

The Role of Aesthetic Experience in the Audience's Behavioral Reaction to Architectural Landscapes from the Perspective of Philosophy

Mahdi Aliyari¹

1- Department of Architecture, Islamic Azad University, Shabestar Branch, Shabestar, Iran.

ARTICLE INFO

Keywords:

Aesthetics, Architectural landscapes, Philosophy, Behavioral reaction

ABSTRACT

A large part of our everyday aesthetic experience involves behavioral reactions to architectural landscapes. The authors focus on the perception of landscapes as a feature of evolutionary aesthetics, emphasizing that human aesthetic values are rooted in social and environmental components. They discuss theories related to architectural space and compare them with empirical data from studies conducted over the past twenty years, with a strong emphasis on the most recent studies. The articles discussed include the fields of perception, architectural landscapes, behavioral response to the perceptual environment, and individual differences in terms of architectural space. An overview of the important aesthetic theories will be presented in this article and various theories will be examined, which were the basis of studies in the first place and claim that when all findings are compared on a larger scale, they are not fixed and permanent. However, as a result, we will discuss the current state of aesthetic research in behavioral response to architectural landscapes, and conclude the research with comments and guidelines for future research to fill the gap we have in understanding the perception of architectural landscapes.

Introduction

An important principle in aesthetic theory is the recognition that the function and adaptation of any particular aspect of human activity cannot be understood by its current role, but must be understood on the basis of its former function during the Pleistocene era, the historical epoch in which modern man evolved (Simons¹, 1990). Aesthetics as a distinct system in the field of Western science and philosophy did not have a special place until the middle of the eighteenth century, from the 18th century, the concept of aesthetics took on a more psychological aspect and beauty was introduced in relation to perception and the audience was also considered as a part of the factors affecting beauty (Vaezi, 2018), although choosing a place of residence is not a priority for today's man, but it has been a vital component of the daily survival of our ancestors. During The Forest Age, which was a long period of human evolution, was a constant exploration of nature in order to obtain reliable resources for long periods of reproduction and maintenance of offspring. Those who could search for and find a habitat that would protect them from predators and atmospheric agents and provide them with water, food, and other resources were more successful than those who could not search for such a habitat and recognize these characteristics of the place. Since the choice of the architectural environment has definitely influenced the survival and success of humans, the related psychological mechanisms that underlie the choice of the living environment are subject to severe constraints of choice. Better environments are adaptive because they effectively stimulate feelings of interest and apathy, which in turn motivates intimate and avoidant behaviors that are conducive to permanent well-being (Ulrich 1986). Simply put, much of our current emotions and behavioral reactions to environmental forms are evolutionary works that help us look for a good place for the architectural environment from the very beginning.

• Research Methodology

In this descriptive-analytical study, a library of aesthetic theories about architectural landscapes and the researches conducted in models, qualitative evaluation of the architectural environment, and psychoanalytic research of response to architectural landscapes are discussed, and the factors affecting the perception of architectural landscapes are investigated and theoretical suggestions are made for future researches.

• Environmental Aesthetics

Environmental aesthetic research distinguishes two ranges of aesthetic variables: (1) the structure of features, or so-called aesthetics, and (2) the content of features, or so-called symbolic aesthetics (Hagerhall, 2000²). The distinguishing characteristics of the aesthetics of appearance are form, proportion, rhythm, complexity, spatial arrangement, disproportionality, and novelty. The distinguishing characteristics of symbolic aesthetics are style, material, resources, level of naturalness, and actual contents such as water and trees. (Grote & Despers)³ 1990). From an evolutionary perspective, the term "symbolic aesthetic" can be criticized for its inaccuracy. We expect people to prefer things like trees and water to their reality, rather than whatever symbolic meaning they might have. Perhaps the term "content aesthetics" is more appropriate.

In both the areas of visual aesthetics and symbolic aesthetics or content, the main research platform relies on information about the stronger skill of the human perceptual system. From an evolutionary perspective, perception should be closely related to evaluation, in which the identification of the architect's characteristics is likely to imply values and valuation. The goal

¹ - Symons

² - Hagerhall.

³ - Groat, Despres

of perception is to give the brain a coherent and meaningful picture of the outside world, and to pinpoint the location of each object in an organized whole (Guthrie 1996). When we interact with the world, it is impossible to record and process all the input information. Instead, we need to select, organize, and compress information. Which elements of our environment – whether they are appearance-oriented or symbolic or content – are so important that we choose them as the prominent and organizing features of our habitat? These elements are likely to be the same elements that influence our emotional reactions.

According to past research, and despite differences in the background of the research participants and differences in the type of stimuli used in landscapes, the criteria used in the evaluation of landscapes are often the same, such as Guthrie, the components of the environment that are most prominently perceived are the integrity of the landscapes, function (use), level of preservation, naturalness, and sensory properties such as color and smell. In addition, landscape features are often perceived and evaluated in the context of other scenic features, rather than being evaluated literally by feature (Aghaei et al., 2015).

Many theoretical and empirical research on the relationship between sensory perception has come to the same conclusion: the emotional responses we need to show to landscapes are formed quickly, without much need for cognitive processing. These rapid reactions are usually shown to the general schematic features of the environment rather than specific features (Blum & Barbour⁴ 1979, Zayunek⁵ 1980). It uses. The structural properties of the environment combine with the prejudices of the human perceptual system in the rapid and low-processing transmission of the outstanding general characteristics of an environment. Modern technology can provide valuable insight into the way current preferred spectrums are perceived. For example, Saink⁶ (1998) found that the computer analysis of the fractal dimension mimics the way human perception perceives the complexity of landscapes. Such findings can greatly enhance our understanding of aesthetic perceptual underpinnings.

Table 1: The Hypothesis of Thinkers in Relation to the Aesthetics of Architectural Landscapes, (Author).

Hypothesis	Theory
Humans prefer landscapes that promise to meet basic biological needs, that is, landscapes that tell of vital resources and have room for further discovery.	Appleton
The role of the architectural environment must have an ancestral history, an ancestral identity, because humans must create mechanisms that can find those habitats that previously contributed to survival throughout our evolutionary history.	Savannah
It considers the aesthetic to be superior, which has a great psychological and behavioral appeal to humans, and also, it is "hydrophilic", that is, it has a lot of psychological and behavioral attractiveness. Regarding the preferences of landscapes, he says that structures with vegetation that is easy to examine are useful features for assessing the variable quality of landscapes, and that architectural space should be chosen mainly based on the necessity of security.	Abel Ebbs Flat
Landscapes that inform observers of the opportunity to explore without losing adaptation to the environment should be preferred to those that do not meet or even hinder this need.	Stephen and Rachel Kaplan

The difference in their centrality has a common basis: Obviously, behavioral responses are formed in humans to different structural components or quality of the environment, and these reactions are related to our basic biological needs. The important discussion that follows is related to the ability of the human perceptual system to recognize these types of environments.

⁴ - Blum, Barbour.

⁵ - Zajonc.

⁶ - Syneck.

- **Philosophical Aesthetics**

Theories in the philosophy of beauty are of two types: 1- subjective, 2- objective, mental philosophers believe that: beauty is not something that exists in the external world and can be defined by certain conditions and standards, but it is a quality that the human mind creates in the face of some sensations of itself (Platouni et al., 2022), according to Kroche, beauty is a spiritual activity with a sense, not an attribute of a tangible object, in front of its owners Objective theory of beauty believes that beauty is one of the objective attributes of objects and the human mind understands it with the help of certain rules and principles, just as it understands other information according to the laws related to them, and on the other hand, theoretical aesthetics is based on the internal analysis and beliefs of the object from the concept of beauty and the pleasantness of the environment. In order to pay attention to people's experience in the environment and contribute to the evolution of environmental design theory, it is necessary to develop models of the nature of aesthetic experience based on psychological theories and internal analysis of the environment and human beings (Taghavi, 2009).

According to Alfred North Whitehead, organisms such as humans live based on a set of characteristics and the combination of all perceptions or their relationship with the environment and other organisms. 1- Magnitude (multiplicity of diverse and disparate elements) 2- Intensity (power and influence of elements) When greatness and intensity coexist, a form of order and unity can be observed, a strong sense of mystery enables the landscape to appear greater than it is (Vaezi, 2018), according to Figure 1:



Figure 1: The role of visual magnitude and intensity in the perception of beauty, (Vaezi, 2018).

- **Visual Structure of Architectural Landscapes**

According to Simon Bell, in order to find the extent of aesthetic pleasure in harmonious (regular) samples, we need to look for meaningful patterns in our surroundings, some patterns may be the result of only endemic processes in relation to the shape of the earth and climate, and others may be the result of human activities in response to natural processes. Cultural and social developments in architecture, with all the honesty that it has had in creating form from within, the form of function has not been able to find much support among the users of many buildings, the relationship of this rule is according to Figure 2 (Simon, 2007).



Figure 1: Elements of Landscape Beauty (Simon, 2007).

• Aesthetic Architectural Landscapes

According to the prediction of different theories, studies related to landscape selection confirmed that modern humans prefer savanna-like habitats (Sadegh Manesh 2021), named eight variables that have a positive effect on landscape selection and are probably rooted in phylogenetic adaptations to savannas. The aesthetic superiority of architectural landscapes also had the same results, as shown in Table 2.

Table 2: Aesthetic Ranking of Architectural Landscapes

Importance of the criterion	Criteria	Ranking
Complexity that ranges from medium to high.	Complexity	1
Order and patterning have structural components that form the focal point.	Order and Modeling	2
Medium depth that can be perceived indefinitely.	Depth	3
The texture of the ground surface is uniform and homogeneous, and it helps to move	Surface texture	4
There is a reflected perspective (perspective).	Outlook	5

However, some components are not seen, such as growth over time, mystery, and function of landscapes, on the other hand, symbolic variables or content are also important in aesthetic assessment. For example, studies have shown that the presence of artificial contents such as light poles, cables, signs, and vehicles in a landscape often reduces its degree of aesthetic superiority (Anderson et al⁷. 1983, Nassar⁸1994). In general, we prefer natural environments to artificial environments (Kaplan & Kaplan, 1989), to the extent that the addition of natural materials to urban environments often significantly increases the aesthetic appeal of the architectural space (Rahimi & Saberi, 2019). However, this is a complicated issue, as we tend to prefer an environment that has indicators of human control and involvement.

Perceptual landscape management is associated with a sense of security (Hagerhall⁹ 2000) and

⁷ - Anderson.

⁸ - Nasar.

⁹ - Hagerhall

there is a positive correlation between perceptual security. This relationship has¹⁰ also been demonstrated by Kuo et al. (1998). Residents of public urban buildings evaluate their neighborhood images based on the manipulated density of trees, arboretums, and protected grass. Although arboretum has little effect on aesthetics, tree diversity and grass conservation have a significant impact on it. Greater diversity Trees and more lawn protection lead to a greater sense of security and enjoyment of beauty.

• **Environment and Behavioral Reaction**

If our environment can induce specific emotions (such as security or relaxation), and different emotional states in general (such as interest, apathy), then environmental stimuli are likely to influence other aspects of our biological behavioral and functional outcomes.

Evaluating our environment and our emotional response have a significant impact on our physiological and mental health. Adding natural materials to the urban environment not only increases the inner feelings of "vitality" and "peace," but can also accelerate the recovery of stressful situations. Ulrich¹¹ (1984) observed that patients recovered faster in nature-like environments than in other environments. Also, a view of a small garden of deciduous trees to reduce patients' hospitalization time After the operation and increasing their well-being, they were in good condition. By placing patients in such an environment, their stay time was shortened by an average of 8.5 days, and the use of painkillers was limited.

Access to nature also has an impact on physical development. Motor readiness and balance and coordination skills of kindergarten children who played on more natural playgrounds were significantly improved compared to children who played on unnatural playgrounds (Fjortoft & Saji¹² 2000). A comparison of different school environments by Gran¹³ (1996) yielded the same results. Children who played on an outdoor playground and similar Children who played at home had better health records, and more concentration, social skills, and creativity. Studies show that children play on outdoor playgrounds half the size of relatively green fields. In addition, the possibility of children's social interactions with adults is significantly reduced when they play in playgrounds with less vegetation (Taylor et al¹⁴ . 1998). Adults also prefer green spaces.

If children's learning is improved in environments full of plants, it is not unlikely that adult cognitive processes will also become more effective in such spaces. Obersucher and Grammer (2000) investigated this theory by proving the effect of indoor plants on test takers in the driver's license examination room. People who take the test in an exam room full of flowers and plants get significantly lower scores at the same time than those who take the test in rooms empty of flowers and plants.

Not only is learning affected by the existence or absence of nature, but social behavior is also influenced by it. According to the data, access to nature and landscapes leads to more positive relationships, and aggression between residents of a neighborhood (Kuo et al. 1998), Rousseau and Atzawanger (2001) used a small fountain inside a shopping center to measure the effect of water on social interaction (the frequency of physical contact) and to detect the sense of touch in commercial environments. When the fountain was filled with water, compared to when it was dry, the rate of engagement and discovery was significantly higher. This effect was even greater when the water was flowing. Pitt (1989) made similar observations about the relationship between the presence of water and the increase in human social morale, noting that group size

¹⁰ - Kuo.

¹¹ - Ulrich.

¹² - Fjortoft, Sageie.

¹³ - Grahn.

¹⁴ - Taylor A, Wiley A, Kuo F, Sullivan W.

and dependence were higher among those who recreation in the river than among those who recreation outdoors. The authors point out that water, like other components of nature, is not only important for assessing the quality of the environment, but also has an immediate impact on human behavior.

Since the environment and environmental components affect our psyche, health, development, cognitive ability, and social behavior today, it is understood that the aesthetics of landscapes are for architectural components or anything that has a symbolic reference to open space.

- **Behavioral Response to Environmental Variables**

If aesthetics, emotion, and behavioral outcomes about physical environments are the result of adaptation, it must mean that these dimensions, regardless of cultural differences, are seen relatively generally. Is there evidence that individual differences are in response to environmental variables? They come from people who have similar backgrounds and experiences. In fact, Lyons¹⁵ (1983) found that landscapes vary depending on the age and gender of individuals. Older people show lower preference in all classifications compared to younger people, and women also prefer more vegetation than men. However, no theories have been proposed as to why or how this happens. Heft¹⁶ (1988) found that people differ perceptually depending on age, as children interpret landscapes and landscapes in terms of function, and adults in terms of shape. We might also expect that the differences are particularly complex or biodiversity, since the perception of these features is not fixed, but changes in terms of group learning as the individual ages.

The discussion of change in the variation of savannah environments over a lifetime has been proven and is presented as evidence that the intrinsic context or phenotypic role-playing occurs in humans. He postulates that there is a developmental pattern in which responses that are inherently programmed may change later on in particular environments based on experience. Obviously, the savannah living environment does not exist anywhere in the world. If all humans were motivated to live in savannah-like environments, there would be competition for resources. Therefore, it is more adaptable to maintain flexibility and to prioritize the environment in which they grew up. If a person and their parents can survive and reproduce in a certain environment, then they are likely to have similar success. Simon¹⁷'s (2012) research also confirms this hypothesis. An analysis of virtual landscapes showed that pre-pubescent children tend to prefer simpler landscapes, whereas, after puberty, they prefer more complex landscapes, such as mountains, that have existed around them during their adolescence. The experience gained from the landscapes of the architectural environment can change a person's aesthetics. If the job and the amount of experience What about an environment that can affect the aesthetics, what about culture? Yang and Brown¹⁸ (2008) measured the cultural dimensions of landscapes. Cross-cultural comparisons showed that Koreans and Westerners preferred the type of landscapes of other cultures, and preferred the Western style, while Westerners chose the Korean style. However, regardless of cultural background, the grading was the importance of four general elements. In this classification, the presence of water was the most important, and in the later places of vegetation, the rocks. and the arrangement of the landscapes. Apparently, the evaluation of the cultural elements in each style of landscape depends on the cultural background, but the evaluation of the primary elements does not depend on cultural factors. While several researchers emphasized culture as a prominent factor (Goldavi et al., 2017), most researchers confirmed the high cross-cultural similarity between the aesthetic judgment of landscapes, from interior

- Lyons.¹⁵

- Heft¹⁶

¹⁷ - Symons.

¹⁸ - Yang, Brown.

landscapes to urban and natural landscapes (Sadati, Mansafchi, 2022).

- **Conclusion**

Many factors influencing the perception of architectural landscapes were investigated, with a major feature that is almost constant in the positive aesthetic evaluation of landscapes in most studies being the "naturalness" of landscapes. One of the complexities of these theories is the ambiguity and overlap of specialized vocabulary. One researcher speaks of coherence, while another speaks of unity, another of the potential for discovery and readability, and some other of mystical and discernible. In addition, it may often be the case that we encounter findings among variables. Since the focus of this category of research has been the focus of the chosen focus instead of being more scattered, it has faced criticism. Rather than looking for differences between groups and within groups, researchers have tended to homogenize findings, a tendency that is largely rooted in funding problems. Most habitat preference research is funded by federal agencies, which seek an empirical criterion to standardize the aesthetic quality of landscapes. Although aesthetics appear to be the same across different groups or cultures, what is missing from this hypothetical similarity are the stark differences in the way environmental components are perceived and processed. One of the fundamental arguments of this project was that architectural landscape research is not only a field of research for designers and environmental psychology, but also a vital topic for a greater understanding of human aesthetics in general, a subject that is a useful research perspective for all aspects of evolutionary aesthetic research.

- **Offers**

In his ¹⁹ analysis of the psychological experience of space, Ralph (1981) explained that "we experienced all places and landscapes separately, because we reviewed them individually from the point of view of our own attitudes, experiences, and intentions, and based on our own unique circumstances, while the notion that individual differences and unique environmental conditions may influence human tastes in the choice of architectural space is certainly accepted. Even more so, on the opposite side, theories and research on group differences are absolutely essential, as they are one of the most important ways to learn about aesthetic nuances and evolving strategies. Perhaps understanding the root causes of individual and group differences in landscapes may lead to a better understanding of the pervasive differences in evolving survival strategies that affect the aesthetics of architectural space (Johnston et al²⁰. 2001).

Undoubtedly, the current state of landscapes is important, but the living being must assess the future state of the landscapes. Sensitivity to predictive mechanisms and information gained from the environment that relates to our current and future goals is a beneficial sensitivity. The findings of research related to architectural space can be extended to other aesthetic areas of architectural landscapes. And to what extent can the superiority of architectural landscapes be transferred to artistic superiority such as the use of natural and artificial colors in paintings, the choice of shape, the location of the building, or various forms of architecture? Can we identify the "landscape-oriented" or "shelter-oriented" variables in interior decoration styles through the elements of focal points, complexity, legibility, and mystery, to what extent is the superiority of architectural space multi-sensory? Are groups or types of people more inclined to use certain polystylistic characteristics? How does music relate to the characteristics of the architectural space? In what ways can a song create an environment of perspective, refuge, and expansion? Environmental

¹⁹ - Relph

²⁰ - Johnston.

terms and beliefs can be a platform for a more easily understanding of the aesthetic conditions of human beings in multiple domains.

• Resources

- Vaezi. (1397). Investigating the methods of evaluating and analyzing the quality and aesthetics of the urban environment and landscape. *Human and Environment*, 16(2), 131-142.
- Aflatoni, K., M. (2020). (1401). John McDowell and Moral Sensibility. *Philosophical Reflections*.
- Taghavi. (1388). A Discussion on the Relationship between Religious, Mystical and Artistic Experiences. *Journal of Mystical Literature Researches*, 2(1), 113-134.
- Rahimi, S., Saber. (1397). The Effect of Climate on Citizens' Mental Schemas in Perception of Urban Space Case Study: Elgoli Park of Tabriz. *Geography and Environmental Planning*, 29(3), 91-110.
- Goldavi, M., Marjan, M., Mirkarimi, S. H., Abdolrasoul. (1396). Management of Recreational Areas Using Recreational Opportunity Spectrum (ROS) Approach. *Human and Environment*, 14(4), 37-52.
- Sadati, N., Source, Spring. A Critique on the Possibility of Developing a Theory of Brain-Based Beauty (Neuro-Axed) with an Emphasis on Samir Zaki's Opinions and Empirical Achievements. *Journal of Wisdom and Art*, 5-14.
- Bell, Simon (2007), *Perspective, Perception, Pattern, Process*, Translated by Behnaz Aminzadeh, University of Tehran Press, Second Edition, 276-14.
- Symons, D. (1990). Adaptiveness and adaptation. *Ethology and sociobiology*, 11(4-5), 427-444.
- Ulrich RS (1986) Human response to vegetation and landscapes. *Landscape and Urban Planning* 13:29-44.
- Hagerhall CM (2000) Clustering predictors of landscape preference in the traditional Swedish cultural landscape: prospect-refuge, mystery, age and management. *J Environ Psychol* 20:83-90
- Groat L, Despres C (1990) The significance of architectural theory for environmental design research. In: Zube EH, Moore GT (eds) *Advances in environment, behavior and design*, vol 4. Plenum Press, New York, pp 3-53.
- Aghaie, A., & Piravi Vanak, M. (2015). The Metaphysic of Encounter of Space at the Meet of Persian Miniature with Renaissance Painting. *Metaphysics*, 6(18), 33-48.
- Blum GS, Barbour JS (1979) Selective inattention to anxiety-linked stimuli. *J Exp Psychol* 108:182-224.
- Zajonc RB (1980) Feeling and thinking. *Am Psychol* 35(2):151-175
- Syneck E (1998) Evolutionary aesthetics: visual complexity and the development of human landscape preferences. Diss, University of Vienna.
- Sadeghimanesh, A. (2022). Investigating the impact of mythological narratives on urban resilience. *The Journal of Epicliterature*, 18(1), 197-222.
- Anderson LM, Mulligan BE, Goodman LS, Regen HZ (1983) Effects of sounds on preference for outdoor settings. *Environ Behav* 15:539-566
- Nasar JL (1994) Urban design aesthetics: the evaluative qualities of building exteriors. *Environ Behav* 3(26):377-401.
- Kuo FE, Bacaicoa M, Sullivan WC (1998) Transforming inner city landscapes. Trees, sense of safety, and preference. *Environ Behav* 30:28-59.
- Ulrich RS (1984) View through a window may influence recovery from surgery. *Science* 224:420-421.
- Fjortoft I, Sageie J (2000) The natural environment as a playground for children. Landscape description and analyses of a natural landscape. *Landscape Urban Planning* 48:83-97.

- Grahn P (1996) Wild nature makes children healthy. *Swed Building Res* 4:16-18.
- Taylor A, Wiley A, Kuo F, Sullivan W (1998) Growing up in the inner city: green spaces as places to grow. *Environ Behav* 30(1):3-27
- Heft H (1988) Affordances of children's environments: a functional approach to environmental description. *Children's Environ Q* 5(3):29-37.
- Lyons E (1983) Demographic correlates of landscape preference. *Environ Behav* 15:487-511
- Symons D (2012) A critique of darwinian anthropology. *Ethol Sociobiol* 10:131-144
- Yang B, Brown TJ (2008) A cross-cultural comparison of preferences for landscape styles and landscape elements. *Environ Behav* 24:471-507.
- Relph E (1981) *Rational landscapes*. Croomhelm, London.