Geotourism of Anthropological Works of Central Plateau of Iran

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Abstract
The dynamics of the past and the history of every country represents the dynamics of its nation. Geological heritage is also a component of every country's geological history that has given to that location a specific characteristic and identity. Aiming to excursing, visiting and watching a geological appeal, geotourism focuses mostly on the phenomena causing these forms. In geotourism of anthropology the fossil of human being who is vertebrate, its evolution, its kinds and its relationship with other human species in different locations are of importance. Prehistoric human challenges are explained also in geotourism. In this regard, the prehistoric anthropological art and works in two parts of the cave art called petroglyphs on the one hand and the human fossil being vertebrate on the other is important. Since the central plateau of Iran, because of existing the splendid geomorphological, geological, social and cultural heritage of the planet Earth, has a good potential for studies of the anthropological works, this research citing library and field studies, deals with introducing the most important geosites of anthropological works of the area under study. The purpose of this study is to attend to the neglected geotouristic capabilities of the central plateau of Iran.

Keywords: Anthropology, Geotourism, Geosite, Rock Art, Central Plateau of Iran.

Introduction
The role of the tourism industry and its integration with geographical and geological sciences in economic, social and cultural improvement, promotion of peace, identification and preservation of cultural and natural assets as well as their location is evident. Geotourism as an attractive sub-field of naturalistic tourism calls tourists to visit geosites with a focus on inanimate nature. Geosites include appeals such as the geomorphological, geological, anthropological and mineral phenomena and the troglodytic and natural settlements. Geotourism of anthropology was created after a development approach to the discussion of the vertebrates and geological fossils and its generalization to human evolution processes (Dowling and Newsom, 2006). The original location of the human Geotourism tours is some mines, caves, petroglyphs as prehistoric art. Next to the attention to works and fossils as residues of the geological sediments, other informative and exciting additional issues are raised that they have given historically and culturally an increasing importance to some geosites (Nekoyi Sadri, 2009). Natural situation and specific geographical conditions of the plateau of Iran have caused Iran to be one of the first prehistoric human habitats; because of its geotouristic appeals it has attracted the attention of many researchers, tourists and enthusiasts to study. From the historical perspective, the first human communities at Iranian plateau have been formed in those environmental departments which has allowed nature. Accordingly, in this research we dealt with studying the anthropological works around prehistoric caves, petroglyphs and human fossils discovered in the geosites of region under study; with mapping location we proposed some recommendations in order to exploit better and worthy these geotouristic appeals.

Opinions & Theoretical Framework
The topic of Geotourism includes a range of definitions. The first definition of Geotourism was proposed by Hose in 1995: "Geotourism is the supply of services and interpretative facilities in order to enable tourists to obtain knowledge and understanding of geology and geomorphology (along with their participation in the development of Earth Sciences), beyond understanding the sheer beauties of the place." Steve et al
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(2002), have given a very vast definition of Geotourism, including geographic, economic, social and cultural contents which fall under the geographic tourism. From the viewpoint of Fery et al (2002), the Geotourism is accepted in a level of recreational and social development relying on geopark thinking. Newsom and Dowling (2005), have defined Geotourism as the geological tourism and considered the land to be associated with the natural perspectives and forms available on the ground level that includes layers of fossils, stones and minerals, along with understanding the processes generating and shaping these effects. The target locations of geotourism are mostly the Geotops or geographical phenomena (Ghazi & Ghadiri, 2011). In this sense the Geotourism encompasses the biodiversity, cultural diversity, beautification, society-based tourism and even the local foods movement and similarity is considered as its "enemy". Accordingly, Geotourism is a combination of geography and tourism (Maher, 2007) and its mission is to protect the geographical identity of the tourism destinations; this identity includes all human and natural issues that distinguish a place from the other (Steve et al, 2002).

**Geosites**

Geosites are symbols of inanimate nature and every phenomenon that is suitable for putting geotours on line such as a cave, a crater of volcano, an abandoned or extracting mine, artificial and troglodytic rocks, etc. equipped with tourism infrastructures is regarded as a geosite. Another word that is used instead of geosite is German word Geotop (Sturm, 1994). Geosites are divided into two General groups: primary geosites and secondary geosites.

A) Primary geosites

They have special geomorphological and geological forms (both natural and artificial) that have outcrop within the delimited bounds in the open areas are and are locally of importance because of the scientific, educational and interpretative value (Hose, 2003).

B) Secondary geosites

Other geotouristic places like Earth Sciences Museums and the library collections, the geotouristic visit Centers in closed spaces, famous geologists’ residence Museums, exhibition of tableaus and portraits special for declaring events and the monumental locations of events of past history of geology are secondary geosites (Haj Aliloo and Nekouy Sadri, 2011).

It should be noted that geosites are not alone able to flourish Geotourism, but are in need of preparing the ground along with the tool to interpret location and peripheral activities such as training, use of multimedia etc. The central plateau of Iran has been located in latitude 32 ° and 36 ° and 48 minutes North and longitude 49 ° to 55 ° and 40 minutes East. Its Northwest limit covers the Qazvin plain, the North-East limit Damghan, South-West is limited to Kashan Silak and South-East covers salt desert. Picture 1, shows the map of area position under study.

![Picture 1: Position’s map of the central plateau of Iran](image)

The central plateau of Iran, part of the geological zone of Central Iran. Based on Aghanabati’s theory (2004) a vast part of Iran between two sutures of paleo-thety (in the North) and the young thety (in the South)
can be supposed to be named the “middle Iran”. The full similarity of Precambrian-Paleozoic stones of Middle Iran with those of South Iran (Zagros of Saudi Arabia), identity, tectonics as well as the existence of ancient magnetic data indicate that the Middle Iran and South Iran were one platform since the posterior or triassic Precambrian time (Laparent, 1972 & Stoklin, 1977); however, from the late Paleozoic period, following the generation of primary Cimmerian tectonic movements, these two regions were isolated and whereas sedimentation in the Zagros was continued slowly, the Middle Iran was constituted as a tense region in the Northern main thrust of Zagros.

Discussion
Studying anthropological works depends on anthropology. However, the bio-anthropology is the study of human biological and physical characteristics. In these studies the focus is on fossils and resides of the earlier cultures. In geotourism of anthropology the fossil of human being who is vertebrate, its evolution, its kinds and its relationship with other human species in different locations are of importance. In this type of tourism the geosites are the center of attention and the main axis of geotouristic tours. In terms of teaching the visit of the geosites enables the tourists to understand the change and repeat cycles in the past and predict the future trends. One of the most attractive geosites is the anthropological works geosite and since the central plateau of Iran is considered as the origin of the Iranian ancient civilization we introduce the appeals of this area.

Paleo-anthropological Geosites of central plateau caves of Iran
The caves as the first human shelter have been the places of supplying water and food and amazing places. Some caves also provide an important information on the primary evolution and progress of human ancestors and the environment of our grandparents. The caves are important in respect of the human fossils there and having some signs of human ancestors from generations. In the cave of Hoto in Mazandaran there has been found a skeleton of a Mesolithic woman and two children. One of these skeletons that belongs to 1500 to 6135 years before Crist, is the oldest work that has been known to belong to Neolithic period. Date of residence in this cave is related to epi-Paleolithic era and about 12 thousand years ago. This cave was drilled in 1951 by Professor Carleton Steeven Con of University of Pennsylvania; there were obtained some valuable findings related to Iranian prehistoric period (Haj Ailiou and Nekoy Sadri, 2011). This cave is capable of being a natural and cultural geosite and an anthropological geosite. Archaeological excavations indicate a more ancient civilization in the Iranian plateau. For example, in the areas of Kermanshah and Lorestan (like areas of Halilan and Pol Barik) three stone hand axes have been obtained; their age amounts to one hundred thousand to seventy-five thousand years ago. In 1976 in area of Minab, also there were found some works of axes of quartz and radiolarit belonging to the Paleolithic age (Amirlou, 1986). In the central plateau of Iran, there are ancient caves like the Kurd Castle and Abbas Abad caves of Buin Zahra of Qazvin province, the Darband cave of Mehdishahr in which has been found some biological works and murals, but there has been not yet done archeological excavations of dating methods in these areas. Given that the caves are among the important geosites in holding geotours, the necessity of considering archaeological studies are important.

Geosite of petroglyphs in central plateau of Iran
Petroglyphs are a group of archeological works that fit into a great collection called as rock art, including any human work that is implemented on natural stone, from the prehistoric paintings on the wall of caves to petroglyphs that are the carved works on stones and rocks released in nature. This images are first-hand documents that make researchers familiar with the cultures of different climates and times; they speak through images and signs that has been often the same in all the time and place for all nations of the world (Naseri Fard, 2007). Petroglyphs were found in all continents except Antarctica which in ancient times was never been a location for human life. For this reason petroglyphs are world art that with the beginning of the sedentism civilization, the formation of larger communities and the beginning of agriculture are the first signs of human need for script and communication signs (Amin Tafreshi, 2004). Petroglyphs grounds are the stone books whose writers and artists have spoken and illustrated their life and even their own climate through them, in different periods when the human being has not still certain language and script (cave-swelling era). Their number only in a limited region in Iran amounts to more than 21 thousand cases that
life of some of them is forty thousand years and the human has so far failed to uncover any human historical and artistic phenomenon with this age (Atayi Fard, 2010). These rock motifs are the stone Museums that affect strongly every gifted visitors. How the people who had not any reading and writing literacy, have created art with such precision and elegance (Farhadi, 2008). These images include the shapes of ibex, types of animals from birds and deer to ferocious animals, hunting scenes, championship battles and the mysterious signs like silver circles, single triangles and sand clocks, cross - circles, symbols of sun, dotted lines and successive small holes that are famous as symbol cups. The ibex that is main motif of the petroglyphs and earthenware of the Iranian plateau and Mesopotamia, is known as symbol of growth and fertility of nature and carving it can be because of request of rain, the end of winter or Thanksgiving. Some motifs may show the geographical directions, calendar, or the celestial bodies. For the sedentist man who has tended to agriculture, these are serious needs which have been not felt in the Paleolithic period. Some motifs may also show the road maps or the milestone boards, or the territory borders among the tribes. But some of this rocky habitats represent clearly the scene of an event or ceremony. The front Cups are the most ancient and the most extensive existing works in the midst of petroglyphs of Iran and the world which they have been used in order to get the plant extracts like haoma and grind the dry stalks of plants, cereals and pulses. In the study area of the central plateau of Iran there are found also petroglyphs in areas like Shahriar, Qom, Damghan and Barzok of Kashan. The Pictures 2,3 and the map of Pic 4, show the position of these geosites.

![Picture 2](image-url)

Picture 2: Petroglyphs and front Cup, mount of Chehel Dokhtaran Rashm of Damghan

![Picture 3](image-url)

Picture 3: Petroglyphs, at Right and left of Kahak of Qom and at down side of Karaftlou of Shahriar,
Cultural and historical works related to rock art and the attractions of inanimate nature integrated with each other in a geosite create a desirable geotouristic destination. Petroglyphs within the bounds of geoparks give also a double value to the cultural and natural heritage and geoparks of an area, so that in zoning some geoparks in the world, the petroglyphs adds to the importance and value of the bound (Schneider & Schneider, 2006).

**Geotourism and human fossils**

One of the most important fundamental human issues of anthropology in Geotourism industry that has been attracted attention of the public, is surely to understand the roots of his primary race. The human is biologically a mammal and vertebrate animal who falls under the order of primates. Also the primates have been separated from insectivores. The initial impression of the similarity of the human race and monkey created controversy in the West in 20th century. In order of primates the human or anthropomorphic big monkey have common properties such as height, lack of tail-form outgrowth, walking on two feet, hands, brain high growth and dentition. These similarities is so real that in diagnosing fossil bones, especially if these bones are incomplete, the mistake is inevitable (Sadeghi, 2004). Identification and simple explanation of stories of each location are undertaken in the first place by geologists with the main subject of anthropology and use of archaeologists' reports. It is evident that these exciting scientific stories will be different from one location of other. With the help of audio-visual tools and guidance of Geotourism established in geosite the descriptions are given to people. This field has its interested persons who spend their life in making correspond the human fossil in various parts of the world and promoting the science of fossil of vertebrates and help also in this way to archaeologists (Haj Aliloo and Nekouyi Sadri, 2011). Human fossils in Iran called the salt-men that have been obtained from Zanjan Chhrabad salt mines, are noteworthy. In the archaeological hill Aristotle of Malard, while excavating a Mummy corps was gotten that has been mummified with ochre (Porfaraj, 2011).

**Conclusion**

Due to the multidimensional features of Geotourism, studying inanimate natural environment in order to create geotouristic tours has different dimensions and kinds. One of the most attractive parts of the studies is to investigate the anthropological effects in geosites. In this research, the geosites of caves, petroglyphs and human fossil were studied in the central plateau of Iran. Study and visit of geotourists of these tourism attractions accompany with information such as familiarity with the history, life style, social historical events along with very valuable geological and geomorphological information. Paying attention to these geosites and organizing and planning educational and research tours are part of effective measures for
enhancing the attraction of locations. In order to interpret, express and guide the tourists of geosites having anthropological effect in the central plateau of Iran, paying attention to the following work proceedings is effective.

- Information boards based on the geological, geomorphological, social, and cultural biography and history specific to each location should be prepared and installed in the geosite.
- Geosites in visiting should provide (not merely commercial and promotional) information brochures of the location and in the meantime give complete oral descriptions on finding reputable and trained guides to visitors.
- Cooperation of local media in the information about the geomorphological, historical, cultural and human heritage position.
- Cooperation between local people and trained groups as the activists in the field of showing and expressing local culture and heritage.
- Visitors should be given some teachings in connection with the natural and cultural attractions, local history, etc. through which cooperation comes to existence in order to protect the environment and create significant relationship between the local inhabitants and visitors. The information supplied to visitors should be accurate and transparent and introduce them the location clearly. Holding regular planned lectures, displaying educational tourism videos, installing information boards about nature and historical course of the region and other valuable information about the area are recommended.

Another recommendation is to teach the geotouristic concepts in the bounds of geosite using the map, Seminar Hall, display etc. for different age levels and create exciting stories in connection with the geomorphological and geological biography of geosites.

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