



# Investigation of the Role of Archeology Studies and Quality of Rural Environment in the Development of Tourism (Case Study: Varkaneh village, Hamadan; and Kandovan village, East Azerbaijan)

**Ali Zolfaghari**

*Department of Architecture, Arak Branch, Islamic Azad University, Arak, Iran*

**Saeid Salehi Marzijani**

*Department of Architecture, Arak Branch, Islamic Azad University, Arak, Iran*

**Mahmoud Teimouri**

*Department of Architecture, Arak Branch, Islamic Azad University, Arak, Iran*

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**Abstract:** With specialized research and activities, archeology introduces many features such as old and ancient areas, ethnicities, cultural traditions, artistic handicrafts and the diverse climate and ecosystem of Iran to attract tourists. The formation of a positive sense in tourists about tourism destinations, taking into account the synergistic approach, also strengthens the sense of pride in the local community. On the other hand, increasing the level of perceived quality of tourists leads to an increase in the satisfaction of tourists as customers of tourist places and becomes the basis for encouraging managers and planners to try to provide more services with better quality. If the environment of tourism destinations lacks the desired quality, it will affect the perception of the tourist about the space and as a result, his mental image of the environment. In addition to motivating and introducing tourist attractions, archeology can provide the basis for the participation of government institutions and private sector investors in order to provide facilities and revive tourism dimensions. Reconstruction of historical contexts, anthropology, linguistics, traditional arts and other related sciences, can provide a suitable platform for economic growth and development, along with the development of tourism in the region and the world for Iranian society. According to the above, in this study, the researcher attempted to investigate the role of archeology studies and the quality of the rural environment in the development of tourism. This study is applied in terms of purpose, descriptive-analytical in terms of data collection, and

\* Corresponding Author

Email Address: [Salehi.saeid@yahoo.com](mailto:Salehi.saeid@yahoo.com) (Saeid Salehi Mazijani)

is based on observation, interview, questionnaire and statistical data. In the present study, two methods of documentary and survey studies have been used. The statistical population included experts in the field of tourism and planning. The statistical sample of the research is about  $n=10$ . In addition to seeing the sights and natural landscapes of those places, tourists become familiar with the customs and culture of that village. In this way, tourists are interested in buying village products, such as handicrafts, local products, etc., and this means an increase in the income of villagers who work directly or indirectly in this industry. Most studies are demanded and focused on visitors and their needs and motivations.

**Keywords:** Archeology, Tourism Development, Quality, Environment, Village.

### ***Introduction***

Quality of life in the rural environment is very different from the reality and standards of contemporary human life, and such conditions have faced challenges in the rural environment. Measuring the quality of life can be used to evaluate past policies and provide the basis of regional planning strategies in the future. Historical monuments and cultural attractions are important factors in attracting tourism. Because ancient monuments of each society represent the specific culture of that country and have features and values that deserve the attention of that country. These monuments have a great spiritual value for that nation and attraction for others (Sai et al., 2010:70). On the other hand, such monuments represent the level of culture and civilization, cultural features and life patterns of the people living in the geographical space of the past eras (Taleghani, 2004:32). Moren et al. (2018) believe that rural development proportional to the construction plans and rural development, such as the creation of health, educational, therapeutic, and communication infrastructures, the construction of recreational and sports centers, the construction of construction plans for roads, roads, parks, etc. due to special facilities for each plan has motivated people in other places in order to take advantage of the life and business situations in that region, which can cause a strong background for unauthorized constructions. One of the knowledge that can help us to become familiar with these monuments and cultural attractions is archaeological research. Accordingly, in this article, it has been attempted to introduce the field of archeology with a simple point of view, and then tourism and the activities of the field of archeology as a functional field to attract tourism. But today, one of the important destinations that have received attention in tourism are villages, which is a form of tourism development in various dimensions of nature tourism, cultural tourism and special tourism is happening in these places, and these destinations, unlike other natural tourism destinations, have human population. which adds to the importance of the tourism acceptance capacity and the calculation of study plans as well as the plans beyond these points. One of the important issues of planning rural areas is to improve the quality of tourism in the framework of sustainable development goals. Because the suitable environment is one of the basic indicators and criteria of selecting tourist destinations, which can be explained through several indicators. Therefore, in tourism planning for rural areas, goals such as sustainable rural development and protection of the natural environment should be considered. Because the desired environmental quality is the basis for the formation of a positive sense towards tourism destinations and finally the development of tourism. According to the above, in this study, the



researcher attempted to investigate the role of archeology studies and the quality of the rural environment in the development of tourism.

### ***Significance of research***

According to the study results, positive perception and mental image of places with tourism potential is persistent in various dimensions of economic, social and environmental development. Such a level of image can be formed by strengthening various environmental dimensions in tourism destinations. Because if the environment of tourism destinations lacks the desired quality, it affects the tourist's perception of the space and as a result on his level of satisfaction with the environment and causes negative feedbacks in the tourist's attraction. Therefore, it is the process of perception and knowledge of the environment that smoothes the experience of the place in terms of quality for humans and existing attractions in rural areas play an important role in attracting tourists. Archaeological attractions are also the best type of attraction for tourism, especially for rural tourists, even countries with ancient places and historical monuments still attract tourists by not observing some international principles and standards. Ancient and historical monuments have always been a great attraction for tourists. Public spaces in villages such as squares and alleys along with the exterior architecture of houses and existing furniture can be attractive elements for tourists. The environmental quality of public spaces and the existing elements and the valuable ancient works are the first and most important tourist attractions from the point of view of rural tourists and can lead to the prosperity of tourism. According to the above, in this study, the researcher attempted to investigate the role of archaeology studies and quality of the rural environment in the development of tourism that has been addressed less so far.

### ***Literature review***

Studies on the research topic: Bahn Paul (2014), archeology, translated by Abdi K., Tehran: MAHI publication, archeology review; Pourjafar M., Taghvai A., Kokabi A. 2004, the Ministry of Science, Research and Technology, Tarbiat Modares University, Faculty of Arts, planning to improve the quality of urban life in the city center, case study: the central zone of Khorram Abad. The study results showed that the indicators of the quality of urban life are more value-oriented, i.e. they should be considered together according to the conditions of each society with two subjective and objective dimensions. According to the above, the researcher has classified and presented the criteria of the quality of urban life in six main aesthetic, social, economic, physical, transportation and environmental fields. Behzad Far, 2014, study of the tourism industry by a historical and cultural approach (archaeology), the 2nd national conference on the tourism industry, geography and clean environment, The results showed the most important achievement and goal i.e. to pay attention to and protect ancient and historical monuments as tourist attractions, income-generating factors and long-term development needs in this sector, which provides the necessary infrastructure consistent with the sustainable development of tourism by a historical and cultural approach. Rezvani, et al., 2011. Rural Research, Volume 1, No. 1, p. 33-65, upgrading the village to the city and its role in improving the quality of life of villagers; case study: Shahr Sahib village, Saqez. The results showed that the upgrading of a village to a city has brought about a relative improvement in the quality of life of the residents of this city. Ghalibaf M. and Ramezanzadeh M. 2008. Quarterly of Village and Development, Year 12, No. 3, measuring the satisfaction of villagers with the quality of life and its effects on the security of border areas; case study: new part of Kermanshah Province. The study results showed that in general, the residents of the border areas are not very satisfied with the selected indicators



related to the quality of life due to the fact that they are settled in the marginal areas, i.e. the borders. Rafiyan M., Moloudi J., Portaheri M. 2013. *Human Sciences-Spatial Planning*, fall 2010, No. 3 (series 73), measuring the quality of the urban environment in new cities: case study: Hashtgerd New City. The results showed that by using the factor analysis method and a hierarchical experimental model, the researcher concluded that villagers' satisfaction with the quality of the urban environment of Hashtgerd New City is low. Taleghani and Fattahi . 2014. *Management Journal*, No. 99 and 100, quality of tourism services and its importance in gaining tourist satisfaction, in the tourism industry, the discussion related to services has an important place. In this industry, it is not only about attracting tourists. An important point is the satisfaction of tourists. Sejasi Gheidari H., Grossi A., Moradi K., Mahdavi D. 2021, *human geography research*, volume 35, No. 2, summer 2021, p. 499-520, measuring and evaluating the environmental quality of the public space of destination villages for attracting tourists, case study: target villages for tourism in Torgahbeh and Shandiz). It was shown that the more support and availability of services in society by creating structures that were created in the past and the differences are reduced, this part of social capital can be equally effective on people's satisfaction with the quality of life. Sejasi Gheidari H., Sadeghlou T., Mahdavi M. 2013. *Spatial Planning*. 2013; 19 (2): 61-88, explaining the role of the environmental quality of rural tourism destinations for the mental strengthening of tourists (case study: Rudbar Qasran village tourist destination). The results showed that creating a positive mental image for tourists is very important for the development of the competitive rural tourism market. Because the behavioral pattern of tourists for selecting the destinations of rural tourists is based on their perceived values and mental image.

### **Method**

This study is applied in terms of objective and descriptive-analytical in terms of data collection. In terms of methodology, this analysis is mixed and based on observations, interviews, questionnaires and statistical data. In this study, two methods of documentary and survey studies have been used. In this study, the statistical population included tourism and planning experts. The statistical samples include one group (n= 6-12). In this study, the statistical sample is about n= 10. The process of qualitative content analysis often begins during the initial stages of data collection. Then, encoding was done. In this study, the measurement tool is a researcher-made questionnaire with closed answers. For this purpose, a questionnaire was used. In addition to the questionnaire, according to the research method, an interview was also conducted. Hamadan villages have countless potentials for sustainable tourism. In this article, it has been attempted to examine some specific examples. The target villages include Ashtran, Geshani, Barfjin, Simin, and Varkane, and Geographic Information System (GIS) was used for data analysis.

### **Theoretical foundations of research**

#### *Archaeology*

Every society in the world has some types of myth of existence and creation, which is a popular culture that expresses and approves the existence and the origin of existence. Therefore, Westerners have hypothesized about their origins for more than 2,000 years and worked tirelessly to develop theoretical models in order to describe the origins and collective cultural heritage of humanity (Fagan, 2005: 26). Masoumi wrote: "archaeology is a dynamic and delicate science that is related to the past of mankind. This science illuminates the darkness of history and



Table 1. Review literature on tourism experiences on the quality of the rural environment (reference: author)

No.	title	publication	year	author	results
1	quality and importance of tourism services in obtaining tourist satisfaction	Management, No. 99 and 100	2005	Taleghani M. Fatahi S.	In the tourism industry, the discussion about services has an important place. In this industry it is not only about attracting tourists. An important point is the satisfaction of tourists.
2	study of the tourism industry by a historical and cultural approach (archaeology)	2 <sup>nd</sup> national conference of tourism industry, geography and clean environment	2015	Behzadfar D.	Studies have shown that although in terms of financial resources, social affairs and related seasons, they have not gone through a stable process in the programs, in terms of content, they have had an evolutionary-qualitative process.
3	upgrading the village to the city and its role in improving the quality of life of villagers (case study: Shahr Sahib village, Saqez)	Rural Research, Volume 1, No. 1, p. 33-65	2010	REzvani M. Mansourian H. Ahmadi F.	The results showed that upgrading the village of Sahib to a city has improved the quality of life of the residents of this city.
4	Investigating the relationship between contextual variables, social capital and satisfaction with the quality of life: (case study: the villages of Fars Province)	Quarterly of Village and Development, Year 9, No. 4, Winter 2005	2005	Majdi M. Lehsaizadeh A.	The more the support and availability of services in society through the structures that were created in the past and the differences are reduced, this part of social capital can be equally effective on people's satisfaction with the quality of life.
5	introduction to archeology (V ol. 1)	MAHI	2015	...	Review of Archaeology
6	Measuring the quality of the urban environment in new cities (case study: the new city Hashtgerd)	Lecturer of Hum an Sciences – Spatial Planning, 15 <sup>th</sup> Fall 2019, No. 3 (73 series)	1390	Rafiyani M. Molodi J. Portaheri M.	Using the factor analysis and applying a hierarchical experimental model, the researcher concluded that satisfaction of the residents with the quality of the urban environment of the new city of Hashtgerd is low.
7	Measuring and evaluating the environmental quality of the public space of the destination villages for attracting tourists (case study: target villages for tourism in Torqabah and Shandiz)	Hum an Geography Research, Volume 35, No. 2, Summer 2021 p. 499-520	2021	Sejasi Ghei dari H. Grossi A. Moradi K. Mahdavi D.	The attractions in rural areas play an important role in attracting tourists. Public spaces in villages such as squares and alleys along with the exterior architecture of houses and existing furniture can be attractive elements for tourists. The environmental quality of the existing public spaces and elements is the first and most important tourist attraction from the point of view of rural tourists and can lead to the prosperity of tourism.
8	Explaining the role of the environmental quality of rural tourism destinations for strengthening the mental image of tourists (case study: Rudbar Qasran village of tourism destination)	Spatial planning 2013; 19 (2): 61-88	2014	Sejasi Ghei dari H. Sadeghlou T. Mahdavi D.	Creating a positive mental image for tourists is very important for the development of the competitive rural tourism market; Because the behavioral pattern of tourists for selecting the destinations of rural tourists is based on their perceived values and mental image.

compensates for its shortcomings. Archeology addresses history of life, and memories, events and activities of human. It corrects the supposed mistakes of history and other sciences with accurate and detailed scientific explorations and provides them to the historians. The objective of this science is to find the lost, illuminate the darkness and answer the questions. The objective of archeology is to research human remains since the beginning to date" (Masoumi, 2008: 5-7). Fagan has also provided a definition of archeology. He considers archeology as a branch of anthropology with scientific study of humans in a broad dimension. He wrote: "anthropologists study humans as living beings by considering the common characteristic of "culture". Anthropologists study humans in two ways and with two tendencies of A. Physical anthropology, including study of human biological evolution and B. Cultural anthropology, which studies human social life in the past and present and basically human culture and culture adaptation to the environment. Accordingly, archeology can be considered a special type of anthropology seeking to establish a relationship between discovered ancient places and real human behavior (Fagan, 2005).

#### *Archeology and cultural tourism*

A close relationship and dynamic interaction is between archeology and cultural tourism and related fields. Tourism has common fields with archaeological knowledge and activities and made great efforts for developing, preserving, reconstructing, and promoting monuments resulting monuments from archaeological excavations. In fact, it is tourism that pays the economic costs by creating a demand for travel to ancient areas and sites discovered by archaeologists. On the other hand, archeology with its stunning activities provides valuable knowledge of the past life and its customs, reconstructs the past and arouses the sense of society about the cultural heritage (Afkhami, 2006: 97).

#### *Role of archaeological excavations in the development of cultural tourism*

Archeology sites are places where traces related to human activity in the past periods are found. These places show the accumulation of monuments and remains of human behavior over the ages and are usually characterized by tools (Fagan, 2005: 210). Archeological sites in tourism are generally unique attractions that are covered or private destinations for travelers. This is while Iran is one of the first six countries in the world in terms of historical monuments, and most of the tourists entering our country are tourists of historical monuments.

#### *Archaeological attractions as factors of attracting cultural tourists*

The main motivations of tourists (domestic and international) are to travel to historical and old areas, beautiful views of nature and familiarity with different cultural traditions. Although there are several motivations for travel and tourism, tourists and tour guides always try to consider different goals and motivations for a travel tour, including visiting museums, historical monuments, natural beautiful sights, experiencing traditional foods, staying in beautiful areas, markets, and buying handicrafts. Archaeologists recognize and introduce historical buildings and, along with nature tours, nature and human environments. Finally, archaeologists introduce specialized activities, and cultural, artistic and historical attractions of different regions as factors of attracting cultural tourists and strengthening the tourism industry.

#### Tourist

The term "tourist" became common since the 19th century. In 1925, the Special Statistics Committee of the Assembly of Nations recognized the following as world tourists:

1. Those who travel for entertainment and personal reasons with medical and therapeutic purposes.
2. Those who travel to other countries to participate in conferences, exhibitions, religious ceremonies, sports competitions, etc.
3. Those who travel for marketing and business purposes.
4. Those who travel by ship and stay in a port on the way for up to 24 hours (Faiz Bakhsh, 1965: 18-25)

It should be noted that the following three characteristics are considered:

1. Travel time
2. Interval
3. Travel purpose

type	effect
explorer	Less with no tourism products consumption
elite	Relatively less, with no price elasticity of demand to high quality tourism products, a factor of probable investment in tourism
Guest or house owner	Permanent tourism applicant by staying in the host or personal house, low tourism products consumption, a factor of increasing local cost in the destination
Individual tourist	A large number, broad traveling, with price elasticity of demand to tourism products produced or available in the destination
Group tourist	Very large number, economic effect, high costs in the destination, a factor of high investment in the destination

### *Rural tourist*

A rural tourist is a person who participates in tourism activities in rural areas, but this definition can also be applied to a person who goes to a village for a short walk of one hour or a person who stays in a farm for two weeks. Therefore, not only the extent of rural tourism should be clarified in terms of place and activity, but also the duration of stay should be specified. Tourists who spend at least one night in the village spend a lot of money in the visit, but their number is very few. On the other hand, the number of tourists who visit the village for one day is large, while they spend a little money. Compared to those who stay in the village for a longer period, this group has a greater effect on the rural environment and at the same time causes more problems. Therefore, for effective planning and management of rural tourism, the effect of long-term stays should be considered (Sharpley, 2010: 50).

type	characteristic
natural	Mainly interacting with ecological attractions
cultural	Related to culture, history, and cultural and ancient heritage of villagers
ecological	In addition to interacting with natural attractions, it is related to life and social norms of villagers. Environmental and cultural issues are considered and tourists are responsible
rural	Tourists stay in houses in the village and participate in economic and social activities of the village
agricultural	Tourists participate in agricultural activities with no negative impact on the ecosystem

### *Quality of the environment*

The term quality is a concept that is used in all fields of knowledge and related to human life. Quality in its normal state and in a very clear sense is used to describe the degree of perfection of objects and phenomena (Golkar, 2010: 39). On the other hand, in fact, totality is one of the

quality components that created something. With quality components, one can understand the difference in the characteristics of an object or problem. The quality of an object originates from two sources of 1) mental source of the person, 2) objective source of the object. Pronominal qualities have been introduced as values that are difficult to quantify and can hardly be measured. Qualities related to desired or undesired expression and ugly and beautiful things usually belong to this category (Golkar, 2010: 38). Geographers, psychologists, social science researchers and architects mention various definitions for the environment. But in fact, the surrounding is the main criterion for different definitions of the environment. Therefore, any description, definition or explanation of the nature for the division of the environment into the function of the environment, should be based on something in the surrounding (Lang, 2011: 85).

#### *Components and indicators of environmental quality affecting tourism development*

Tourism planners can plan and take measure to determine and apply the desired criteria by specifying the level of each index in the destination or tourism location. One of the most important methods of evaluating the quality of tourism is to measure tourists' satisfaction with the environment and its quality (European Committees, 2000: 14). Due to the weakness of a scale to measure the perception of villagers and the deviation in the approaches used for data analysis, limitations have been created in studies related to tourism perception (Monterrubio, 2007: 8). For example, tourists' preferences are not only affected by their personal information, but also each of the areas due to its unique characteristics affect tourists' preferences (Roca & Villares, 2008:7). On the other hand, tourism also affects the quality of the environment. The most important effects of tourism on the quality of the environment can be investigated in the framework of drinking water supply, wastewater collection and disposal, use of land and natural resources, air pollution and noise pollution (Shieh & Alipour, 2010: 157). Several criteria are used for identifying capacity limitations of the environment for different bioecosystems, the sensitivity of specific parts of the natural and cultural environment at different levels, and finally comprehensive monitoring of resources that produce different levels of pollution (Houghes, 2002: 6). For this purpose, indicators should be defined through which the sustainability of tourism can be evaluated. These indicators include the relationship between the tourist and the environment, the effect of environmental factors on the tourist and the effects of tourism on the environment (Rangbarian & Zahedi, 2008: 181). Therefore, in the field of attracting tourism to rural destinations and increasing the spatial competitiveness of tourism destinations, attention to all four components of environmental quality mentioned in the villages as effective factors on attracting tourists is very important. The utility of the components of the environmental quality of the village for increasing the number of tourists' visits the destinations, introducing the village as a suitable environment for tourism and leisure time to friends and acquaintances, maintaining a positive and strong mental image of the village among tourists, and satisfaction with tourism are effective on attracting and further developing tourists.

## **Results**

### *Study area: Varkaneh village*

Hamadan Province with an area of 19,493 km<sup>2</sup> is bordered by Zanjan and Qazvin Provinces from the north, Lorestan Province from the south, Markazi Province from the east, and Kurdistan and Kermanshah Provinces from the west. Ashtran and Geshani in the central part of Tuyserkan; Barfjin and Simin with a history of 300 years in Hamadan foothills; and Varkaneh in the southern slope of Central Zagros are the villages studied in this study (Fig 1).





Varkaneh is a village in Hamadan Province with stone houses and is known as a stone village (Fig 2). The nickname of Iran's renaissance village has also been selected for this village because the houses of this village turn a burnt brown color when the light shines and depict a view of Europe during the renaissance period. It is said that Varkaneh is more than 400 years old and has formed from a neighborhood called Darb Masjid, which dates back to the early Safavid period. The cobbled streets, stone houses and green gardens are good excuses to make the best moments in this village for tourists. This village is one of the 6 tourist villages in Hamadan, whose name is in the list of national monuments of Iran and is known as one of the important tourist areas of Iran .

This village is bordered by Sardeh Koh from the northeast, Simin village from the west, and Koh Sorkh Balag from the southwest. This village also reaches Barani Valley and Qeshlaq Valley from the southeast. It seems that the village owes its name to the Kurdish language. In the Kurdish language, "Var" means beside and "Kaneh" means spring, and Verkaneh means next to the spring. Another belief about the name of this village is that due to the existence of many stone mines around this village, they gave this place the name Varkan, which is the local equivalent of mine. The age of this village, which is located on the southern slopes of Zagros, reaches more than 400 years, i.e., the Safavid dynasty in Iran. The mountainous nature around this village and the special architecture of its houses has made it a tourist attraction that many domestic and foreign tourists visit every year. Interestingly, most of the materials used for the construction

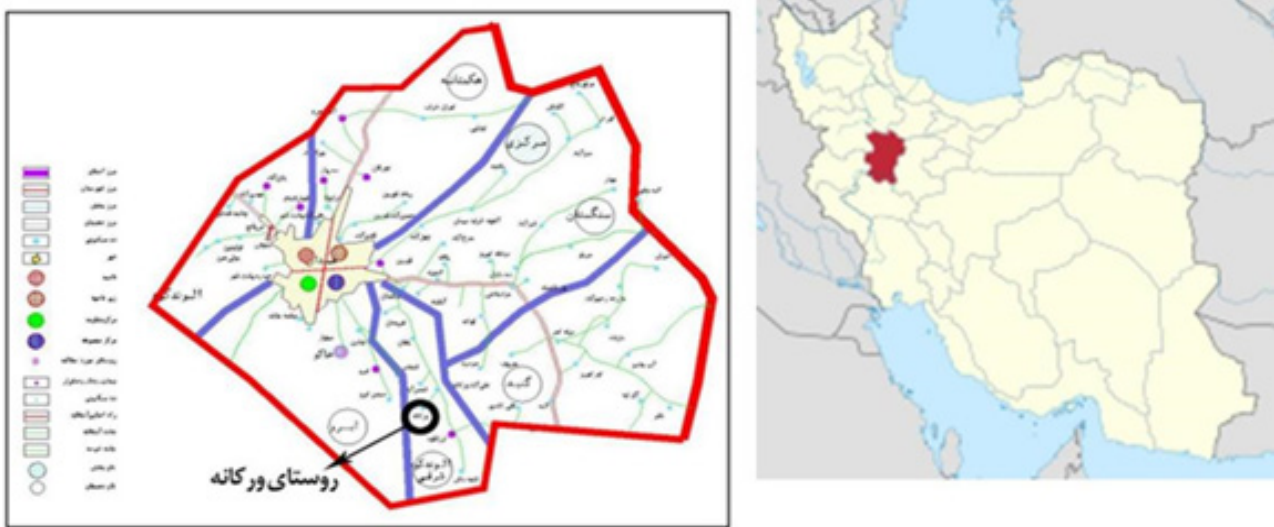


Figure 1. Location of Hamadan and Varkaneh in the map of Iran



Figure 2. Ston House at Varkaneh village

of houses in this village are rubble stone, malon stone, clay and brick. When the sunlight shines on these stones, its reflection makes these houses shine and creates a beautiful view. There are many historical and religious monuments in Varkaneh, among which we can mention the main mosque of the village, the horse breeding stable with stone architecture, and the Mehri Khanum castle (Fig 3).

Varkaneh itself, which is also called Qol Qol spring, is considered as one of the six tourist attractions in Hamedan Province. But, in the heart of this village, apart from its beautiful nature and special architecture, there are other tourist attractions to visit, 2 km from the village, there is a horse stable, which was used for court horse breeding before the Islamic revolution.

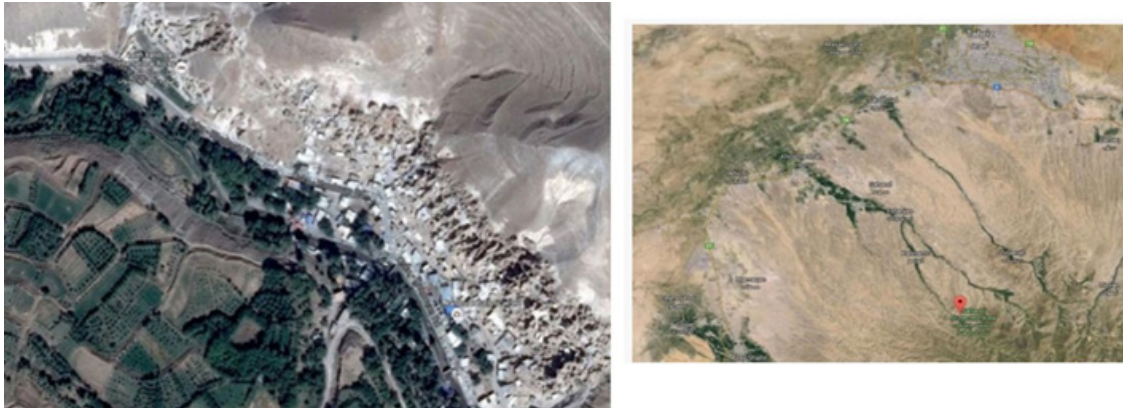


Figure 3. Horse breeding stable, Varkaneh vilage



Figure 4. Mehri Khanum Castle, Varkaneh vilage

This stable has an area of about 1650 m<sup>2</sup> and was established during the time of Amir Toman, one of the governors of Hamadan. Currently, this stable is used as one of the village's tourist attractions. In this village, there is a simple cemetery without any tombstones. This is the difference between this cemetery and other cemeteries in the country and has made it attractive for tourists. Another tourist attraction that you can visit in Varkaneh is Mehri Khanum Castle. This



Figures 5. Aerial photos of Kandovan (google earth)



Figure 6. Ston house at Kandovan

castle is an old noble building that belonged to the lord of the village and a person named Mehri Khanum. Mehri Khanum Castle is located 100 m south of the village. It overlooks the village and is surrounded by the green bed of the foothills and the view of the castle is beautiful (Fig 4).

### ***Kandovan***

Kandovan village is located on the green slopes of Sultan Daghi, 18 km south of Osku and 62 km southwest of Tabriz (Fig 5). The traditional and ancient houses of Kandovan are unique in terms of architecture in Iran, and according to a number of researchers, the construction of these houses dates back to the 7th century AH at the same time as The Mongols attack.

In the history of this region, it is said that the first people entering Kandovan were the villagers of a village called Hilevar, which was located 2 km west of Kandovan, who migrated to the plain in front of the current Kandovan in the 7th century AH to avoid the attack of the Mongols and during a period gradually dug inside the borders and built a safe shelter for themselves. Kandovan is a village built on the rock and the only structure of this village is made of stones. The houses are pyramid-shaped and holes are built in the rocks for livestock. Kandovan is one of the three rock villages in the world, which makes it unique. The architecture of Kandovan and the continuity of people's life in the form of its old texture is considered an exception in the world because no one lives in Cappadocia and Dakota anymore in Turkey and USA. Sahand Mountain is one of the five important volcanic mountains of Iran in East Azerbaijan Province

and in the south Tabriz. On the slopes of this mountain and near Osku, there is a village called Kandovan, which is important in terms of geological and architectural attractions(Fig 6) .

Conical cliffs and man-made caves used as dwellings create one of the most amazing rock villages in the world. The houses of this village are of rock architecture and in the shape of a cone. Some archaeologists attribute the age of this village to pre-Islamic periods. The houses of this village are carved like a beehive in the heart of the mountain, and interestingly honey is one of the most important products of this village. Kandovan is a resort area of Sahand Mountain, whose green pastures attract many nomads. The special architecture of this village has made it famous around the world. Animal husbandry, agriculture and horticulture are the main activities of the villagers. Water and electricity piping in the heart of these stones shows the peaceful coexistence of humans and the environment. Kandovan is a beautiful example of using nature in human life. What gives Kandovan its ancient identity is the existence of 117 households and residential houses inside the conical and pyramid-shaped rocks. The villagers have built houses, barns, warehouses and workshops for themselves inside these masses.

### ***Discussion***

Rural tourism is one of the forms of sustainable development in which the resources available in rural areas are used. If the quality of the environment is at a high level, it can have a positive effect on the tourism destinations and ultimately on the development of tourism. The positive feeling is created and developed in different ways, in this regard, one of these methods is the development of quality by improving the quality of the image of the destination according to the tourists' point of view. In this research, Friedman's test was used to determine the most influential factor among environmental quality factors. The results of this test show that the effect of all factors is not the same and the variable of beauty has the highest effect in attracting tourists. The results of interviews with tourists in the target villages show that the environmental quality of the architecture of the target villages is one of the potential points and has the potential capacity to attract tourists. This component is both a subjective and objective aspect of the environmental quality of the village. According to the interviews conducted, it seems that due to the harsh and rigid architecture in the cities and the influence of the environment on human behavior, the architecture in harmony with nature in the villages has softened the people's behavior, so tourists want to visit more. Another important component is being in nature, which is an important factor in attracting tourists today, and these target villages have this important feature. The results show in the tables (Tables 1-4).

The table 5 show that the highest frequency of income is 6-7 million Tomans, i.e., most of the tourists have a relatively average income. Given that the cost of tourism and staying in the village is much lower than other types of tourism and residence, this village is suitable for recreation and tourism for all people with different incomes.

Therefore, after conducting interviews with experts and tourists and field discussion and recording their answers, common results were obtained and then presented in the form of the table below (Table 6).

For factor analysis, it is necessary that the variance of questions of one variable is not equal. In order to conclude that whether the variance of the questions of a variable is equal, we use Bartlett's test. If the significance level for a variable in Bartlett's test is less than the error level of 0.5, then the variance of the questions of the variable is not equal and it is possible to use

Marital status	F	%
single	73	26.5
married	202	73.5
total	275	100

Gender	F	%
male	190	70
female	85	30
total	275	100

Age (year)	F	%
Below 25	22	8
25-35	125	45.3
35-55	96	35
Above 55	32	11.7
total	275	100

Income (million Toman)	F	%
5-3	32	11.6
6-5	58	21.1
7-6	159	57.8
Above 7	26	9.5
total	275	100

Descriptive information	F	%
expert	30	11
tourist	245	89
total	275	100

exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) (Table 7- 8, 9).

The population responded to the interview and questions believe that what increases the environmental quality of the village is the beauty of its context and space, and other factors have a lesser position and role in the mind of the tourist (Table 10).

Rural tourism is one of the forms of sustainable development in which the resources available in rural areas are used. High environmental quality is the basis for the formation of a positive sense towards tourism destinations and finally the development of tourism. It is possible to form and strengthen a positive sense in different ways, one of which is to improve the quality of the environment, leading to the improvement of the image of the destination from the point of view of tourists. According to the questionnaire prepared from the interview, the components affecting tourism are presented in the form of a table. In attracting tourism to rural destinations and increasing the spatial competitiveness of tourist destinations, it is very important to pay attention to all four components of environmental quality in villages as effective factors on attracting tourists. All the above factors affect tourists' perception of rural destinations and the elements of the environment and form the final mental image of tourists of rural destinations. Returning to the village and introducing it to the relatives and acquaintances is the opposite of what formed in the negative mental image (Table 11).

components	code	sub-code
rural spatial characteristic	different and natural architectural building, access to mountains and valleys, indigenous materials and stepped architecture	Traditional architecture, stepped structure and attractive appearance with beautiful gardens
Village ecosystem	Protection of the nature of the village	Appropriate vegetation, natural and wildlife around the village
Village body	normal state eco-friendly materials	housing with people's participation stone materials
Rural infrastructure for tourism	Historical monuments Religious monuments Good access	Tomb of Imamzadeh Ibrahim a large and ancient cemetery the view of the nomadic village access to Hamadan existence of historical castles
barriers to attracting tourists in the village	cultural difference type of behavior lack of proper infrastructure	Improper sewage treatment many mines and traffic of truck drivers lack of a proper road Lack of inns and tourist houses for visitors
Changing the ecosystem with the arrival of tourists	Environmental problems Increase in waste loss of vegetation	Extinction of different plant and animal species
Native architecture and goals and principles of sustainable tourism	Architecture under the factor of living	Having a porch the darkness of the night and the absence of light Using natural and available materials such as wood, trees and stones
effect of internal monitoring on environmental degradation	Positive effect	cleaning rivers and fields from waste reconstructing historical and old places preserving trees and fields
Interactive environment of the village	Business and activity boom	Mosques the fountain and aqueduct the door of the houses of the elders of the village
Social environment of the village	Cultural attraction of the village	Communication between people and tourists Manifestations of rural customs and traditions hospitality
Communication networks	Limitation of roads leading to villages	Readability of texture and access route to villages Lack of proper access to the gas station on the way to the village Inappropriate passages and roads
Religious attraction	Customs and ceremonies	Existence of cemeteries and tombs, and holding of religious ceremonies, especially on the day of Ashura
Handicrafts	Domestic products	Production of domestic products, including clothing and food
age of the buildings	Old architecture	Traditional and old houses
climate	Relatively good climate	Springs and running water in the village land suitable for growing crops and clean air
topography	highlands	The investigated villages have various heights and valleys that are suitable for tourism. For example, Simin village is surrounded by Serkezar Mountain from the west, Balagh Mountain from the southeast, Takht Rostam Mountain and Sorkhpa valley from the northwest, Vali Shekar valley from the south, Jen valley from the northeast and Yonjehchal valley mountain from the north.
vegetation	Pasture and forest	The target villages have a lot of vegetation and walnut and apricot trees can be seen.

dimension	item	Factor loading	Coefficient alpha
influence of the architectural symbols of the rural context	Traditional materials	.82	.72
	Stair texture	.78	
	Special form and materials	.68	
	Lush texture	.65	
Context identity	context architecture is similar to classical architecture	.75	.63
	Incongruous hotel-motel architecture	.73	
	Use of new materials	.48	
	existence of traditional houses	.65	
	Use of new materials	.59	
Coexistence of villagers and tourists	Supervision	.65	.56
	presence of tourists	.71	
	Village residents' interactions with tourists	.75	
	The capacity to create employment and increase income	.59	
	Increasing the sense of kindness and warmth in interactions between residents and tourists	.32	
	The possibility of changing the architecture of the fabric due to the contact of residents with tourists	.42	
	Lack of facilities and services	.51	
Barriers to attracting tourists	Following the contact of residents with tourists	.63	.77
	Changing the lifestyle of the villagers	.68	
	Lack of tourist accommodations	.68	
	Lack of sewage network	.82	
	Lack of facilities	.76	
	Lack of proper access to the village	.78	
Spatial characteristic of the village	Absence of travel guide in villages	.77	.67
	Inappropriate treatment of villagers with tourists	.73	
	Traditional foods of the villages	.78	
	existence of domestic animals in villages	.67	
	Religious attractions of villages	.64	
	existence of natural landscapes of villages	.59	
	existence of beautiful valleys in the villages	.59	
Spatial characteristic of the village	existence of traditional-rural architecture in villages	.72	.67
	Climate of the villages	.76	
	Historical monuments of villages	.54	
	Historical monuments of villages	.54	

### Conclusion

According to the results of the interview and questions, it is believed that what aggravates the environmental quality of the village is the beauty of the texture and space and cultural tourism based on archaeological activities, and other factors have a lesser position and role in the minds of tourists. One of the most important barriers to attracting tourists for the target villages is the lack of recognition of tourists, which can be defined and investigated with local and trans-local dimensions. Considering the rigid architecture in the cities and considering the effect of the environment on human behavior, the architecture in harmony with nature in the villages has softened the behavior of the people. Therefore tourists have a desire to be more present in these environments. The next important component is the predominance of nature's features over human artefacts. Today, the sense of being in nature is an important factor in attracting tourists, and these target villages have this important feature. Considering the advantages of the presence of tourists and the environmental features of villages, one of the concerns of the experts and villagers is the influence of the people from the cultural aspect, and environmental issues were among the respondents' concerns. The target villages have significant traces that are rooted in culture and society. These places are considered as the beating heart of tourism, which cause social interactions, increase the sense of belonging, sense of memory and promote identity as lively and dynamic spaces. In this regard, currently the villages, in addition to having a suitable position due to special architectural features, have continued their life as a dynamic space. In order to connect with the historical, cultural and social identity of their audience, the villages should be present in social life and cultural memory and have aesthetic functions as attractive and important villages due to the landmark architecture. In addition to the valuable body to create a rich sensory experience, what determines the dynamism and vitality of the

Table 8. Factor analysis in Bartlett's test				
dimension	kim o	status	Bart	Significance level
influence of the architectural symbols of the rural context	.74	acceptable	1389.004	0.00
dimension	kim o	status	Bart	Significance level
identity	.67	moderate	539.00	0.00
dimension	kim o	status	Bart	Significance level
Barriers to attracting tourists	.76	acceptable	2113.369	0.00
dimension	kim o	status	Bart	Significance level
Spatial features of the village	.58	poor	84.361	0.00

Table 9. Environmental quality	
	Mean Rank
readability	2.06
beauty	2.09
identity	1.86
influence	1.99
Multi-functional	2.01
access	1.84
Test Statisticsa	
N	275
Chi-Square	14.279
df	2
Asymp. Sig.	0.001

Table 10. Barriers to attract tourists	
	Mean Rank
wastewater	1.86
access	2.01
guidance	1.89
Lack of recognition	2.09
facilities	1.89
treatment of villagers	1.83
Test Statisticsa	
N	275
Chi-Square	14.183
df	2
Asymp. Sig.	0.000

Table 11. Components affecting tourism	
Aesthetic quality	Beautiful and attractive facades of the buildings, extraordinary vegetation, pavement of the village roads, giving objectivity to traditional culture through architecture
Semantic quality	Inducing a sense of peace, freshness, vitality, and security
Environmental quality	Preservation of vegetation and use of environmental materials in accordance with decomposable and environmentally friendly energies
Functional quality	Relatively proportionate access to the villages, existence of tourism attraction in the traffic spaces of the village, strengthening of social interactions, and pedestrian streets

current identity is the harmony with social contexts of the place and, as a result, the cultural implications, the mental and perceptive impressions of the tourists of the space searching for the specific dimensions of village identity in mental and conceptual impressions. The target villages have taken steps to strengthen rich mental perceptions in the minds of tourists due to the interaction between their body (physical features) and soul (social, historical and cultural components). Therefore, the introduction of the special and unique identity of these villages, coordination with the mentality of the audience and specific social and cultural contexts play an effective role in their current role in the space of the villages. Hence, the conceptual model of the research and all the final codes obtained point to the centrality of mental, conceptual, cultural and social components to achieve given goals. Today, the importance of the tourism industry from an economic point of view is such that it can be considered as a driving force in the rural tourism sector. Of course, without proper management and planning and lack of long-term vision, this important resource is suitable for the rural economy and creating job opportunities, but in terms of social culture, it will naturally cause challenges and problems for the villagers. One of the most important and necessary dimensions that can be effective on the management and planning of village tourism in terms of environmental quality is the process of tourists' perception, sense and proper communication with the environment. As a social point connected to nature, rural landscapes have common visual and semantic features. These landscapes can be investigated from two dimensions. The first dimension is the perception in which the beautiful image and body of the village is shown and it can be understood by the tourists by entering the context of the details and some components of the landscape. The second dimension can be subjective and non-tangible, including the climate, customs and culture of villagers. Paying attention to the intellectual, cultural and social changes that have happened in the world in the last few years, the taste of tourists has changed and unlike the past, today's tourists are looking for new places to experience, in which nature tourism plays an important role in rural areas. Therefore, on the one hand, rural areas are good fields for the development of this type of tourism due to the abundance of natural and rich resources they have, and on the other hand, due to its nature, tourism is a very suitable opportunity for the development of rural areas and can help to renew the life of villages, create employment and income for villagers. The tourism industry has developed a lot around the world and many countries have been able to improve their situation in this way and solve problems such as unemployment, low per capita income and lack of foreign exchange income. Cultural tourism based on archaeological activities with the cooperation of science experts related to cultural heritage can create various economic activities and jobs in different areas, especially in rural areas and small towns, which are mostly service opportunities along with the production and sale of handicrafts, the expansion of hotel and transportation services, and the creation of stores, social security, new jobs and other services, which have reduced the unemployment and migration from villages and small towns to big cities and increased the surplus force of the agriculture and livestock in the service sector, leading to poverty reduction and youth employment.

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