

## Research Article

### An Opportunity for Tourism Development with Troglodytic Architecture

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**Abstract:** The present study aims to introduce and investigate Kandovan Village, located in East Azarbaijan Province and Meymand Village, located in Kerman Province, with regard to tourism opportunities and potentials. The significance of this type of architecture is the use of natural rocks as a suitable bed for creating certain spaces that are in accord with human needs. The interaction between human being and the harsh and tough nature in which the man makes his shelter and house distinguishes this type of architecture with other forms. This research is a descriptive-analytic study on two cases of troglodytic architecture. The data are collected from valid sources and documents as well as the opinions of experts in this field. The results of this research could be used in tourism development process and related planning in these two cases (i.e., Kandovan Village and Meymand Village). It aims to offer suggestions for having maximum efficiency in order to achieve objectives related to development of tourism and tourists attraction in the process of quality and quantity development.

**Keywords:** Kandovan village, Meymand village troglodytic architecture, tourism development

#### INTRODUCTION

Tourism is going to become the first industry in the world due to positive social, cultural and economical impacts including the effect on creating income and economic development of the countries and it is an important resource for business activities, making income and employment and foreign exchanges in most countries (Haber and Lerner, 2005). Kandovan Village, one of the subordinates of Osku city located in East Azarbaijan Province, is an important area for tourism in the country due to having a lot of tourist attractions. So, the study of its tourist value can be effective in forecasting the needs and meeting the deficiencies and developing the tourism (Khodaverdizadeh *et al.*, 2008) Meymand Village was made in a hill range which has been gained a special form by geological changes. The mountain was dug and shaped to make a room and house. The construction materials gained from the mountain were used for making the alley, the entrance of the house, the fold, toilet, taking a steep hill and etc. Although, this architectural style is seemed very simple but since it is uncommon today, these villages are very attractive places to visit.

**Statement of the problem:** Consideration to tourism and its stability in Kandovan and Meymand Villages which have long history and the spiritual, historical heritages and local culture have been preserved in them, has a special priority. Because, the functional aspects and natural, social, cultural beauties and also the lasting historical legacy of troglodytic villages in Iran (Kandovan and Meymand) which are cultural-historical

villages cause that these villages retain their own historical buildings and local cultural traditions despite the invention of modernization theory of development and attract more domestic and international tourists. However, these villages face to main socio-economic and environmental problems in tourism development now. The destruction and the loss of historical and cultural legacy of these villages, congestion and crowding and lack of security can be noted among there almanifestations. The present study tries to recognize the capabilities and opportunities of Kandovan and Meymand villages from tourism aspect and offers some suggestions to develop tourism with stable principles in these two studied villages with emphasis on their development.

**The importance and necessity of research:** Particular attention to these areas has been intensified by growing demand and tourists' acceptance in two rural troglodytic samples (Meymand and Kandovan) in recent years and the lack of statutory and comprehensive planning for tourism in these regions.

#### RESEARCH METHODOLOGY

Due to the main approach of study, the used methodology for investigation of tourism opportunities in two rural troglodytic samples (Meymand and Kandovan) with regular and comprehensive perspectives and emphasize on descriptive-analytic methodology and combination methods including survey is qualitative. It should be noted that for collecting data in this study, some techniques have been

Table 1: Geographical, social and tourism situation and characteristics of the studied villages (Rocnedin Eftekhari and Abdolreza *et al.*, 2011)

Historical and traditional tissue	National and worldwide recorded attractions	Population (2006)				Geographical, political and administrative situation					
		The number of households	Total population	Elevation	Village type	Latitude and longitude	Rural district	District	County	Province	Village's name
√	√	176	601	2400	Mountainous	37,48,15 46,13,08	Sahand	central	Osku	East Azarbayjan	Kandovan
√	√	171	673	2240	Foothills water	30,14,21 55,23,38	Meymand	central	Babak city	Kerman	Meymand

used such as document, library and field techniques and interview with people, authorities and tourists.

### THEORETICAL FRAMEWORK

**Sustainable tourism development:** Sustainable tourism development is the development of this industry and tourist attraction to the country using available resources, so that the economic, social, cultural needs, legal criteria of the society and also tourists expectations to be met and unity and integrity, cultural identity and environmental health, economic growth and people's welfare can be provided in a balanced and interconnected manner (Sadr Mousavi and DakhiliKahnamuee, 2009). For designing a sustainable tourism program, the following basic steps can be offered regardless of operational type and level:

- **Preparation and facilitation:** The presence of local or outside entrepreneur individually or in a group and cooperation and coordination of government department in tourism field;
- **Effective engagement and participation:** Local investment in tourism, providing optimal facilities in tourist season, appearance of regional and local markets, private and government investments in development of local infrastructures such as information interchange, communication and transportation for institutionalizing people's participation in the form of related and coordinated local organizations;
- **Evolution and development:** Rapid growth of tourist attraction and significant increase of tourists, thriving of local markets, continuous advertising and investment;
- **Cohesion and stability:** Reduction in growth rate, large investment to overcome seasonal problems, developing new markets and attracting large crowds of tourists;
- **Functional/constructional renewal and modernization:** Replacement of new tourism attractions, use of natural resources and tourism attractions intact and presence of the new entrepreneurs in tourism field (Dann and Cohen, 1996).
- **Drawing two samples of the studied troglodytic architecture:** The studied scope includes two historical-cultural troglodytic villages (Kandovan and Meymand) in the country which are selected

according to tourism performance indicators and determinants (such as having national and international registered works, having particular tissue or a special architectural style, having a fixed population and also national and international actions) (Table 1). Because of natural features, most of these villages are located in mountain and good climate areas and because of social status; the studied villages have a fixed population based on census of the year 2006. In regard to resources and tourism attractions, Kandovan and Meymand villages have historical tissue with troglodytic houses in heart of rocks and mountains. Hence, on the one hand these villages create an opportunity to meet needs and growing demands of tourists and those interested in historical and attractive spaces due to having abundant historical, cultural and natural attractions and very long history and on the other hand their economic, social and cultural resurgence have been provided in this way, these villages have been able to attract a large number of domestic and international tourists. The attractions' importance of historical and cultural villages in the country is somewhat which in a small sample, the ancient and three thousand years old village of Meymand due to heritage conservation and management of the continuity of living allocated international prize of \$ 20.000, Melina Mercury to itself. However, the studies conducted in these villages show that unfortunately the resulted opportunities from tourism have not been properly exploited to develop these areas and sometimes realized against their threats. So that, Kandovan and Meymand have become tourism fair at present and they are alive only for people who come there. In addition to these historical-cultural villages, the country faces to other challenging matters such as the destruction of historical works and old tissue of villages, loss of custom and cultural ceremonies and construction of new buildings with unusual indigenous and local architectures, pollution, loss of animal life and etc which necessitate double recognition and investigation of sustainability factors in order to achieve the solutions to stable the development and protection of them (Roknoddin Eftekhari *et al.*, 2011).

**Kandovan village:** Kandovan with ancient tissue architectures is one of unique examples of rock



Fig. 1: Kandovan village

monuments in the world which is located 65 km from Tabriz city and is in north-western foot of Sahand mountain mass (Fig. 1). Due to favorable mountain climate, tasty mineral water, fertile plains and peaceful environment and in regard to rural houses architecture, this village attracts a lot of tourists each year. So that, according to tourism organization report of east Azarbaijan province in the year 2006, about 600.000 people visited this village in that year. Using maps of geology, geomorphology and field visits, the evolution of geological structure and geomorphology of Kandovan valley and the way of ignimbricones formation are investigated and geotourism capabilities in the development of Kandovan village is evaluated by this study (Karami, 2007). Apparently, some of the residents of this village are not satisfied with the presence of curious tourists because they are known as annoying, but some of them are satisfied with tourists' arrival which causes business expansion and job creation. Tourists want to go inside their houses and see their living and this is why they are upset. On the other side, each tourist usually has a camera and takes photo and video from villagers and their family. The heights of opposite side of the river is the most appropriate prospect of Kandovan and tourists can go to this area for visiting the whole village without any disturbance for Kandovan's residents.

**Meymand village:** Meymand is located in 38 km from north eastern of Shahr-e Babak city in latitude 30° and 16' and longitude 55° and 25'. Its height above the sea level is 2240 m and its width 420 km<sup>2</sup>. This village is located among Yazd; Kerman and Shiraz cities. Meymand is also located in Meymand village, Shahr-e Babak city and in Kerman province. What is important is that, Meymand's houses are not constructed by stone, brick and etc meaning that they are not constructed in open area but they formed by soil mass removal, so, human does not need to clay, brick and mortar; and the shelter is prepared just by taking up a soil mass. An entire house which may include one or more rooms and stable is a kiche. The name of each unit is kiche. The size of these room's which are not regular geometrically, are different and a room is 3 x 4 and with the height of 1.90 to 2.10 normal meter and the greatest kiche does



Fig. 2: Meymand village

not exceed from 90 m<sup>2</sup>. The floors are mostly felt, carpet or rug in different sizes of 1×150 and 1.40×1.80m. The number of kiche in the village itself is 406 and the number of rooms 2560.

Meymand rocky architecture is type of buildings which are curved into the mountain and have no facing and no window; and nominal composition of the mountain is not changed (Fig. 2). The properties of Meymand rocks have caused that dwellings are constructed in an area, agricultural lands in other areas and orchards and pastures in the third area. Consequently, in the main center of the village, the houses are gathered around a central core meaning subterranean spring and river. The residents of this village have special customs and Sassanid Pahlavi language is still used in their dialects. Meymand 3<sup>rd</sup> millennium village is one of historical villages in the world which has still traditional relations and the interaction between man and nature in the second millennium A.d. can be seen well in it. This village has won the seventh natural and cultural landscape on the world. Meymand village was introduced as a unique national village for tourism in October 2006.

## RESULTS AND DISCUSSION

As it was said in the literature of study, Kandovan village has many problems in spite of appropriate opportunities for the development of tourism, these problems are lack of suitable facilities of tourism infrastructure such as camping, parking, water closets; and also pollution and releasing of sewage in the streets, the destruction of orchards and farms in the village and the most important irregular and inconsistent construction with original architecture of the village in southern parts specially along the road which have undesirable effects on unique and special tissue of Kandovan village. So that, in some parts of the village it is not possible to see old conical houses and just new buildings with undesirable quality and irregular architecture have been seen (Cultural Heritage, Handicraft and tourism organization in east Azarbaijan, 2008, 1999-2000). However, Meymand village has become tourism fair just for the people who come there and are alive but the residents on the one

hand are under pressure of trustee organizations to remain in its traditional form and on the other hand have the problem in meeting the subsistence needs which can be overcome more easily by modern facilities. These cases result from lack of recognition and comprehensive, scientific and professional assessments of sustainable tourism development in these areas; so, these villages and consequently macro-structure of tourism in the country are facing its undesirable ecological, economical and social effects (Roknoddin Eftekhari *et al.*, 2011).

### CONCLUSION

The overall aim of this research is recognition of tourism effects and providing some suggestions for tourism development, creating balance in development and recognition and appropriate utilization of them and finally achieving sustainable tourism development in two troglodytic villages of Kandovan and Meymand.

- Creating job for residents within production framework of job in the sections: guidance and information to help the tourists, production, sale and distribution of local handicraft productions, creation of seasonal jobs through holding local and art exhibition or other similar cases
- Effort on tourism industry development in rural areas to keep the national capital and attract foreign investment
- Maintaining the sophisticated green area and pastures through implementation of natural resources planning's in hand
- Construction of residential centers that increase the rate of natural attractions to draw and keep tourists; and effective preservation of existing rivers and preventing entrance of different wastewater (domestic and similar cases) to them
- Observing the standards and aesthetic criteria to adjust and assimilate visual beauty of the buildings in these two villages
- Creating the infrastructure systems, disposal and recycle the existing wastes
- Observing cultural heritage and tourism organization rules about constructions (extensions

and additions) according to the new needs in the area of infrastructures and the required physical bodies in tourism development of these two studied villages

- Restoration, upgrading and strengthening of the buildings and valuable and old tissues in two villages of Kandovan and Meymand
- Forming an entity to attract the focused and dedicated investment son two unique villages as an attraction institute for local investment
- Necessity of using the approach of sustainable tourism development in the policies and executive programs of special troglodytic villages
- Upgrading and rehabilitation in the road leading to these two villages such as: health services, parking area and transportation services

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