one of the subjects of phenomenological research. Phenomenology is a philosophical field that rejects assumptions inspired by traditional assumptions and beliefs. In this context, it is presumed that the perceptual world must be a phenomenon experienced individually. Anything can be encountered through phenomenal experience: objects, events, situations, visible experiences, auditory experiences, olfactory experiences, gustatory experiences, emotional experiences, sensory experiences, visual experiences, or intellectual experiences (Zowisło, 2013). From a methodological perspective, the phenomenological and behavioral approach holds a place in qualitative studies. On the one hand, based on the assumption of extreme empiricism, critical senses (which enable critical perspectives) are considered an investigative tool, and on the other hand, based on the assumption that each individual or object possesses cognition based on stable unity (Lewicka, 2012).

## **Research Methodology**

In general, there are various methods for seeking design solutions. These solutions are proposed by psychologists, behaviorists, or by designers themselves. Each designer finds their unique method through empirical experience over time, often a heuristic method that apparently combines various known methods. For example, one of the heuristic searches includes categorization, analogy, guessing, dependency, combining images and ideas, retrieving similar issues, and reorganizing and improving solutions. The main role of all design methods is to support intelligent and creative actions. In design, architects mainly utilize all innovative methods that allow the discovery of new solutions by presenting relevant hypotheses. Some of the well-known methods in related scientific sources include: collaboration, morphological analysis, and the ideal solution method (Jarecka-Bidzińska, 2021). However, these methods do not guarantee predictable results, although they significantly increase the likelihood of achieving them. Also, they do not become overly formal so that a margin remains for intuitive understanding. In these methods, precise adherence to the order of activities and accuracy in using them is not necessary. The creator can utilize all their knowledge and imagination. One downside of employing innovative methods in design is that they do not initially refer to the opinions of users or end-users of the solutions. This is because empirical knowledge and expertise of specialists, or designers, serve as the criteria for action.

Considering the time of users' needs, expectations, and limitations, in architecture, and particularly urban planning, the desire or commitment of architects for implementation is the most important thing: like sociologists describe in research results, quantitative and statistical studies where results are presented descriptively or in numeric and percentage form. Based on this, conclusions are drawn about the frequency of occurrences and intensity of phenomena and the relationships between them. User opinions on a specific subject are examined in these studies; for example, these opinions include: their desired residential location and manner,

expectations for the work environment, place and way of spending leisure time, situations where they often encounter spatial barriers, and so on. In a space where personal considerations are considered guiding principles, Christopher Alexander devised a separate design method based on the concept of aligning human needs or demands with probable forms rooted in the fabric. His "Pattern Language," in particular, is a collection of models derived from various fields: systems theory, natural science methods, linguistics, cognitive psychology, biology, genetics, and more. The pattern language expresses a philosophical perspective on the issue and is a form of participation as a design method. The pattern language embodies the beauty of culturally specific forms and is a testament to a process that seeks to create a traditional form, but from the beginning and without any imitation, except paying attention to prevailing cultural considerations (Alexander, 2018).

Although Alexander's approach is humanistic, it is not surprising that this idea is met with criticism from the architectural community. The reason for this criticism is its distinctive feature - a collective feature that enables the selection and addition of models to each other and arranging one model into another, leading to an architecture that is inherently adaptable to use, but lacks the characteristic strength of large technological construction works where the form of the structure plays a primary role. However, based on the purpose of this article, the future of architects depends on the skillful deployment of research findings related to environmental perception and the specialization of phenomenology.

### **Aesthetics in Architecture**

The perception or creation of beauty in the mind of the audience is dependent on the type of relationship and the audience's awareness of the architectural space (D. Celik, 2017). This relationship can gradually develop in individuals through the creation of personal or collective memories in the architectural space. When individuals develop a sense of belonging to space, the physical space or architecture acquires inherent beauty. The factors contributing to beauty in human-made environments can be summarized in Table 1.

**Table 1- Factors Contributing to Beauty in Human-Made Architectural Environments**

Principles	Visualization method
Composition	Composition, whether in nature or in artistic works, is one of the main factors in the emergence of beauty and attractive forms. Through the unique combination of scattered and meaningless elements, a new reality is created that is perceptible and meaningful to human senses. Composition itself has various criteria and measures such as harmony, proportion, scale, balance, and order.
Complexity and diversity	The presence of diversity, complexity, and contradictions in architectural spaces, like any artwork, stimulates the senses, curiosity, and imagination, leading to a sense of excitement and the joy of discovery.
Memory stimulation	Memory stimulation is one of the important psychological laws and forces that establish a relationship between an abundance of mental images and sensory perceptions through recall and revitalization of memories, fostering movement and creativity in the human mind world.
Ambiguity	Ambiguity or mystery is a human perception characteristic that, to a certain extent, in both nature and artistic works, stimulates the senses, curiosity, and emotional motivation. In the realm of architecture, the phenomenon of ambiguity in the readability of the entire city until it reaches the point of public recognition helps the spatial appeal. Therefore, completely explicit, clear, visible spaces and volumes are not particularly desirable aesthetically; on the

contrary, shadowy, intertwined, and discoverable spaces have more impact on the observer's emotions and mind. (Al-Qaraghuli, A. S., & Al-Hinkawi, W. S. 2016)

**Meaning** Without reaching a sense of meaning in the environment and space, humans feel unfamiliarity, strangeness, and meaninglessness, and therefore cannot achieve the feeling of pleasure, excitement, and peace. (Nia, H. A., & Suleiman, Y. H. 2018)

**Performance** Appropriate performance of an architectural work has always been one of the factors contributing to beauty throughout history. Symbolic beauty denotes concepts that evoke the surrounding environment, which are pleasant to the consuming audience.

**Connection with the environment** The connection of any structure with its surrounding environment is an important factor in creating beauty, and a viewer must feel the characteristics of the environment as the essence and spirit of the environment in order to successfully establish a connection with the environment.

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Based on a common belief, taste has no definition, and evaluating beauty is difficult because everyone has different perceptions and judgments. Nevertheless, each of us who use architectural and urban spaces (interior spaces of structures and external environment) daily see and perhaps feel with our other senses, evaluate the place we currently reside in. In the same way, we interpret our appearance, the people we see, or the objects we use.

The evaluation of functionality, the beauty of human-made architectural spaces, is often an unconscious act and greatly influences many decisions. For example, we say I sit here because the view is beautiful, or I do not go there because it is dark, ugly, and perhaps unsafe, or for instance, this place is so beautiful that I will visit it again with my friends, and so on. In simple terms, the conclusion is clear - the beauty of a place is often related to its ergonomic and technical quality, which results in the ultimate sense of beauty.

Nevertheless, figures like Edward Hall and Christian Norberg-Schulz or architects with names like Johann Palasma, Vitruvius can be mentioned on this basis. Edward Hall believed that: "Architects commonly work with visual patterns of structures, things we can see. They are fully aware that people internally conceptualize specific things about a constant space that they learned at the beginning of life" (Ujma-Wasowicz, K et al, 2018). On the other hand, Schulz believes that "the most important issue in architectural design is the perception of the message of its context, and he considers understanding this environmental feature as the architect's spiritual genius," Palasma writes: "Visual bias has never been as clear in the art of architecture as in the past half-century, when architecture became dependent on producing spectacular and enchanting images. It has not been evident", and perhaps it may be imagined that the inhuman nature of contemporary architecture and cities is the result of ignoring the human body and senses and the lack of balance in our sensory system, and Vitruvius believes that: "In building, attention must be paid to strength, delicacy, usefulness. Beauty, along with stability and efficiency, is one of the three determinant factors of architecture" (Habibzadeh Koozehkonani, 2016).

Issues of aesthetic cognition in architecture tend to define, understand, and consequently shape characteristics of the environment that are the source of a beautiful experience. It is necessary to remember that from an etymological perspective, the term "aesthetics" applies to sensory

experience, not just visual experience. Thus, in today's world, it is justifiable to ask such a question: how can we help create and interpret subjects in architecture that are not only related to its visual beauty but also provide opportunities to engage in touch, sound reading, smelling, and other sensory experiences. This becomes more complex when we assume that we have many more opportunities to perceive the surrounding environment, among which criteria of representation, stimuli, phenomenological nature, or neural information can be mentioned. This question is more justifiable when we have at least some insight into the research of J.J. Gibson, a philosopher who considered the senses as passive receptors, a mechanism of exploratory search (Pallasmaa, J., & Choptiany, M. 2012).

In the discussion concerning technique, it can be said that architectural and urban spaces are created together, that is, by architects, urban planners, builders, interior designers and equipment, artists such as designers of decorative elements, and the investors or their consultants conceptualize, plan, and design. During the design process for a specific or unknown use, these individuals create the aesthetic beauty of the artistic work according to their sense of style, perspectives, qualifications, personal capabilities, investor expectations, contemporary trends, studies and consultations conducted, and so on. Every foundation should know that its work is subject to continuous evaluation throughout its "lifetime." This assessment may range from admiration and enjoyment of the work to detailed explanations and variable criticisms.

Many designers who are still satisfied with their uniqueness and distinctiveness consider the smallest criticism as unjustified and unappealing. However, understanding and paying attention to the needs, constraints, or aesthetic preferences of users seems to be irrefutable today and in the future (Karimi, 2019). The question is how various tastes of users, with a sense of perceptual beauty and realism, merge with the preferences of the creator (Users prefer a structure that is alluring and belongs to a wealthy individual, or a building that is impossible to construct due to the existing context or legal conditions of the land)? Can an architect impose their "own special beauty" without considering the recipient of that beauty? Does he have the right to do so? Should he create a "conciliatory beauty" based on conducted surveys and research? Apparently, the best solution that can provide a non-biased argument to a designer at least within a specific domain is introducing combinatory architectural research conducted in the field of environmental perception and in accordance with the methodology of phenomenology. To avoid despair in the future, the mismatch of users' needs in a specific space, and consequently creating an ineffective, inefficient, and aesthetically unacceptable place, is one of the successful methods of participatory design or user-involved design. Today, the simplest way to perceive aesthetic preferences, or to count them by users, is to offer existing models for places (such as images) so that the user can easily define their desired and undesired solutions in connection with building technology through surveys or interviews (Rahimi, 2018). The displayed images depict the sense of aesthetic cognition and user expectations regarding the "climate" of the place (preferred places in the historical city or "sterile" modern architecture, colorful facades, abundant green spaces, etc.). However, we return to the starting point: architects still perceive aesthetics in the realm of visual senses and ignore other senses. Therefore, this issue needs to be addressed.

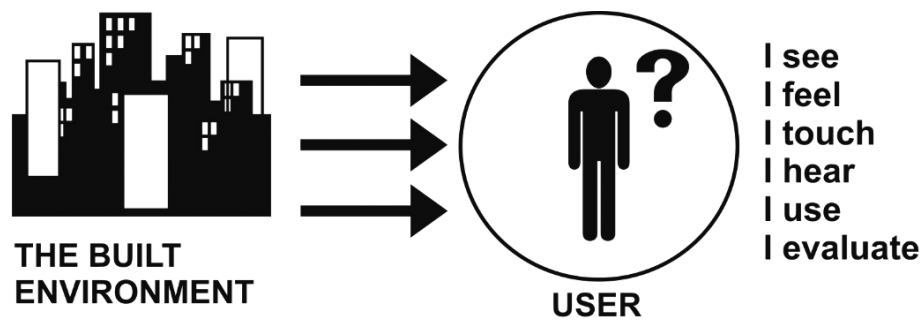
### **Architectural Space and Phenomenology**

Perception, like aesthetics, is also referred to as cognition and feeling, and it refers to the understanding of human phenomena or processes that occur due to specific stimuli affecting our sensory system. Perception not only encompasses complex and non-intrinsic cognitive processes or experiences and memories but also includes the individual's entry into activities (or expectations, values, ideals, security provisions, etc.) in the environment. Furthermore, culture also significantly influences perceptual processes in a meaningful way.

This process occurs at two levels: sensory level and motor level (which has an automatic nature, stimuli are received through senses through which individuals identify colors, sounds, textures, smoothness, distinctive smells, etc.) and the level of meaning and activity (any stimulus is assigned a meaning: human perception and interpretation of smell, discovering the observed

sensory organs, etc.). Psychologists studying perception discovered in a very short period (in the nineteenth century) that we humans differ so much from each other that each of us can perceive and describe our sensory experience in different ways. Today, in the field dealing with such issues, every individual doubts whether solving perceptual problems is unusually complex and should be studied in different ways and aspects. In other words, there is no space in contemporary science for conventional perceptual methods, methods that often deal with how specific aspects of an object are recorded in the environment by our sensory mechanism. Here, this issue must be addressed as a general process (Pallasmaa, J., & Choptiany, M. 2012).

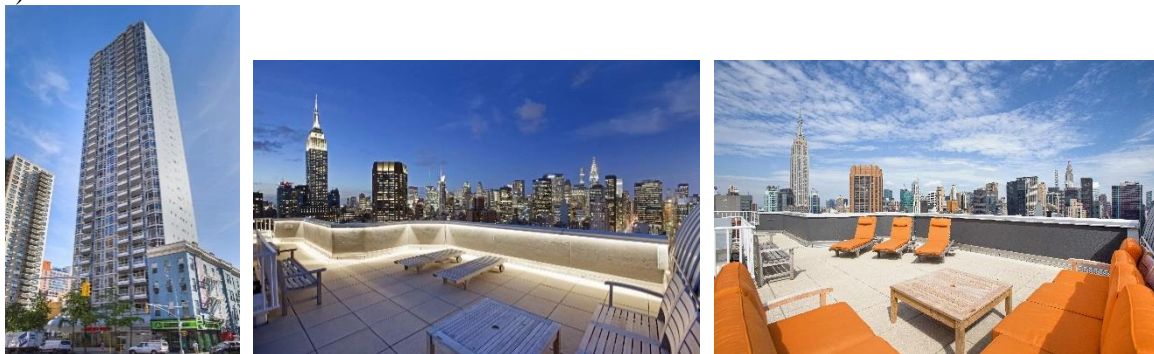
Additionally, phenomenology helps to some extent in pointing out the "actuality" of personal non-intrinsic experiences, devoid of bias unlike external realities. Phenomenological experience, including the experience of place, still has a sensory nature, and its content depends on the form and position of our bodies. It is noteworthy that a new paradigm in cognitive psychology has introduced the concept of embodied cognition into this field, and for several decades, the foundational concept of phenomenological methods has been present. When conducting the aforementioned investigations, planning for the subject of the spirit of place and its objective reality in architecture and urban planning cannot be ignored. The spirit of place is an important theoretical concept in the research of environmental phenomenologists who seek to investigate what characteristics of these places respond to their unique intangible qualities. Humans recognize the spirit of place, but its origin lies in the external features of the place, which can be understood in the role of architecture in designing the human environment as shown in Figure 1.



**Figure (1) Understanding the Role of Architecture in Designing Human-Made Environments Architecture**

### The look of architecture

There are several ways to connect visual perception with the science and practice of architectural design. At the same time, however, it is important to realize that it is not just our visual cortex that responds to architecture. For, as Frances Anderton writes in *The Architectural Review*: “We appreciate a place not just by its impact on our visual cortex but by the way in which it sounds, it feels and smells. For example, just think of the tricks that the trapezoidal balconies of the famous ‘The Future of Manhattan’ apartment building play on the eyes (see Fig. 2):



**Figure (2) The Future apartment building at 200 East 32nd Street in Manhattan.**

## **Architectural design that appeals primarily to the eye, [<https://streeteasy.com/building/the-future-condominium>].**

However, here it should also be born in mind that the visual perception of space is significantly influenced (Oberfeld, Hecht, & Gam, 2010; von Castell, Hecht, & Oberfeld, 2018). Given many such psychological observations, it should perhaps come as no surprise to find that links between cognitive neuroscience and architecture have grown rapidly in recent years (Choo, Nasar, Nikrahei, & Walther, 2017, Pallasmaa, 2012). At the same time, however, it is also worth remembering that it has primarily been people's response to examples or styles of architecture that have been presented visually, with the participant lying horizontal, that have been studied to date, given the confines of the brain-scanning environment (Ragavendra, 2017).

### **The Feel of architecture**

What a space Feel like is undoubtedly important (Bavister, Lawrence, & Gage, 2018; McLuhan, 1961; Porteous 1990). Feeling can, after all, provide subtle cues as to the identity or proportions of a space, even hinting at its function (Blessner & Salter, 2007, Pallasmaa (1994) notes: "Every building or space has its characteristic sound of intimacy or monumentality, rejection or invitation, hospitality or hostility." However, more often than not, the debate about emotion and architectural design revolves around how best to avoid or minimize. Some years earlier, Schafer (1977, p. 222) had made much the same point when he wrote that: "The modern architect is designing for the deaf .... The study of sound enters modern architecture schools only as sound reduction, isolation and absorption." The fact that year-on-year, noise continues to be one of the top complaints from restaurant patrons, perhaps tells us all we need to know about how successful designers have been in this regard (Wagner, 2018).

Music plays an important role in our experience of the built environment - think here only of the Muzak of decades past. (Lanza, 2004). This is as true of the guest's hotel experience (e.g., when entering the lobby) as it is elsewhere, The sound that greets customers in the lobby is apparently very important to Ian Schrager, the Brooklyn-born entrepreneur who created fabled nightclub Studio 54 in New York. In recent years, he has been working with Marriott to launch The EDITION hotels in a number of major cities, including London and New York. Music plays a key role in the Schrager experience.

Talking of an architecture of scent, or of taste, might seem like a step too far. That said, one does come across titles such as *Eating Architecture*, As Eberhard (2007, p. 47) puts it: "We all have our favorite smells in a building, as well as ones that are considered noxious. A cedar closet in the bedroom is an easy example of a good smell. The terrible smell of a house that was ravaged by fire or floods is seared in the memory of those who have endured one of these disasters." This is perhaps no coincidence, given that it tends to be the bad odours, rather than the neutral or positive ones, that have generally proved most effective in immersing us in an experience (Baus & Bouchard, 2017). Research by Schifferstein, Talke, and Oudshoorn (2011) investigated whether the nightlife experience could be enhanced by the use of pleasant fragrance to mask the stale odour after the indoor smoking ban was introduced a few years ago. Once again, notice how the focus here is on the elimination of the negative stale odours rather than necessarily the introduction of the positive.

### **The Touch of architecture**

The tactile element of architecture is often ignored. In fact, very often, the first point of physical contact with a building typically occurs when we enter or leave. architecture has traditionally dealt with the design and construction of static structures in the built environment. The notion of interactive architecture introduces temporal and dynamic concerns through embedding kinetic and interactive behaviours into materials and surfaces. Researchers are exploring how to include the body and the sense of touch in the design of novel interactive surfaces (Pallasmaa, 2005). The following examples of architectural interactive surfaces provide an outlook on how this



interaction with architecture could look, or rather feel like.

Touching and being touched are two simultaneous aspects of our experience. There is an active and receptive component to our touch-based interactions with the world. We derive information about our environment through the sense of touch (Baskinger, 2010). The skin contains a mosaic of different receptors distributed throughout, which enable us to detect and distinguish between an immense variety of different stimuli. For example, the project 'Slow Furl' positions itself outside the tradition of static representations of architecture (Ramsgard Thomsen, 2009). The dimension of time in relation to action was a key concept in the design of this interactive wall. A membrane, loosely attached on a wooden, kinetic framework, is forming the wrinkled surface (see Fig 3). In the membrane, sensors are embedded, detecting the touching user. While the user can touch or sit between the folds, the wall also detects and interacts with itself. Therefore a continuous cycle of slow pulse and movement is created, involving the user in its tangible and delicate interaction process.



**Figure (3) Slow Furl wall detail, (Pohl,2012).**

### **The Hear of architecture**

There is research ongoing in a number of countries to investigate the use of nature sounds, such as, for example, the sound of running water, to help mask other people's distracting conversations (Hongisto, Varjo, Oliva, Haapakangas, & Benway, 2017). Intriguingly, however, it turns out that people's beliefs about the source of masking sounds, especially in the case of ambiguous noise, can sometimes influence how much relief they provide (Haga, Halin, Holmgren, & Sörqvist, 2016). So, for instance, Haga and her colleagues played the same ambiguous pink noise with interspersed white noise to three groups of officeworkers. To one control group, the experimenters said nothing, a second group of participants was told that they could hear industrial machinery noise, while a third group was told that they were listening to nature sounds, based on a waterfall, instead. Intriguingly, subjective restoration was significantly higher amongst those who thought that they were listening to the nature sounds than in those who thought that they were listening to industrial noise instead. As might have been expected, the results of the control group, fell somewhere in between.

Paley Park in New York has often been put forward as a particularly elegant solution to the problem of negating unwanted traffic noise in the context of urban design (Prochnik, 2009). In 1967, the empty lot resulting from the demolition of the Stork Club on 53rd Street was transformed into a small public park (a so-called pocket park). The space was developed by Zion and Breen. In this case, the acoustic space, thinking only of urban sounds, or rather noise, covers the waterfall at the back of the plot. (see Fig. 4). noise. The greenery growing thickly along the side walls also likely helps to absorb the noise of the city.





**Figure (4) Paley Park, New York, by Zion and Breen in 1967, [<https://www.paleypark.org/about>].**

### **Design for the multisensory mind**

An architect must act as a composer, arranging a space to synchronize function and beauty through the senses - and how the human body interacts with the space is paramount. When the human body moves, sees, smells, touches, hears and even tastes the space, the architecture lives.

As a result of the architect's composition or arrangement of all the sensory properties of the space, the inhabitants can feel the rhythm of the architecture. By arranging the spatial sensory features, the architect can guide the inhabitants through the functional and aesthetic rhythms of the created place. An architectural building for all the senses can move residents - heighten their experiences (quote from a blogpost by Lehman, 2009). One of the most exciting developments in cognitive neuroscience in recent decades has been the growing realization that perception/experience is far more multisensory than anyone had realized (e.g., Bruno & Pavani, 2018; Calvert et al., 2004; Levent & Pascual-Leone, 2014; Stein, 2012). That is, what we hear and smell, and what we think about the experience, is often influenced by what we see, and vice versa (Calvert et al., 2004; Stein, 2012). The senses talk to, and hence influence, one another all the time, though we often remain unaware of these cross-sensory interactions and influences. In fact, wherever neuroscientists look in the human brain, activity appears to be modulated by what is going on in more than one sense, leading, increasingly, to talk of the multisensory mind (Ghazanfar & Schroeder, 2006; Talsma, 2015).

Therefore, the central question here must be, what are the implications of this growing understanding of the prevalence of multisensory excesses in the field of architectural design? The problem is that, until now, there has been relatively little research on how atmospheric/environmental multisensory cues actually interact. Mattila and Wirtz (2001, pp. 273–274) drew attention to this lacuna some years ago when writing that: “Past studies have examined the effects of individual pleasant stimuli such as music, color or scent on consumer behavior, but have failed to examine how these stimuli might interact.” At the outset, when starting to consider the multisensory perception of architecture, it is worth noting that it is rarely something that we attend to. Indeed, as Benjamin (1968, p. 239) once noted: “Architecture has always represented the prototype of a work of art the reception of which is consummated in a state of distraction.” To the extent that such a view is correct, one can say that multisensory architecture is rarely foregrounded in our attention/experience. Juhani Pallasmaa, meanwhile, has suggested that: “An architectural experience silences all external noise; it focuses attention on one’s very existence.” (Pallasmaa, 1994). Once again, the suggestion here would appear to be that attention is directed away from the building and toward the individual and their place in the world. Given that, on an everyday basis, architecture is typically not foregrounded in our attention/experience, one might legitimately wonder as to whether the multisensory integration of atmospheric/environmental cues takes place, given that they are so often unattended. One example of multisensory architectural design to which Juhani Pallasmaa draws attention in

several of his writings is the Ira Keller Fountain, Portland Oregon (see Fig. 5).

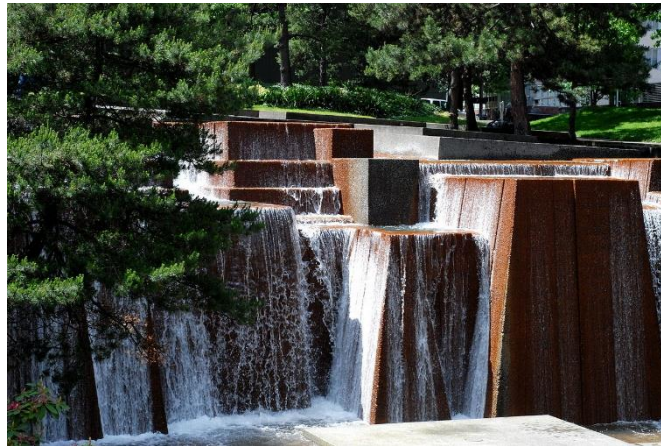


Figure (5) The Ira Keller Fountain, Portland Oregon. According to Pallasmaa (2011), p. 596) this is “An architecture for all the senses including the kinaesthetic and olfactory senses.” Once again, the auditory element is provided by the sound of falling water,[[https://en.wikipedia.org/wiki/Keller\\_Fountain\\_Park#/media/File:KellerFountainSummer2010.JPG](https://en.wikipedia.org/wiki/Keller_Fountain_Park#/media/File:KellerFountainSummer2010.JPG) ]

### **Discussion and Conclusion**

The aim of the current research is to examine the quality of human-made architectural spaces from an aesthetic perspective using phenomenological method. The results obtained from this perspective are important because architects and urban planners, as the most influential dimensions in shaping human habitats, should always consider perceptual components as the user experience of architectural space. Nowadays, when critics deal with issues of aesthetics and beauty, whether in a professional or amateur manner, they evaluate architectural and urban planning solutions, and perception, especially in situations of admiration for beauty in common parlance, employs environmental aesthetics. However, sensory experience mainly occurs in an instant. For example, when despite beautiful landscapes, evaluators receive theoretical or objective stimuli that are unsuitable for us, such as loud noises or unbearable scents, or when we feel a complete lack of orientation. On the other hand, in current marketing activities, successful experts use all senses. We feel good when visiting a store with a pleasant scent, when someone or something guides us carefully towards our goal, and consequently, we do not get lost when there is plenty of space to examine items or when various advertisements are aired with a "soothing voice". In other words, in today's world that relies on marketing techniques, consumer goods have assigned themselves an important place in terms of self-awareness and have diminished the importance of analytical and evaluative skills (Figure 1).

Certainly, for curious researchers in the field of architecture, the following question arises: Why do designers of unique buildings or "interstitial spaces" in European environments rarely encourage their clients to use senses other than vision for appreciating beauty and aesthetics? Where is the problem? Is the problem in general education or even in specialized education? Given the above arguments and assuming they are correct, it is questionable why this phenomenon is occurring. Is the reason that modern architecture has adopted a psychological strategy to enhance work, advertising, and continuous encouragement of homogenization? Could the main cause of this problem be a healthy lifestyle (based on health)? Is this the reason why we do not want or even cannot utilize senses other than vision? One way to search for the causes of the soothing sensation of vision is to delve into old dissertations related to architecture, whose main subject is the conventional visual perception of the human body about a building under construction based on the Vitruvian criteria, which states that "everything is human," "search for ideal proportions of the human body" or the use of "modular" by Le Corbusier for shaping the human environment directly.

Even if it seems unrealistic that the dominance or hegemony of the visual, will soon fall, this does not mean that we should not do our best to challenge it. As critic David Michael Levin says: "I think it's appropriate to challenge the hegemony of vision - the eye-centeredness of our culture. And I think we need to look very critically at the nature of the dominant vision. In our modern world, we urgently need a diagnosis of the everyday about the psychosocial pathology of vision and a critical understanding of themselves as visions. Not talking specifically about architecture, we can all take a more multi-sensory perspective and be more sensitive to the fact that our senses communicate, whether it's architecture or any other part of everyday life. experience By creating experiences that coherently activate multiple senses, we can improve quality of life by creating more engaging, engaging and memorable multisensory experiences. Stein et al. Meredith, two of the most prominent multisensory neuroscientists of the last quarter century, summarized this idea when he suggested in the introduction to his influential work *Integrating the Senses*." Integrating inputs from different sensory categories \not only changes some of their individual characteristics, but does so in a way that can improve the quality of life. Integrated sensory inputs produce far richer experiences than would be predicted from their simple coexistence or the linear sum of their individual products.

## References

- [1] Kudryavtseva, V. A. (2021). The modern urban environment: development trends and prospects. In IOP Conference Series: Earth and Environmental Science (Vol. 751, No. 1, p. 012027). IOP Publishing.
- [2] Habibzadeh Koozehkonani, J., & Abdollahzadehtaraf, A. (2016). Urban Street Design in order to improve the sense of place, Case study: Golshan e Raz Street of Shabestar.
- [3] Ujma-Wasowicz, K., & Fross, K. (2018). Beauty–aesthetics–senses research of attractiveness and magic of the built environment. In *Advances in Human Factors, Sustainable Urban Planning and Infrastructure: Proceedings of the AHFE 2017 International Conference on Human Factors, Sustainable Urban Planning and Infrastructure, July 17–21, 2017, The Westin Bonaventure Hotel, Los Angeles, California, USA 8* (pp. 22-32). Springer International Publishing.
- [4] Zowisło, M. (2013). The Home and the World. On the Paths of Contemporary Nomads. *Folia Turistica*, 28(2), 5-19.
- [5] Lewicka, M. (2012). *Psychologia miejsca*. Wydawnictwo Naukowe Scholar.
- [6] Jarecka-Bidzińska, E. (2021). Hybrid methodology of multi-sensory research of public space in urban planning. *Budownictwo i Architektura*, 20(2), 95-117.
- [7] Alexander, C. (2018). *A pattern language: towns, buildings, construction*. Oxford university press.
- [8] Celik, S. A. D. (2017). *Urban aesthetic and urban landscape design guides: A case study of Bartin-Turkey*.
- [9] Nia, H. A., & Suleiman, Y. H. (2018). Aesthetics of space organization: lessons from traditional European cities. *Journal of Contemporary Urban Affairs*, 2(1), 66-75.
- [10] Al-Qaraghuli, A. S., & Al-Hinkawi, W. S. (2016). Aesthetic values of the future cities. In *2nd International Conference on Architecture, Structure and Civil Engineering (ICASE'16)*, London, UK.
- [11] Pallasmaa, J., & Choptiany, M. (2012). *Oczy skóry: architektura i zmysły*. Instytut Architektury.
- [12] Oberfeld, D., Hecht, H., & Gamer, M. (2010). Surface lightness influences perceived room height. *Quarterly Journal of Experimental Psychology*, 63, 1999–2011.
- [13] Otterbring, T., Pareigis, J., Wästlund, E., Makrygiannis, A., & Lindström, A. (2018). The relationship between office type and job satisfaction: Testing a multiple mediation model through ease of interaction and well-being. *Scandinavian Journal of Work & Environmental Health*, 44, 330–334.
- [14] Choo, H., Nasar, J., Nikrahei, B., & Walther, D. B. (2017). Neural codes of seeing architectural styles. *Scientific Reports*, 7, 40201. <https://doi.org/10.1038/srep40201>.
- [15] Ragavendira, R. (2017). Architecture and human senses. *International Journal of Innovations in Engineering and Technology (IJJET)*, 8(2), 131–135.
- [16] Pallasmaa, J. *The Eyes of the Skin. Architecture and the Senses*. John Wiley & Sons, Chichester, 2005.
- [17] Baskinger, M., & Gross, M. (2010). Tangible Interaction = Form + Computing. *Interactions*, 17(1), 6-11.
- [18] Ramsgard Thomsen, M. (2009). *Textile Logics in a Moving Architecture*. Transitive Materials Workshop, CHI 2009 Workshop.
- [19] Pallasmaa, J. (1994). An architecture of the seven senses. In S. Holl, J. Pallasmaa, & A. Perez-Gomez (Eds.), *Architecture and urbanism: Questions of perception: Phenomenology and architecture (Special issue)*, July, (pp. 27–37).
- [20] Porteous, J. D. (1990). *Landscapes of the mind: Worlds of sense and metaphor*. Toronto: University of Toronto Press.

- [21] Bavister, P., Lawrence, F., & Gage, S. (2018). Artificial intelligence and the generation of emotional response to sound and space. *Proceedings of the Institute of Acoustics*, 40(3), 8 pages.
- [22] Blesser, B., & Salter, L.-R. (2007). *Spaces speak, are you listening?* Cambridge: MIT Press.
- [23] Baus, O., & Bouchard, S. (2017). Exposure to an unpleasant odour increases the sense of presence in virtual reality. *Virtual Reality*, 21, 59–74.
- [24] Hongisto, V., Varjo, J., Oliva, D., Haapakangas, A., & Benway, E. (2017). Perception of water-based masking sounds—Long-term experiment in an open-plan office. *Frontiers in Psychology*, 8, 1177.
- [25] Haga, A., Halin, N., Holmgren, M., & Sörqvist, P. (2016). Psychological restoration can depend on stimulus-source attribution: A challenge for the evolutionary account. *Frontiers in Psychology*, 7, 1831.
- [26] Prochnik, G. (2009). City of earthly delights. *The New York Times* December 12th. <https://www.nytimes.com/2009/12/13/opinion/13prochnik.html>
- [27] Calvert, G., Spence, C., & Stein, B. E. (Eds.) (2012). *The handbook of multisensory processing*. Cambridge: MIT Press.
- [28] Ghazanfar, A. A., & Schroeder, C. E. (2006). Is neocortex essentially multisensory? *Trends in Cognitive Sciences*, 10, 278–285.
- [29] Rahimi, Sabouri, & Saber. (2018). The effect of climate on citizens' mental schemas in the urban virtual space, a case example: Elgoli Park, Tabriz. *Geography and Environmental Planning*, 29(3), 91-110.
- [30] Karimi Ayah. (2019). Presenting a conceptual model to understand the role of gender in the aesthetic perception of the environment.
2. 31. Talsma, D. (2015). Predictive coding and multisensory integration: An attentional account of the multisensory mind. *Frontiers in Integrative Neuroscience*, 9, 19.
- [31] Pallasmaa, J. (2011). Architecture and the existential sense: Space, body, and the senses. In F. Bacci, & D. Melcher (Eds.), *Art and the senses*, (pp. 579–598). Oxford: Oxford University Press.
- [32] Pohl, I. M., & Loke, L. (2012, November). Engaging the sense of touch in interactive architecture. In *Proceedings of the 24th Australian Computer-Human Interaction Conference* (pp. 493-496).