The Analysis of Changing and Making New Functions and Usages in Rural Historical Textures with Sustainable Development Approach  
(Case study: Kahak village, Qom)

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Abstract
Sustainable rural development is one of the main aims of macro policies in each country and especially in Iran whether as a general concept which is in relation with different aspects of life of villagers or in relation with the environment. In addition to the architectural values such as purity and simplicity, anatomical texture of villages in Iran possesses dressy visual patterns, ergonomics, local material and science usage. According to the importance of sustainable development, this research analyzes the common problems on the path of the development of these villages, and tries to improve the economic cycle to achieve economic development. The location of this research is Kahak village in Qom province in 30 kilometers southeast of Qom. The placement of a highly valued building in this village, the house of Mullah Sadra, will urge to maintain and revamp this village in order to keep cultural heritages. Generally, the aims of this research in the field of study could be the analysis of nonagricultural employment in the rural areas, increasing the employment in rural areas, increasing the income of villagers from nonagricultural activities and possibility of fixing the population and reducing the rural-urban migration rate. The relation between local and heritage values with attracting the investments and tourism industry, preserving, and renovating this values are in the perspective to sustainable development. This research tries to answer this question that how management and programming of changing and creating new usages could help economic cycle and sustainable development.

Keywords: sustainable development, function development, Kahak village, Economic animation

Introduction
Due to the complicity in structural-functional aspects as well as the different beliefs and approaches caused by the different requirements in different societies, there is no unique definition for development accepted by all scientist and employers. Yet, experts are giving different definitions and descriptions for development (Hunt, 1997).

Analysis of dominant processes and trends in the aspects of dominant ideas of development in recent decades indicates an evolution in the concept of development. This procedure highlights the passing from traditional ideas to multi-dimensional interpretation and beliefs in the modern ideas (UNDP, 1994).

Development is a quantitative-qualitative procedure which affects social, economic and cultural aspects of the society and it will also include different levels of life. By the other words, development is a process by which a society will attain a better life condition from the qualitative point of view. The key elements of sustainable development are economical, environmental, social and cultural efficiency.

Rural development have been evaluated and also revised from multiple points of view but there is no consensus about the meaning and the territories of it. By the way, rural development
could be considered as a procedure of empowerment and reinforcement of living possibility with the context of life and environment quality, economic independence and efficiency, and maintaining and improving the quality of ecosystem. Nowadays, due to the fact that agriculture could not provide enough employment and salary for the rural population, tourism development could be considered as a new method in the field of rural development in order to create economic diversification and underlies new opportunities in rural areas including profitable employment in nonagricultural fields, increasing the income of villagers and decreasing the income gap between rural and urban places and reducing the rural-urban migration.

Unfortunately, Kahak village is dealing with the rural-urban migration like other villages in our country and the population of this village is reducing. Kahak village is place in 37 kilometers in the southeast of Qom city. The house of Hakim Mullah Sadra, one of the famous Iranian philosophers and theosophists is placed in this village that he had been living there around 1600 B.C.

Research question

How the plan of Mullah Sadra’s house could be used to organize and rate the houses in the neighbor in order to the employment of the villagers?

How it would be possible to offer the best new usage and function for the village in order to attract the investment by using the historical-cultural building of Hakim Mullah Sadra’s house and pure nature of Kahak village and also revamping the texture of the village?

Research method

The absence of a coherent plan for creating sustainable development factors that often arose from the clear indicators of sustainable development especially in our rural areas in the form of major challenge to face sustainable development often created an image in public mind that development is a conceptual word and also far from reality. It seems that by analyzing the challenges of sustainable development from the villagers’ point of view with recent circumstances, it is possible to show an intense image of obstacles on the path of rural development and find a way out of this. It would also show the concern of this issue to governmental and nongovernmental authorities.

The dominant approach of this research is descriptive-analytic. In this method all the information has been gathered from the written sources such as books, essays and magazines which are linked to the topic of this research. Then these data have been analyzed. In addition to this, residents, prefects, and rural administrators of Kahak village have been physically interviewed in order to analyze the abilities of the village for sustainable development. Also, by attending in multiple rural places of Qom province, field study method was applied in this research.

Sustainable development

Since 1980, the concept of sustainable development has been formed in the form of new tenets to remove the faults of overusing and wide use of industrial world from nonrenewable sources, high level of pollution in the environment, problems caused by industrial waste, immethodical rural-urban migration and emerge of unsustainable productive systems in the old tents (Pretty, 1995).

Sustainable development is a kind of development which meets the needs of present without compromising the ability of future generations to meet their own needs. From another approach, sustainable development has been introduced as a sort of activity which increases and immortalizes its historical commitments which are linked to general feature of life on earth (Bossel, 2007).
Concluding different definitions and interpretation of sustainable development shows that sustainable development is not a fixed and stable concept, but it is a continuous movement towards evolution by compliance and compatibility during which exploitation of the resources and orientation of technology development form in a way that could meet actual and potential needs of human. In this concept human is in the center of attention, this concept covers every aspect of human life (Adams, 1990). Therefore, the purpose of sustainable development is not only maintaining the environment, but it is a new concept of social and economic development which considers justice and life facilities for people all around the globe (Dixon, 1991).

**Principles of sustainable development**

In 1982 when the World Commission on Environment and Development (WCED) presented its report as “Our common future”, this commission tried to present the issues in environment from one side and aims of development from other side via defining the idea of sustainable development. This commission defined sustainable development as a development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Since then up to now, it has been insisted on three dimension of development constantly which including:

**Economic:** a sustainable economic system should be able to manage the production and distribution of essential goods for people without making any unbalance in a part which may cause any damage to industrial and agricultural productivity.

**Environment:** an environmental sustainable system should make a stable foundation for the resources. This system should also prevent the overusing of renewable resources by the system or environmental reductive functions and should avoid finishing nonrenewable resources. This system should try to optimize the investment on exploiting the resources. This affair includes protecting biodiversity, atmospheric stability and other functions of ecosystem that usually are not included in economic norms.

**Social:** a sustainable social system should be able to underlie the distribution of justice, providing suitable social services including training and hygiene, sexual equality and the possibility for politic activities and participations (Saeidi, 2009).

**Rural sustainable development**

The first aim of rural comprehensive development is to industrialize or develop the industries of that village. But, it should not be assumed that the aim of this development is to create and operate massive macro industrial units around the village, rather it is to rural sustainable development and expanding it. Of course, the procedure of industrialization in the villages should be operated in a way with no negative effect on other economical units. In addition to coordination with other economical units, this procedure should also consider the limited water and soil productivity and also rapid population growth which are main characteristics of arid areas and considering these factors this procedure should also increase the work force (Naraghi, 2001).

Limitation in water and soil resources and also rapid population growth are characteristics of arid desert regions of developing countries. With these circumstances, industrialization will be introduced as dynamic force of development (Kazemi & colleagues, 2004).

Since the agricultural sector for reasons such as lack of land, periodic droughts, changes in commodity prices, etc. is not able to respond to villagers’ income, thus we should looking for ways to increase income and employment for rural areas. The recent droughts, low level of development in rural areas, problems in the field of income and employment clarify the necessity of further investigation on this issue.
Nowadays, providing more facilities and services will not only prevent rural-urban migration, but also will intensify the rate of this migration. This rate will be reduced or will come to zero only when villagers would be employed and have income within the village.

**Kahak village**

Kahak is the center of one of districts of Qom province called Neauphle-le-Chateau, the distance between Kahak and the center of province is 37 kilometers in the south of the province. The history of district management in Kahak is 70 years old. Based on population this district is in the second place after central district. This district has two rural districts of Kahak and Fordo and also 18 villages. Kahak regional rainfall and humidity is high, almost cold, and it would have been lush and fertile region. Winters in Kahak are cold with good amount of snowfall and during the summers the climate in Kahak is more moderate than Qom. The height difference between the highest and lowest point in Kahak is 29.9 meters (Figure 1).

The closest weather station is located in the city of Qom which shows dry climate with average rainfall of 100 to 200 millimeters in a year and the maximum temperature of 39.8 centigrade in the August and the minimum of 0.6 centigrade in the January. The average of relative humidity is 41.5 percent, this mount is 75.2 percent during January at the highest point and lowest point of 17.1 during July. The maximum of frost days in each year is 38 days. Only with one visit from this place it can be understood that the climate of this region is not comparable with Qom.

![Figure 1. Houses of Kahak village(source: author)](image)

**House typologies of Kahak village**

Conducting plan (Tarh-e-Hadi) of Kahak provided by Islamic revolution housing foundation could be analyzed from two aspects, first, studies and second, designing and decisions. In the study level, issues are analyzed logically and finally general and suitable overlook from the situation of Kahak is attained. Regarding the identification and legislation, issues are analyzed very surficial, the index rate is unsuitable. For example, all the buildings which are made of material not including bricks and beams are marked as damaging buildings and consequently, this design will lead to damaging the buildings and original places of Kahak.

In the study section, location of buildings in Kahak is 15 degree rotated to north-south axis, also three types of building are reduced which are classified as aged, half aged and new. Type one plan with almost 90 to 100 years old has the average area of 132 square meters, this pattern includes four rooms which are on the both sides of a rectangular space and the building is introverted and opened to a yard which is located in the south of the building. Schematic analysis of the plan resembles the four alcoves of Mullah Sadra’s house (Figure 2).

In plan type two with 20 to 60 years old has the average area of 99 square meters which are considered as new houses of Kahak. The form of these building includes a series of rooms which are
in a row that open to the balcony. This kind of formation is also seen in the houses which are adjoined to Mullah Sadra’s four alcove house (Figure 3).

![Figure 2. Plan type 1 of houses in Kahak (source: author)](image)

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Type three with the average area of 103.5 is considered as a new type of houses in Kahak. The form of them is like any other houses or even apartment all over the country. This form of houses is common these days and there is no sign of original architecture in Kahak (Figure 4).

![Figure 3. Plan type 2 of houses in Kahak (source: author)](image)

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![Figure 4. Plan type 3 of houses in Kahak (source: author)](image)

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As it seems in the conducting plan of Kahak, although the development plan of this city does not follow any deep and organized study, for some reason it is intensely influenced by the architecture of Mullah Sadra’s house:
- One of the main access routes leads the city square to Sadra complex.
- In the conducting plan surrounding space of Sadra complex will be used with cultural and social function.
- Eastern side of the complex is defined as Caravan-Sarai which insists on the Mullah Sadra’s house as a tourist attraction.
- Two first types of residential units of Kahak are highly influenced by the architecture of Mullah Sadra’s house.
- All of these factors provide promising achievement for developing Kahak in social, cultural and specially tourism industry particularly for the existence of Hakim mullah Sadra’s house in Kahak.

As it was mentioned before, Kahak was shaped with different natural context from its adjacent cities such as Qom and Kashan. The climate of Kahak is moderate. Kahak due to its place in the middle of the nature has multiple environmental potentials which could be useful in developing the city with further studies by the authorities. Thus, by analyzing and studying these potentials it is possible to use them to develop the city and prevent the damage of historical places of this city.

**Kahak architecture**

A small city located in the best region which is filled up with architectural monuments and even ancient hills surely could not be short of history. By a short visit from the Kahak we find out that there are suitable places for residence and also there are hills which will end in precious results if they are excavated. One of the monuments which will attract you as you enter Kahak is a guiding tower which is located on the left side of the road over northern mountains of Kahak.

From other important monuments of Kahak is the Grand Mosque of Kahak which is located in the center of the old place of Kahak. This mosque is formed of a huge Chahar Taghi that with 45 degrees rotation it had been lined with Kiblah. According to multiple rows of Qanat in this region, the existence of a cistern is obvious.

![Figure 5. Location of monuments in Kahak, 1-Grand mosque, 2- Safavid cistern, 3-New cistern, 4- Tomb of Chahar Emam Zadeh, 5-Mullah Sadra’s house, 6- Assari(oil workshop), 7- New mosque (Source: cultural heritage administration of Qom)](image1)

![Figure 6. Scattering of monuments in Kahak (Source: cultural heritage administration of Qom)](image2)
One of the indicating cisterns of Kahak which is not damaged yet is close to the Grand Mosque. This cistern like so many other monuments suffers from lack of attention. This building is being used as powerhouse for the mosque. Another cistern which probably is a revamp of an older cistern is in the center of the Kahak. Due to putting an electric pump in this cistern, this one also is in a bad condition.

Other important monument is a house located in the center of a garden which is called the house of Mullah Sadra. This house is formed of four alcoves and other attachment which were installed through different time periods and lead to serious changes in the body of the house. There is a building next to this garden which is called Asaari (oil workshop). This building has noble and original architecture and oiling tools can still be seen in it. In another part close to the garden there is a small mosque. This mosque has a Chahar Taghi like the Grand mosque of Kahak and rotated toward Kiblah.

In general, many houses still remain intact in the old Kahak. However, the feeling that visitors could feel 20 years ago is faded. Regarding to the rapid damage to the original place which is continuing now, in the near future there would be no sign of a village which once reminds the visitors of old Isfahan.

Mullah Sadra
Ṣadr ad-Din Muhammad Shirazi, entitled to Sadr-ol-Mote’allehin known as Mullah Sadra who was one of the greatest Islamic philosophers and world greatest scientist in the field of transcendent theology. Though not its founder, he is considered as the master of the Illuminationist school of Philosophy. He was born in 1572 B.C in Shiraz. During his precious life, he had traveled 7 times to to Haj, he passed most of them with bare feet. In his seventh travel, he was diseased and died in the age of 58 and some say 70 in the city of Basra and was buried there (Khamenei, 2001).

Mullah Sadra learned Jurisprudence, self-scrutiny and interpretation of Quran from Sheikh Baha’ ad-Din al-’Amili also known as Sheikh Bahai. He also learned theology and theosophy under the supervision of Mir Damad. He learned analysis and science of nations from Mir Fendereski. Regarding to vast domain of studies, Mullah Sadra was a source of deep influence on his future history. (Mahdavi Zadegan, 2008). The effects of a mighty philosopher and theologian such as Mullah Sadra are still alive and current in the world of Islamic science and theosophy. His works put any deep thinker to joy and admiration.

Result
According to this principle that Qom is one of the largest centers in Iran and the Muslim world for religious studies, and the fact that teaching philosophy is somewhat obsolete, considering the philosophy teaching center in Kahak district near the city, on the pretext of great celebration to the official Islamic philosopher, thus, they would make this region as a pole for philosophic and religious studies.

During his life in Kahak, Mullah Sadra achieved his highest spiritual and theological position. In a way that he wrote his marvelous book named “Al-Hikma al-muta’aliya fi-l-asfar al-‘aqliyya al-arba’a” during his life in Kahak. Doubtlessly, pure, green and serene nature of Kahak in the middle of the desert had its impact on his development. For this reason, using this divine gift to provide a relaxed environment far from the bustle of modern cities in order to philosophical teaching and studies will be worthwhile.

Regarding that the studied space located in the vicinity of many historical monuments of Kahak, attention and organizing Sadra historical complex and its development as a learning environment can bring these neglected works to the center of attention.
Kahak quiet and beautiful nature, greenery, fresh water for drinking and irrigating farms with water having higher quality of drinking in the city of Qom, have made a fun and beautiful promenade place for residents who are near. But developing Kahak as an educational, historical and amusing center would help to develop this city as a tourist attraction which leads to attracting investment.

Neglecting this district by authorities and managers caused the residents to immigrate to close cities such as Tehran, Qom and Saveh. Making new functions in a level higher than the region during construction and utilization will lead to employment and economic growth and also cycling investments in this region.

The short distance between this district and Qom motivates the students of religious and philosophic studies to be attracted to this city. This center could provide a background to challenge modern religious and philosophic teaching because this center would exclusively focus on philosophic debates under the influence of suitable architecture.

One of the ways to achieve economic stability in the village is to attract tourists, the greatest impact on human resources in addition to the economic benefits of tourism on local business (Creating traditional cafes, restaurants, guest houses and shopping centers for rural products and crafts) and also boom and rising in the price of lands and rural homes would be creating more employment opportunities for rural people especially in service to tourists units.

Also, by rating historical houses (houses that have similar patterns of Mullah Sadra's house) which are categorized in the plan type 1 for the houses would prevent the further damage and erosion to them and also the revamping process would be operated. In addition to daily life in these houses, a part of them could be devoted to tourists for visiting and residence. This will seriously help to attract tourists

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