

A report on the potentialities of restoration and revitalization of the historical village of Meymand, Iran

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Abstract

Considering the importance of conservation and in recognition of historical places we are going to explain the potential of revitalization of Meymand, while presenting its architecture in generalities. These potentials will be examined in a rural and single-unit architecture scale through applying models.

This case study has been made as a field study report. Using previous studies available in Meymand's cultural heritage base archive, interviewing different people, taking photographs, collecting related information from the village, and processing and gathering them, have been done in order to conduct this study.

The whole fabric of Meymand has been examined with regard to general characteristics, understanding different periods of development, and components and elements of the units. The only way to revitalize this village in a correct way is to recover its proper economy and to restore all of its residential units and its past culture in a new form. Reorganizing the fabric of Meymand depends on solving the problems related to its fabric with the least intervention.

Keywords: Meymand, revitalization, restoration, conservation, sustainable development, dig architecture, architecture knowledge.

1 Introduction

Meymand is one of the historical villages of Iran. It is unique in terms of cultural and structural features both nationally and internationally. Its fabric, architectural



form and culture have been damaged due to cultural changes and all but been abandoned, so the basic understanding of architectural development and the fabric of this village and its existing potential for restoration, conservation and revitalization is the most important problem in studying and intervening in the form of the village.

The first studies for recognizing Meymand architecture and restoring it have been conducted by a group of students in Tehran university in 1975 under the guidance of Dr. Mohammad Mansour Falamaki and the results were published in Iran Archaeology magazine [1]. After the 1979 revolution some experts of Iran's cultural heritage organization did brief researches on archaeology and anthropology of this village in which the general characteristics of this region were studied [2].

Through establishing the base of Iran cultural heritage organization in this village in 2000, a series of studies was conducted in order to document the cultural architecture of this village which is kept in the archive of this base [3].

The total number of the researches and the reports on architecture, culture, anthropology and geology of the village is less than 10. Previous research and reports have only collected the given existing data and the documentation is in the shape of manual reports and photographs. These researches haven't been published in an integrated and unified manner. There is no study about the potentialities of Meymand restoration and revitalization. This paper aims to briefly represent the existing potential for restoration and revitalization of Meymand and to pave the way for future research.

1.1 Case introduction

The historical and hand-hewn village of Meymand is located in the east of Shahrbabak town, located in the north west of Kerman province/Iran. It is at latitude 13, 30° north and at longitude 55, 22° east. It is 2220 meters above sea level. This village is located at the foot of the inactive volcano of Masahim. The stones in which the village is formed are made of a volcanic material called agglomerate. This village has been constructed in stone in five floors with about 500 residential units. It has a relatively mountainous climate but the plains near it have a semi-arid climate. The date of its construction is unknown but Shahrbabak, the town near it, was constructed in the Sassanid period [4]. Archaeological digs in Meymand castle and carbon-14 dating experiments provide evidence of its construction in the Parthian period (500 B.C.). The earthen ware from Meymand also resembles that from the Sassanid period (200-500 A.D.). But the rock paintings around Meymand provide evidence of people living there about 10,000 B.C. [5].

This village is located on the edge of a shallow valley with a length of about 1 km. Most buildings of the village have a residential application and very few of them are used as schools, mosques, Hosseinieh, public baths or fire-temples. It is now almost uninhabited. In fact, its architectural form has been developed through establishing a negative environment in the heart of stone with the required elements and according to the culture of its residents. The relations within the fabric of the village are made through its central flood way as well as



the narrow passages which have the role of removing superficial water while it's raining. These passages are called Kashgar and their development has been accomplished in five stages and each stage is differentiated based on the architectural characteristics of its period [6].

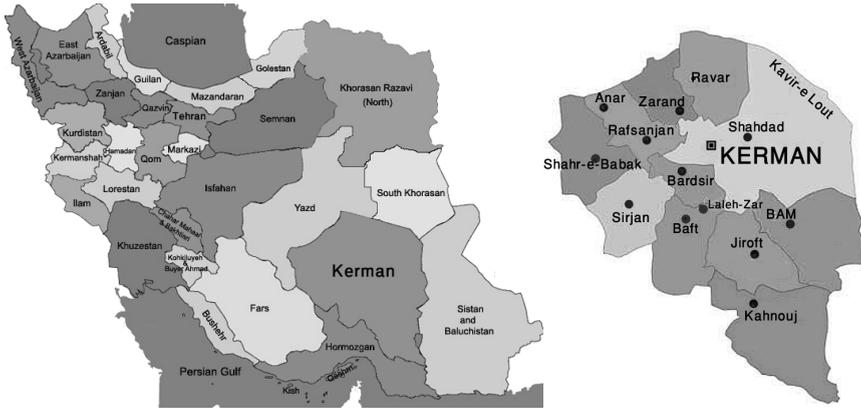


Figure 1: Meymand, located in NW Kerman.

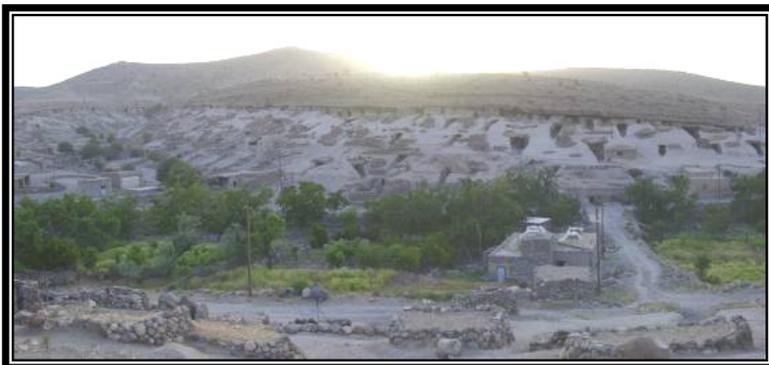


Figure 2: Two general views of the rocky village of Meymand.

The architectural environment of the village consists of unique elements that cannot be seen in other villages of Iran. These elements include the rooms each with its special application such as warehouse, stable and bedroom as well as the toilets with a spiral shape made of china stone without any mortar. There are some small yard-like horizontal places called Toghhol and uncovered corridors called Keeche. Each Keeche represents a residential unit in Meymand. A Keeche ends in a small open veranda with a stove that provides more space for routine activities. Meymand people used to live in these buildings only in the cold seasons of the year, spending most of the year in the plains and valleys near Meymand doing farming and animal husbandry. Because of its cold climate Meymand houses have small doors with a low height in order to provide minimum thermal exchange with the outside and also be proportionate with the size and height of their residents [6].

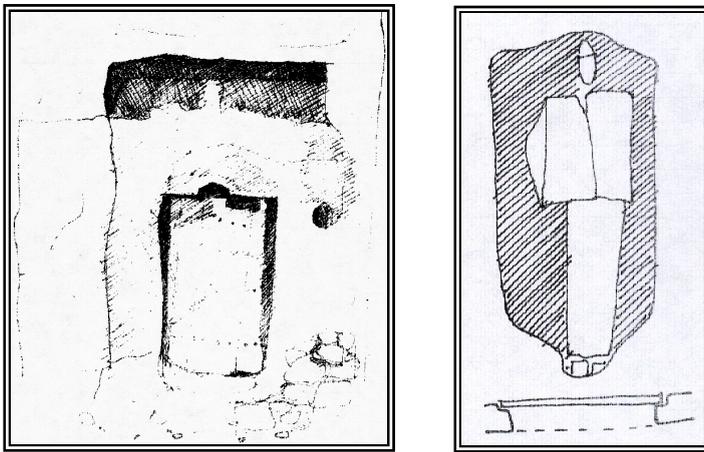


Figure 3: A view of another type of house threshold and its appropriateness to the Meymand inhabitants' physical size.

The dark and soot-covered rooms of Meymand houses with their large thick walls also provide minimal thermal exchange with the outside. Therefore, these houses are usually cool in summer and relatively warm in winter and they can be warmed up by using minimal amounts of energy. Connection and compactness of Meymand fabric and its formation in several floors provide it with some special and near environmental relationships and the village itself has been divided into different districts based on the racial groups living there. Here are some reasons for Meymand emergence [6]:

- 1- religious and spiritual issues
- 2- climatic and geographical conditions
- 3- special form of roughness and geomorphology of the area
- 4- security and social system and its useful defensive properties

The study of durability and the changes occurred in Meymand fabric is not possible without recognition of the above mentioned points, cultural geology and

the concepts of those changes. The structural changes in Meymand fabric and architecture are as follows:

The first period of the village formation: most of architectural spaces of this village have a very simple hole-like plan and the spatial expansion of later periods cannot be seen in this period. Another characteristic of Meymand houses in this period is the absence of corridors (Keeche) and they are formed in almost vertical plane since the conversion of a slope to a right-angled plain needs more knowledge and technology that can be seen in later periods.

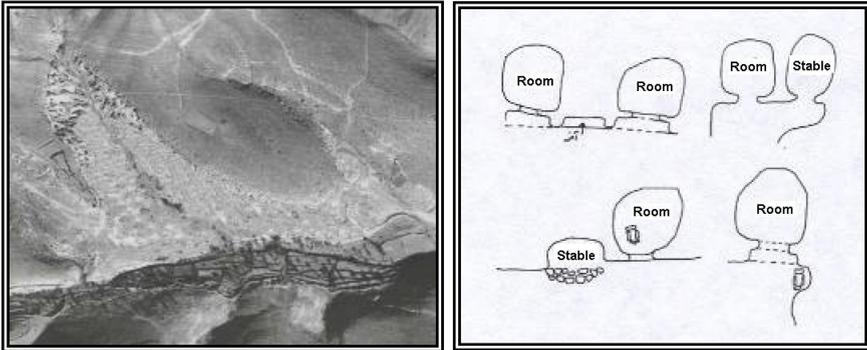


Figure 4: A view of Meymand and the pattern plan of the first stage of formation.

The second stage of formation: in this stage houses move toward the centre of the valley and they are formed in slighter slopes. House plans of this period move toward expanding and developing new space and single space is seen no more. The verandas' entrances also have a different form in comparison with those of past periods.

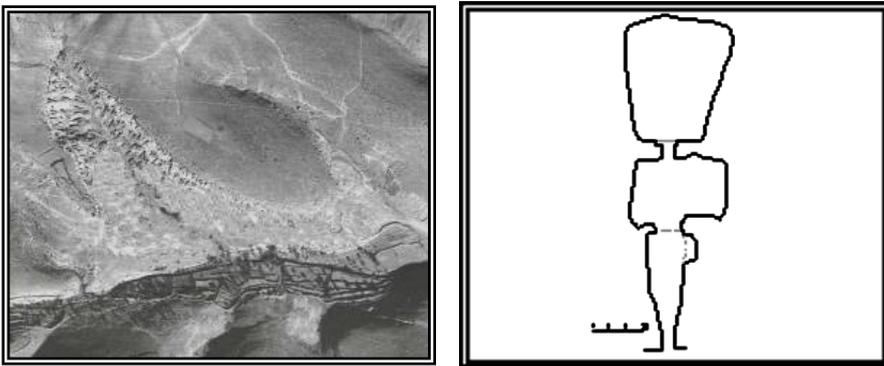


Figure 5: A view of Meymand in the second stage of formation and a pattern plan of houses in this period.

The third stage of formation: in this stage house plans evolved. Keeche is finding its true form. In this stage the horizontal formation occurs using Stone Revetment. Veranda gains a new concept due to the application of extended spaces. The formation of different districts in Meymand results from this stage since most of residential places of Meymand have been constructed during this period.

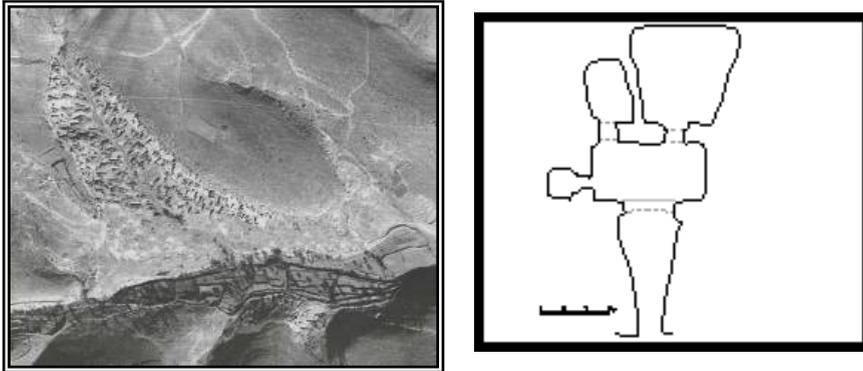


Figure 6: A view of Meymand in the third stage of formation and a pattern plan of houses in this period.

The fourth stage of formation: In this stage the houses are being completed and all elements and components of Meymand architecture that we know have been formed in this period. With regard to the knowledge of Meymand architects about the stones in which Meymand is formed and its load bearing, the spatial expansion and creating large spaces is related to this stage, but for climatic reasons the height of constructions is similar to that of pervious stages.

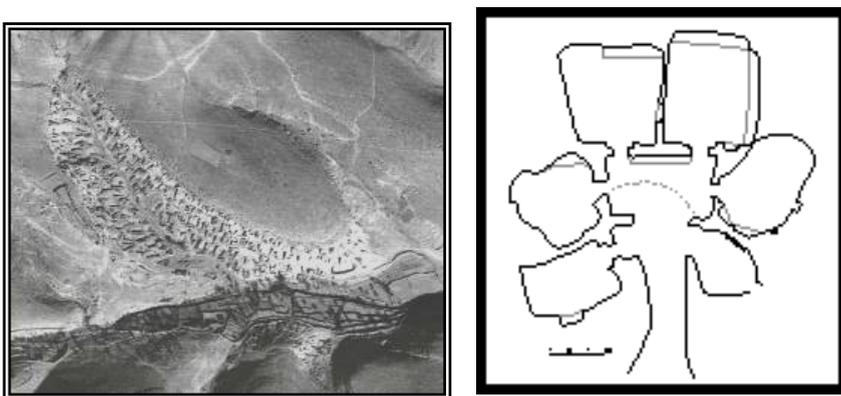


Figure 7: A view of Meymand in forth stage of formation and a pattern plan of houses in this period.

The fifth stage of formation: In this period, that is not very old, we can see the formation of a different and invaluable series of spaces on Meymand hill, and the main reason for this formation is the lack of living spaces in this period.

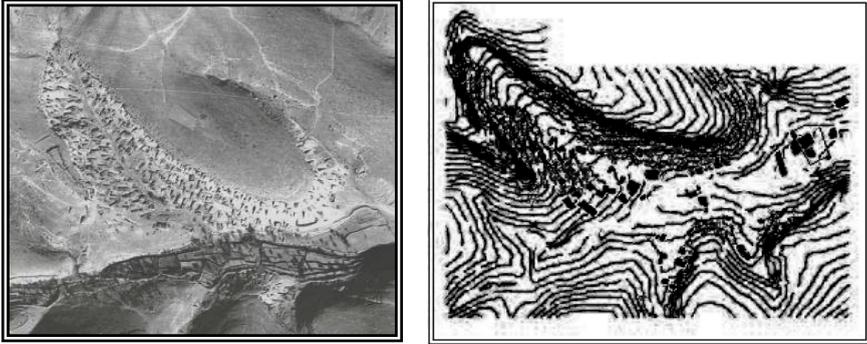


Figure 8: A view of Meymand in fifth stage of formation and the expansion of attached houses in this period.

Table 1: The results of introduction and recognition of the historical fabric of Meymand.

Backgrounds	Conclusion
The way of formation	Based on the ideology and insight of Meymand people, previous experiments and their initial lives as shepherds
The evolution and growth process of the historical area of Meymand	Meymand has been developed based on the basic needs of its people and it has had a continual growth that is observed in cultural and technological progresses made in Meymand peoples' lives. The nature of Meymand has been a main barrier to this progress
Introduction of the historical area of Meymand	The main part of Meymand consists of residential places with historical and anthropological values
Districts	The districts of Meymand have been created based on the dominant social classification of society and each stage of formation have been accompanied by the formation of one or more districts
Valuable characteristics	Valuable characteristics of Meymand fabric can be found in its architectural, anthropological and cultural values

1.2 Discussion

Such architecture shows the human challenge faced with excavating rock in order to create appropriate spaces. Excavated architecture does not use construction materials, it is formed in natural rock and is made of stone surrounding this negative space as a strong shell.

This form of habitat is not affected by environmental factors in the same way that more usual constructions are. May be the main architectural reasons that caused the formation of historical village of Meymand in are as follows:

- 1- The attempts made to create a shelter in the heart of a mountain through establishing negative spaces.
- 2- Resisting environmental factors through creating places with the minimal energy exchanges with outside.
- 3- Special topographic form of Meymand and the need for converting slope to a right-angled plane in order to create required spaces.

Table 2: The result of reviewing the geographical structure of historical fabric summing-up the characteristics of the geographical structure.

Cases	Conclusion
Earthquake	Meymand is located near two main faults and the possibility of an earthquake happening in this area is high. The strongest earthquakes in this area measure no more than 5.2 on the Richter scale. This area is exposed to relatively strong earthquakes.
Climate	This place is relatively cold since it is located in a mountainous area and this affects the architectural structure of Meymand. Rainfall is relatively low and is not sufficient for the wide agricultural areas of Meymand.
Other geographical characteristics	The winds blowing the area are dry. Its high altitude makes precipitation fall more in the form of snow. The formation of Meymand is highly affected by the type of its geographical bed.

The most important aspects of restoration and revitalization of Meymand are generally divided into two groups:

1. The structural potential of – architectural restoration of all residential units in the village of Meymand following common spatial structures and elements so we can provide a model and apply it for all units. Providing a model needs an accurate study of the architecture and realization of the damage to elements and of the architectural structure of single units. The damage to these spaces mostly follows a certain series of damage patterns and the most important damage resulted from being abandoned. Therefore, through the introduction of new and



appropriate life to these spaces we can stop the damage. The existing elements of architectural structure of the village can be revitalized by little repairing interventions such as rearranging the stone revetment elements of the floodway and stone walls. Also, we can replace the wooden elements such as wooden doors and their locks and the shade over verandas that have been damaged and worn out by repairing them in the professional workshops in the village itself. The best way to protect the spaces against water penetration is to clean superficial water passages.

Table 3: The results of the recognition of mould structure.

Cases	Conclusion
Dwelling and building	Dwelling still has its past concept in Meymand but after the revolution some constructions have been made using heterogeneous materials in Meymand fabric that should be removed. Such constructions should not be allowed in the future. In fact, dwellings in Meymand are losing some of their values because of being abandoned.
The quality of Meymand protection	Meymand protection consists of the natural factors surrounding it including mountains and rivers. Some old man-made walls need restoration and repair in order to preserve their values.
The network of passages	The network of passages is suitable for pedestrian only, rather than vehicles. There is no vehicle passage in the village and if any it should be eliminated.
The general landscape of Meymand fabric	The general landscape of Meymand is intact and it will benefit by the elimination of later additions

To make these old houses suitable for modern-day living and the culture of the village for a durable life, a comprehensive design for mosaic and the introduction of welfare facilities are needed. These simple interventions make the architectural space of single units suitable for the start of a new life.

2. The potential of revitalization of architecture and the structure of the fabric of the village. In order to introduce a new life into these spaces we have to respect its genuine and rich cultural past. This important social principle that Meymand has been a temporal and seasonal place for living should be considered in designing its architectural revitalization. Therefore, Meymand houses should be considered as a seasonal dwelling and its new application should be defined based on this fact. In addition to addressing the requirements for structural fabric of the village including appropriate removal of superficial water and creating suitable pedestrian traffic, the cultural and economical issues



should also be considered. The overall organization of Meymand fabric briefly needs following interventions: making some changes in the passages and in the central farms and gardens of the village; repairing the stone revetment; eliminating additions from the fabric; installing suitable underground facilities; organization of the central flood-way of the village; and designing a central channel for removing water.

The most important factor in revitalization and stable development of the village is providing an appropriate economic system. Here are some recommendations:

1. Reconstructing handicraft workshops such as carpet weaving, basket weaving and cloth weaving. These products, in addition to being used by the village, are also applied in decorating and repairing residential spaces of the village. All of the people who have emigrated from their village are professional in these fields and the reconstruction of these workshops may cause them to return to the village in order to provide an appropriate and stable economic system to make the village a comfortable and suitable place for new life.

2. Providing appropriate foundations for agriculture and animal husbandry of the village. With regard to Meymand's values and economic past, agriculture and animal husbandry are basic and inseparable part of Meymand culture and economy so anything that can improve and retain this economic system will be considered as an important factor in preservation and revitalization of Meymand. In addition to direct preservation of Meymand's ecosystem, one of the potentials of this village in terms of environmental issues is the production of energy in the village itself. The toilets available in all units can be used as energy sources. Their sewage and emitted gases as biogas can be used for heating Meymand houses.

The constant winds blowing through the heights around Meymand can be used to generate electricity using wind turbines. This is another potential of revitalization of Meymand. Some investment by government or private sector and attracting more tourists to Meymand is a great help for preservation and development of the village. Through an exact anthropological study about cultural issues and with the help of a strong cultural and economic base we can bring the cultural customs and behaviours back to the village to improve the tourism industry of Meymand.

2 Conclusion

- The most important way of revitalizing Meymand is to revitalize its economic structures.
- Tourism industry is one of the potential areas for Meymand development.
- Conservation of Meymand ecosystem and its surrounding environment is an essential requirement in Meymand revitalization.
- Fossil fuels should be replaced with modern systems of generating energy such as biogas and wind energy.



- Handicrafts and cultural customs and rituals of Meymand, in addition to attracting tourists, play an important role in cultural revitalization of Meymand.
- All the above mentioned cases along with the suitable restoration of architectural spaces and the elements of the village fabric can make this old place suitable for a modern life.

3 Recommendations

- After conducting this study about the revitalization and restoration of Meymand the following recommendations are made for stable development of the village:
- Restoring the economic structure to Meymand with the provided support by government in order to increase cooperation of its inhabitants
- Encouraging Meymand inhabitants to cooperate in the process of study and restoration of the village using sound management methods.
- Effective advertising and attracting tourists to introduce Meymand to world culture.
- Appropriate documenting and completing the file of this collection to be recorded in the list of international works.
- Defining a boundary to provide the best preservation for the village.
- Encouraging the owners of houses to return to the village and live there.
- Introducing fundamental and urban facilities to the village appropriately and as quickly as possible.
- Spreading the culture of restoration and revitalization throughout Meymand.
- Encouraging researchers to go to Meymand and make studies.
- Compiling and publishing the results of such research as a book and holding different meetings.

References

- [1] Homayoon, Gh., Meymand Knowledge, *Historical Investigation Magazine* (Chapter 1), Iran Archaeological centre, 1975.
- [2] Shahshahani, L. *Meymand's House*, Kermanshenasi Centre, prepublication copy, pp. 11-12, 61-63, 116-121, 2003.
- [3] *The Reports of Iran Documents Centre cultural heritage base*, Iran cultural Heritage, 2001-2004.
- [4] Hoseini, Z., *Shahr-e-babak The Land of Turquoises*, Kermanshenasi centre, ed 1, pp. 65-111, 2001.
- [5] Poorghorban, Sh., *Recognition, Archaeology Master Thesis* (Chapters: Analysis and Historical Studies), Islamic Azad University (Tehran Branch), 2001.
- [6] Mangeli, M., *Revitalization of the Rocky Village of Meymand*, The Master thesis on Restoration, Islamic Azad University (Tehran Branch), Chapter 5, 2005.

