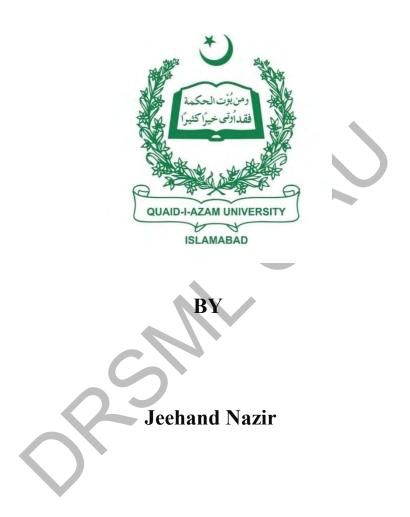
The Ancient Cave Settlements in Balochistan with Special Reference to the Gondrani Rock Cut Caves of Lasbela



QUAID-I-AZAM UNIVERSITY TAXILA INSTITUTE OF ASIAN CIVILIZATION ISLAMABAD-PAKISTAN 2022

FORMAL DECLARATION

I hereby declare that this is my own work without anyone else help except those mentioned here.

This work has not been submitted or published for any degree or examination in any other university in identical or similar shape. Where I have consulted the work of others, this is always clearly stated as complete references

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Jeehand Nazir

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DEDICATION

| The thesis is dedicated to those people who ha | ave preserved the unwrite | ten history in oral form. |
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|--|---------------------------|---------------------------|

CERTIFICATE

It is certified that an M.Phil thesis entitled "The Ancient Cave settlements in Balochistan: Case study of the rock cut caves of Gondrani, Lasbela" is done by Jeehand Nazir has been found satisfactory for the requirement of the degree.

Dr. Ghani-ur-Rehman Supervisor

ABSTRACT

Lasbela district is rich in archeological remains in Balochistan, Pakistan. There are many archeological sites that have been excavated during the British period in Lasbela by British archeologists. This research is focusing on the rock cut caves of Gondrani in Lasbela. The Gondrani caves are located at a distance of 20 km from the ancient city of Bela in South western district of Lasbela in Balochistan and 218km away from the Karachi city. There are many names which are used for the Gondrani caves such as Shehre-e- Rohgan, cave city of Gondrani, House of spirits, and Mai Gondrani. This research study has discussed the commonalities and differences between Gondrani caves and other caves of Pakistan; the myths associated with the Gondrani caves; the architectural description of the Gondrani caves; and the possible steps that could be taken to preserve the archeological site of Gondrani caves. The data has been collected using systematic archeological survey of the rock cut caves of Gondrani, Lasbela. In this method first the caves site has been mapped then a site-to-site survey has been conducted about the rock cut caves of Gondrani, then the data has been collected from unexplored rock caves. The interviews of the caretaker of the shrine located in the Gondrani cave have also been conducted to understand the myth associated with the cave. During the field work no evidence has been found such as chopper, flake, blade, and hand axe which are usually found in the cave settlement of Pakistan. The Gondrani caves are different from other cave settlement of Pakistan because it is human carved cave as compared to the natural cave dwellings found in other parts of Pakistan. Many of the caves have been destroyed due to the flooding and changing climatic conditions.

Key words: Gondrani caves, Paleolithic period, hearth location, Lasbela, Flake, blade, chopper

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Chapter 1

Introduction

In Balochistan province, the study of the Paleolithic period in archeology is an underexplored area of study. Most of the archeological studies have been conducted on the Neolithic period in the region of Northern Balochistan (Kakar, 1992,36). In the region of Lasbela district of Balochistan, the Italian archeological missions have conducted extensive field work in the coastal regions. However, their study also lies within the Neolithic period (Biago 2011; Biago, Girod, and Nisbet 2013; Biago, Fantuzzi, Franco 2013; Biago, Girod, Nisbet 2014).

The upper Paleolithic age is known by the development of the tools, skills, and the cave art. The tools of the upper Paleolithic period comprised of blade, flake, axe, chopper (Sheikh et.al, 2002; Dani, 1963). The cave art during the upper Paleolithic period comprises of the hunting expeditions and the daily activities of the people at that time. There are seven caves in the world that are famous for the cave art that are: The Altamira cave painting, Spain; Lascaux, France; The Apollo 11 Cave stones Namibia; Kakadu National Park, Australia; The Lower Pecos Rock Art in Texas and Mexico; Cueva De Las Manos, Argentina; and Sulawesi and Borneo, Indonesia (Keily, 2022).

There are lot of underexplored sites in the Balochistan region that belong to the upper Paleolithic period. The upper Paleolithic period starts from 30000 BC to 12000 BC. There are caves in the region of Marri, Kalat, Zhob, Koh-i-Suleiman, and Lasbela in Balochistan which is estimated to belong to the upper Neolithic age. However, no such explorations have been attempted in the previous literature.

Explored cave sites in Pakistan

| Sr. | Name | Location | Age/Period | Evidences found |
|-----|-------------------|---------------------------------------|---|--|
| 1. | Kashmir Smast | Katlang Valley, Mardan, Pakistan | 4 th century A.D to 9 th century A.D | Bronze coins. Natural limestone caves |
| 2. | Lahoot Lamakan | Lasbella, Balochistan | | Limestone |
| 3. | Sanghao caves | Foothill separating Mardan and Buneer | 6 BC to 4 BC | Blade, Flake Quartz |
| 4. | Rohri Hills | Rohri, Sindh | 30000 to 12000 BC | flint and chert tools Limestone, Axe, chopper, cleaver |
| 5. | Kai Caves | Sehwan Sharif, Sindh | 3300 BC- 1300 BC | Ceramic Earthen Ware |

The study of the upper Paleolithic age has been conducted in the context of the Pakistan level study in which the earlier human traces have been traced back to the Paleolithic period when the primitive stone industry came into being. Fazal Dad Kakar has written that,

"It is relevant to note that the Potohar region and Soon valley of Pakistan is the site of the discovery of the fossil remains (Miocene Period) of distinctive type of small ape like creatures, the so called "Ramaphithecus" as the common ancestor of all the fossil species of manking" (Kakar 1992, 36)

Ramapithecus is considered as a fossil ape from the Middle and Late Miocene epochs (about 16.6 million to 5.3 million years ago). Ramapithecus was initially believed to be a separate genus that was the earliest direct progenitor of homo sapiens (Homo sapiens) before it was accepted as the orangutan ancestor Sivapithecus throughout the 1960s and 1970s. The first Ramapithecus fossils, including pieces of an upper jaw and a few teeth, were found in northern India's Siwlik Hills in 1932. Before 1960, when American archaeologist Elwyn Simons of Yale University started researching them and putting the jaw parts together, those fossils had little importance. Simons advanced the hypothesis that Ramapithecus marked the first stage in the evolutionary split of humans from the common hominoid stock that gave rise to modern apes and humans based on his studies of the shape of the jaw and the morphology of the teeth, which he believed were transitory between those of apes and humans.

David Pilbeam, an American anthropologist of English descent, a student of Simons', provided substantial support for his idea, which quickly acquired widespread acceptance among anthropologists. The fossils' age (about 14 million years) was consistent with the then-dominant theory that the ape-human separation had taken somewhere around 15 million years prior. American anthropologist Vincent Sarich and American biochemist Allan Wilson, who were

conducting research on the molecular chemistry of albumins (blood proteins) in different animal species at the University of California, Berkeley, presented the hypothesis with its first major test in the late 1960s. They came to the conclusion that Ramapithecus must have evolved considerably later than the ape-human split. It is currently believed that the final separation occurred between 6 and 8 million years ago (Wolpoff, 1983).

Anthropologists first rejected Wilson and Sarich's claim, but mounting biochemical and fossil data supported it. Finally, a whole Ramapithecus jaw was discovered in 1976 by Pilbeam not far from the original fossil find. This jaw had a characteristic V shape, which was very different from the parabolic shape of jaws found in members of the human family lineage. He soon abandoned his conviction in Ramapithecus as the origin of humans, and by the early 1980s, the notion had been completely disproved. After Ramapithecus remains were discovered to mirror those of the fossil ape genus Sivapithecus, today thought to be the ancestor of the orangutan, speculation emerged that Ramapithecus should likely be classified as a member of the Sivapithecus genus.

The fossils of the Ramapithecus has been discovered in the region of Kenya and China which resembles the fossils that have been found in the region of Soan valley civilization in Pakistan. The age of these fossils have been estimated to lie from 8 to 14 million years. As a result of this discovery the archeologists argue that the transition from ape-man to Homofaber took place in the early phase of the Pleistocene period that is 2.58 million years ago. The fossils that have been found in the region of Tanzania and Kenya also resemble to the fossils that have been found in the Soan Valley civilization. Literally, the word Homofaber means the man maker in Latin where Homo means man and faber means make. This is the later stage in the evolution of the

human after the Ramapithecus. Homofaber were able to control their environment and their destiny (Kakr, 1995).

Hence, in this manner, the tool construction is considered to be initiated by the Homofaber during the Paleolithic period. The beginning of the Paleolithic Period has long been seen as occurring at 2.58 million years ago, at the start of the Pleistocene Epoch, when Homo first produced and used tools (about 2.58 million to 11,700 years ago). The Paleolithic Period is often divided into three parts: Lower, Middle, and Upper. Traditional divisions of the Lower Paleolithic include the Oldowan Stage (between 2.6 million and 1 million years ago), when pebble (chopping) tools first appeared, and the Acheulean Stage (between 1.7 million and 1.5 million years ago to between 250,000 and 200,000 years ago), when more advanced hand axes and cleaving tools first appeared. The Mid Paleolithic, which spanned from roughly 250,000 to 30,000 years ago, was characterised by flake tools and the extensive use of fire. The Upper Paleolithic, during which more advanced tools first appeared, lasted about from 50,000–40,000 years ago until 10,000 years ago (Stutz, 2018).

The upper Paleolithic period or the Gravettian or Magdalenian age is considered as the age in which the humans started not only to make use of the stone rather they also started to use the bone, autler, and ivory. The humans at this point in history also started to use bone, ivory and stone not just for the sake of making tools out of it rather they also started to do artistic work on it. The rock art thus emerged during period. They started to represent the hunting expeditions and their daily lives activities in the form of the cave art. The province of Balochistan in Pakistan contains lot of ancient rock shelters that might also contain the cave paintings and engraving that might belong to the Gravettian and Magdalenian age. These people were nomadic and they usually took refuge in the rock shelter or caves during the winter season while in the summer season they

usually involved in hunting the animals. These people used their spears and traps to hunt animals. Similar rock shelter or cave art was also found in the south western Dordogne Valley of France. It is estimated that during the years 22000 BC to 18000 BC in the upper Paleolithic period, the cave art in France achieved progress. Fazal Dad Kakar (1995) have conducted archeological excavation of different caves of Balochistan. He argues that the rock and cave art that has been found in the Balochistan is comparable to the rock art of the France and Cantabarian Mountains. In this manner, it could be seen that Pakistan belongs to the ancient traces of the human culture emerged in the upper Paleolitihic period (Kakar, 1995).

Hence, in this manner it could be speculated that the earlier human species lived in the region of Potohar and the Soon valley. The transformation of the earlier human being into the Homofaber also took place in Potohar and Soon valley. It is evidence that the people lived in this region during the Pleistocene period (about 2.58 million to 11,700 years ago).. Moreover, the earlier form of stone tools has also been discovered during the excavation in Potohar and Soon valley. Hence, the earliest human culture was also began to develop in this region. In the context of Balochistan, the hand axes were found that belong to the Kout Moudhai in 1899; Khokor Kor in 1978 and Suleman range in 1995 (Kakar, 1992, 38)

The archeological sites of Lasbela includes, Shehr-e-Roghan, Hinglaj shrine, Tombs of Hindian, Sassi and Punnun, Lahut-e-Lamakan, Shah Bilawal, Shireen and Farhad, Graves of Agor Post Hingol Bridge, Tomb of Muhammad Haroon Bin Haroon Bin Zaraa, Tomb of Sir Robert Groves Sandeman, Adam Buthi, Niai Buthi, Balakot, Bakkar Buthi, Murda Sang, and Mud volcanos (Baloch et.al 2015: 41). However, the present study is concerned with the archeological site of Shehr-r-Roghan, rock cut caves of Gondrani Caves, Lasbela, Balochistan. In the present research study, the focus has been placed on the rock cut caves located in the archeological site of

the Shehr-e-Roghan in Lasbela. The focus would be placed on the architecture of the caves, the myths associated with the caves and the possible recommendations for the preservation of this particular site in Lasbela.

The caves of the Balochistan has been estimated to belong to the upper Neolithic age. The evidences found for the upper Neolithic age comprises of the stone tools, bone engravings, ivory, and autler and the human paintings inside the caves. The paintings inside the caves mostly consists of the daily activities of the people and the hunting expeditions. It has been found out that the paintings on the caves walls was began during the Gravittian period. However, in the context of Pakistan this study of the cave paintings have yet to be done. The province of Balochistan where there are lot of caves located in different parts is a rich for the study of the caves.

It has been speculated that the people who belonged to the Gravettian period inhabited the region of Balochistan due to its rocky and hilly terrain. These people mostly sought shelter in the caves of Balochistan. The people used to stay in caves during the winter time period while during the summer season they went on the hunting mission. These people usually hunted from the spears that is demonstrated from the paintings of the caves. Fazal Dad kakar has studied the caves of Balochistan from the upper Neolithic period. Kakar have found the paintings of the wild horses, cave bear, lion, and wild boar which were hunted by the humans. He has compared these evidences with the evidences which were found in the Cantabrian mountains in France (Kakar, 1992, 40).

However, in the context of the present research study no such evidence of cave has been found out by the earlier exploration mission of British period. The Gondrani rock cut caves of Gondrani Lasbela, which is the focus of the present study, was first explored during the British period by Carless Thornton in 1833. It has been found out by Carless that the caves were not natural rather it was man made caves. Carless wrote about it in the following words,

The caves are for the most part located in lateral canyon of the Kud river drainage at that point where the river leaves the mountains and enters the Lasbela plain. On both sides of the canyon the cliffs are honeycombed to considerable height with shallow man made caves....The rock formation here is boulder conglomerate, and in numerous places the cliffs have collapsed, leaving only a back wall to evidence the previous cave. There is a report of paintings in some caves, but search as we might, we never came across any evidence of this (Thornton 1910: page no?)

Hence, in this manner, it could be seen that the study of the cave painting is not possible in the context of rock cut caves of Gondrani, Lasbela. However, the study of the comparison of the caves with other contemporary caves settlements could be conducted. Hence, the present research study is aimed to discuss the comparison of the rock cut caves settlements with other contemporary cave settlements; conduct the architectural description of the caves; and discuss the local myths associated with caves. This study is also aimed to discuss the possible actions that could be taken for the preservation of the caves.

1.1 Geography of Lasbela

The Lasbela district is located in the Kalat division of Balochistan province. Today Balochistan province is divided into 33 districts. Lasbela is located in the south western part of Balochistan on the bordering region with Sindh province. It is due to this region that the Language and the Culture of the region is much closer to the Sindh. The Language spoken in this region is also much closer to the Sindhi language. The local language is known as Lassi. The Lasbela word also owe its roots in the Lassi language.

The name of Lasbela has been derived from combination of two words that is "Las" and "Bela". The word of Las means a plain surface where the settlements of people are found. However, there are two meaning of the word "Bela". Some people argue that the word Bela means coastal region others argue that the word Bela means forest (Pottinger 1816: 288). It is suggested by both the archeological missions and the local residents that many parts of the coastal regions of Lasbela were part of Arabian sea due to which the plain regions came into being in the coastal regions.

Archeological studies conducted by Italian mission have found out that most of the land of Lasbela on the coastal region was submerged underneath the sea because the sea coast of Arabian sea was at the point of Lake Siranda in 7th millennium BP. The sea retreated from the Lake Siranda to further southward in (Biago, Girord and Nisbet 2013: 11).

The administrative boundaries of the Balochistan region were drawn during the British period in November 1853 and August 1854. On 30th June 1954, the status of district was given to the Lasbela district. In 1955, Pakistan created one unit of west Pakistan under which all the provinces of West Pakistan were merged to create one province. In 1960, the Lasbela district was made part of the Karachi division. However, later on when the one-unit scheme was abolished in Pakistan Lasbela was made part of the Balochistan province because of the historical and cultural connections.

The Lasbela district topography consist of mountainous and plain coastal regions. On the eastern side of the Lasbela district Kirtar range is located on its border with Sindh region. On the Southern region of Lasbela Kalmati Bay is located. On the northern side of Lasbela region Jhalawan and Mekran areas of Balochistan is located. However, the boundary has not been properly defined of Lasbela with Jhalawan and Mekran region. Lasbela is comprised of nine tehsils

that includes; Bela, Uthal, Hub, Lakhra, Somiani, Lairi, Gaddani, Dureaji and Konnaj. There are toral 293 villages in the Lasbela district.

1.1.1 Climate of Lasbela

The coastal region of Lasbela climate is much wet compared to the interior regions of Lasbela. Lasbela experience only two types of weather that is summer and winter. The winter lasts in Lasbela for six months that is from the month of November to April. However, extreme winter conditions persist for only four months from November to February (Pottinger 1816:290). The summer also last for almost six months in Lasbela from May to October (Naseer, 2010:43).

1.1.2 Rivers of Lasbela

Topographically Lasbela is consisting of mountainous and coastal regions. From the mountainous regions of Lasbela different rives also originate. Hab and the Porali rivers are the longest rivers of Lasbela. Other smaller rivers that flow from Lasbela region consist of Kharari, and Winder. There are also rivers that originate in the neighboring regions of Lasbela.

The Hingol and Phor rivers originate from the region of Jhalawan and then passes from the Lasbela region and falls into the Arabian sea. The Porali river enter from the region of Mangia Seh into the Lasbela district. A dam has also been constructed over the Porali river at the point of its entrance into Lasbela from Jhalawan. At the distance of 5 miles from Sheh a bank of Porali river falls into Titian river. The Porali river is also changing its course.

The silting of the main branch of Porali river now the Porali river flow more into the Titian River. However, when the flooding of the river increases the Porali river changes its course and connects with Watto river which is later joined by the Kharairi river. The Khariri river ultimately falls into the Lake Siranda (District Gazetteer of Balochistan 1990: 430).

1.2 History of Lasbela

Doing historiography of any region involves specific set of evidence to prove a certain argument or proposition about the past. In archeology it becomes more difficult to find evidence. The similar constraint of evidence is also found in the archeological study of the Lasbela region. The traces of Lasbela's history are found at the middle of eighteenth century when the Aliani family from the Jamoot tribe rose up in the region. Aliani family that belonged to Jamoot tribe dated to eighteenth century and the chief of the region known as Jam of Lasbela came from the Aliani family of Jamoot tribe (Swidler 2014: 107-108).

The historical significance of the region rises because Alexander the Great passed through this land when he was coming back from India. According to Sir Thomas Holdich, Alexander marched from Sindh Patala towards land of Lasbela in 326 BCE. He marched through the region of Lasbela, but faced many difficulties when passing through long deserts and drought land of Balochistan (Ibid). When Alexander died, one of his generals, Seleukas Nickator, became the ruler of Central and Western Asia.

The regions which General Seleukas Nickator controlled and ruled, sub-continent and Lasbela were included in the regions that he had under his control. After that for the centuries there is no traces of Lasbela"s history, the reason may be that there occurred no such important or big event due to which the pages of history have nothing to discuss about the history of Lasbela in the duration of these centuries. Again the traces are found in the time of Mohammad bin Qasim when he was to invade Sindh and had his way towards the land of Lasbela as well (Baloch 1987: 32).

It is said that in seventh century the ruler of Lasbela was a Buddhist Sonami and Rai Sahiras, the king of Hind, gave him more importance due to his loyalty and devotion. At that time the name of Lasbela was Armanbel. Chach overtook the power of Rai dynasty in Sindh. After

taking the power of Rai dynasty in Sindh, he moved towards the land of Bela in 636 AD. There were threats that he might invade Bela, but when he reached there, he was received with great respect by the ruler of the Bela. After getting such a respected welcome, he did not invade the region and had his way west towards Makran (Swidler 2014: 180).

The Muslim conqueror General Mohammad Bin Qasim entered in Makran region in 712 A.D. when he was going towards Sindh, he passed through the present district of Lasbela and the governor of Makran accompanied him in coming towards Bela. At that time the governor of Makran was Muhammad Haroon who died in Bela and his tomb still exists in the region. The Arabs had their powers in the region until the end of tenth century after that they lost the power (Naseer 2010: 51).

Afterwards, the power of the region came under the complete influence of Sumras and Summas. When the Abbaside caliphs declined, the independence of Bela was announced and at the middle of eleventh century Sumras got the position of supremacy, however; their power was overtaken by the Sammas under Jam Umar in 1333AD.

Their rule lasted till 1523AD and later on they were defeated by Shah Hussain Argon. The history after that is again not clear and later on the chiefs of Gujar, Ranjha, Gunga and Burfat tribes are believed to enjoy a semi-independent status till the rise up of Aliani family. These tribes are still said to be settled in the district of Lasbela (Ibid).

When the British Raj began to expand its colonies in the region of sub-continent and the other neighboring areas, the Kalat state as well came under its colony. At that time in the region of Lasbela Jam Mir Khan-II had very strong political influences over political affairs. As the British occupied the state of Kalat on 13th of November 1839, the British Raj had to face many rebellions (Swidler 2014: 164).

Likewise, the third resistance took place in 1869, it was the time when Jam was marching towards Kalat with his large force, but a clash took place between the Jam of Lasbela and the British forces when a British political officer did intervention. The negotiations to tackle the situation failed due to which the Jam of Lasbela was banned from entering British India.

However, in December 1876 an agreement was signed according to which Jam Mir Khan was released from the confinement of British India. In the beginning the Jam of Lasbela decided to handover the responsibilities to his son, Jam Ali Khan, but later on he himself took the charge of the government.

The Jam of Lasbela passed away in January 1888 and after his death his eldest son Haji Jam Ali was appointed in Bela as the British political Agent to Governor General in Balochistan by Sir Robert in 1889. The grave of Sir Robert is in Bela, he died in Bela in 29 January 1892. His tomb was erected in Bela garden (Ibid).

The British political Agent to Governor General in Balochistan, Haji Jam Ali Khan passed away in 1894 and after him he was replaced by his son Jam Mir Kamal Khan, who subsequently ruled over the state for 50 years. Afterwards, his sons ruled the state but nothing such event happened that could come under the notice until Pakistan came into existence. After the creation of Pakistan, Kharan, Kalat along with Lasbela state became part of Balochistan province (Dashti 2012: 178).

1.3 Research Questions

- What are the differences and commonalities between the rock cut caves of Gondrani
 Balochistan and other cave settlements of Pakistan?
- What myths are associated with the rock cut caves of Gondrani, Lasbela?

- What information the architecture of rock cut caves of Gondrani, Lasbela provide about the human settlement?
- What steps should be taken to preserve the rock cut caves of Gondrani, Lasbela?

1.4 Statement of problem

There are lot of underexplored sites in the Balochistan region that belong to the upper Neolithic period. The upper Neolithic period starts from 30000 BC to 12000 BC. There are caves in the region of Marri, Kalat, Zhob, Koh-i-Suleiman, and Lasbela in Balochistan which is estimated to belong to the upper Neolithic age. However, no such explorations have been attempted in the previous literature.

The study has been conducted in the context of Pakistan, there has been little study conducted in the case of Balochistan. The studies in the context of Potohar and Soon Valley found the presence of earlier human beings The transformation of the earlier human being into the Homofaber also took place in Potohar and Soon valley.

It is evidence that the people lived in this region during the Pleistocene period (about 2.58 million to 11,700 years ago). Moreover, the earlier form of stone tools has also been discovered during the excavation in Potohar and Soon valley. Hence, the earliest human culture was also began to develop in this region. In the context of Balochistan, the hand axes were found that belong to the Kout Moudhai in 1899; Khokor Kor in 1978 and Suleman range in 1995 (Kakar, 1992, 38).

However, the present study is concerned with the archeological site of Shehr-r-Roghan, rock cut caves of Gondrani Caves, Lasbela, Balochistan. In the present research study, the focus has been placed on the rock cut caves located in the archeological site of the Shehr-e-Roghan in Lasbela. The focus would be placed on the architecture of the caves, the myths associated with the caves and the possible recommendations for the preservation of this particular site in Lasbela.

1.5 Scope of the study

The existing literature in the context of Balochistan has primarily focused on the Neolithic period whether it is the archeology of the Northern Balochistan (Kakar, 1992), or it is the archeology of the coastal regions of Lasbela, Balochistan (Biago 2011; Biago, Girod, and Nisbet 2013; Biago, Fantuzzi, Franco 2013; Biago, Girod, Nisbet 2014). The human settlements in the caves began in the upper Neolithic age in Balochistan. However, the study on the upper Neolithic age is underexplored in Balochistan.

This study is aimed to fill this gap by conducting the archeological study of the rock cut caves of Gondrani, Lasbela, Balochistan. These caves have been first discovered by the British adventurer in 1833 by Carless Thornton. In the present no such study has been attempted and excavations has been conducted in the rock cut caves of Gondrani, Lasbela. In this manner, the present research study is significant in the nature that it would contribute to the archeology of the upper Neolithic period in the context of Balochistan.

1.6 Literature Review

The literature review has been divided into two parts that is the archeology of Lasbela and the archeology of Northern Balochistan. In the first part of the literature review the explorations works conducted by the Italian mission in Lasbela has been discussed. In the second section the archeology of the Northern Balochistan has been discussed with a focus on the human settlements in the Quetta valley and the archeological sites that were found in the road from Zhob to Quetta.

1.6.1 Archeology of Lasbela

Paolo Baigi, Renato Nisbet, and Alberto Girod (2014) in their article, "The Archeological sites of Gadani and Phuari Headlands (Lasbela, Balochistan, Pakistan) discusses the peopling and the environmental changes in the Gadani and Phuari area of Lasbela during the prehistoric and historic periods. The authors collected the mangrove shells for the sake of radiocarbon dating from the two archeological sites.

These regions are abundant in the red flints flakes and small blocks. The authors found out that the region of Gadani was settled from the middle of the 3rd millennium BCE by the bronze age Indus people probably. The reason for their settlement was the presence of the mangrove swamps.

However, the environmental conditions were changed during the 14 century CE when the mangrove shellfish became extinct in the Gadani and the Phuari region as suggested by the evidence. This climate change was not just restricted to the Balochistan rather it engulfed the whole of sub-continent at that time.

It is also found out by the authors that the chipped stone assemblages found in the lake Siranda shell middens were formed from the resource of red flint flakes. But the authors also suggested that it was impossible to find out the use of the red flint flakes in the prehistory. But this resource has started to be exploited since the Mesolithic period. The hunter and gatherers came to the Lasbela region in the beginning of the Holocene period for exploiting the red flint flakes.

The article is useful because is estimated the presence of the human settlements in the region of Gadani and Phuari in Lasbela. However, this article is not focusing on the region of the rock cut caves of Gondrani region of Lasbela rather the article is more focusing on the coastal belt. This research study is aimed to fill this gap by discussing the archeology of the rock cut caves of Gondrani region in Lasbela.

Paolo Baigi, Tiziano Fantuzzi, and Carlo Franco (2013) in their article, "The Shell Middens of the Bay of Daun: Environmental changes and Human impacting along the coast of Lasbela (Balochistan, Pakistan) between the 8th and the 5th Millennium BP" discusses the prehistoric human settlements in the region of Bay of Daun, Lake of Siranda, Makli Hills, and Tharro during the last two centuries of 8th millennium BP.

The authors conducted the radiocarbon dating of the shell middens that were found in the bay of Daun, Makli Hills, Tharro, and Lake Siranda. The human settlements began to develop in the coast of Daun during the 7th millennia BP. The authors argued that the consumption of the mangrove resources was not continuous rather it took place mostly at the 7th and 5th millennia BP. The mangrove resources were exploited by the people seasonally. These people used to move towards coast and have inland settlements in Lasbela.

The evidence found in the shores of Lake Siranda indicate that the settlements around this region started in 8th millennia BP. But the evidence obtained from shell middens of Tharro and Makli hills claim that the Tharro and the Makli hills were islands during the 7th millennia BP. This

is because the evidence suggested that the people used to reach the Makli hills and Tharro through boats.

The article is useful because it discusses the earlier inland settlements in the region of Makli Hills, Tharro, and Lake Siranda of Lasbela region with respect to the environmental changes. However, the article has not discussed the rock cut caves of the Gondrani region. This research study is aimed to fill this gap by discussing the archeology of the rock cut caves of Gondrani region of Lasbela.

Paolo Baigi, Alberto Girod, and Renato Nisbet (2013) in their article, "Prehistoric shell middens, seascapes, and Landscapes at Lake Siranda (Lasbela, Balochistan) Preliminary results of the 2011 fieldwork season", discusses the archeology of the Lake Siranda and its adjoining region in the prehistoric period. The authors argued that the several studies have been conducted that argue that the Lake Siranda was part of Arabian sea in the past.

However, these literatures do not discuss the causes that lead to the retreat of the Arabian sea. In the existing literature it is argued that the Siranda lake turned into a fresh water basin in the 4th century BC. But the authors survey and the radiocarbon dating suggested that the human settlements began to develop around Lake Siranda in the beginning of the 7th millennia BP. Similarly, the sea voyage also began at the same time in the region.

This article is useful because it mentions the development of human settlement around the Lake Siranda region of Lasbela. However, the article does not discuss the rock cut cave settlement of the Gondrani region in Lasbela. This research study is aimed to fill this gap by discussing the archeology of the rock cut caves of Gondrani, Lasbela.

Paolo Baigi (2011) in his article, "Changing the prehistory of Sindh and Lasbela coast: twenty-five years of Italian contribution", discusses the prehistory of Sindh and Lasbela coast. The author focuses more on the contribution of the Italian archeological mission that began its excavations in the 1980s in the abovementioned regions. The author argue that the prehistory of Sindh has been predominantly studied from the urban settlements of the Indus valley civilization. During the British period, the copper (3 millenium-4 millennium BC) and bronze age (3300 BC-1200 BC) settlements were excavated in Sindh that dated back to 3rd millennia BP. The relationship of these settlements with other settlements like the Amri Nal, Kot Diji and Kuli was also determined during the British period.

In the 1980s, the Italian expedition started its study of the economic aspects of the Indus valley civilization. The Italian expedition found out that the flint material was obtained from the Rohri Hills, and it was used to make ceramics and beads. The flint was also used to prepare tools instead of using metal.

Similarly, up to the year 2000, the prehistory of Sindh was not studied. In Sindh the earlier settlements of the hunter gatherers started in the early Holocene period. The surveys were also carried out in the Balochistan coastal region of Lasbela. It was found out that the settlements started to develop in Daun coastal region by the beginning of the 7th millennia BC. It was also found out that the sea voyage also began at that period in Lasbela.

The article is useful because it discusses the archeological missions conducted by the Italian mission in the region of Lasbela. It estimated the earlier human settlements in the region of coastal region of Lasbela. However, this article does not discuss the rock cut caves of Gondrani, Lasbela. This research study is aimed to fill this gap by discussing the archology of rock cut caves of Gondrani, Lasbela.

Ghulam Farooq Baloch, Waheed Razaq, Shakir Nazeer and Saeeda Mengal (2015) in their article, "A brief survey of the archeological sites of District Lasbela, Balochistan: A descriptive approach", provides a brief overview of the archeological sites of the Lasbela district in Balochistan with references to the present conditions of those sites.

The authors mostly rely on the information documented by the British archeological missions in Balochistan or the information that is available in the secondary data. The authors briefly discussed the archeological sites of Lasbela that includes, Shehr-e-Roghan, Hinglaj shrine, Tombs of Hindian, Sassi and Punnun, Lahut-e-Lamakan, Shah Bilawal, Shireen and Farhad, Graves of Agor Post Hingol Bridge, Tomb of Muhammad Haroon Bin Haroon Bin Zaraa, Tomb of Sir Robert Groves Sandeman, Adam Buthi, Niai Buthi, Balakot, Bakkar Buthi, Murda Sang, and Mud volcanos.

The authors mostly discuss the location of these sites and the role of the British archeological missions in excavating these sites. Moreover, the author discusses the present conditions of these archeological sites from the secondary sources that are available on it. The authors argue that these archeological sites are significant for understanding the historical past of Balochistan.

However, the present study is concerned with the archeological site of Shehr-r-Roghan. In the present research study, the focus has been placed on the rock cut caves located in the archeological site of the Shehr-e-Roghan in Lasbela. The focus would be placed on the architecture of the caves, the myths associated with the caves and the possible recommendations for the preservation of this particular site in Lasbela.

1.6.2 Archeology of Northern Balochistan

Fazal Dad Kakar in his article, "Exploration of archeological sites in Northern Balochistan and their cultural relationship with the adjacent regions", discusses the four archeological sites Janabad, Mazghare, Raddarzai, and Chinjane on the route of Zhob to Quetta. The author conducted the field research of these sites in 1986. The author found out the potsherds, beaker, dishes, globular jars, bowls, and short necked jars in the Janabad.

It was found out that these remains are parallel to the evidence that were found in the Mehrgarh. In the site of Mazghare, the stone walls were found at some places. The clay bangles were also found by the author in Mazghare. It was found out by the author that the evidence found at the site of Mazghare was comparable to the site of Mehergarh. In the site of Raddarzai, the potsherds, chert cores, and stone balls was found out. the author found out that the site was as old as 4500-2800 BC.

The author has conducted the field work on the sites that were belonged to the period of protohistory. However, the present study is concerned with the archeological sties of rock cut caves of Gondrani Balochistan. The site belonged to the Paleolithic period when the evidence is not as abundant as the author have found in the context of the Northern Balochistan region. Hence, the present study would only discuss the prehistory of the southern Balochistan region of Lasbela.

Fazal Dad Kakar in his article, "The Antiquity of Human settlement in Quetta Valley", discusses the earliest human settlements in the region of Quetta valley. The author identifies seven archeological sites in the region of Quetta Valley that includes Balali, Killi Gul Muhammad, Miri, Pir Bhalo, Kech Beg, Damb Saddat, and Faiz Muhammad. However, the author argues that the

site of Killi Gul Muhammad is the earliest of the archeological sites among the seven sites that he has identified.

The author has divided the development of the earlier human settlement at the stie of Killi Gul Muhammad into three phases. In the first phase, the author found out that the people were living a semi-nomadic lifestyle and they had domesticated sheep, goats, and oxen. The author found the bones of these animals as evidence for arguing that the people were living a semi-nomadic life.

The author did not find out any pottery due to which he estimated that the earliest settlement was around fifth millennium BC. In the second phase of human settlement in the region of Killi Gul Muhammad, the author found the existence of the hand made pottery, and the mud houses. The agricultural tools such as blades, and milling stone has been found.

The author argues that this phase of human settlement share resemblance with the Mehergarh and dates back to the four millennium BC. In the third period of the development of the human settlement in the region of Killi Gul Muhammad the wheel was introduced to make the pottery.

The author argues that this phase belonged to the Bronze age of the Quetta valley. Finally, in the fourth phase of the development of the human settlement in Killi Gul Muhammad, the red color on pottery has been used by the people. This settlement came to an end by the third millennium BC.

Moreover, the author has also discussed the religion during the Bronze age (3300 BC-1200 BC) in the Quetta valley. It has been found that the people used to worship the female goddess and

the bull in the Bronze Age. This religion has been found among the people of the region since the fifth millennium BC.

However, it is estimated by the author that by the time of 2700-2500 BC the human settlements started to perish. The author argues that the people might have been migrated to the Indus valley civilization. At that time the Indus valley civilization started to develop due to which the people might have migrated to that region.

The author has conducted the study of the development of the human settlement in the region of Quetta valley, but the present research study is concerned with the rock cut caves of Gondrani Lasbela. The article is useful because it explains the development of Human settlement in Northern Balochistan. The present research study would contribute to this article by including the human settlements in the rock cut caves of Gondrani in Lasbela.

1.7 Research Methodology

The researcher has used qualitative method. In this research the researcher has conducted work on exploratory and analytical approaches. The data has been collected by using primary research method. Moreover, the researcher has carried out extensive survey throughout Lasbela to collect primary data. It is to be noted that survey is an integral part of this research.

The research has used the systematic archaeological survey of the rock caves of Gondrani, Lasbela. The location of sites or caves has been mapped. A site-to-site survey has been conducted about the rock caves in the vicinity of Lasbela. Data has been collected from unexplored rock caves. The researcher spent 11 days for field work, in which approximately 5 caves were surveyed per day. Total 50 caves were visited by the researcher. Measurement tape, scale, raging rode, were used to measure the height and width of the caves

Further, it has been followed to utilize the preexisting knowledge about geography, terrain, and archaeological sites in the Lasbela. The researcher has conducted interviews of concerned individuals and consulted books and articles from different journals. Then research has been finalized with the analyzing and contextualizing the knowledge of these rock caves.

1.8 Organization of the study

Chapter 1 Introduction

Chapter 2 Archeological sites of Lasbela

Chapter 3 Cave settlements of Paleolithic Period in Pakistan

Chapter 4 Myths associated with the Rock cut caves of Gondrani, Lasbela

Chapter 5 Architectural description of rock cut caves of Gondrani, Lasbela

Chapter 6: Conclusion

Chapter 2

Archeological sites of Lasbela

2.1 Introduction

In this chapter the archeological sites that has been excavated in Lasbela is discussed. The archeological site of Lasbela includes Hinglaj, Lahut-i-Lamakan, Shah Bilawal, Gondrani Caves, Hindian, Sassi and Pannu tomb, Khumbh Shirin, Tomb of Sir Robert Groves Sandeman, Adam Buthi, Balakot, Bakkar Buthi, Murda Sang, and Mud volcano. The different dimensions of the archeological sites of Lasbela have been discussed in the following pages. These includes, the location, myth associated with the sites, evidence found in the sites, dating of the site if possible, and the process of excavation.

2.2. Hinglaj

The Hinglaj shrine is located in 25 °30 North and 53 °31 East in Lasbela district of Balochistan. Hinlaj is located on the banks of Hingol river. The shrine is encircled with mountains on both sides. The height of these mountains are approximately 1000 feet. Colonel Sir Thomas Holdich, who was a British agent visited the site of Hinglaj in British period he wrote about the Hinglaj that,

Amongst the gigantic cliffs of Malan which overlook the deep-set valley of the Hingol river are narrow little gorges and ravines each carrying it tribute of fresh water.....to the blue depths of the main stream, and abounding in a freshness of the green vegetation which is to be found nowhere amongst the hills of lesser altitude (Balochistan District Gazetteer 1910, 35-36).

It is considered as shrine by both the Hindus and the Muslims. The Muslims say that a saint Nani is buried in the shrine. While Hindus argue that the shrine belong to Kali Mata. It is

considered by the Muslims that female preacher Nani came to Hinglaj and spread Islam in the region. Hindus on the other hand refer to the Kali mata as their goddess whose idol is also constructed in the Hinglaj shrine.

2.3 Shah Bilawal

Shah Bilawal is another ancient shrine located in the Lasbela district after the Hinglaj shrine. Shah Bilawal is located on the altitude of 25 °48 North and longitude of 67 °5 East. Shrine is located between the Pab hills in a narrow valley, where there are streams of water flowing. The region in the locality of Shah Bilawal is fertile and it produces different fruits such as Mango, Black Plup, and Tamarind. A mosque is also located near the shrine.

Shah Bilawal is considered as the saint who came to the region in 900 A.H. First he settled at the place of Lahut then he moved to the place where the shrine is presently located. It is said that before Shah Bilawal came to occupy this place a Hindu, Gokal was living in this area. The domb of the shrine is made up of baked bricks, and it is plastered with lime as well.

The shrine is considered sacred by both the Muslims and the Hindus. However, the Muslims have the guardianship of the shrine. Hindus mostly arrive at Shah Bilawal when they have to shave their children heads (Balochistan District Gazetteer 1910, 38).

2.3 Lahut-i-Lamakan

Lahut-i-Lamakan is located at a distance of 4 miles from the Shah Bilawal. There is a dark passage to reach the site of Lahut Lamakan. The darkness makes the passage to the site inaccessible for the people. it is due to this reason that the rope is tied to the boulder in the passage way so that the people could not lose their way. In the north of the site, a Mosque is located while on the west. It

is considered that Hazrat Ali have visited the site when he came to the region of Lasbela. It has been written in the Balochistan District Gazetteer of Lasbela that,

Close to the shrine is a structure resembling a manager and some upright stones like pegs, which according to the local tradition, were used by Hazrat Ali for his famous mare (Balochistan District Gazetteer 1910, 38).

2.5 Gondrani Caves

The Gondrani caves are located at a distance of 20 km from the ancient city of Bela in South western district of Lasbela in Balochsitan. It is located at a distance of 218 km from the city of Karachi. It is located in the longitude of 26° 23 39 North and altitude of 66° 12 45 °East. There are many names which are used for the Gondrani caves such as Shehre-e- Rohgan, cave city of Gondrani, House of spirits, and Mai Gondrani (Government of Balochistan).

There is not much documented about the Gondrani cave, and it still known as a mystery that who constructed it or who used it. The British explorers have mentioned about these caves in the District Gazetteer of Lasbela in 1910. The location of the caves has been described in the following words,

About 9 mile to the northward of Beyla a range of low hills sweeps in a semi-circle form one side of the valley to the other and forms in head. The Poorally rives issues from a deep ravince on the western side, and s about 200 yards broad. It is bounded on one side by steep cliffs, 40 or 50 feet high, on the summit of which there is an ancient burying ground, and the water runs bubbling along it in two or three small rivulets, among heaps of stone and patches of tamarisk jungle. Having crossed the streams we pursued our way up its bed amongst the bushes until we gained the

narrow ravine through which it flows, and then turning into one of the lateral branches, entered Shuhr Roghun (Gazetteer for Lasbela District 1910, 39).

After the British left the sub-continent, nothing has been written on the caves and no excavation was took place. Although, the Italian mission have conducted the archeological study of the Lasbela district, but their focus on the coastal regions of Lasbela and the adjoining Lake Siranda region of Lasbela (Biago 2011; Biago, Girod, and Nisbet 2013; Biago, Fantuzzi, Franco 2013; Biago, Girod, Nisbet 2014).

2.6 Hindian

Hindian tombs is located in the confluence of the Hindian rivulets and Hab river. It is located at a distance of 50 miles from the Karachi city. The tombs were first excavated by the British mission in the year 1901. There are graves of different Muslims in the Hindian tombs. There are almost 71 highly ornamented sculpture of unknown origin which shows that the burial was done in a specific manner. The direction of these graves is from south to north. The yellowish sandstone has been used for the construction of the tombs.

The decoration of the tombs is divided into two sub categories. First there are those tombs which have only one sarcophagus¹. Second, there are those tombs which have two or even three sarcophaguses (Balochistan District Gazetteer 1910, 41). This has been explained in the Balochistan District Gazetteer for Lasbela that,

The tombs are either single or built-in rows numbering from two to eight, sometimes raised on a common plinth. The lower sarcophagus is generally

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¹ A sarcophagus, also known as sarcophagi or sarcophaguses, is a box-like container used to hold dead bodies during funeral ceremonies. Sarcophaguses are typically made of stone and are shown above ground,l though they can also be buried

constructed of eight vertical slabs, three on each long and one on each short side. These are covered by three slabs on which the second sarcophagus is raised, similar to the lower one, but slightly smaller in its dimensions. On the upper sarcophagus four or five layers of slabs are laid horizontally, gradually diminishing in size so as to give the whole structure of the general appearance of a slender pyramid. The topmost slab is set vertically, its northern and carved in the from of cylinder, which projects above it and terminated in a knob. The slabs are all carved and the whole structure bears peculiar designs and ornamentation (Balochistan District Gazetteer 1910, 42).

2.7 Sassi and Pannu

The love story of Sassi and Pannu is also present in the folk memory of Balochistan. This love story is also commemorated in the Persian, Punjabi, Sindhi, and Baluchi languages. In Balochi language the story is mentioned in the book Tahfat-ul-Kiram. The story mentions about the development of love between Sassi and Pannu. Sassi was the Brahman girl from Bhambura in Lower Sindh. It was found out by the parents that Sassi would become a Muslim in the future. Hence, they left Sassi on the river, in the similar manner as the Moses was left by their parents in the river. Sassi opened her eyes in Makran Kech region.

When Sassi grew up she fell in love with Pannu. Sassi's father was against the marriage of Sassi with Pannu so he druged Pannu and took him away to the region of Lasbela from Makran. When Sassi came to know about it she also followed the path where Pannu has been taken. On the way Sassi became unconscious due to exhaustion. It is believed that a stream broke out at that place where Sassi became thirsty.

However, Sassi found the mouth of River Phor where the flood tide was coming. Pannu has told Sassi about his place in Lasbela but he did not inform her that there is a river on the way. Sassi started to cry in hopelessness. At that it is believed that a rock in the middle of the river made sound that was similar to the crying of Sassi. Then afterwards Pannu was also out looking for her. Sassi met a shepherd who guided her the way. Sassi and Pannu both met with each other on the way. The ancient route from Sindh to Bela and Makran passes through the Paboni pass (Balochistan District Gazetteer 1910, 43).

2.8 Kumbh Shirin

There is a spring located in the western slope of Haro or Hala Hills. It passes through the Lasbela from the region of Jau-Lak. This region is famous among the local people because the love story of Shirin and Farhad. As per the folk sources Farhad was asked by the people that if he could cut a path from the mountain and bring the water of the spring on the other side then Farhad would be given the hand of Shirin in marriage.

When Farhad was about to complete the cutting of the mountain and women came and said that Shirin has died. The relatives of the Shirin have asked a woman to send false message to Farhad that Shirin died. Farhad fell from the mountain due to the pain he felt for Shirin.

It is also believed among the local population that the women who sent the false message to Farhad also died there in the similar manner from the mountain when she became old. The grave of both Farhad and the woman is located in that place (Balochistan District Gazetteer 1910, 44).

2.9 Tomb of Sir Robert Groves Sandeman

Sir Robert Groves Sandeman was the agent of the Governor General of British India in Balochistan. He was born on 25th of February 1835 in Perth, Scotland. He joined British Army as

soon as he completed his graduation. He fought his first war from the side of British Army in Burma. After serving in the war, he joined the civil services of British in India. He was appointed as chief commissioner of the Eastern Balochistan region that included Dera Ghazi Khan, and Suleiman mountains. He signed the treaty of Mastung with Khan of Kalat in 1876. As a result of this agreement the British got the control of some regions of Balochistan such as Quetta. Sandeman died in Lasbela in 1892 and his tomb is also constructed there (Baloch et.al 2015, 49).

2.10 Adam Buthi

Adam Buthi is considered as the earliest ancient site discovered in southern Balochistan region of Lasbela. During the excavation of the site, it was found out that the site was settled by the people in the 4th millennium BC, and it was left by the people in 3000 BC. The site is not much larger it is expanded over a region of 0.14 hectares, but it has high mound up to 7.5 meters. It has been speculated that the stone made houses were located on the slope of the mound. The number of evidence found in this region include some pottery, flakes, and blades. The pottery was made from the spinning wheel. The designs that are found in the pottery of the site resembles the design which was found on the pottery in the Killi Gul Muhammad site of Quetta (Baloch et.al 2015, 50).

2.11 Niai Buthi

Niai Buthi is also an ancient site excavated in the region of Lasbela plain. It is estimated that it is as old as 3rd millennium BC. The total area of the site is around 13 hectares, and the ruins are 13 meter high. During the excavation it was found out that this site is contemporary to the Adam Buthi last phase. The pottery which was found in this site resembled the pottery which was found in Toghau B and Kechi Beg in Quetta.

It was also speculated that during the 3rd millennium BC, the construction in the site was done through stone and mud bricks was also used. Moreover, in the eastern side of the site some hearths, and dumping pits was also found. The bones of the animals and the broken pots were also found in the site. There were different types of pottery were excavated in the Niai Buthi site of Lasbela. The use of orange colors of paint in addition to black was also seen in the decoration of the pottery (Baloch et.al 2015, 50).

2.12 Balakot

The archeological site of Balakot is located on the south-eastern region of Lasbela. The University of California Berkely conducted the excavation of the site from 1973 to 1976. In the excavation of these site scientific method was also used. Balakot is not expanded over a large swathe of territory rather it was found that the stretch of the site is 4.5 hectares. It is found out that this archeological site was once connected to the Harrapan civilization. The mountain range of Mor and Pab is adjoining to this site.

The test of the alluvial soil that has been found in the site was dated back to the early 3rd millennium BC. In 1998, two trenches were dug in the site as a result of which the buildings of the early 3rd millennium BC were found. The building was built from the stone and the mud bricks. In some places the broken stone and the pottery was also used as a construction material.

The pottery that has been excavated in the site of Balakot that resembles to the pottery of Moen jo daro and Harrpa time period pottery. The radio carbon dating was also performed by the archeological mission due to which the dating of the site became possible. It was estimated that the archeological site of Balakot is as old as 2400 BC to 2000 BC (Baloch et.al 2015, 51).

2. 13 Bakkar Buthi

Bhakkar Buthi is an archeological site in the Kanrach valley of Lasbela. The archeologists have estimated that the site belonged to the period of Harrapa that is 3000 BC to 2600 BC. The pottery that has been discovered in this site resembles the pottery that has been found in Quetta and in the Lower Sindh. The transition from the early Harrapan period to late Harrapan period is found in the site. There is a gap in the evidence that has been found in the Bakkar Buthi (Baloch et.al 2015, 51-52).

2.14 Murda Sang

Another site that has been found in the Kanrach valley of Lasbela is Murda Sang. It was first excavated in 1997. In this site proper housing pattern and streets have been found. The center of the site is 6 meters high, and the site is expanded over a vast territory of almost 35 hectares. The Kanrach river passes from the eastern side. Much of the archeological site of Murda has been eroded due to the Kanrach river flow on the eastern side.

The houses in the site were constructed from stones and mud bricks while the mud was also used in the construction of the roof of the houses. The pottery that has been found in the region resembles the pottery that has been found in the archeological site of Balakot. The dating of the site was done through the charcoal sample. It was found out that the site belonged to the period of 3rd millennium BC. However, the evidence found in the site also refers to the abandonment of the site by the people by the year 2700 to 2600 BC.

Later occupation of the site refers to the Kulli period. However, the site was also used during the Islamic and the British period. It was also found that the houses were built over the

houses as a result of which it was speculated that there used to be frequent flooding due to which the houses were also constructed on the elevated surfaces (Baloch et.al 2015, 52)

2.15 Mud Volcanoes

Mud volcano is located in the south of Liari village and coastal highway in Lasbela. In Balochi language the mud volcanoes is referred to as Chandra Kops or Chandra Gups. These volcanoes are located at three places between the river Phor and Kuchali Bandar in Lasbela. Some are also found near Ormara district Gwadar. These volcanoes are of different sizes, For instance at Kuchali Bandar their size increases up to 400 feet above sea level. These volcanoes are flattened on the top and the slopes are steep in some places and gradual in some places. There are also come opening from the bottom of the volcanoes at some places which lead the pathway into the interior. The circumference of the volcanoes also differ it is estimated that some volcanoes have circumference of almost 100 feet.

For the Hindus the volcanoes is a sacred place, they believe that the deities live in the volcanoes. The Hindus used to consult them in the same manner as the oracles has been consulted in the ancient times. For communication with the deity inside the volcanoes the Hindus throw coconuts, and bread into the crater of the volcanoes and they receive reply from the deities. There is another Hindu religious belief associated with the volcano that there are 84 volcanoes in total and they are actually 84 parts of a ball of ashes thrown into the ground by God Shiva due to anger (Baloch et.al 2015, 53)

Chapter 3

Cave settlements of Paleolithic Period in Pakistan

3.1 Introduction

In this Chapter the excavations that took place in Pakistan for the study of Paleolithic period with respect to caves has been discussed. To cover the excavated sites of whole Pakistan, one site has been selected from each province. Caves in the Soan valley or Potohar valley has been discussed to include the caves of northern Punjab; Sanghao caves from Khyber Pakhtunkhwa has been discussed; from Sindh, the Rohri Hills cave has been discussed; and from Balochistan the Gondrani Caves of Lasbela has been discussed. The evidence which has been found in the excavation of these caves have been discussed.

Paleolithic period is divided into three parts that is lower, middle, and upper period. The Paleolithic Period is often divided into three parts: Lower, Middle, and Upper. Traditional divisions of the Lower Paleolithic include the Oldowan Stage (between 2.6 million and 1 million years ago), when pebble (chopping) tools first appeared, and the Acheulean Stage (between 1.7 million and 1.5 million years ago to between 250,000 and 200,000 years ago), when more advanced hand axes and cleaving tools first appeared. The Mid Paleolithic, which spanned from roughly 250,000 to 30,000 years ago, was characterised by flake tools and the extensive use of fire. The Upper Paleolithic, during which more advanced tools first appeared, lasted about from 50,000–40,000 years ago until 10,000 years ago (Stutz, 2018).

In the lower Paleolithic period, the first human made objects are found. These objects were made by humans consciously for some purpose. The tools which are found in in the lower Paleolithic age comprises of cleavers, choppers, and hand axes. These tools are also known as

belonging to a particular industry known as "Acheulean industry". This Acheulean industry is known as the first technological innovation brought by the human beings (klein 1989, 165).

The humans made tools in the lower Paleolithic age with the purpose of meeting their day-to-day needs. These tools were designed to obtain food or to survive; for example, it was used during the hunting, digging for roots, breaking bones for obtaining marrow from it, and scraping wood bark for finding insects.

The middle Paleolithic age is distinguished from the lower Paleolithic age from the fact that the size of the tools is reduced, and the flaking of the cortex began. The size of the hand axe was also reduced in this period. The number of workshops preparing this tool also increased. The equipment during this period included the hand axe, adze, scrapers, unifacial, and bifacial scrapers, discoidal cores, picks, and flakes. In the middle Paleolithic period, the tools are also made with much focus on smooth finishing rather than using crude stone tools.

During the upper Paleolithic age, the tools industry continued to evolve. Different shapes were also given to the stone tools in the upper Paleolithic age. The stone tools were given concave and convex shape which was not present in the earlier Paleolithic period. In this period the size was also reduced, and more refinement was brought in the stone tool industry. Major changes which were introduced during this period with introduction of the discoidal core converted into unidirectional/ pyramidal core (Shiekh, Mallah ,and Veesar 2008-09, 18-21).

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² Acheulean industry refer to is an ancient sector of stone tool production distinguished by the recognisable pearshaped and oval hand axes linked to Homo erectus.

3.2 Paleolithic excavated sites in Pakistan

3.2.1 Soon Valley and Potohar

The Potohar plateau is located in the northern part of the province of Punjab. It is elevated surface between the river Indus and river Jhelum. The river Jhelum lies in the eastern side of the Potohar plateau while the Indus River is located in the western side of the Potohar plateau. On the southern side of Potohar plateau lies the mountain range of salt range. On the northern side of Potohar plateau lie the Maragala hills range.

The soan river passes from the center of the potohar plateau due to which the name of soan valley is given to the region. The archeological sites have been excavated alongside the soan river. The Paleolithic tools has been collected from the terraces of the soan river and its tributaries by the Pakistan Department of Archeology and University of Minnesota.

The first site excavated at the soan valley was Mohra Battan³. This site is located on the eastern tributary of the soan river known as Kastril. The examination of the site was conducted in 1964. Initial examination of the site revealed that there used to be a workshop or a living floor area when the site was excavated.

The excavation major aim was to find the evidence that are buried in the slopes. During the excavation, approximately 200 specimen was found in the site. The evidence found include chopper, discoid core, flake tools, and waste flakes. This site was reported to be belonging to the Early Soan period.

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³ It is located in the north of Rawalpindi at a distance of 35 Km at Kalar Sayedan Road.

The second site that was excavated was Ghila Kalan⁴. This site also belonged to the soan valley. The same tool chopper was also found at the Ghila Kalan which was found in the Mohra Battan. But there was difference between the Ghila Kalan and the Mohra Battan. In Ghila Kalan, the Levallois flake technology was also found which represent that the site belonged to the late Soan valley period.

Another site was excavated at Adiala in which similar tools like chopper was found. However, the difference was that the hammer stone and the mammalian bone was also found in that site. The bones were identified to belong to a specimen of Rumanita probably camel.

In addition to the excavation of the sites in slope region of the soan river, the caves were also explored during the excavation of the soan valley. The caves were located near the Haro river on the way from Taxila to Haripur in the region of Khanpur. The caves are located on the right bank of the Haro river. These caves has an elevation of 300 feet from the surface of the Khanpur valley due to which it is visible from the road. During the excavation the Buddhist period ceramics was found in the first cave. There are at least 20 caves which have been found in the internal Potohar plateau ridges at the place of Khairi Murat⁵ and Bakrala⁶. In the Khairi Mruat and Bakrala the height of the caves is almost 3000 feet due to which it could not have been possible for the Paleolithic man to occupy these caves (Jhonson 1969, 60-64).

The Potohar region has been divided into three Pleistocene period (about 2.58 million to 11,700 years ago). that is lower middle and upper by the Yale-Cambridge expedition. The earliest tools have been found in the boulder conglomerate that has been found in those regions on the

⁴ It is located in the Jehlum District of Punjab and it is near to the region of Mohra Bhattan.

⁵ It is a mountain located in the Soan Valley having elevation of 921 meters. It is located near Jehlum in Punjab.

⁶ It is located in the Jehlum district of Punjab and belong to the ancient site of Soan Valley civilization.

terraces of the river soan. The tools that have been found does not correlate with the culture of the Soan due to which it has been termed as the pre-soan tools. The pre-soan tools included the big flakes and the quartzite pebble.

The next phase has been termed as the early soan period in which the chopping and scrapping tools were excavated. These tools indicate that the pebble and the flake industry developed during the early soan period.

After the early soan period, the soan flake industry continued to develop in the late soan period. In the late soan period the flake industry developed to make blade flakes and scrapers. The late soan period has been dated back to the proto-neolithic period. Moreover ,some studies have also put the late Soan period into Indian Middle Stone age industry (Dani 1963, 184-185)

3.2.2 Sanghao Caves

Sanghao cave is located on the foot hill of the mountain that separates Buneer from Mardan. The roots of the word Sanghao is being traced back to the Sanskrit word Sangha which means a Buddhist. The valley also has other evidence of the Buddhist period. The Sanghao is not an isolated ancient ruin of the Buddhist period rather it also has other ancient ruins in its outskirts. For example, on a distance of 12 miles from Sanghao in the south direction there is ruins of the old Buddhist monastery. Similarly, on the northern side at Palai several Buddhist sculptures have been found.

During the excavation of the Sanghao caves, two types of tools were excavated. Firstly, the stone tools were found in the excavation. The stone tools comprised of the flake blade and scraper. Secondly, the quartz tools were found, although it is difficult of shaping the quartz stone, but it was found during the excavation of the Sanghao caves.

Quartz is actually a fragile material due to which if flakes are attempted to made out of it then the fine cuts on the tools could not be achieved. It was found out that the humans brought the Quartz stone in caves to make tools out of it. There are enough waste material of the quartz found in the caves that gives evidence of tool making in the Sanghao caves.

However, no evidence of heating the tools to mould the shape is found in the caves. A hearth in Sanghao cave have been found. The presence of ash and charcoal gives the evidence that there used to be a hearth in the cave. However, it was questionable that whether that hearth was used for molding the shapes of the tools or it was used for cooking purposes. The evidence suggested that hearth was not used for the purpose of tool making rather the hearth was used for the purpose of cooking. The large number of bones that has been found in the caves give evidence to the propositions that the hearth was used for cooking purposes.

As per the evidence it has been found that the humans living in Sanghao caves wer producing core tools, flake, and blade tools. The core tools comprised of the discoidal cores, tortoise cores, fluted cores, and the last one was unidentifiable cores. The last category of cores was so much flaked at the end that it was considered as waste material. This category of core was found in large numbers in Sanghao caves.

The first three categories of the cores represent that it was carefully prepared with considerable striking on it. In these tools some were unifaceted and other were multifaceted. These cores were further refined by making their edges sharp to form discoids, chopping tool or hand axes. The hand axes which were found in the Sanghao caves were of two different types one type has rough end on the top and the second type have sharp end on the top. Other than hand axes, the scrappers were also found during the excavation in the Sanghao caves. Scrapers have been prepared from the tortoise core.

The second category of tools which were found along with the core tools, were the flake or blade tools. The flake tools were created by the use of the core tools. The flakes are struck by the core tools to give it shape. The lower face of the flake should be given a clear cut. Then these flakes were used to be removed for further refinement. Hence, the first blow to the flake makes the underside of the tool. Then secondary flakes are also removed from the flake by striking it with core.

The flake industry of Sanghao caves also prepared broad scrapers. For making the broad scrapers a single blow in the middle of the flake is given by the cave dwellers. The aim is to make scraping end of the tools so that it could be used as a blade to cut things from it. Moreover, there are also other tools which are made from the same process as the scrapers are made but they could not be placed under the same category. This is because these tools do not give a sharp edge which the specificity of the flake blades (Dani 1963, 16-20).

3.2.3 Caves of Rohri Hills

The Rohri hills are located in the north easter corner of Sindh province. The Rohri hills has its north to south extension of 73 km while it has some 20 km of east and west stretch. In these hills the limestone is found. In the layers of limestone, the flint, and chert stone tools are embedded. Moreover, the chert nodules have also been found on the surface of the Rohri Hills. The cave chamber which is located on the National highway bypass has been excavated in the Rohri Hills. During the excavations at Rohri Hills it was found out that the human was making stone tools from the time of lower Paleolithic age (Shaikh et. al 2008, 7-8)

The cave is located on a height of 20 meters from the ground level. It was found out that there were seven workshops' sites on the side of National Highway bypass in Rohri hill caves.

These workshops produced the Acheulean industry tools like hand axes, choppers, and cleavers from chert stone.

The similar tools have also been excavated in the Thar desert region of Sindh. This indicate that the National Highway Bypass Rohri Hills dwellers have connection with the people of Thar desert in the lower Paleolithic age (Shaikh et.al 2002: 3-33). The tools making became further advanced with the onset of the middle Paleolithic age.

New varieties were added to the existing tool making. The equipment, which was made at that time included hand axes, scrapers, adze, side scrapers, unifacial-bi-facial scrappers, discoidal cores, and flakes. In the middle Paleolithic period, the number of the workshop also increased. Moreover, the size of the stone tools also decreased, and more focus was put on the refinement of the tools. In the upper Paleolithic period, the size of the stone tools was again reduced, and the refinement was brought in making tools. The major change in the making of the tools was recorded in the conversion of the discoidal core into unidirectional/pyramidal core.

Moreover, the making of the picks and scrapers were also continued in the upper Paleolithic age, but this was done now with more attention to the refinement of the tools. Core tool was also found during the excavation of the Rohri hills cave site. It was found out that the core was used to struck other stone and sometimes used as a hammer. At that time the chert stone material was used for making stone tools. The chert stone material was collected from the Rohri hills site which give evidence to the fact that the tools belonged to the Paleolithic period (Shaikh et.al 2008, 18-21)

3.2.4 Gondrani caves

The Gondrani caves are located at a distance of 20 km from the ancient city of Bela in South western district of Lasbela in Balochsitan. It is located at a distance of 218 km from the city of

Karachi. It is located in the longitude of 26° 23 39 North and altitude of 66° 12 45 ° East. There are many names which are used for the Gondrani caves such as Shehre-e- Rohgan, cave city of Gondrani, House of spirits, and Mai Gondrani (Government of Balochistan).

There is not much documented about the Gondrani cave, and it still known as a mystery that who constructed it or who used it. The British explorers have mentioned about these caves in the District Gazetteer of Lasbela in 1910. The location of the caves has been described in the following words,

About 9 mile to the northward of Beyla a range of low hills sweeps in a semi-circle form one side of the valley to the other and forms in head. The Poorally rives issues from a deep ravince on the western side, and s about 200 yards broad. It is bounded on one side by steep cliffs, 40 or 50 feet high, on the summit of which there is an ancient burying ground, and the water runs bubbling along it in two or three small rivulets, among heaps of stone and patches of tamarisk jungle. Having crossed the streams we pursued our way up its bed amongst the bushes until we gained the narrow ravine through which it flows, and then turning into one of the lateral branches, entered Shuhr Roghun (Gazetteer for Lasbela District 1910, 39).

After the British left the sub-continent, nothing has been written on the caves and no excavation was took place. Although, the Italian mission have conducted the archeological study of the Lasbela district, but their focus on the coastal regions of Lasbela and the adjoining Lake Siranda region of Lasbela (Biago 2011; Biago, Girod, and Nisbet 2013; Biago, Fantuzzi, Franco 2013; Biago, Girod, Nisbet 2014).

There are major differences in the Gondrani caves and the other caves such as Sanghao caves, Rohri hills caves, and the Potohar/Soan valley caves. First the Gondrani caves has been carved out by the humans but the other caves which have been discussed earlier did not carved out by the humans. Secondly, a large number of evidence of the stone age tools such as chopper, scraper, flakes, and hand axe were found in the caves of Rohri hills, Sanghao caves, and Potohar/Soan valley caves, but in the case of Gondrani caves no such evidence has been found. It is due to this reason that the exact dating of the Gondrani caves becomes difficult to estimate.

Andre Wink (2002) in his book, "Early Medieval India and the expansion of Islam 7th-11th centuries", has written that the Gondrani caves belonged to the Buddhist period. He argued that the architecture of the caves is similar to the Buddhist era architecture. He mentioned that,

In effect, at eighteen km north-west of Lasbela, at Gandakahar, near the ruins of an ancient town, are the caves of Gondrani, and as their construction shows these caves were undoubtedly Buddhist (Wink 2002, 135).

However, it is not just enough to argue that the Gondrani caves belonged to the Buddhist period just from the analysis of the architectural of the caves. The Buddhist period evidences includes stupa, monastery, and sculpture of Buddha. However, during the field study there has been no such evidence was found in the Gondrani caves that indicate that it belonged to the Buddhist period.

3.3 Conclusion

In this chapter the caves have been discussed from four provinces of Pakistan that is Potohar/ Soan valley caves from the northern Punjab, Sanghao caves from KPK, Rohri Hills caves from Sindh and Gondrani caves from Balochistan. There has been much evidence found in the caves of

Potohar/ Soan valley, Sanghao caves, and Rohri hills that testify that these caves belonged to the Paleolithic period.

The stone tools which have been found in these caves belong to the lower, middle and upper Paleolithic age but no such evidence has been found in the context of Gondrani caves in Lasbela. Secondly, the Sanghao, Rohri hills, and the Potohar/Soan valley caves were natural rock shelter for the people, but the Gondrani caves have been carved out by the humans and it is not natural rock shelter.

However, the exact dating of the Gondrani cave is not possible due to the absence of any evidence of the stone tools that belonged to the lower, middle, or upper Paleolithic age. It has been suggested that the Gondrani caves belonged to the Buddhist period due to its construction, but it is not enough because the Buddhist period is known by its monastery, stupa, and sculpture of Buddha.

Chapter 4 Myths associated with the Rock cut caves of Gondrani, Lasbela

4.1 Introduction

Usually, people construct myths about a particular place that seems mysterious to them, and they are unable to find any plausible explanation of that place. These myths are communicated from generations to generations in the form of folk tales. The present research site of rock cut caves of Gondrani Lasbela also have certain myths that the indigenous people have constructed to explain the ruins of Gondrani caves.

However, it is not just the local myths that is associated with the Gondrani caves rather there are also academic myths which are associated with the Gondrani caves. Hitherto, the dating of the caves has not been carried due to the lack of material evidence. The historians have speculated that the caves belonged to the Buddhist period due to the style of the construction of the caves.

The local myths associated with the Gondrani caves include the story of Prince Saif-ul-Malook and Princess Badiul Jamal and the story of the female saint Mahi Peer. It is said that Saif-ul-Malook Prince saved the daughter of the local monarch, Badiul Jamal from demons in the Gondrani caves. It is common myth among people living near Gondrani caves that the caves are not safe at night because there are lot of evil spirits that spend their nights at Gondrani caves.

There used to be a female saint known as Mahi Peer who is considered by the Local people as having supernatural powers. Mahi Peer have fought all the evil spirits in the area of Gondrani caves and made the area free of evil spirits. But after her death local people think that still the evil spirits come at night and harm people if they are staying late at night.

4.2 Folk tales associated with Gondrani Caves

Gondrani Caves is not just a mysterious place for the people rather it is a mysterious place for the archologists as well. This is due to the lack of physical evidence in the Gondrani cave site. Further excavation of the Gondrani caves are required to find any scientific justification of the people who used to live in the caves.

The caves consist of darkened rooms of different sizes. There is also veranda in front of the room, and the evidence of hearth is also found in the caves that is speculated as the kitchen of the caves. The Gondrani caves are located at a distance of 15-18 km away from the Bella city of Lasbela, Balochistan. These caves are located at 175 km from the Karachi city (Mehmood, 2017).

4.2.1 Cave belonged to Buddhists

The first myth about the Gondrani caves is academic myth and not local myth of the people derived from folk stories. The dating of the Gondrani caves have not been done by the archeologists. It is speculated by the historians that the Gondrani caves belonged to the Buddhist period. During the 7th century A.D the Buddhist kingdom was expanding in South Asia and these caves were also contemporary to that period.

The evidence that is used to support this myth is the construction style of the caves. The way in which the caves have been carved out resembles the stupas of the Buddhist period in South Asia. On the basis of this evidence, Andre Wink (2002) in his book, "Early Medieval India and the expansion of Islam 7th-11th centuries", has written that the Gondrani caves belonged to the Buddhist period. He argued that the construction of the caves is similar to the Buddhist era constructions.

In effect, at eighteen km north-west of Lasbela, at Gandakahar, near the ruins of an ancient town, are the caves of Gondrani, and as their construction shows these caves were undoubtedly Buddhist (Wink 2002, 135).

However, it is not just enough to argue that the Gondrani caves belonged to the Buddhist period just from the analysis of the construction of the caves. The evidence for the Buddhist period includes the stupa, monastery, and sculpture of Buddha. This evidence has not been found in the Gondrani caves due to which it could not be categorized in the Buddhist period.

Mariko Sawada has visited the Gondrani caves, Lasbela in the year 2018 and 2019. Before visiting the Gondrani, he has also visited Bamiyan caves of Afghanistan in 2003 and 2012. He mentioned that the exact dating of the site has not been done yet by the archeologists. But he also mentioned that the architecture of the cave has resemblance with the Buddhist era caves of Bamiyan Afghanistan.

Sawada found that mentioned that there are 750 caves in Bamiyan, Afghanistan that is spread over an area of 1300 m long cliff. It is estimated that the construction of these caves started in the 5th century and in 6th and 7th century it reached the peak of its construction. It finished in 8th to 10th century.

This period is known for the expansion of the Buddhism in South Asia. However, in terms of material evidence, there are lot of evidence in Bamiyan caves that indicate clear relationship to the Buddhist period. The wall paintings, and the wall decorations that has been found in the Bamiyan caves indicate to the Buddhist period.

Although it is said that the Gondrani caves also belonged to the 8th century, But there is lack of evidence in the context of Gondrani caves. There is no wall paintings nor any decorations

in the Bamiyan caves, there is only resemblance of architecture between Bamiyan caves and the Gondrani caves. Sawad wrote that,

"A closer view. I had a strong sense of déjà vu when I first came here. It reminded me of a cave of Bamiyan valley in Afghanistan. The difference from the Bamiyan was that in Bamiyan the caves were with Buddha and some other wall paintings and ceiling decorations. But here there were no decorations at all" (Sawad, 2019)

Hence, it could be argued that due to the lack of evidence the justification on the basis of just architecture is not enough because, other evidence is lacking. Moreover, there are also absence of other evidence such as stupa or sculpture of Buddha in Gondrani caves, of Lasbela.

4.2.2 Myth of Saif-ul-Malook and Badiul Jamal

The second myth is local myth about the Gondrani caves. People say that there used to be a king in Gondrani caves region during the King Solomon period. The daughter of the king Badiul Jamal was haunted by six demons. The demons took Badiul Jamal with them.

King wanted to bring her daughter back due to which he asked from different heroes. Unfortunately, the efforts of the heroes did not borne fruit, and all failed to bring Badiul Jamal back. The prince Saif-ul-Malook came and brought back the king's daughter.

4.2.3 The myth of Mai Gondrani

The third myth about the Gondrani caves is also local myth. As per the local folk stories the Mai Gondrani was a female saint in the region of Gondrani caves. The shrine of Mai Gondrani is also located in the Gondrani caves. The researcher conducted the interview of the caretaker of the

Shrine. She was a female and locally known as Khalifa, her mother also used to be a Khalifa of the shrine (see fig 1)



Fig 1: Tomb of Bibi Somari

It is peculiar in the context of Pakistani society where the woman do not have access to many public spaces. During the interview the researcher also found that the Khalifa of the Gondrani caves are women since seven generations.

Mai Gondrani is also known as Bibi Barochani, Bibi Somari, and Mai Gondrani. As per the local myth, Mai Gondrani were seven sisters. Mai Gondrani was the youngest one and she also became female saint and fought the demons in Gondrani caves. The Gondrani caves was haunted by evil spirits that used to eat the human flesh.

Mai Gondrani fought the evil spirits and even gave her life to safeguard the lives of other people in the area. It is considered that Mai Gondrani is still living in the Gondrani caves and have all the demons under her control.

People also go there for meditation, and their existence depend on the patronage of Mai Gondrani. If the people are not patronized by Mai Gondrani then they die while doing their meditation. It is also considered among the local people that Gondrani caves are the center of all demons in Pakistan.

All the demons from across Pakistan come and stay in the Gondrani caves. The Khalifa of the caves said to me when I was conducting interview that she has talked about me with Mai Peer and nothing bad would happen with me.

This place is also famous for the shrine of the female saint. The tourist guides also use this folk tale to attract the tourist in Gondrani caves. It is still considered by the local people that the caves are haunted by the evil spirits in the night. It is due to this reason that the visitors who come here also leave the place in night.

In the morning, the Gondrani caves is a place of picnic and entertainment. People arrive from different regions to spend their day in the Gondrani caves, but they also leave before the darkness of the evening because they also think that the evil spirts would haunt them in the night. I have spent 10 nights in the Gondrani caves, but I have not experienced anything suspicious that exists in the local folk stories.

Chapter 5 Architectural description of Rock cut caves of Gondrani, Lasbela

5.1 Introduction

This chapter has been divided into four parts. Firstly, the geography of the Gondrani caves has been discussed. The location of the caves, routes to access the caves and the measurement of the stream water level has been elaborated. Secondly, the debate on the purpose of the construction of the caves has been analyzed with respect to the perspective of different scholars and the findings of the present research. Thirdly, the architectural description of the caves has been discussed. The rooms, veranda, halls, and the roof of the caves have been described. Fourthly, the fire burning and the air circulation in the caves have been discussed.

5.2 Geography of caves

Gondrani caves are located 20 km away from the ancient city of Bela in southeastern district of Lasbela Balochistan. It is 218 km away from the city of Karachi. The Gondrani caves are located on the Longitude of 26° 23 39 North and latitude of 66°12 45 East (see fig 2). The caves could be approached by travelling on Bela Road which connects Karachi to Quetta.

This road is well constructed and to approach the caves first there is travel of 10 km in northern direction from Bela city (see fig 3). Then after crossing the cemented road, the off-road travel begins. To reach the caves, it is necessary to travel 5 km from the pathway of streams because there is no proper road constructed to reach the caves



Fig 2: Location of Gondrani caves



Fig 3: Sign board installed by Tourism and Culture Department of Balochistan on Bela city road

Geographically, there are streams that pass between the mountains where Gondrani caves are located (see fig 4). Locally, the people say that do not stay there where the stream level is increased. Many people who visit Gondrani caves are died due to the increase in the stream level. The stream level usually increases when there is flooding. Some people who went there for swimming in the streams also died when the flooding took place in the streams.



Fig 4: Stream flowing between the mountain on the way to Gondrani caves

During the British period, different staff gauge has been installed to measure the water level in the streams. These staff gauge have been installed on the mountains at different heights where water level in the streams could be measured. In this manner, the maximum level of the water during the flooding season has been estimated in the streams between the mountains (see fig 5).



Fig 5: Staff gauge installed by British to measure the water level in streams

Moreover, chair lift has also been installed by the British to measure the water level in the streams. The purpose of the chair lift was not to cross the streams as it is used in most of the mountainous region. Rather the purpose of the chair lift was to measure the water level in the stream (see fig 6).



Fig 6: Chairlift installed by British to measure the water level in streams

5.3 Human carved cave

The researcher has not found any evidence of Paleolithic tools in the Gondrani caves like the chopper, flakes, or hand axe, due to which it is difficult to estimate that how the caves were carved out by the humans. It is due to the absence of any solid evidence that it could not be estimated that who were the dwellers of the Gondrani caves.

However, Zarar Babary⁷, who visited the caves in 1980s, argues that these caves were used by the long-distance caravans. He argues that the Gondrani caves are located on the pathway of the caravans. He associates the Gondrani caves with the caves of the Taxila, KP, and Sohan valley,

⁷ Zarar Babary is a teacher and an artist by profession. He has done his Master in Fine Arts from University of Punjab, Lahore, Pakistan.

where the caravans used to stay for short time period. Hence, the Gondrani caves are also similar where the people used to stay for short period of time. In ancient times, there used to be no concept of hotels due to which the people used to stay temporarily in the caves. The caves were not owned by anyone at that time. The caravans used caves on seasonal basis to seek refuge from the cold and hot weather.

Hence, the people who inhabited these caves they just spend some time in the caves, they used to keep their flocks in the caves. There is a veranda in front of each cave, and inside there are rooms. The people used to stay inside the rooms and kept their cattle outside in the veranda. However, it is questionable that if the people use to stay in the Gondrani caves for temporary period, then why there are so many caves carved out in the mountains by the people.

In the past there used to be around 1500 caves in the region, now many cases have been perished and there are only 500 caves left. However, it could also not be argued that the people settled permanently in the Gondrani caves because there has been no material culture found in the caves as it has been found in the caves.

Mariko Sawada⁸ has visited the Gondrani caves, Lasbela in the year 2018 and 2019. He has argued that there is similarity in the architecture of Bamiyan caves of Afghanistan and Gondrani caves of Balochistan. On the basis of architectural similarity between Bamiyan caves and Gondrani caves Sawada argued that the caves belonged to the Buddhist period. He found 750 caves in Bamiyan, Afghanistan and estimated the dating of the caves to 5th to 10th century BC.

⁸ Marik Sawada is an artist from Japan, who completed his PhD in Arts, Craft, and Metal casting from Tokyo University of Arts, Japan.

This period is known for the expansion of the Buddhism in South Asia. However, in terms of material evidence, there are lot of evidence in Bamiyan caves that indicate clear relationship to the Buddhist period. The wall paintings, and the wall decorations that has been found in the Bamiyan caves indicate to the Buddhist period.

However, in the conte5xt of the Gondrani caves no such material culture evidence has been found. It is due to this reason that Gondrani caves could also not be said to belong to the Buddhist period. There is no cave art inside the Gondrani caves that indicate that there was no evidence of material culture.

5.4 Architectural description of the caves

Many caves have been destroyed due to changes in climatic conditions and the flooding in the streams (see fig 7, fig 8, fig 9, fig 10). Hence, it was not possible for the researcher to conduct study of all the caves. Moreover, there are many caves which in the upper parts of the mountain



Fig 7: Cave destroyed due to flooding

which were inaccessible for the researcher because of the absence of climbing tools to reach those caves.



Fig 8: Inner portion of destroyed cave due to flooding



Fig 9:cave destroyed due to climatic conditions



Fig 10: caves destroyed due to climatic conditions and flooding

The steepness of the mountains also presented difficulty in physically climbing the caves in the upper parts of the mountains (see fig 11, and fig 12). However, the researcher reached the upper caves in some places where it was possible. But all the caves were not accessible for the researcher in the upper parts of the mountains.

The problem of access also made the researcher to think that how the cave dwellers used to reach the caves located in the upper parts of the mountains. There has been no evidence of the presence of the staircase in the mountains which could be used by the cave dwellers to reach the caves in the upper parts of the mountains. However, there could be one possibility that the cave dwellers used to make rope to reach the caves in the upper parts of the mountains. The absence of the staircase and the use of rope to access the caves indicate that the people used the upper

caves to take refuge from threat of attack from an enemy. The absence of staircase makes it difficult for the people to climb it without rope, keeping in view its steepness.



Fig 11: inaccessible caves



Fig 12: Inaccessible caves

Those caves which are accessible could be divided into two categories as per the air ventilation; first there are those caves which have a veranda in front of it; Secondly, there are those caves which do not have veranda in front of it (see fig 3). The function of veranda in present time period is that it is used to determine the cold and the hot weather outside of the room. Veranda is open from one side through which the hotness or coldness of weather is determined. In the similar those rooms which have veranda in front of it in Gondrani caves indicate that the humans used to live in those caves. Whereas those caves in which there is no veranda, indicate that the humans used to keep their flocks in those caves.

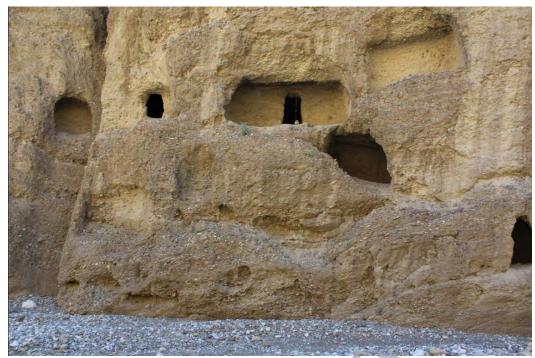


Figure 13: Veranda in Front of caves



Fig 14: cave with two rooms and veranda

It was also found out that there are two types of caves as per the location. Those caves which have veranda in front of it are mostly consist of two rooms (see fig 14) and these caves are constructed at the same place (see fig 15). To put it in another words, the caves which have two rooms and have veranda are concentrated in one place while those caves, where the veranda is not present and have only one room been usually isolated (see fig 16).



Fig 15: combined caves with veranda



Fig 16: Isolated caves with single rooms

Where the veranda is present in front of the caves its height is approximately 5.5 feet (see fig 17), width of veranda is 9 feet, and length of the veranda is approximately 4 to 4.5 feet. The door of the rooms has also been carved out by the cave dwellers.

The height of the door is approximately 5 to 8 feet (see fig 18), while the width of the door is approximately 2.5 to 3 feet. The rooms could be divided into categories on the basis of its construction with respect to the length and width. First there are rooms with veranda whose length is approximately 7 to 8 feet and secondly, there are halls whose length is approximately 16 feet.

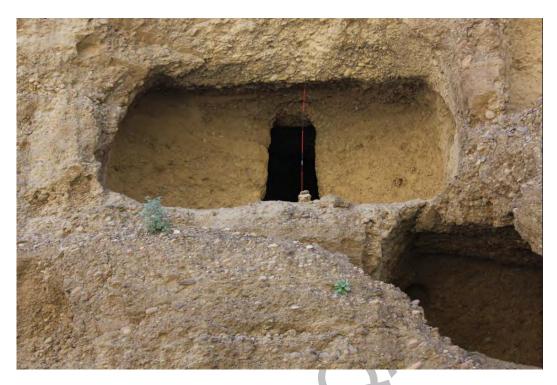


Fig 17: Measuring height of veranda



Fig 18: measuring height of doors

However, the width and height of the halls and rooms are equal. The width of the rooms and halls are approximately 11 to 13 feet (see fig 19) while the height of the rooms and halls are approximately 7 to 8 feet (see fig 20, and fig 21). Moreover, there are also two shelves constructed in the hall of one cave. The width of the shelves was 1 foot, height was 0.5 feet and depth were 1 foot (see fig 22). There are also some caves which were not completed, and it was left in the middle of the construction.



Fig 19: measuring width of rooms

The cave dwellers have carved the caves in such a manner that it was evenly carved out from all dimensions. However, there is difference in the height of the roof in veranda and in the halls/rooms. The height of the veranda is much lower than the height of the rooms (see fig 23).



Fig 20: Measuring height of roof in rooms



Fig 21:measuring height of roof in rooms



Fig 22: Shelves in the rooms of the caves



Fig 23: roof of cave

5.5 Fire burning and air circulation in cave

During the Paleolithic period, the hearth was made inside or outside the caves or rock shelter. There used to be different purpose of the hearth. The location of the hearth in a cave is an important factor while determining the purpose of the hearth. For instance, the Melpa people in Papua New Guinea used rock shelter for different purposes, but the important thing is that when they reached the rock shelter where they use to burn the fire.

It was found out that they used to burn fire in the end of the cave to keep the cave temperature warm in the night time. If the cave is large, then the people could light a fire in the day time on the front side of the cave. Moreover, if the purpose of lighting the fire was to cook, then the hearth is constructed outside the cave (Gorecki 1986, 161-162).

Moreover, the hearth study was also conducted in the cave sites of the Aboriginal Australians. The site selected for the excavation was the Western desert of Australia. It was found out that the people occupied the rock shelter for short time stay. Mostly, the people occupied the rock shelter during the rainy season.

The rock shelter was also used for the ceremonial or sacred activities. It was found out that most of the hearths (60%) were located in the center of the rock shelter and the rest (15%) were located outside the cave or on the front side of the rock shelter.

The aboriginal natives were asked about the locations of the hearths. Aboriginal explained that the hearth located outside was not used for cooking purposes rather it was used for social organization. The purpose was not to cook or to mold the stone tools. Moreover, they also explained that the hearth found on the front side of the cave was used at the sleeping time. The

people used to light fire in the hearth located in the front side of the rock shelter to get warmth during night while they were sleeping (Kedar, Kedar, and Barkai 2020, 2).

Moreover, the occupation of the rock shelter was also studied in the context of Sri Lanka. The Veddah groups used to occupy the cave shelter during the rainy season. The three different types of hearths were found in those rock shelter. It was found that the hearth which was used during the sleeping time was located in the back of the rock shelter approximately 1.2 m away.

The second hearth was found which was used for cooking purposes. It was located 2.2 m away from the wall of the rock shelter. The third hearth which was located outside of the rock shelter was used for the gathering and social activities outside the rock shelter (Binford 1978, 337-345)..

The study on the Picareiro Cabe in Portugal have been done on the basis of hearth locations, bones, and lithic distributions. It has been found out that the hearth location in the cave was intended to keep the smoke of the fire inside the cave. The smoking of the meat was done by concentrating smoke in the cave.

The Shanidar cave in Iraq have also been studied with reference to the hearth location during the middle Paleolithic age. There are number of different hearths in Shanidar cave which are used for different purposes. The smaller hearths are speculated to be used for sleeping, light, and warmth, on the other hand if the size of the hearths is large then it is used for cooking purposes (Bicho, Haws, Hockett 2006, 486-489).

The location of the hearth could also be used to understand the family system during the Paleolithic period. In the context of Big Elephant cave of South West Africa, it was found out that there used to be several bedding spaces on the back wall of the cave because there used to be many

hearths found next to each wall. This could be an indication that each hearth was mark of separate family and each family have lit their own hearth (Kedar, Kedar, and Barkai 2020, 2).

In the context of Gondrani caves, the hearth is located near the door (see fig 24). The hearth was made in a circular manner with the wall with a radius of 3 feet in length. The location of the hearth in a cave usually determines the purpose of the hearth in a cave. As the hearth is located near the door of the cave it could be assumed that the purpose of the hearth was to cook food in the cave.



Fig 24: hearth location in cave

The hearth is located in the halls as opposed to the rooms. In Gondrani caves the number of the halls are less compared to the rooms. The rooms were used for sleeping purposes in night

and for taking shelter during the rain, but the halls have hearths and there are very few of them which indicate that the primary purpose of them was to prepare food.



Fig 25: piece of hearth block

The hearth location in Gondrani caves is similar to the Picareiro Cabe in Portugal where the hearth location was intended to keep the smoke inside the cave. The smoking of the meat was done in these cases by concentrating the smoke in it. The location of the hearth in Gondrani caves also concentrate the smoke inside the cave.

Chapter 6: Conclusion

The present research study focused on the Gondrani caves. For the sake of comparison, the Gondrani caves have been compared from other caves sites of Paleolithic period excavated in three provinces of Pakistan that is Potohar and Soan valley caves in Punjab, Sanghao caves in KP, and Rohri Hills in Sindh. The major differences between these caves and Gondrani caves of Lasbela Balochistan was that the Gondrani caves have been carved out by people while the other caves were natural cave dwellings used by the people.

The second difference between Gondrani caves and other excavated caves of Pakistan is that in Sanghao caves, Rohri hills, and Potohar, and Sanghao caves the evidence have been found for example hand axe, blade, flakes, and chopper (Jhonson 1969, 60; Dani 1963, 184; Dani 1963, 16; Shaikh et. al 2008, 7). But no such evidence was found in the Gondrani caves. It is due to this reason that it is difficult to date exactly that from which period the Gondrani caves belonged.

During the field work the researcher could not find any evidence like chopper, flakes, hand axe or blade that proves that which part of Paleolithic period the caves belonged. Hence, it could not be estimated that who were the dwellers of the Gondrani caves. The people used these caves to take shelter from rainfall and during the heat of the summer. In the Gondrani caves there are rooms carved by the cave dwellers and there is also veranda in some caves.

However, the argument of temporary settlement seems implausible because there are approximately 1500 caves in the past now only 500 caves are remaining. The question is that why there are so many caves constructed if it was purported for temporary settlement. Moreover, there is no evidence of material culture such as wall or roof painting due to which the argument of permanent settlement is also seems less plausible.

When the researcher started doing field work in the Gondrani caves many of the caves were destroyed due to the flooding and changes in the climatic pattern. Moreover, the caves located in the upper parts of the mountains were also inaccessible for the researcher because there was absence of any climbing tools at the disposal of the researcher.

The caves located in the upper parts of the mountains was also inaccessible because the mountain was so steep that it was difficult to climb the mountain and reach the upper parts of the caves. It also raises the question that how the cave dwellers used to reach the upper caves in the mountains. It has been speculated that the cave dwellers used rope to climb the upper parts of the caves.

The absence of the staircase indicates that there was threat of enemy attacks by the cave dwellers, due to which they used to climb the upper caves using rope and making it impossible for the enemy to reach the top of the roof. There are other places in Balochistan as well where the people used to reach the top of the mountain using rope. The humans at the upper Paleolithic were making tools and were involved in the cave art. It is possible that they could have invented rope for this purpose as well.

Those caves which were accessible could be divided into two categories on the basis of air ventilation. There are those caves which have veranda in front of them and there are those caves which do not have veranda in front of them. Moreover, as per the location the caves could be divided into two categories. In first category of the caves, those caves in which there are two rooms and have veranda are closely constructed while those caves which do not have veranda and have only one room been isolated.

Generally, the veranda serves the purpose of accessing the weather conditions outside the

cave chamber. To analyze that whether the weather outside is hot or cold because it provides an enclosed view of the outside environment. Hence it is argued that the rooms with veranda used by the humans while the rooms without veranda was used to keep their herds and animals.

There are differences in the height of the roof of veranda and the rooms. The height of the veranda roof is much lower as compared to the roof of the halls and rooms. The roof has rbeen carved out in such a manner that it gives a straight design and the pebbles carvings have been cemented in the roofs. Moreover, there are also hearth constructed in a semi-circular manner near the door of the caves. The hearth is located in the halls rather than rooms. The rooms are much wider, but the halls are much longer in depth. There are more rooms as compared to halls in the Gondrani caves. Whereas the rooms were constructed for the purpose of sleeping, the halls which contain hearth near the door was used for the cooking purpose. This is because the location of the hearth concentrate smoke inside the caves due to which the food could be cooked in an efficient manner.

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6.2 Recommendations

It is recommended that steps should be taken to conserve the Gondrani caves and also to increase the in flow of the tourist in the Gondrani caves region. The Ministry of Culture and Tourism and archives department of Balochistan are responsible for the conservation of the archeological sites in Balochistan. However, no projects have been hitherto launched by the ministry either for the conservation of the Gondrani caves or to increase the facilities for the tourist in Gondrani caves.

William R. Elliot (2017) have conducted the research study on the conservation of the caves in the context of US. He has suggested several methods for the conservation of the caves. He suggested that there are many caves that have been destroyed as a result of the flooding and the climatic changes. These caves should be closed for the public recreational purposes, and it should be allowed to be accessed for the scientific inquiry and the conservation purposes.

To conserve the caves, it is necessary that the entrance of the people coming for recreational purposes should be properly regulated. First the people should be educated that they should not harm the caves. He suggested that proper fencing should be done around the caves and the gates should be installed to limit the access of those people. The electronic technology should be used for monitoring the entrance of the people. First, the security personnel should be appointed to take care of the gates, and silent alarm should be installed. The benefit of the silent alarm is that it do not make the visitor conscious rather the security personnel get alert that someone have arrived on the gate.

Moreover, the cameras should be installed through which the security personnel could monitor the movement of the people. The custom light sensors could also be installed. It could alert the security personnel or the managers through radio, telephone and satellite using the internet. However, these technologies require electricity, and the paucity of the electricity sources could be surmounted using the solar panels installation.

Elliot also suggested to remove the graffiti from the walls of the caves. If the government does not act against the graffiti, then the people think that it is justified to do so. The same could also be said about the dumping of the waste. There are many places near the caves in US where the people used to dump their waste which is harming the environment.

Elliot suggested that the volunteers should be recruited for the sake of removing the graffiti from the walls of the caves. The people should also be educated through publications, videos, and educational programs. Workshops should also be organized to educate the people. For the sake of conservation, the local community should also be involved.

In the context of Gondrani caves, there is a dispute over the land between different tribes, due to which any project of conservation should involve first the resolution of the dispute on the land. For initiating any conservation project first, the land should be acquired by the culture department of the Balochsitan by compensating the local tribes.

To conserve the Gondrani caves, it is necessary to do the fencing of the caves and install gates around the fencing. There are many caves in the region of Gondrani caves that have been destroyed due to the climatic conditions and flooding. It is necessary to limit the movement of the people coming for recreational purposes in the Gondrani caves.

The condition of permit should be imposed on the movement of the people. the destroyed caves should be open for the conservation purposes, scientific inquiry, and the archeological surveys. The people coming for the recreational purposes should only be allowed to visit those caves which are not destroyed.



Fig: 26: Graffiti done by tourist in cave

To monitor the movement of the people when they are left inside the protected site of the Gondrani caves it is necessary to install the cameras, and the security personnel should communicate with each other using radio, telephone, or satellite. For using these technologies, it is necessary that there is constant supply of electricity. The solar panels should be installed on the top of the mountains to provide constant supply of electricity for the use of these technologies.

Moreover, there are also graffiti done by the tourist in the Gondrani caves (see fig 26 and fig 27). It should also be removed from the walls of the Gondrani caves so the caves could be restored in its original form. The people should also be made conscious about the preservation of the caves. The people should be given pamphlets, and banners should be installed on the gate of the caves that the people should not dump the waste inside the caves area. Moreover, the dustbins should be installed so that the people should not dump the waste in the area.



Fig 27: Graffiti done by tourist in cave

After the conservation efforts it is necessary that steps should be taken for increasing the tourism in the Gondrani caves. Hidaka et.al (2007) in their project evaluation of the Ajanta-Ellora conservation and tourism development project in the context of Maharashtra India have evaluated the project that aimed for enhancing tourism.

Firstly, the have constructed stairs to reach make the Ajanta caves more accessible. Secondly, the sewage facilities were introduced so that the toilet facilities should be available in the cave site for the visitors. Thirdly, the roads have been constructed to make the distance to the caves much shorter. Fourthly, the water was made available by building the water storage facility in the region. Fifthly the electricity grid was also installed to make the supply of electricity uninterrupted. Lastly, the airport facility was also made available to increase the inflow of the foreign tfourist.

In the context of Gondrani caves it is necessary to construct staircase to reach the caves located in the upper parts of the caves. This is because that many people have been died felling from the upper parts of the caves. Gondrani caves have been considered as the suitable place for meditation due to which many people spend their time in Gondrani caves for the sake of meditation. When the researcher was conducting fieldwork in the Gondrani caves at that time, the researcher came to know that a person from Sindh province came to Gondrani caves for meditation and he died by felling from the cave.

There is no toilet facility for the visitors in the Gondrani caves, proper toilets facilities should be constructed in Gondrani cave area. There is also no water storage facility in the region and the only source of water is the stream that is flowing in front of the Gondrani caves. There should be some water storage facility in the region. Moreover, there are no proper road facility constructed to reach the cave the people have to travel off road approximately 10 km from the Bela Road. If proper roads are constructed, then it becomes more accessible to the tourist.

The local people are welcoming in nature. When the researcher went there for fieldwork the local people took care. They have presented the researcher with milk, sweets and even offered accommodation to the researcher. There are no instances of violence in the area due to which it is safe for the tourist.

The accommodation facility and the restaurants should also be opened so that more tourists could be attracted. If the number of the tourist increases, then the revenue of the culture department of Balochistan, the revenue in turn could be used for conservation of the Gondrani caves. Moreover, it could also become a source for the income generation of the local population.

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