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Original Article

Cross-Cultural Differences in Rural Landscape Assessment: Iran and Sweden

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Abstract

Purpose- This study explores cross-cultural differences in the assessment of rural landscapes among landscape architecture experts in Iran and Sweden. The research focuses on three key indicators of landscape aesthetics: diversity, naturalness, and sense of place, aiming to understand how cultural background influences the perception and valuation of these elements in rural environments.

Design/methodology/approach- A quantitative survey approach was employed using a structured questionnaire based on a 7-point Likert scale. The sample included 31 landscape architecture experts—18 from Iran and 13 from Sweden—who were selected purposively and responded via email. To analyze the data, non-parametric statistical methods were used, including the Kolmogorov–Smirnov test for normality and the Mann–Whitney U test for comparing group differences.

Findings-The results revealed that both groups valued vegetation diversity similarly, indicating a shared professional appreciation for diverse plant types. However, a significant divergence was noted in perceptions of naturalness: Iranian experts tended to associate cultivated and managed vegetation with higher natural value, while Swedish experts favored more untouched, wild natural elements. Regarding the sense of place, particularly the activity subcomponent, Iranian experts gave more weight to cultural infrastructure and traditional or religious events, reflecting the socio-cultural importance of communal and ritual activities in Iran.

Practical Implications- These findings can guide rural landscape planning and design processes that are sensitive to cultural context, providing a basis for cross-cultural assessment tools tailored to differing aesthetic values.

Originality/Value- The study contributes to the underexplored area of non-Western landscape perception research, offering fresh insights into how cultural frameworks shape aesthetic evaluations across distinct environmental and social settings.

Keywords- Cross-Cultural Differences, Landscape Preferences, Diversity, Naturalness, Sense of Place, Assessment of Rural landscape.

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1. Introduction

According to the definition of the European Landscape Convention (2000), “Landscape" means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors;”. In line with the definition of this convention in ICOMOS documents (2017), the rural landscape is the biological areas of water and soil that are the result of human-nature interaction and have dynamic biological systems that include rural elements and functional relationships. These areas can be large rural areas or small areas in the suburbs. The most common feature of a rural landscape is that it includes farmland and agricultural activities. The importance of the rural landscape as a valuable cultural heritage has been recognized by the international documents of ICOMOS, Council of Europe (CoE), and UNESCO. In general, demographic-cultural, structural, and environmental changes are three related factors that make rural landscapes vulnerable to the risks of destruction, abandonment, or fundamental changes (ICOMOS, 2017). To maintain the sustainability of these landscapes, it is very important to recognize their intrinsic values and ensure their transmission to future generations.

An innovative approach to dealing with these issues involves adopting a psychological perspective to understand how different cultures perceive and respond to global environmental challenges (Eisler et al., 2003). The intrinsic values of rural landscapes arise in different cultural contexts and deeply affect their perception and conservation strategies. Considering that societies are going through the process of globalization, understanding human preferences towards the landscape, and especially the difference in these preferences among different groups, becomes important from the perspective of basic and practical research in landscape and environmental management. This cross-cultural convergence in aesthetic preferences has encouraged scholars to propose generalizable models for landscape evaluation and management that can be adapted across cultural settings. Several studies have supported the potential for such universal frameworks, particularly in relation to visual landscape assessment and ecological value recognition (e.g., Tveit et al., 2006; Ode et al., 2008; Hägerhäll et al., 2018; Van Zanten et al., 2014).

However, in current landscape planning and decision-making processes, the perceptual and emotional dimensions of how people experience landscapes are often overlooked. While ecological and functional aspects typically receive priority, the subjective values—such as aesthetic preferences, cultural meanings, and sense of place—are rarely integrated systematically into planning frameworks (Huai & Van, 2022). This disconnect can lead to designs that fail to resonate with local communities or reflect their cultural identity.

Landscape Character Assessment (LCA) is a widely recognized and well-established framework for understanding and describing the character of landscapes by integrating both physical and perceptual dimensions. It offers a systematic approach to capturing the complexity of landscapes through the analysis of visual, ecological, and cultural attributes. Within this framework, the perceptual dimension—which includes emotional responses, aesthetic preferences, and cognitive interpretations—has gained increasing attention in recent years (Aoki, 1999; Karmanov, 2009; McIntosh et al., 2022; Hung et al., 2023).

Our study is positioned within this perceptual dimension of LCA and focuses specifically on the psychological evaluation of rural landscapes. By investigating how experts from two culturally distinct countries—Iran and Sweden—perceive key landscape attributes, we aim to contribute to a more inclusive and culturally informed application of LCA.

In particular, we examine three core indicators derived from landscape aesthetics theories—diversity, naturalness, and sense of place—to evaluate how cultural background influences landscape preferences. This cross-cultural comparison highlights the importance of incorporating cultural variability into the theoretical development and practical application of rural landscape assessments. By aligning our approach with the LCA framework, we provide insights that complement its physical assessments and reinforce the significance of subjective perception in landscape planning and management. Building upon this framework, the present study aims to explore how cultural background influences the perception and evaluation of rural landscape aesthetics among experts in Iran and Sweden. The investigation focuses on three core

indicators—vegetation diversity, naturalness, and sense of place—with the intention of identifying similarities and differences in expert judgment across distinct socio-cultural and ecological contexts. To guide this investigation, the study addresses the following key questions: How do experts from Iran and Sweden differ in their perception of vegetation diversity within rural landscapes? What variations exist in how naturalness is interpreted and valued in each context? And how is the concept of sense of place—including its physical, semantic, and activity components—perceived differently between the two cultural groups?

2. Research Theoretical Literature

2.1. Landscape appraisal and landscape preference

Research on landscape preference and aesthetics began in the 1960s (Purcell et al., 2001). Lothian (1999) believes that landscape perceptions are formed by the two factors of inherent environmental characteristics and people's interpretations of these characteristics (Taghvaei al., 2017; Huai & Van, 2022). Landscape preferences derive more from emotional reactions to the physical environment than anything else and affect the sense of attraction or aversion to the environment. These preferences are usually called aesthetic or evaluative reactions resulting from visual communication with the natural or built environment (Buijs et al., 2009).

2.2. Landscape aesthetic concepts

This study adopts a comprehensive theoretical framework that integrates subjective and objective components of environmental values in landscape aesthetics theories and uses the framework developed and outlined in Tveit et al. (2006). In this study, we specifically focus on three fundamental concepts in rural landscape assessment: diversity (or complexity), naturalness, and sense of place. These were selected from a broader set of theoretical constructs commonly used in landscape aesthetics research, such as coherence, legibility, stewardship, and openness (Tveit et al., 2006).

These three indicators were prioritized because they collectively capture both the objective, physical properties of landscapes—such as structural complexity and ecological patterns—and the subjective, experiential dimensions, including emotional attachment and cultural interpretation. The concept of diversity, often associated with ecological richness and visual variety, has been widely addressed in works such as Ode et al. (2008) and Erikstad et al. (2008).Naturalness, defined as the perceived degree of human influence in a landscape, is rooted in frameworks developed by Ode et al. (2009) and expanded by Keong & Onuma (2021).Sense of place, reflecting emotional and cultural ties to the landscape, is grounded in the works of Jorgensen & Stedman (2001), Taghvaei (2012), and Ghorbanzadeh et al. (2023).

The combination of these three distinct yet complementary indicators make them particularly suitable for examining cross-cultural differences in landscape perception and valuation (Li et al., 2022; Tenerelli et al., 2017; Frank et al., 2012). The choice of these three indicators centers on studying landscape preferences through environmental features, species, and physical or natural qualities. Additionally, it examines historical and memorable components integral to the landscape.

The selected indicators are conceptually distinct: diversity relates to visual and ecological variety, naturalness to the degree of perceived human influence on the landscape, and sense of place to emotional and cultural attachment. This distinction allows each indicator to capture different yet complementary aspects of landscape perception and evaluation. Relevant research highlights the role of environmental factors and local context in shaping rural development strategies and landscape preferences, emphasizing that effective planning should consider place-specific ecological and socio-cultural conditions (Jome'epour et al., 2018; Ghorbanzadeh & Niloufar, 2019). This study will explore cross-cultural differences in the interpretation and importance of different aspects contributing to the perception of vegetation diversity, naturalness, and sense of place.

2.2.1. Diversity

Landscape diversity includes the complex interaction between pattern, form, composition, and configuration of landscape features. This multifaceted concept, presented in the Biophilia hypothesis by Kellert and Wilson (1993), emphasizes the central role of diversity in nature, which includes both species richness and landscape species variety (Ode et al., 2008). In landscape ecology, diversity is often synonymous with complexity and has a central place (eg, Green et al., 2006). In particular, landscape diversity is defined

as the diversity of land cover classes, and it is usually measured through land cover mapping methods (Ramezani, 2019).

The importance of landscape diversity transcends ecological domains and affects human perceptions and preferences in specific landscapes. People's preference for a particular landscape is fundamentally related to their ability to perceive the complexity, variety, and level of interaction with that landscape (Kaplan et al., 1989). Significantly, a Europe-wide meta-analysis, by Van Zanten et al. (2014) found that there is a distinct preference for mosaic landscapes and that diverse landscapes are considered being more attractive (Hermes et al., 2018). Therefore, landscape diversity plays an important role in shaping human perceptions and preferences, since more diverse landscapes are often more attractive.

We assessed vegetation diversity by classifying land cover into distinct types and structural categories. This helped to identify visual contrasts and transitions between different landscape components.

2.2.2. Naturalness

Naturalness refers to the extent to which a landscape appears untouched by human influence and emphasizes its similarity to natural environments. The concept of naturalness is one of the concepts studied in most landscape preference research and is generally used to describe how close a landscape is to the perceived natural state (Ode et al., 2009). It is noteworthy that perceived naturalness can be different from ecological naturalness (Tveit et al., 2006). Environmental psychologists and proponents of ecological aesthetics both recognize naturalness as a critical aspect of visual quality (Purcell & Lamb, 1998; Gobster, 1999).

The results indicate a preference for environments that are perceived as natural in appearance and structure, even if such landscapes may include human-modified or cultivated elements, as opposed to clearly artificial or built environments (Kaplan and Kaplan, 1989), This confirms the cross-cultural relevance of perceived naturalness in shaping both visual appreciation and recreational preference.

The Hemeroby index is used to measure the perceived naturalness of the land cover based on the level of human influence on the landscape. The Hemeroby index, which was originally designed for ecological studies, has now become a standard tool in the assessment of landscape aesthetic quality (Frank et al., 2013). Using this approach, the human perception of naturalness is considered rather than its ecological meaning, such that deciduous forests are usually rated as more natural than mixed or coniferous forests, and surface water is ranked second in importance (Jackson et al., 2008).

In this study, to assess the naturalness, the Hemeroby index classification has been used, and based on this, it has focused on natural components such as vegetation, water bodies, and elements of natural and built environments. In this way, a systematic approach to the assessment of naturalness is presented and helps to increase our understanding of human perceptions in societies with different cultures.

2.2.3. Sense of Place

The sense of place has been the focus of geographical science studies and refers to the attachment or emotional connection of people with a place or the meaning that a person attributes to such areas (Williams & Vaske, 2003; Brown & Raymond, 2007). Attachment to a place is proposed by environmental psychologists. They consider it equivalent to geographers' sense of place. The place attachment scale (Williams and Waske, 2003) is one of the first valid scales used in different areas of land use. This scale is defined based on the two concepts of place identity and place dependence (Brown and Raymond, 2007). Tuan's theory (1977) posits that individuals who are rooted will act responsibly toward their immediate environment (Kudryavtsev et al., 2012). In addition, people in communities with stronger place attachments enjoy a higher quality of life, and they tend to identify landscape values and specific places in their communities (Brown et al., 2007; Mohammad-Moradi et al., 2022).

Place attachment, or the human-place bond (Altman, 1992), has been present in academic discourse since the 1990s. As understanding of the construct and its applicability has grown, so has its use across contexts and cultures (Falahat, 2006; Montazerolhodjah & Sharifnejad, 2023). The scale's psychometric properties have not been evaluated despite being widely used. Certain researchers (e.g., Williams and Vaske, 2003) suggest that because context plays a crucial role in comprehending and gauging individuals' attachment to places, further examination is necessary to evaluate the conceptual consistency

and measurement accuracy of commonly used attachment scales across various locations and situations (Wynveen et al., 2018).

The assumption of item equivalency, as proposed by Budruk (2010), could present challenges when comparing data gathered from diverse social and physical settings. Scholars such as Kyle and Johnson (2008) and Trentelman (2009) have noted differences in place conceptualization among individuals with varied experiences and cultural backgrounds. Alternatively, there may be subtle differences in how distinct groups perceive places, which conventional variables like shared experience history or activity preferences fail to capture (Wynveen et al., 2018).

2.3. Cultural differences

There are several established theories in this field; including the landscape sanctuary theory, the savanna theory (Orians, 1980), and the biophilia theory (Wilson, 1984), which are based on the global consensus on landscape preference. Most people's consensus on landscape preferences is focused on tree and water preferences (Ulrich, 1983). Evolutionary psychology acknowledges that there are innate and shared perceptions of perspective regardless of cultural differences (Ozgüner, 2011; Tveit et al., 2006).

Other studies have shown that different social groups may have varying preferences for wild versus managed landscapes, depending on factors such as cultural background, education, or familiarity with nature (e.g., van den Berg & Koole, 2006; Gobster et al., 2007). Likewise, people from different socio-cultural backgrounds have different preferences for urban parks (Kaplan & Kaplan,1989; Buijs et al., 2009). This suggests that comparative studies among different cultural groups can reveal commonalities and differences in preferences (Madureira et al., 2015), hence further studies are required to understand how landscape characteristics lead to global consensus or specific cultural differences (Swapan et al., 2017). Also, background-based studies such as comparisons between landscape experts and the general public have shown differences in landscape preferences (Ode et al., 2010; Van Den Berg and Koole, 2006).

Most people today, especially in eastern countries, live in urban areas, with nature experienced almost solely through vacations. However, the experience of nature differs for those living in Western countries (Hung et al., 2023). In addition, natural environments are universally considered to have a higher aesthetic value than urban environments (Ulrich et al., 1993). However, research suggests that cultural variations affect aesthetic perceptions (Lehman et al., 2004) and emotional responses to landscapes (Ulrich, 1983). This idea suggests that the perception of landscape aesthetics can be influenced by socio-cultural structures such as knowledge, experience, or individual cultural background, different from one person to another (Lim et al., 2015).

Thus, it is important to understand the different roles played by nature for people living in Western and Eastern countries and the extent to which these differences are based on cultural differences and, more extensive research on landscape preferences with different cultural contexts seems necessary and informative (Hägerhäll, 2001; Van Den Berg and Koole, 2006; Hägerhäll et al., 2018). In addition, expertise, special interests, and landscape typology can also influence aesthetic preferences.

There are still important gaps in the understanding of cross-cultural differences despite many studies in the field of landscape evaluation. Many of these studies assessed only one indicator, such as perceived preferences for naturalness or landscape openness. In addition, despite the importance of cultural preferences, the impact of cultural diversity on landscape perception has limited research (Eisler et al., 2003). Also, landscape preference studies have mostly been conducted among Western populations, and this has led to a more limited understanding of cultural differences among populations in different countries (Hägerhäll et al. 2018). Therefore, there is a need for more basic research that examines different cultural dimensions in diverse landscape contexts.

3. Research Methodology

This study is an initial pilot research project designed to examine cross-cultural differences in rural landscape preferences between Iranian and Swedish landscape architecture experts. The research specifically focuses on the psychological dimension of landscape perception, using three indicators: vegetation diversity, naturalness, and sense of place, which are frequently discussed in landscape preference literature.To address the cultural contrasts meaningfully, a purposive sampling strategy was adopted to select participants with extensive academic and professional experience in rural landscape studies.

This ensured that respondents would have sufficient knowledge and contextual insight to evaluate the indicators effectively. The sampling approach also aimed to include experts from diverse academic institutions and professional backgrounds to enhance the validity and reliability of the findings.

To gather the required data, a structured questionnaire was developed based on established landscape preference frameworks and adapted to fit the cross-cultural context of Iran and Sweden. The questionnaire consisted of clearly defined items measured on a Likert scale to quantify participants' perceptions. Before the final distribution, the instrument was pre-tested for clarity and cultural appropriateness.

Overall, this pilot study serves as a valuable preliminary investigation to test the feasibility and relevance of a larger, more comprehensive cross-cultural study in the future (Kunselman, 2024).

3.1. Participants

Landscape architecture experts from several Iranian universities and the Swedish Agricultural University (SLU) in Sweden participated in this study. Due to the specialization of the questions of this study and their inherent complexity, the participants were selected from landscape architecture experts. Proficiency in the terms and concepts of landscape architecture requires that study sampling be limited to professionals and the general population excluded from the study. Selective selection reduces bias and increases the focus of the study. In selecting Iranian and Swedish landscape architecture experts participating in this study, we tried to recruit them from among those who have experience working on rural landscape studies. While Swedish participants were affiliated with SLU, we clarified in the methodology that we recruited only those who had lived and worked in Sweden for an extended period and had practical experience in Swedish rural landscape studies. Similarly, all Iranian participants were natives and residents of Iran. This has now been explicitly stated in the text to ensure cultural validity in the cross-national comparison. Therefore, the interview questions were sent to 25 Iranian experts and 25 Swedish experts in the form of email invitations, and they were given two weeks to respond. By obtaining confirmation from the participants, we were assured of their willingness to participate in the interview. This email interview resulted in a response rate of 62% with 18 Iranians and 13 Swedes responding (For detailed sample statistics, please refer to Table 1).

Table 1- Profiles of the respondents engaged in the online questionnaire.

Country	Number of respondents	Expertise	Organizational affiliation
Iran	18	Landscape Architecture	SBU (Shahid Beheshti University), TU (Tehran University), TMU (Tarbiat Modares University), IKIU (Imam Khomeini International University), IUST (Iran University of Science and Technology)
Sweden	13	Landscape Architecture	SLU (Swedish University of Agricultural Sciences)

The two countries studied – Iran and Sweden – differ significantly not only in terms of habitat characteristics such as vegetation and topography, but also in climate conditions, which range from arid and semi-arid zones in Iran to temperate and subarctic zones in Sweden. These environmental contrasts are relevant as they shape cultural practices and landscape interactions in each context. To ensure the cultural grounding of our expert sample, all Iranian participants were native-born and residing in Iran, and all Swedish participants were long-term residents with Nordic cultural backgrounds and direct professional experience in Swedish rural landscapes. These efforts were made to strengthen the validity of cross-cultural comparison by ensuring that the expert evaluations were rooted in each country's cultural and environmental context.

3.1.1. Iranian (Iran)

The history of settlement throughout the Plateau of Iran has a long history (which dates back to the 4-5th millennium BC). Traditional Iranian landscaping, enclosed courtyards, and gardens in particular, have been regarded as constitutive sources of design patterns and conceptual context for architecture. The country of Iran, with an area

of 1,873,959 km^2 (the 17th largest country in the world), is located in the Northern and Eastern Hemispheres, on the Asian continent, and among the countries of West Asia. A major part of Iran, which is located in the dry belt of the world, consists of areas with harsh hot, and dry climate conditions and deserts. Most of these areas, which face severe limitations of water resources, vegetation, and some other natural features, at the same time, contain many very old and important urban and rural settlements. In addition, the average height is more than 1200 meters above sea level, and as a four-season country with a great variety of climates, such that the northwest has a mountainous climate, the north has a moderate and humid climate, the central regions have a hot-dry climate, and the south and southeast regions have a hot and humid climate.

According to the United Nations forecast, Iran's population in 2023 is estimated at around 88 million, with approximately 26% living in rural areas based on the 2015 national census. While this study focuses on expert evaluations rather than public opinion, such demographic data provides important context. The considerable portion of the population residing in rural areas reflects a strong and ongoing connection to rural landscapes, which may influence how Iranian landscape architecture experts perceive and evaluate these environments through direct experience or professional engagement. Furthermore, the formation and physical texture of these rural ecosystems are deeply shaped by a combination of geographical, social, economic, and cultural factors that vary across climatic regions of Iran (Zargar, 1999; Taghvaei, 2006). Iran caters to a wide range of preferences, climates, and weather conditions. The official language of the Iranian people is Persian (Farsi). The landscape architecture experts participating in the study were from the universities located in Tehran (as Capital) and Qazvin city in Iran (Table 1).

3.1.2. Swedish (Sweden)

Sweden is a country with an area of approximately 450,000 square kilometers and is considered one of the largest countries in Northern Europe. Sweden's geographic location is in the northern and eastern hemispheres, its western border is Norway and its eastern neighbour is Finland. The latest UN census estimates Sweden's population to be approximately 10.5 million in 2023, a significant fraction of Europe's population. The majority of Sweden's population, about 85 percent, lives in cities and larger settlements. Sweden has a diverse geographical landscape including forested areas, numerous lakes, and vast plains. About half of Sweden is covered by forest and the other half is covered by farmland and urban areas.Due to the geographical extension of Sweden, there is a wide range of climates in this country, from the southern temperate climate to the northern semi-polar climate. Swedish is the official languages of Sweden. The landscape architect professionals who participated in this study were based at the Swedish University of Agricultural Sciences, SLU, in Alnarp and Uppsala, in southern Sweden.

3.2. Questionnaire

This questionnaire was designed to examine the opinions of landscape architecture experts on three evaluation indicators of rural landscapes: diversity, naturalness, and sense of place. This questionnaire with 15 main questions, of which three questions are related to diversity, eight questions are related to naturalness, and four questions are related to the sense of place, was first prepared in Persian and then translated into English. To design this questionnaire, the survey methodology of previous related studies was used, for example, for the indicators of diversity and naturalness from Zhang et al., (2022) and Ólafsdóttir and Sæþórsdóttir (2020), and for the sense of place index from the studies of Jorgensen & Stedman (2001) and Mohammad-Moradi et al. (2022) were used.

In addition, adherence to the ethical standards that were guaranteed in the design of the questionnaire. Given that the main method of identifying preferences in landscape preference studies has typically been rating or ranking images (Kaplan and Kaplan, 1989). Based on this, all items were evaluated on a seven-point Likert scale, from 1=very little to 7=very much.

In addition, the normative and semantic equivalents of the questions in both Persian and English languages were carefully examined, and after the questionnaire was prepared in Persian, its semantic equivalents were translated into English. This survey was prepared for Iranian experts using the Porsline online survey platform in Farsi and sent as an invitation link to their email, and for Swedish experts it was designed in English using a university intranet system with the Netigate platform and emailed to them. In this survey, the

participants were asked to rate their opinion on the importance of three rural landscape concepts in 15 questions with a 7-point Likert scale, and three open questions were presented at the end of each section for the participants to express their opinions. An overview and interpretation of the selected indicators and their sub-components is presented in Table 2 to support a clearer understanding of the study framework.

Table 2. Summary of questionnaire framework.

Indicator	Main Question (in two languages)	Sub-indicator	Number of Questions per Sub-indicator
Experiences of Landscape Diversity	To what extent do you find that different features of vegetation contribute to your experience of landscape diversity?	- Different types of vegetation - Composition and configuration of vegetation - Open-ended question, a suggestion for the components of vegetation diversity	3 2 1
Experiences of naturalness	To what degree do natural and cultivated components of rural landscapes contribute to your experience of naturalness?	- Natural vegetation - Cultivated vegetation - Waterbody - Patterns and shapes of the landscape - Natural relief components - Paths and roads - Building components - Open-ended question, a suggestion for the components of naturalness	6 5 5 3 4 3 6 1
Sense of place	How important are different physical, semantic, and activity components for your experience of a sense of place?	- Physical components - Semantic components - Activity components - Open-ended question, a suggestion for the components of sense of place	4 5 7 1

Overview of the questionnaire structure, including main indicators, sub-indicators, and the number of questions assigned to each. The questionnaire items were rated on a 7-point Likert scale (1 = very low, 7 = very high).

3.3. Data Analysis

The statistical analysis of the aesthetic preferences of three indicators of vegetation diversity, naturalness, and sense of place was done using IBM SPSS 29 software. Descriptive statistics were used to determine the average responses for each sub-index and its items. After the assumption of normality of the data was rejected with the help of the Kolmogorov-Smirnov test and obtaining a p-value of less than 0.05, non-parametric tests were used to analyze the data. Since the study was conducted between two groups (Iranian and Swedish experts) with independent data, U Mann-Whitney comparative tests were chosen as the most appropriate test to investigate cultural differences and similarities. In addition, due to the relatively small size of the sample (N=31), the exact distribution of the test statistic (U) was used to obtain more reliable results (Table 3).

Table 3. Tests for differences in preferences for three Indicators across two respondent groups.

Indicators	Test Group	n	Analysis method
Experience of landscape diversity Experience of naturalness Sense of place	Iranian, Swedish	31	Kolmogorov-Smirnov test Mann–Whitney U test Exact Mann–Whitney U test

3.4. Limitations of research

In this study, the survey was developed to assess Iraninan landscape, and hence not adapted to fit into a Swedish landscape context, and hence concepts might be less relevant. While this could be seen as negative, we believe this is one of the

strengths of the study – there has been a tendency to theory development taking place in Western Europe/US and by testing a survey developed for an Iranian landscape context and experts in Europe, this provide something that are more novel.

Experts in landscape architecture were used because of the specialization of landscape assessment questions and their complexity. There is a need for background knowledge and familiarity with the specialized words of landscape architecture, which makes it limited to involving the general population in the study and only makes it possible for experts to answer them. Their inclusion reduces noise and bias, enhances the study's focus, and prevents response bias. Therefore, considering that the study is based on the preferences of landscape architecture experts, especially those with experience working on rural landscape studies, it basically includes a small statistical population in two countries. At the same time, this study has been done with the aim of emphasizing the importance of cross-cultural differences among landscape architecture experts. In addition, because the questionnaire was without visual questions and was based on the mentality of each expert towards the elements of the rural landscape, it is possible that it may be different from the experiences that are obtained in reality in these landscapes. However, since the questionnaire has specifically questioned three important indicators of aesthetics in the rural landscape with specific elements in this landscape, the results effectively show the effect of cultural differences on the responses of landscape aesthetic preferences. At the same time, more studies with a larger sample size and more types of cultural samples are necessary. Future studies can fill the knowledge gaps related to different kinds of rural landscapes and their relationship with human resources, and can also strengthen explanations for human and natural experiences.

4. Research Findings

In the U-Man-Whitney comparison test, the significance level of landscape aesthetic preferences regarding vegetation diversity was 0.68, which shows that there is no significant difference between the two groups. This average for Iranian experts is 4.95, which is slightly lower than the average of experts. Sweden, which was 5.25 (Table 4), but at the same time with a p-value greater than 0.05, this difference is not statistically significant. This means that there are similar preferences regarding plant species diversity as well as vegetation patterns and configuration between Iranian and Swedish experts (Table 4).

Table 4. Comparison of the differences in opinions of two groups of Persian and Swedish experts

Indicator	Sub-indicator	Mean (IR)	Mean (SW)	Sig.	Analysis item	Mean (IR)	Mean (SW)	Sig.
Diversity	Different types and structures of vegetation	4.95	5.25	0.68	Tree species (3 to 12 meters)	5.56	5.62	0.182
					Shrub species (1 to 3 meters)	4.83	5.15	0.745
					Herb species (0 to 1 m)	3.83	5.00	0.271
					Composition and configuration of vegetation	5.67	5.92	0.668
					Vertical structure	5.61	5.23	0.118

By comparing the indicators of naturalness (Figure 1) and sense of place (Figure 2), significant cultural differences were revealed, especially regarding the perception of naturalness, the average ratings showed that cultivated vegetation for Iranian experts had an average of 4.80 compared to Swedish experts with an average of 2.65 is more important and this difference of opinion is considered significant with p-value=0.001.

Specifically, the understanding of the naturalness of sub-indices such as gardens, vineyards, and agricultural land was higher for Iranian experts (sig<0.05). On the other hand, differences were observed in the perception of relief components, which showed that Iranian experts attach less importance to it than Swedish experts (Iranian=4.68; Swedish=5.75, p-value=0.012). Related to this index, the degree of naturalness of items such as bare rocks, heights with little vegetation, and sandy hills was ranked higher by

Swedish experts (sig<0.05).

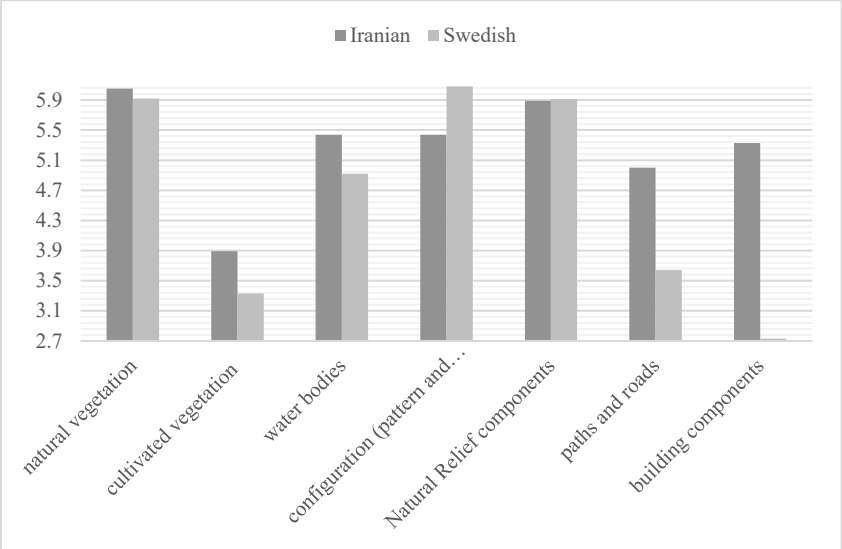

Figure 1. Comparison of difference of mean of sub-indicator of naturalness

In addition, for paths and roads, Iranian experts compared to their Swedish counterparts gave higher importance (Iranian=4.12; Swedish=3.27, p-value=0.052). These significant differences were also observed in some of the building components, so Iranian experts in architecture with canvas materials and rural stepped residential areas received higher scores than Iranian experts (mean = 4.72 to 5.33, p-value = 0.004) (Table 5). Examining these findings shows how cultural differences affect the perception of naturalness and highlights the importance of paying attention to local contexts in rural landscape planning and decisions.

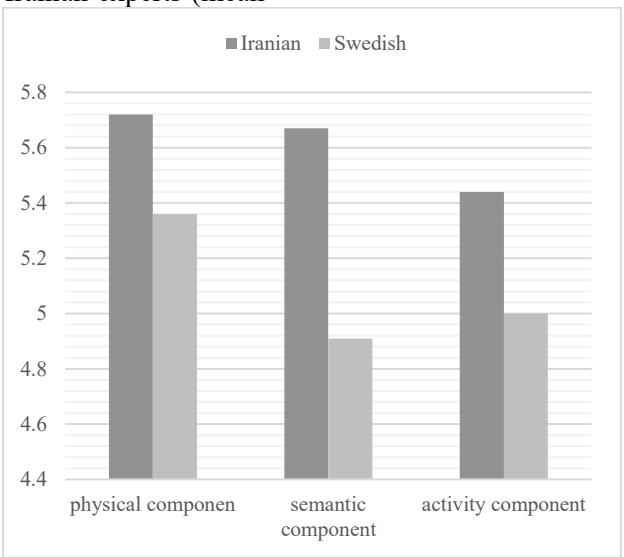

Figure 2. Comparison of mean of sub-indicator of sense of place

Contrary to the significant cultural differences that were seen in some aspects of the perception of naturalness, in other naturalness sub-indices such as natural vegetation (sig=0.382), water bodies (sig=0.095) and configuration (sig=0.095) with a p-value greater than 0.05 significant difference was not observed between experts of two groups and the sub-indices were evaluated similarly. These results indicate that the experts of the two groups have a common understanding of the importance of

natural vegetation, water bodies, and landscape organization and form.

Table 5. Comparison of the differences in opinions of two groups of Persian and Swedish experts on the naturalness of rural landscapes.

Indicator	Sub-indicator	Mean (IR)	Mean (SW)	Sig.	Analysis item	Mean (IR)	Mean (SW)	Sig.
Naturalness	Natural vegetation	5.17	5.04	0.382	Broadleaf forest	5.33	5.75	0.225
					Coniferous forest	4.39	4.58	0.863
					Mixed forest (broadleaf and coniferous)	5.33	5.68	0.516
					Natural pasture and bushland	5.83	4.75	0.144
					An area rich in vegetation	5.89	5.75	0.915
					Area poor in vegetation	4.28	3.75	0.528
	Cultivated vegetation	4.80	2.65	0.001	Planted forest	4.17	3.08	0.060
					Orchard	5.33	3.08	0.001
					Vineyard	4.83	2.50	0.001
					Irrigated agricultural land	4.72	2.25	0.001
					Dryland agricultural land	4.94	2.33	0.001
	Water bodies	5.14	4.75	0.095	Water spring	6.11	6.17	0.229
					Seasonal river	6.61	6.25	0.722
					Perennial river	5.61	6.08	0.294
					Narrow rural man-made water channels	3.67	2.92	0.170
					Fish breeding ponds with soundscape	3.72	2.33	0.007
	Configuration (pattern and shapes)	4.94	5.08	0.958	Various vegetation patch shapes	5.50	5.58	0.806
					Multi-layer vertical vegetation and complex structure	5.54	5.53	0.178
					Number and arrangement of roads around vegetation patches	3.89	4.33	0.559
	Natural Relief components	4.68	5.75	0.012	Bare rocks	4.50	5.91	0.017
					Heights with low vegetation	4.39	5.82	0.015
					Sandy hills	4.17	5.36	0.035
					Densely vegetated valleys	5.67	5.91	0.539
	Paths and roads	4.12	3.27	0.052	Asphalt road	2.83	2.36	0.182
					The dirt road	4.33	3.09	0.056
					footpath or nature trail	5.22	4.36	0.188
	Building components	3.95	2.80	0.010	Small industrial and commercial units	2.78	2.09	0.061
					The rural stepped residential area	4.83	3.00	0.007
					Rural flat residential area	3.72	3.00	0.160
					Architecture with canvas materials	5.61	3.09	0.001
					Architecture with modern materials	2.28	2.45	0.773
					Beehives with different colors	4.50	3.18	0.107

No standard descriptions or images were provided for each variable. Respondents interpreted the items based on their own expertise and professional judgment, which may introduce variability in interpretation for less concrete categories.

The analysis of the sense of place index leads us to interesting insights about the sense of place in Iranian and Swedish experts. While in general the sense of place does not show significant cultural differences (p values > 0.05), subtle differences are revealed in some sub-indices. One of the observed differences is related to various activities that are effective in creating a sense of place. Iranian experts rated the importance of some activity components with an average rating of 5.44 significantly higher than Swedish experts with an

average rating of 5 (Table 6). Especially, the importance of equipment such as electricity, water, gas, and the internet was significantly higher for Iranian experts with an average of 4.22 compared to Swedish experts with an average of 2.64 (sig=0.015). Also, holding cultural, religious, and ritual events was much more important for Iranian experts with an average of 5.39 than for Swedish experts with an average of 3.18 (sig=0.006).
On the other hand, no significant difference was observed in the physical and semantic components of the sense of place between the two Iranian and Swedish specialized groups. Physical characteristics such as the quality of materials and facades of buildings, rural residential context, historical monuments, and the overall historical value of the landscape had similar values for both groups (sig=0.815). In the same way, the evaluation of two groups of the sub-indices of the semantic components of the landscape including narratives, collective memories, kinship ties, and prosperity did not differ significantly (Sig>0.05). These findings emphasize the common understanding that exists among people of different cultures regarding the sense of place (Table 6).

Table 6. Comparison of the differences in opinions of two groups of Persian and Swedish experts on the Sense of place in the evaluation of the rural landscape.

Part	Sub-indicator	Mean (IR)	Mean (SW)	Sig.	Analysis item	Mean (IR)	Mean (SW)	Sig.
Sense of place	Physical component	5.72	5.36	0.815	Quality of materials and facades of buildings	5.06	5.64	0.311
					Quality of the rural residential context	5.56	5.73	0.824
					Historical and valued building	5.67	4.91	0.404
					The historic value of the overall rural landscape	6.00	5.36	0.356
	Semantic component	5.67	4.91	0.098	Safety and Security	5.33	4.82	0.493
					Narratives from the history of the village	5.17	4.55	0.487
					Prosperity and comfort	4.56	3.36	0.076
					Collective memories	5.72	5.36	0.272
					Kinship and ethnic ties	4.94	5.18	0.777
	Activity component	5.44	5.00	0.017	The existence of suitable walking paths	5.06	5.64	0.160
					Existence of suitable roads	4.61	3.91	0.087
					Equipment (electricity, water, gas, internet)	4.22	2.64	0.015
					Assistance to rural residents on occasions	5.28	3.91	0.065
					Holding cultural, religious, and ritual events	5.39	3.18	0.006
					Fun recreational activities	5.28	4.18	0.132
					Cleanliness and garbage collection	5.44	4.36	0.422

5. Discussion and Conclusion

5.1. Comparison of vegetation diversity

Table 4 and the analysis of the p-value results show that there is no significant difference between Iranian and Swedish experts in the prioritization of vegetation types and structures, including herbaceous, tree, and shrub species, despite the cultural and geographical differences. There is a high degree of commonality in rural landscape aesthetic preferences between the two expert

groups. In environmental psychology, there is a consensus on the relationship between complexity and preference (Ode et al. 2010). The result of this study suggests that also the indicators used to assess diversity are similar across cultural contexts. The lack of significant differences in vegetation diversity preferences between Iranian and Swedish experts suggests intriguing implications regarding the universality of aesthetic experiences in rural landscapes. While cultural and geographical factors often shape individuals' perceptions of beauty (Zargar,1999; Rosley et al., 2017; Hägerhäll et al., 2018) the observed similarities hint at underlying commonalities that transcend these influences. From a psychological standpoint, evolutionary theories propose that humans are innately drawn to natural environments due to their restorative qualities, irrespective of cultural background. Thus, while cultural differences undoubtedly exist, the convergence in aesthetic preferences regarding vegetation diversity underscores the potential existence of fundamental human values toward nature's beauty and functionality (Garrido-Velarde et al., 2018; Williams & Cary, 2002).

5.2. Comparison of naturalness

Comparing the preferences of Iranian and Swedish experts in the perception of naturalness using the results of Table 5 reveals interesting results about the influence of culture on landscape aesthetic preferences.

Important differences arise because Iranian experts show a more natural understanding of cultivated vegetation. This may reflect the cultural importance of traditional agricultural practices and the integration of nature into daily life in Iran. However, this interpretation is based on contextual assumptions, as the questionnaire did not explicitly include questions about participants' personal experience with agriculture or land-based livelihoods.

This preference difference can also be related to Iran's prevailing arid and semi-arid climate, which makes them value the abundance of green vegetation. In contrast, in Sweden, with its temperate climate and abundant natural resources, preserving natural landscapes and integrating environmentally friendly design elements is a higher priority. Swedish experts placed more value on natural highland components such as bare rocks and sand dunes, which is probably due to the lack of high mountains in southern Sweden. Socio-economic factors such as population density and economic development also significantly affect the perception of landscape aesthetics. Finally, different perspectives emphasize the deep impact of cultural norms, historical heritage, and collective experiences on the interaction of people with their environment (Shaw, 2019; King, 2016; Wall and Oswald, 2010).

Despite the differences, significant similarities have been identified across cultural differences in the assessment of naturalness sub-indices. Iranian and Swedish experts have the same preferences for natural vegetation, water bodies, and landscape configuration. Shared cultural preferences in key landscape elements emphasize that innate human preferences for specific environmental features are rooted in evolutionary adaptations and biophilic tendencies, thus aligning the results with psychological theories (Petrova et al., 2015; Hoyle et al., 2019). While subtle differences in landscape preferences emerge under the influence of culture, a shared understanding of the core elements of landscape emphasizes the universal aspects of human-environment interactions (Ulrich, 1993; Kellert & Wilson, 1993).

5.3. Comparison of sense of place

The analysis of the sense of place index shows a new perspective on the preferences of Iranian and Swedish experts regarding the cultural significance of rural landscapes. While significant cultural differences in the evaluations of the sense of place index are not shown in the results, at the same time subtle differences are visible. Some activities related to the sense of place are rated more important than their Swedish counterparts in the opinion of Iranian experts, and this shows how different cultural norms affect the sense of place. Especially for Iranians, access to essential services such as electricity, water, gas, and internet was emphasized and this highlights the role of infrastructure in shaping the identity of a place. In addition, the importance of holding cultural, religious, and ritual events among Iranians emphasizes the influence of cultural practices on the construction of place meanings and emphasizes the dynamic nature of place-making processes. Aligning with place attachment theories (Jorgensen & Stedman, 2001; Scannell & Gifford, 2010), these findings emphasize the importance of shared experiences in shaping people's connections with

place. In other words, based on the theory of place attachment, people establish deep emotional bonds with certain places through their interactions and experiences with the environment, which plays a central role in this process of common encounters. In short, shared experiences in collective activities while establishing one's connections with the place and its inhabitants; also strengthens the sense of belonging and collective identities.

On the contrary, despite these significant differences, no significant difference was observed in the physical and semantic components of the sense of place between Iranian and Swedish expert groups. Both groups showed similar evaluations of physical features such as the quality of materials and facades of buildings, rural residential context, historical buildings, and the overall historical value of the rural landscape. Similarly, the semantic components that included the symbolic meanings and cultural significance attributed to the landscape showed the same values across the cultural contexts. In examining the complex relationship between place attachment and landscape values, Brown and Raymond (2007) argue that people's emotional connections with specific places in their neighbourhood are influenced by the surrounding environment. Also, the study of the concepts of place attachment, place identity, and place memory by Lewicka (2008) reveals the importance of collective memory in the formation of people's place attachment. In this study, the observed similarities in how Iranian and Swedish experts evaluated the physical and semantic characteristics of rural landscapes align with existing theories on place identity and collective memory. These shared perceptions suggest that certain aspects of place attachment and landscape heritage may transcend cultural boundaries. Therefore, even when specific components of the sense of place differ, a common understanding of human–environment interaction often remains. While specific differences in preference were observed, the primary goal of the study was to highlight the significance of cultural perspectives in shaping rural landscape assessment frameworks.

It seems necessary to express this point that while this study has obtained considerable differences and similarities in the results of the naturalness and sense of place indexes of the rural landscape, the main emphasis of this research is on recognizing the different perspectives in the assessment of rural landscape aesthetics rather than the specific differences we found here and, the importance of understanding cross-cultural differences in landscape considerations.

A comparative analysis of rural landscape evaluations among experts of Iranian and Swedish landscape architects provides valuable insights into the influence of cultural, environmental, and socio-economic factors. This comparative study provides us with a new understanding of rural landscape aesthetics and by examining three indicators of vegetation diversity, naturalness, and sense of place, it clarifies similarities and differences in cultural contexts.

Aesthetic preferences in vegetation diversity are the same among Iranian and Swedish experts, despite the cultural and geographical differences. These shared preferences stem from universal values related to aesthetics and awareness of the role of vegetation diversity in habitat health, microclimate regulation, and biodiversity enhancement, which transcends cultural influences. By recognizing the common understanding that exists among different cultures of the importance of biodiversity and ecological balance, the potential for intercultural cooperation in landscape planning and decision-making is also provided.

The observed cross-cultural differences between Iranian and Swedish landscape architecture experts can be interpreted in light of cultural, environmental, and socio-economic contexts, which are widely discussed in the literature as key influences on landscape perception. While these factors were not directly measured in this study, they provide a meaningful framework for understanding the findings. This study provided a valuable perspective for the assessment, planning, and management of rural landscapes so that with cultural awareness in planning processes, we can cultivate landscapes that not only enhance aesthetic qualities but also ensure sustainability and cultural identity. By understanding these differences, architects and landscape planners can develop cross-cultural collaborations and create and design spaces that reflect human experiences and values.

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Authors′ contributions

The authors equally contributed to the preparation of this article.

Conflict of interest

The authors declare no conflict of interest.

References

1. Altman, E. I. (1992). Revisiting the high-yield bond market. *Financial Management*, 78-92. https://www.jstor.org/stable/3665667
2. Aoki, Y. (1999). Trends in the study of the psychological evaluation of landscape. *Landscape Research, 24*(1), 85–94. https://doi.org/10.1080/01426399908706552
3. Brown, G., & Raymond, C. (2007). The relationship between place attachment and landscape values: Toward mapping place attachment. *Applied Geography, 27*(2), 89–111. https://doi.org/10.1016/j.apgeog.2006.11.002
4. Budruk, M. (2010). Cross-cultural comparison of place attachment dimensions: A methodological approach. Tourism Analysis, 15(6), 759–771. https://doi.org/10.3727/108354210X12904412049745
5. Buijs, A. E., Elands, B. H., & Langers, F. (2009). No wilderness for immigrants: Cultural differences in images of nature and landscape preferences. *Landscape and Urban Planning, 91*(3), 113–123. https://doi.org/10.1016/j.landurbplan.2008.12.003
6. Eisler, R., Donnelly, G., & Montuori, A. (2003). The domination culture and the culture of partnership: Implications for education and learning. International Journal of Educational Research, 39(1–2), 59–85. https://doi.org/10.1016/j.ijer.2003.03.006
7. Erikstad, L., Lindblom, I., Jerpåsen, G., Hanssen, M. A., Bekkby, T., Stabbetorp, O., & Bakkestuen, V. (2008). Environmental value assessment in a multidisciplinary EIA setting. *Environmental Impact Assessment Review, 28*(2–3), 131–143. https://doi.org/10.1016/j.eiar.2007.03.005
8. Falahat, M. S. (2006). The concept of sense of place and its forming factors. Journal of Fine Arts, (26), 57–66. [In Persian] https://sid.ir/paper/5847/en
9. Frank, S., Fürst, C., Koschke, L., & Makeschin, F. (2012). A contribution towards a transfer of the ecosystem service concept to landscape planning using landscape metrics. *Ecological Indicators, 21*, 30–38. https://doi.org/10.1016/j.ecolind.2011.04.027
10. Frank, S., Fürst, C., Koschke, L., Witt, A., & Makeschin, F. (2013). Assessment of landscape aesthetics—Validation of a landscape metrics-based assessment by visual estimation of the scenic beauty. *Ecological Indicators, 32*, 222–231. https://doi.org/10.1016/j.ecolind.2013.03.026
11. Garrido-Velarde, J., Montero-Parejo, M. J., Hernández-Blanco, J., & García-Moruno, L. (2018). Visual analysis of the height ratio between the building and background vegetation. Two rural cases of study: Spain and Sweden. Sustainability, 10(8), 2593. https://doi.org/10.3390/su10082593
12. Ghorbanzadeh, M., & Niloufar, P. (2019). Categorization of North Khorasan Villages in Terms of Indicators of Entrepreneurial Ecotourism Developments (Case Study: Bojnord - Golestan Road). *Journal of Research & Rural Planning*, 8(3), 119–132. https://doi.org/10.22067/jrrp.v8i3.78831
13. Ghorbanzadeh, M., Taghvaei, S. H., & Norouzian-Maleki, S. (2023). Rural landscape: A systematic review of thematic contexts. *Journal of Architecture and Urban Planning*, 15(38), 23–42. https://doi.org/10.30480/aup.2022.4095.1890
14. Gobster, P. H. (1999). An ecological aesthetic for forest landscape management. *Landscape Journal*, 18(1), 54–64. https://doi.org/10.3368/lj.18.1.54
15. Gobster, P. H., Nassauer, J. I., Daniel, T. C., & Fry, G. (2007). The shared landscape: What does aesthetics have to do with ecology? *Landscape Ecology, 22*, 959–972. https://doi.org/10.1007/s10980-007-9110-x
16. Green, D. G., Klomp, N., Rimmington, G., & Sadedin, S. (2006). Complexity in landscape ecology (Vol. 217). Springer. https://doi.org/10.1007/1-4020-4287-6
17. Hägerhäll, C. M. (2001). Consensus in landscape preference judgments. *Journal of Environmental Psychology*, 21, 83–92. https://doi.org/10.1006/jevp.2000.0186

18. Hägerhäll, C. M., Ode Sang, Å., Englund, J. E., Ahlner, F., Rybka, K., Huber, J., & Burenhult, N. (2018). Do humans really prefer semi-open natural landscapes? A cross-cultural reappraisal. *Frontiers in Psychology, 9*, 822. https://doi.org/10.3389/fpsyg.2018.00822
19. Hermes, J., Albert, C., & von Haaren, C. (2018). Assessing the aesthetic quality of landscapes in Germany. *Ecosystem Services, 31*, 296–307. https://doi.org/10.1016/j.ecoser.2018.02.015
20. Hoyle, H., Jorgensen, A., & Hitchmough, J. D. (2019). What determines how we see nature? Perceptions of naturalness in designed urban green spaces. *People and Nature, 1*(2), 167–180. https://doi.org/10.1002/pan3.19
21. Huai, S., & Van de Voorde, T. (2022). Which environmental features contribute to positive and negative perceptions of urban parks? A cross-cultural comparison using online reviews and Natural Language Processing methods. *Landscape and Urban Planning, 218*, 104307. https://doi.org/10.1016/j.landurbplan.2021.104307
22. Hung, S. H., Pálsdóttir, A. M., Ode Sang, Å., Shahrad, A., Liao, H. H., Hsu, Y. Y., & Chang, C. Y. (2023). How restorative landscapes can benefit psychological and physiological responses: A pilot study of human–nature relationships in Sweden and Taiwan. *Landscape Research, 48*(8), 1073–1090. https://doi.org/10.1080/01426397.2023.2213634
23. ICOMOS. (2017). *ICOMOS-IFLA Principles Concerning Rural Landscapes as Heritage*. https://www.icomos.org/images/DOCUMENTS/Charters/GA2017_6-3-1_RuralLandscapesPrinciples_EN_adopted-15122017.pdf
24. Jackson, R. B., Randerson, J. T., Canadell, J. G., Anderson, R. G., Avissar, R., Baldocchi, D. D., ... & Pataki, D. E. (2008). Protecting climate with forests. *Environmental Research Letters, 3*(4), 044006. https://doi.org/10.1088/1748-9326/3/4/044006
25. Jome'epour, M., Motiee Langerudi, S. H., Hajihosseini, S., & Salami Beirami, A. (2018). A survey of the environmental effects on the livability of rural areas (Case study: Villages of Buin Zahra County). *Journal of Research and Rural Planning*, *7*(1), 39-56. https://doi.org/10.22067/jrrp.v5i4.62494
26. Jorgensen, B. S., & Stedman, R. C. (2001). Sense of place as an attitude: Lakeshore owners' attitudes toward their properties. *Journal of Environmental Psychology, 21*(3), 233–248. https://doi.org/10.1006/jevp.2001.0226
27. Kaplan, R., & Kaplan, S. (1989). *The experience of nature: A psychological perspective*. Cambridge University Press. https://archive.org/details/experienceofnatu00kapl
28. Karmanov, D. (2009). *Feeling the landscape: Six psychological studies into landscape experience* (Doctoral dissertation, Wageningen University). https://library.wur.nl/WebQuery/wurpubs/379186
29. Kellert, S. R., & Wilson, E. O. (Eds.). (1993). *The biophilia hypothesis*. Island Press. https://archive.org/details/biophiliahypothe0000unse
30. Keong, C. Y., & Onuma, A. (2021). Transboundary ecological conservation, environmental value, and environmental sustainability: Lessons from the Heart of Borneo. *Sustainability, 13*(17), 9727. https://doi.org/10.3390/su13179727
31. King, T. F. (2016). Perspectives from the field: Cultural resources in environmental impact assessment. *Environmental Practice, 18*(3), 227–231. https://doi.org/10.1017/S1466046616000235
32. Kudryavtsev, A., Stedman, R. C., & Krasny, M. E. (2012). Sense of place in environmental education. *Environmental Education Research, 18*(2), 229–250. https://doi.org/10.1080/13504622.2011.609615
33. Kunselman, A. R. (2024). A brief overview of pilot studies and their sample size justification. *Fertility and Sterility, 121*(6), 899–901. https://doi.org/10.1016/j.fertnstert.2024.01.040
34. Kyle, G. T., & Johnson, C. Y. (2008). Understanding cultural variation in place meaning. In L. Kruger, T. Hall, & M. Stiefel (Eds.), *Understanding concepts of place in recreation research and management* (pp. 109–134). U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. https://research.fs.usda.gov/treesearch/29924
35. Lehman, D. R., Chiu, C.-Y., & Schaller, M. (2004). Psychology and culture. *Annual Review of Psychology, 55*, 689–714. https://doi.org/10.1146/annurev.psych.55.090902.141927
36. Lewicka, M. (2008). Place attachment, place identity, and place memory: Restoring the forgotten city past. *Journal of Environmental Psychology, 28*(3), 209–231. https://doi.org/10.1016/j.jenvp.2008.02.001

37. Li, Y., Xie, L., Zhang, L., Huang, L., Lin, Y., Su, Y., ... & Chen, X. (2022). Understanding different cultural ecosystem services: An exploration of rural landscape preferences based on geographic and social media data. *Journal of Environmental Management, 317*, 115487. https://doi.org/10.1016/j.jenvman.2022.115487
38. Lim, S. S., Innes, J. L., & Meitner, M. (2015). Public awareness of aesthetic and other forest values associated with sustainable forest management: A cross-cultural comparison among the public in four countries. *Journal of Environmental Management, 150*, 243–249. https://doi.org/10.1016/j.jenvman.2014.11.007
39. Madureira, H., Nunes, F., Oliveira, J. V., Cormier, L., & Madureira, T. (2015). Urban residents' beliefs concerning green space benefits in four cities in France and Portugal. *Urban Forestry & Urban Greening, 14*(1), 56–64. https://doi.org/10.1016/j.ufug.2014.11.008
40. McIntosh, J., Marques, B., Cornwall, J., Kershaw, C., & Mwipiko, R. (2022). Therapeutic environments and the role of physiological factors in creating inclusive psychological and socio-cultural landscapes. *Ageing International, 47*(3), 433–446. https://doi.org/10.1007/s12126-021-09453-3
41. Mohammad-Moradi, A., Yazdanfar, S. A., Faizi, M., & Norouzian-Maleki, S. (2022). Measuring sense of place and identifying the effective components in the historical fabric of Tehran (Case study: The historical neighborhood of Imamzadeh Yahya). *Journal of Iranian Architecture Studies, 8*(15), 173–191. [In Persian] https://jias.kashanu.ac.ir/article_111823.html
42. Montazerolhodjah, M., & Sharifnejad, M. (2023). Factors affecting the promotion of sense of place in new urban developments of Yazd city. *International Journal of Architecture and Urban Planning, 13*(1), 1–16. http://ijaup.iust.ac.ir/article-1-640-en.html
43. Ode, Å., Fry, G., Tveit, M. S., Messager, P., & Miller, D. (2009). Indicators of perceived naturalness as drivers of landscape preference. *Journal of Environmental Management, 90*(1), 375–383. https://doi.org/10.1016/j.jenvman.2007.10.013
44. Ode, Å., Hagerhall, C. M., & Sang, N. (2010). Analysing visual landscape complexity: theory and application. *Landscape Research, 35*(1), 111–131. https://doi.org/10.1080/01426390903414935
45. Ode, Å., Tveit, M. S., & Fry, G. (2008). Capturing landscape visual character using indicators: touching base with landscape aesthetic theory. *Landscape Research, 33*(1), 89–117. https://doi.org/10.1080/01426390701773854
46. Ólafsdóttir, R., & Sæþórsdóttir, A. D. (2020). Public perception of wilderness in Iceland. *Land, 9*(4), 99. https://doi.org/10.3390/land9040099
47. Orians, G. H. (1980). Habitat selection: general theory and applications to human behavior. In J. S. Lockard (Ed.), *The evolution of human social behavior* (pp. 49–66). Elsevier. https://cir.nii.ac.jp/crid/1572261550449744896
48. Özgüner, H. (2011). Cultural differences in attitudes towards urban parks and green spaces. *Landscape Research, 36*(5), 599–620. https://doi.org/10.1080/01426397.2011.560474
49. Petrova, E. G., Mironov, Y. V., Aoki, Y., Matsushima, H., Ebine, S., Furuya, K., ... & Ueda, H. (2015). Comparing the visual perception and aesthetic evaluation of natural landscapes in Russia and Japan: Cultural and environmental factors. *Progress in Earth and Planetary Science, 2*, 6. https://doi.org/10.1186/s40645-015-0033-x
50. Purcell, A. T., & Lamb, R. J. (1998). Preference and naturalness: An ecological approach. *Landscape and Urban Planning, 42*(1), 57–66. https://doi.org/10.1016/S0169-2046(98)00073-5
51. Purcell, T., Peron, E., & Berto, R. (2001). Why do preferences differ between scene types? *Environment and Behavior, 33*(1), 93–106. https://doi.org/10.1177/00139160121972882
52. Ramezani, H. (2019). An assessment of landscape diversity using large scale field-based forest inventory. *Caspian Journal of Environmental Sciences, 17*(2), 121–130. https://doi.org/10.22124/cjes.2019.3406
53. Rosley, M. S. F., Lamit, H., & Rafida, S. (2017). Aesthetic and perception: Indicators of perceiving the rural landscape. *Asian Journal of Behavioural Studies, 2*(8), 11–22. https://doi.org/10.21834/ajbes.v2i6.31
54. Scannell, L., & Gifford, R. (2010). Defining place attachment: A tripartite organizing framework. *Journal of Environmental Psychology, 30*(1), 1–10. https://doi.org/10.1016/j.jenvp.2009.09.006

55. Shaw, V. N. (2019). Comparative and historical perspectives. In *Three Worlds of Collective Human Experience: Individual Life, Social Change, and Human Evolution* (pp. 137–151). Springer. https://doi.org/10.1007/978-3-030-07465-2_7
56. Swapan, M. S. H., Iftekhar, M. S., & Li, X. (2017). Contextual variations in perceived social values of ecosystem services of urban parks: A comparative study of China and Australia. *Cities, 61*, 17–26. https://doi.org/10.1016/j.cities.2016.11.003
57. Taghvaei, S. H. (2006). Landscape architecture in hot and dry areas of Iran (pathology of visual effects in urban and rural environments). *Housing and Rural Environment, 115*, 34. https://www.noormags.ir/view/fa/articlepage/993763
58. Taghvaei, S. H. (2012). Rural landscape and natural environment aesthetics. *Journal of Housing and Rural Environment, 32*(143), 15–38. http://jhre.ir/article-1-535-fa.html
59. Taghvaei, S. H., Norouzian-Maleki, S., & Alidoost, S. (2017). The role of "everyday landscape" in the quality of urban spaces: Case study: Girls' dormitory route in Shahid Beheshti University, Tehran. *Soffeh, 27*(1), 55–71. https://soffeh.sbu.ac.ir/article_100400.html?lang=en
60. Tenerelli, P., Püffel, C., & Luque, S. (2017). Spatial assessment of aesthetic services in a complex mountain region: Combining visual landscape properties with crowdsourced geographic information. *Landscape Ecology, 32*(5), 1097–1115. https://doi.org/10.1007/s10980-017-0498-7
61. Trentelman, C. K. (2009). Place attachment and community attachment: A primer grounded in the lived experience of a community sociologist. *Society & Natural Resources, 22*(3), 191–210. https://doi.org/10.1080/08941920802191712
62. Tveit, M., Ode, Å., & Fry, G. (2006). Key concepts in a framework for analysing visual landscape character. *Landscape Research, 31*(3), 229–255. https://doi.org/10.1080/01426390600783269
63. Ulrich, R. S. (1983). Aesthetic and affective response to natural environment. In I. Altman & J. F. Wohlwill (Eds.), Behavior and the natural environment (pp. 85–125). Springer. https://doi.org/10.1007/978-1-4613-3539-9_4
64. Ulrich, R. S. (1993). Biophilia, biophobia, and natural landscapes. In S. R. Kellert & E. O. Wilson (Eds.), *The Biophilia Hypothesis* (pp. 73–137). Island Press. https://www.researchgate.net/publication/284655696
65. Van den Berg, A. E., & Koole, S. L. (2006). New wilderness in the Netherlands: An investigation of visual preferences for nature development landscapes. *Landscape and Urban Planning, 78*(4), 362–372. https://doi.org/10.1016/j.landurbplan.2005.11.006
66. Van Zanten, B. T., Verburg, P. H., Koetse, M. J., & Van Beukering, P. J. H. (2014). Preferences for European agrarian landscapes: A meta-analysis of case studies. *Landscape and Urban Planning, 132*, 89–101. https://doi.org/10.1016/j.landurbplan.2014.08.012
67. Wahl, H. W., & Oswald, F. (2010). Environmental perspectives on aging. In D. Dannefer & C. Phillipson (Eds.), *The SAGE Handbook of Social Gerontology* (pp. 111–124). SAGE Publications. https://www.uni-frankfurt.de/54421080/Wahl_Oswald-2010-Environmental-Perspectives-on-Ageing.pdf
68. Williams, D. R., & Vaske, J. J. (2003). The measurement of place attachment: Validity and generalizability of a psychometric approach. *Forest Science, 49*(6), 830–840. https://doi.org/10.1093/forestscience/49.6.830
69. Williams, K. J., & Cary, J. (2002). Landscape preferences, ecological quality, and biodiversity protection. *Environment and Behavior, 34*(2), 257–274. https://doi.org/10.1177/0013916502034002006
70. Wilson, E. O. (1984). *Biophilia: The human bond with other species*. Harvard University Press. https://archive.org/details/edward-o.-wilson-biophilia
71. Wynveen, C. J., Schneider, I. E., & Arnberger, A. (2018). The context of place: Issues measuring place attachment across urban forest contexts. *Journal of Forestry, 116*(4), 367–373. https://doi.org/10.1093/jofore/fvy001
72. Zargar, A. (1999). *An introduction to the Iranian rural architecture*. Tehran: Shahid Beheshti University. https://press.sbu.ac.ir/book_193.html
73. Zhang, N., Zheng, X., & Wang, X. (2022). Assessment of aesthetic quality of urban landscapes by integrating objective and subjective factors: A case study for riparian landscapes. *Frontiers in Ecology and Evolution, 9*, 735905. https://doi.org/10.3389/fevo.2021.735905

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Original Article

تفاوت‌های میان‌فرهنگی در ارزیابی مناظر روستایی: مطالعه‌ای در ایران و سوئد

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چکیده مبسوط

۱.مقدمه

مناظر روستایی به‌عنوان بخشی ارزشمند از میراث فرهنگی، در معرض تهدیدات گوناگونی همچون تغییرات کاربری زمین، گسترش شهرنشینی، و نادیده‌گرفتن ارزش‌های بصری و فرهنگی قرار دارند. درک ادراکات فرهنگی نسبت به این مناظر، برای برنامه‌ریزی و مدیریت پایدار آن‌ها، نقشی اساسی دارد. با توجه به جهانی‌شدن و گسترش تعاملات فرهنگی، بررسی و مقایسه ترجیحات زیبایی‌شناختی در بسترهای فرهنگی متفاوت، به‌ویژه در ارزیابی مناظر روستایی، اهمیت فزاینده‌ای یافته است. هدف این پژوهش، بررسی تفاوت‌های میان‌فرهنگی در ارزیابی مناظر روستایی میان متخصصان ایرانی و سوئدی معماری منظر بر اساس سه شاخص تنوع، طبیعی‌بودن و حس مکان است.

۲. مبانی نظری تحقیق

پژوهش حاضر بر اساس چارچوب نظری زیبایی‌شناسی منظر و با تکیه بر مفاهیم بنیادین در ارزیابی مناظر طراحی شده است. سه شاخص اصلی در این مطالعه شامل *تنوع* (به‌معنای پیچیدگی و تنوع پوشش‌های گیاهی)، *طبیعی‌بودن* (میزان درک طبیعی بودن مناظر در برابر مداخلات انسانی)، و *حس مکان* (پیوند عاطفی و معنایی انسان با فضاهای خاص) از نظریه‌های موجود در ادبیات منظر استخراج شده‌اند. این سه شاخص به‌طور هم‌زمان ابعاد عینی و ذهنی درک مناظر را پوشش می‌دهند.

۳. روش تحقیق

این پژوهش به‌صورت پیمایشی و با استفاده از پرسش‌نامه ساختارمند انجام شده است. نمونه شامل ۳۱ متخصص معماری منظر (۱۸ ایرانی و ۱۳ سوئدی) بود که از طریق دعوت‌نامه‌های ایمیلی و پلتفرم‌های آنلاین در ایران و سوئد به پرسش‌نامه پاسخ دادند. پرسش‌نامه شامل ۱۵ سؤال اصلی بر مبنای طیف لیکرت ۷درجه‌ای و سؤالات باز در انتهای هر شاخص بود. تحلیل داده‌ها با استفاده از نرم‌افزار SPSS و آزمون‌های ناپارامتریک (کولموگروف–اسمیرنوف و من–ویتنی یو) صورت گرفت.

۴. یافته‌های تحقیق

در شاخص *تنوع*، نتایج نشان داد که میان دو گروه تفاوت معناداری وجود ندارد؛ هر دو گروه ترجیحاتی مشترک نسبت به تنوع پوشش‌های گیاهی (گونه‌های درختی، درختچه‌ای و علفی) دارند. این همگرایی، احتمالاً ریشه در ترجیحات جهانی نسبت به مناظر موزاییکی و متنوع دارد که توسط پژوهش‌های پیشین نیز تأیید شده است.

در شاخص *طبیعی‌بودن*، تفاوت‌های فرهنگی برجسته‌ای مشاهده شد. متخصصان ایرانی، عناصر کشت‌شده‌ای همچون باغات و زمین‌های کشاورزی را طبیعی‌تر درک می‌کردند، در حالی که متخصصان سوئدی، عناصر طبیعی دست‌نخورده مانند صخره‌ها و تپه‌ها را ترجیح می‌دادند. این تفاوت‌ها می‌تواند ناشی از تفاوت در شرایط اقلیمی (خشک در ایران و معتدل در سوئد)، نوع تعامل تاریخی با طبیعت، و اهمیت معیشتی کشاورزی باشد.

در شاخص *حس مکان*، تفاوت‌های جزئی در زیرشاخص فعالیت‌ها مشاهده شد. برای نمونه، عناصر زیرساختی مانند دسترسی به آب، برق، گاز و اینترنت و همچنین برگزاری مراسم فرهنگی و مذهبی، برای متخصصان ایرانی اهمیت بیشتری داشتند. با این حال، در ارزیابی ویژگی‌های فیزیکی و معنایی حس مکان، هر دو گروه درک

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مشابهی داشتند. این همگرایی می‌تواند نشان‌دهنده درک جهانی نسبت به عناصر هویت‌بخش در مناظر روستایی باشد.

۵. بحث و نتیجه‌گیری

این مطالعه نشان می‌دهد که در کنار برخی تفاوت‌های فرهنگی، اشتراکات قابل توجهی در ترجیحات زیبایی‌شناختی متخصصان ایرانی و سوئدی وجود دارد. این اشتراکات می‌توانند پایه‌ای برای همکاری‌های فراملی در برنامه‌ریزی مناظر روستایی ایجاد کنند. در عین حال، تفاوت‌های مشاهده‌شده نیز ضرورت درنظر گرفتن زمینه‌های فرهنگی، اقلیمی و اجتماعی در طراحی و ارزیابی مناظر را یادآور می‌شود. یافته‌های این پژوهش می‌تواند به توسعه چارچوب‌های ارزیابی حساس به فرهنگ و طراحی فضاهایی منجر شود که هم پاسخگوی ارزش‌های زیبایی‌شناختی انسان باشند و هم هویت فرهنگی فضاها را حفظ کنند.

کلید واژه‌ها– تفاوت‌های میان‌فرهنگی، ترجیحات منظر، تنوع، طبیعی‌بودن، حس مکان، ارزیابی منظر روستایی.

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