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## Evaluating the Impact of Ecotourism Residences on the Preservation of Traditional Architecture and Tourism Boom (Case Study: Lakterashan Village)

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### Abstract

This research aims to assess the impact of establishing ecotourism lodges on preserving traditional architecture and promoting tourism in Lakterashan Village, Tonekabon. Using a descriptive-analytical method, the study demonstrates that these lodges, by utilizing traditional materials and construction methods, not only attract tourists and generate economic prosperity but also play a significant role in preserving and revitalizing indigenous architecture and raising awareness of the region's cultural and environmental values.

**Keywords:** Ecotourism lodge, Vernacular architecture, Tourism, Lakterashan village, Traditional architecture.

## 1 | Introduction

Rural fabric is a natural phenomenon influenced by nature. While human intellect plays a role in house construction, the fabric's overall form and development process are naturally shaped by natural forces. Due to their close relationship with nature, rural houses are based on principles and values now referred to as coexisting with the environment and sustainable development. This is because, on the one hand, they are oriented and located by the climate, resulting in maximum utilization of natural capacities. On the other hand, they are built using local materials, which are recyclable after the buildings are demolished, while also being resistant to natural disasters such as floods, earthquakes, and local and seasonal storms.

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At first glance, it might seem that the purpose of mentioning these points is to advocate for obsolete traditions or to deprive rural areas of the amenities that currently drive villagers to urban centers. However, this is not the case. The aim is to preserve rural culture and characteristics as integral to our national cultural, natural, and historical values. This is because: firstly, many of the values present in rural areas can only be maintained within the context of rural life; secondly, rural areas have always supported and complemented urban life, and therefore, threatening their existence poses a potential danger to the existence of cities as well; and thirdly, preserving rural areas contributes to environmental sustainability and the utilization of the capacities and natural resources available in our land [1].

A brief look at the vernacular architecture of various Iranian villages reveals a deep understanding of environmental characteristics, particularly the diverse climates across Iran, and the ingenious solutions devised by our ancestors to maximize the use of natural resources and mitigate climatic and environmental challenges. Vernacular architecture, especially in rural areas, represents the simplest form of addressing human needs. This form has been largely forgotten today due to advancements in architectural knowledge that were once deeply rooted in nature and the surrounding environment.

Based on ecotourism principles, it should bring natural appreciation, ecological sustainability, environmental culture, and economic resources to local communities while providing enjoyment and leisure for tourists. Adhering to the principles and regulations of ecotourism and fostering an interest in nature and environmental conservation ensures the continuity and preservation of the natural and human treasures and heritage of ecotourism as the most sustainable and environmentally friendly form of nature-based tourism. Today, we no longer witness traditional and vernacular architecture in the Mazandaran region, where constant rainfall and high relative humidity shape the landscape. Therefore, the researcher must demonstrate that the present study adopts a novel and creative approach to the issues at hand, clarifying the significance of the research, the problems it addresses, who can benefit from its findings, the potential consequences of not conducting the study, and who would be adversely affected [2].

Given the diminishing consideration of climatic factors in contemporary construction, this study investigates the potential influence of climate on the formation of the rural fabric and housing in Lakterashan. Furthermore, it explores whether the establishment of ecotourism can contribute to preserving the village's vernacular fabric and developing tourism.

Over time, the people of Tonekabon, gradually abandoning rural life with its traditional fabric and culture and migrating to higher altitudes during the warmer seasons, have become accustomed to urban living and modern buildings. Consequently, the region's traditional architecture and ancient customs have gradually fallen into oblivion. The focus of this study is to highlight and preserve the traditional culture and fabric of this region, attract tourists, and promote the optimal development of the village.

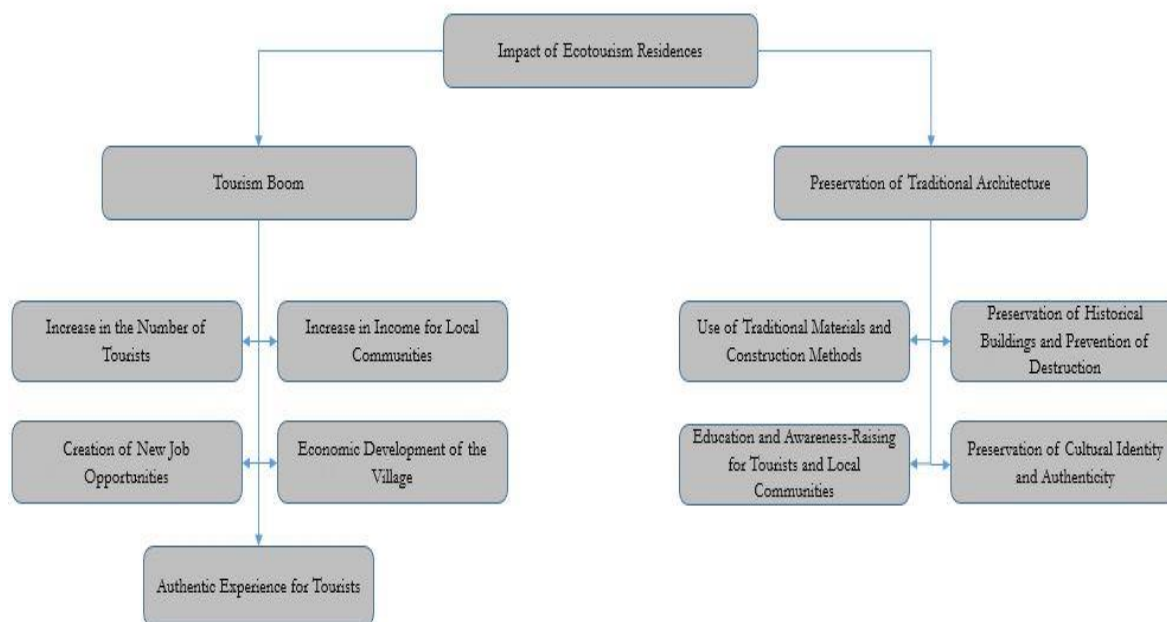


Fig. 1. The impact of climate on the formation of rural fabric and vernacular architecture, with an emphasis on the development of ecotourism in lakterashan.

## 2| Fundamentals and Theoretical Framework

### 2.1| Vernacular Architecture

Vernacular architecture, also known as autonomous or spontaneous architecture, is a branch of architecture that, as its name suggests, is inherently linked to its local ecosystem and environmental and cultural context. The term "vernacular" (or "local") carries a spatial connotation, encompassing a defined geographical area with specific boundaries.

From the perspective of architectural scholars, vernacular architecture is defined as:

- I. The formation of architecture by people and artisans who have adapted and evolved over long periods to social, climatic, geographical, and technological conditions.
- II. Adaptation to the values, economy, lifestyle, construction methods, traditions, and cultures that generate them.
- III. Simple yet high-quality architecture, devoid of unnecessary embellishments and excesses.
- IV. Architecture that meets the needs of the region's inhabitants by utilizing available natural resources and building materials.
- V. An attempt to create balance with nature is a key factor in distinguished architecture in the realm of human-nature-architecture interaction.
- VI. Ordinary people form vernacular art without a codified plan, and individuals with similar and limited experience [1].

Vernacular architecture is a form of social architecture rooted in the society's culture that shapes it. It has preserved its identity built by indigenous people, drawing inspiration from the values and beliefs, customs, spirit and emotions, tastes, and art of the region's inhabitants. It also reflects certain social and economic relationships within the natural environment, skillfully crafted cultural symbols, and issues such as human dimensions and local needs, people's lifestyles, available building materials, construction technology and

methods, climate, energy efficiency, and ultimately, nature and its preservation. This approach has fostered both sustainability and well-being. Consequently, it leaves minimal destructive impact on the surrounding natural and built environment, and the composition of vernacular form elements is carried out while preserving cultural and social values and the principles of indigenous and regional architecture [1].

## 2.2 | Factors Influencing the Formation of Vernacular Architecture

Vernacular architecture is shaped by various factors as an intelligent response to human needs in various environments. These factors can be broadly divided into two categories:

### 2.2.1 | Environmental (climatic and geographical) factors: environmental (climatic and geographical) factors:

- I. Climate: the region's climate is the most important factor in shaping vernacular architecture. Elements such as temperature (heat and cold), humidity, precipitation (rain, snow), wind, solar radiation, and topography (land elevation) have a direct impact on the building's form, the materials used, and its spatial organization.
- II. Cold and mountainous regions: the characteristics of vernacular architecture in cold and mountainous regions include using heat-insulating materials, thick walls, sloping roofs for snow removal, and small, compact spaces to conserve heat [3].
- III. Geography and topography: the shape of the land, the presence of water resources, vegetation, and access to local building materials also influence the formation of vernacular architecture [4].

### 2.2.1 | Social and cultural factors

- I. Culture and Customs: A community's beliefs, traditions, lifestyle, family structure, social relationships, and cultural needs influence the formation of a building's internal and external spaces, how spaces are used, and their decorations [5].
- II. Economy: the community's economic condition and access to financial resources affect the choice of materials, the size of the building, and its construction quality.
- III. Technology and indigenous knowledge: past generations' knowledge and experiences regarding construction, the use of local materials, adaptation to the climate, and coping with natural disasters have been transmitted orally or practically from one generation to the next and are reflected in vernacular architecture [6].
- IV. Religion and faith: religious beliefs and faiths can also influence the formation of specific spaces, the orientation of buildings, and their decorations.

**Table 1. Components of vernacular architecture.**

Components of Vernacular Architecture		
Physical	Environmental	Socio-Cultural
Responding to function	Respecting and preserving the sanctity of the region's nature in architecture and avoiding its destruction.	Respecting the historical heritage of ancestors and its preservation.
Material type, color, and composition suitable for the region.	Adjusting the space according to the environment's climate	Paying attention to the customs and values of people
Form and geometry proportional to the neighborhood texture	Using local materials compatible with the region's climate.	Paying attention to rituals and occasions
Observing the building's volume proportion with the adjacent texture.	Using natural landscapes	Paying attention to social interactions

Table 1. Continued.

Components of Vernacular Architecture		
Physical	Environmental	Socio-Cultural
Dimensions proportional to functional needs	Using passive cooling or heating patterns as much as possible.	An identity is achieved by adapting individual perceptions of space to cultural background.
Sufficient safety and resistance against natural factors.	Reducing dust and undesirable wind speeds by planting trees and plants.	Matching the physical form and function of the building with the culture and behavior of the people.
	Using local materials and forms suitable for the climate and maintaining the heat inside the building.	View and perspective of the historical building
	Proper orientation of the building to benefit from sunlight and favorable winds.	Considering various or programmable spaces

## 2.3 | Tourism

Tourism, as the world's largest service industry, holds a special place in the economic, social, and cultural arenas. Tourism is a phenomenon of this century and cannot be ignored. Accordingly, many planners and policymakers have referred to the tourism industry as a multifaceted issue and one of the important strategies for sustainable development. Tourism is an activity common among different societies and includes travel and accommodation in a residence. Tourism is also defined as temporary movement to a place outside the daily living environment [7].

## 2.4 | Nature-Based Tourism

Nature-based tourism is a relatively new concept in the tourism industry, initially sparked by the idea of reconnecting with genuine nature. It was later introduced by the nature tourism community as responsible travel to natural areas, encompassing the protection of the natural environment and the enhancement of local community well-being. Ecotourism is responsible travel to natural attractions to enjoy, understand, and appreciate nature in a way that conserves ecosystems and sustains the quality of life for local people. It incorporates educational aspects and involves tourists in the economic activities of local communities. Based on ecotourism principles, it should bring nature appreciation, ecological sustainability, environmental culture, and economic resources to local communities while also providing enjoyment and leisure for tourists. Adhering to the principles and regulations of ecotourism, fostering an interest in nature, and preserving the surrounding environment ensures the continuity and survival of natural and human treasures and heritage. Ecotourism is considered the most sustainable and environmentally compatible form of nature-based tourism. Humans are integral to ecosystems, and ecotourism is committed to respecting their domain. Ecotourism provides a suitable means for tourists, governments, and scientists to support protected areas and recognizes that local communities must be involved in the process [8].

## 2.5 | The Relationship between Traditional Architecture and Ecotourism

The relationship between traditional architecture and ecotourism is a reciprocal and crucial one that contributes to the sustainability of both concepts. Traditional architecture, with its unique characteristics, provides a suitable platform for the development of ecotourism while, in return, ecotourism helps preserve and revitalize traditional architecture. The following explores various dimensions of this relationship, citing relevant sources:

### 2.5.1 | Preservation of cultural identity and authenticity

Each region's traditional architecture reflects the culture, history, customs, and lifestyle of its people. Utilizing this type of architecture in ecotourism accommodations offers tourists a unique experience of local culture.

This is not only attractive to tourists but also helps preserve and transmit these cultural values to future generations [1].

### 2.5.2 | Environmental compatibility and sustainability

Traditional architecture often uses local materials and environmentally friendly construction methods. This feature aligns with ecotourism principles, which emphasize sustainability and environmental protection. Using local materials reduces the negative environmental impact of industrial material production and is also more compatible with the region's climate [2].

### 2.5.3 | Economic development of local communities

Using traditional architecture to construct and renovate ecotourism accommodations can help boost local handicrafts and create employment for locals. This helps improve the economic situation of local communities and prevent rural migration to cities. Consequently, traditional architecture and ecotourism are two inseparable elements mutually reinforcing each other. Preserving and revitalizing traditional architecture helps maintain cultural identity and environmental sustainability, provides a unique and attractive experience for tourists, and contributes to the economic development of local communities.

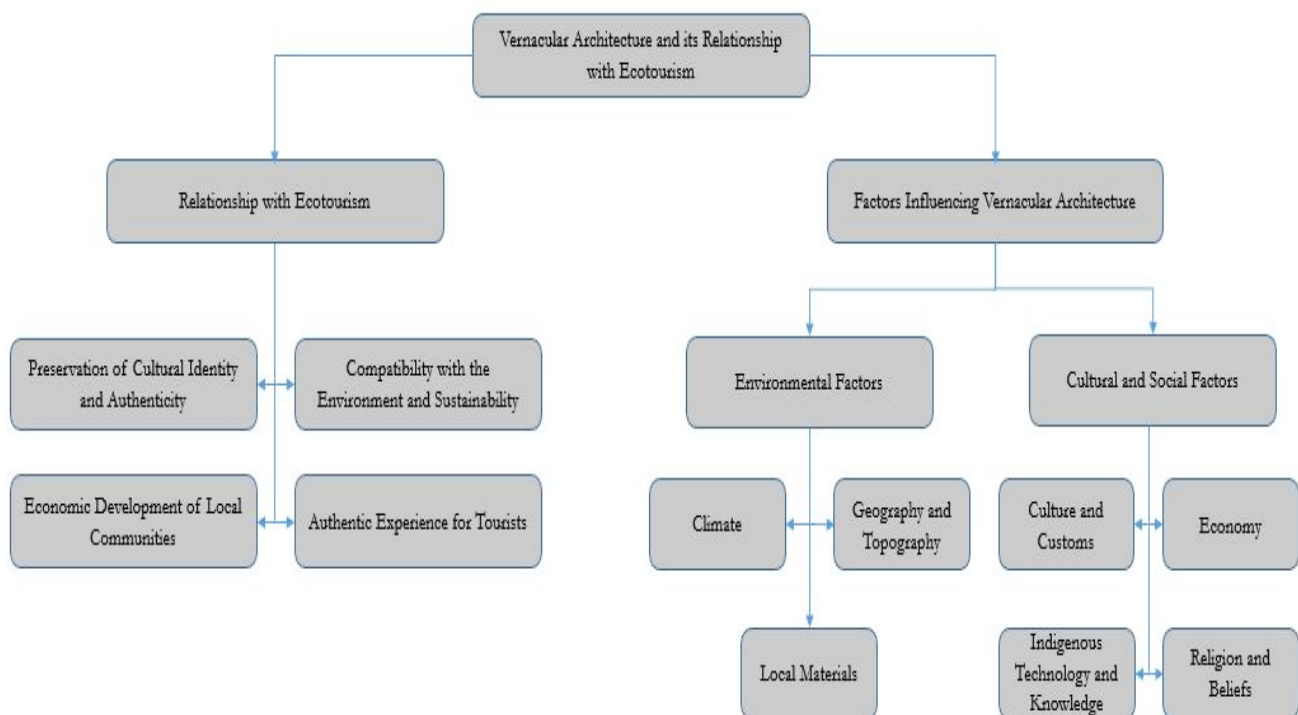


Fig. 2. Vernacular architecture and its role in ecotourism and local economic development.

## 3 | Conceptual Model of the Research

This research is applied in terms of its objective and descriptive-analytical in terms of its methodology. The necessary data for this research was gathered through two methods: documentary sources for formulating the research problem, theoretical framework, research background, and the study area; and field studies to determine the impact of ecotourism accommodations on the preservation of traditional architecture and the prosperity of tourism in the Laketrashan mountainous region of Tonekabon. This research used the library method to establish the theoretical framework and research background.

## 4 | Research Finding

### 4.1 | Traditional Architecture of Laketrashan Village

This architecture reflects the region's culture, history, and climate and possesses significant cultural and environmental values.

#### Physical characteristics

- I. The type of materials used (such as wood, stone, adobe, clay) and the extent of the use of local materials.
- II. The form and geometry of buildings (such as plan, elevation, and roof) and their adaptation to the region's climate (such as pitched roofs for snow and rain) are important.
- III. The way of organizing the interior and exterior spaces of buildings and their adaptation to the needs of the residents and local culture.
- IV. Architectural ornamentation and elements (such as doors, windows, and verandas) play a role in expressing the region's cultural identity.

#### Cultural and environmental values

- I. Traditional architecture's role in preserving the village's cultural and historical identity.
- II. The compatibility of traditional architecture with the environment and the sustainable use of natural resources.
- III. Indigenous knowledge and techniques used in the construction of buildings and their transmission between generations.

### 4.2 | The Impact of Ecotourism Accommodations

Constructing these accommodations using traditional architectural styles contributes to preserving and revitalizing this architectural heritage, preventing its decline.

#### Preservation and revival of traditional architecture

- I. The degree to which traditional materials and construction techniques are employed in the construction and renovation of these accommodations.
- II. These accommodations contribute to the conservation of historical structures and the prevention of their deterioration.
- III. These accommodations play a vital role in raising awareness and educating tourists and local communities regarding the significance of traditional architecture.

#### Tourism Boom

- I. The number of tourists attracted by ecotourism accommodations.
- II. The impact of these accommodations on increasing local community income through tourism.
- III. The impact of these accommodations on creating new job opportunities in rural areas.

#### Social and cultural impacts

- I. The impact of these accommodations on the interaction between tourists and local communities.
- II. These accommodations impact the preservation of local customs, traditions, and culture.
- III. The impact of these accommodations on increasing tourist awareness of environmental and cultural issues.

### 4.3 | Economic and Tourism Prosperity

by attracting tourists, ecotourism accommodations can contribute to the economic prosperity of rural areas and create employment opportunities for local residents.

### 4.4 | Authentic Experience for Tourists

These types of accommodations provide tourists with an authentic and unique experience and help increase their awareness of the importance of preserving the environment and local culture.

### 4.5 | Reciprocal Relationship

There is a reciprocal relationship between traditional architecture and eco-tourism, contributing to both concepts' sustainability.

## 5 | Discussion

This study, focusing on the village of Lakterashan in Tonekabon, examines the impact of ecotourism accommodations on preserving traditional architecture and promoting tourism. As mentioned in the introduction, the environment and climate influence the rural fabric as a natural phenomenon. The traditional architecture of villages has also developed based on these characteristics, and using local materials and environmentally friendly construction methods has best met the needs of the residents. However, with the passage of time and changes in lifestyle, this traditional architecture has gradually been forgotten.

The main issue of this research is to investigate whether the construction of ecotourism accommodations can help preserve the native fabric of the village and develop tourism. The theoretical foundations presented in the article clearly explain the relationship between native architecture, tourism, and ecotourism. Native architecture, with its cultural, social, environmental, and physical characteristics, not only demonstrates the identity of a region but also fully aligns with the principles of ecotourism, which emphasize sustainability and environmental protection.

Nature-based tourism, especially ecotourism, aims to protect the environment and improve local communities' economic situation and has been proposed as a sustainable approach in the tourism industry. Ecotourism accommodations, using traditional architecture, can provide an authentic and unique experience for tourists while helping preserve and revive this type of architecture.

Considering the points mentioned, it can be said that the construction of ecotourism accommodations in the village of Lakterashan can play an important role in preserving the village's native fabric and developing tourism. These accommodations, by using traditional materials and construction methods, not only help protect native architecture but also attract tourists, leading to the economic prosperity of the village and the creation of employment for residents. Furthermore, this can increase tourists' awareness of preserving the environment and local culture.

## 6 | Conclusion

This research aimed to investigate the impact of ecotourism accommodations on preserving traditional architecture and promoting tourism in the village of Lakterashan. Based on the theoretical foundations and discussions presented, the following conclusions can be drawn:

- I. The traditional architecture of Lakterashan village reflects the region's culture, history, and climate and possesses significant cultural and environmental values.
- II. Constructing ecotourism accommodations using traditional architecture can help preserve and revive this architectural style, preventing its decline.
- III. Ecotourism accommodations can attract tourists, contributing to the economic prosperity of the village and creating employment opportunities for local residents.



- IV. These types of accommodations provide tourists with an authentic and unique experience, raising their awareness of the importance of environmental and cultural preservation.
- V. Traditional architecture and ecotourism have a reciprocal and synergistic relationship, contributing to their sustainability.

Therefore, developing ecotourism accommodations in Lakterashan while adhering to sustainability principles and preserving traditional architecture can contribute to sustainable tourism development in the region. Simultaneously, this approach can help preserve the village's cultural and environmental identity. Tourism development plans in this region are recommended to prioritize the preservation and revival of traditional architecture and its use in constructing ecotourism accommodations. Furthermore, educating local communities about sustainable tourism and the importance of preserving cultural and natural heritage can further contribute to the success of this approach.

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## Data Availability

The data supporting the findings of this study are available upon reasonable request from the corresponding author.

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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