

EVOLUTION OF DHAMNR & KOLVI ROCK CUT CAVES FROM 3rd- 9th CENTURY, CE

Ar.Abhishek Ranka¹

¹ Associate Professor, S.B. Patil College of Architecture & Design, Pune

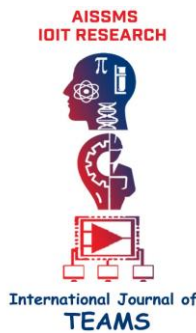
Corresponding Author: a.ranka@sbpatilarchitecture.com

Article Information

Article history:

Received Jun 10, 2023

Accepted Dec 10, 2023



ABSTRACT

Rock-cut Architecture is a manifestation of human endurance in constructing magnificent structures by sculpting and cutting natural elements. Cave Architecture in India form an important part of Natural & Built heritage, and is the most exemplary sites of rock-cut architecture. Rock-cut caves are widely spread in India, Some of the rock-cut caves are located in central region of India which is presently known as Malawa (Madhya Pradesh). The region is dominated by the vidhyachal hill ranges toward west, dotted with the coarse laterite rock. The earliest rock-cut activity began in the north, and continued to flourish in central region (Malwa) till 10th century CE, simultaneously with monolithic Hindu temples. In central India the rock-cutting sites is divided in two phases, in the first phase (2nd BCE-3rd CE), the Buddha image is conspicuously absent. During their excavation, these caves encountered invigorating trade activities & diverse socio-religious contexts. These are the finest examples of the wealthy & rich patronage of the dynasties. The origin of monolithic architecture was a complex process in India. This paper mainly focusing on the Development of rock-cut architecture (Built Heritage) of mixed religions from 3rd to 9th century CE. It also focuses on the spatial arrangements of architectural form & spaces. It also focuses on the (Natural Heritage) geographical and social settings, Landscape. Which reflected through the art & architecture of historical remains.

KEYWORDS: Rock-cut Architecture, Built Heritage, Buddhism, Hinduism & Architectural Typologies.

1. INTRODUCTION

Rock-cut Architecture in India is classified in two types one is cave structures & the other is monolithic structures. The cave structures consists of natural and Man-made caves which were excavated horizontally from front to rear and the other monolithic structures consists of temples which were excavated vertically from top to bottom. Cave Architecture in India is an exquisite typology of rock-cut development, there are more than thousands of known rock cut structures excavated nationally, out of which majority were built or excavated by Buddhists, Jains & Hindus. Many of these excavations contain works of art of global importance, and many later form of caves are adorned with exquisite stone carvings. These rock-cut cave structures represent significant achievements of

architectural development, craftsmanship and acquirement. India is eminently acknowledged for its rock cut tradition & designs belonging to Jain, Buddhist & Hindu caves. Ajanta, Ellora and Elephanta Caves are renowned World heritage Sites and many more caves of different regions in India are flocked by natives & tourists. However, Rock-cut caves of Dhamnar, Kolvi, Vettuvan Koil Jain beds at Kalugumalai & Poladongar in India, have stayed away from limelight. These were excavated or discovered over a span of 700 years from 3rd to 10th century CE, & they forms the shared sacred faiths journey, principally of Jains, Buddhist & Hindu tradition, represented with expertise through art, architecture and Iconography. Excavated against the background of invigorating trade activities and varied socio-religious or Socio-Cultural contexts of

a changing society, these cave type are distinctive and vital proof of a later phase of rock-cut architecture. The rich repository of motifs, figurines, icons and ornamental forms relate expertise to even a lay spectator. These caves also highlights the wealthy and varied patronage provided by the dynasties of the past.

1.1 Need for Research

Despite being most important asset of art, architecture and culture, the Rock-cut caves of Dhamnar, Kolvi, are very less of known, thus it hold a significant character of religions, Civilizations & knowledge systems. It has not been earlier researched from the aspects of Shared sacred sites & their architecture. So the present research could enhance the understanding and evolution of share sacred sites (Buddhism, Jainism & Hinduism) in to the main stream of rock cut architecture.

1.2 Aim

To explore the evolution of Dhamnar & Kolvi caves of shares sacred sites (Jainism, Buddhism & Hinduism) from 3rd - 9th century CE & its relation to rock-cut architecture.

1.3 Objective

- To understand the manifestation of the architectural built forms & functional spaces.
- To identify or understand the evolving concept of heritage through religious sacred places.

1.4 Research Questions

- Can we identify any pattern / typology which shaped the rock-cut architecture?
- What is the general classifications of the Rock-cut structures?
- What are the elements which evolved during the different phases of Buddhism, Jainism & Hinduism?

1.5 Research Methodology

To address the key research objectives, the methodology adopted is based on qualitative research with the combination primary and secondary sources. The qualitative data supports the analysis and findings.

2. CASE STUDIES:

2.1 Rock-Cut Caves and Brahmanical Temple at Dhamnar.

**Co-ordinates-(24°11'36.52"N, 75°29'54.38"E),
Protection Status- ASI State protected
(Jaipur circle)**

The Rock Cut caves of Dhamnar is situated in the village of Chandwasa in the Chandwasa hill, located in Garot taluka of Mandsaur district within the state of Madhya Pradesh, India. Geology, Hydrology & Topography of the Figure SEQ Figure * ARABIC 1. Dhamnar Chandwasa

hill site is natural formation of a coarse laterite rocks, the site consists 83 No.s of rock cut caves includes worshiping & Burial stupas, Chaityagriha, Circumambulatory path, Viharas or Mandapa and Compact single cell , Double cell dwellings, excavated around 3rd – 7th century CE. [1] In some of the caves the colossal sculptures of Gautama Buddha in sitting and Nirvana gesture been sculpted. On the table top of the hill Brahmanical excavation Ras Temple is located which was been built in 12th century CE. MahaShivratri and Hariyali Amavasya is the major festival of the Dharmrajeshwar temple, an annual fair is been organized every year which is locally known as the Ras Mela. This fair was established in 1306 CE. [1] Chandwasa hill is ecologically balanced and equally serving to habitats. The complete hill is not accessible because of dense vegetation and non-accessible ways. It is consisted of Coarse laterite stone and mix red soil with one natural water body and two wells in which one is in working condition inside the temple precincts. The historic rock-cut Dhamnar caves begins from Zone-1 to Zone-4 & the Brahmanical Dharmrajeshwar temple lies between them. The site consist caves of Buddhist, Jain & Hindu. One monolithic temple followed by nine small temples, and some possible potential areas of archaeological findings. The Chandwasa hill is expanded in a 30 hectare of area. The hill is divided in four zones. Each zones containing the rock-cut caves which belongs to multiple faiths. The numbering system of the caves starting from the south-east side of the hill. Which is shown in the site plan. Brahmanical rock-hewn Dharmrajeshwar temple of Dhamnar is significant. The excavations however are monolithic structure, in which the whole structure is excavated from top to bottom method. The Brahmanical excavations is a huge open pit, cave, and is located at the central part of the Hill.

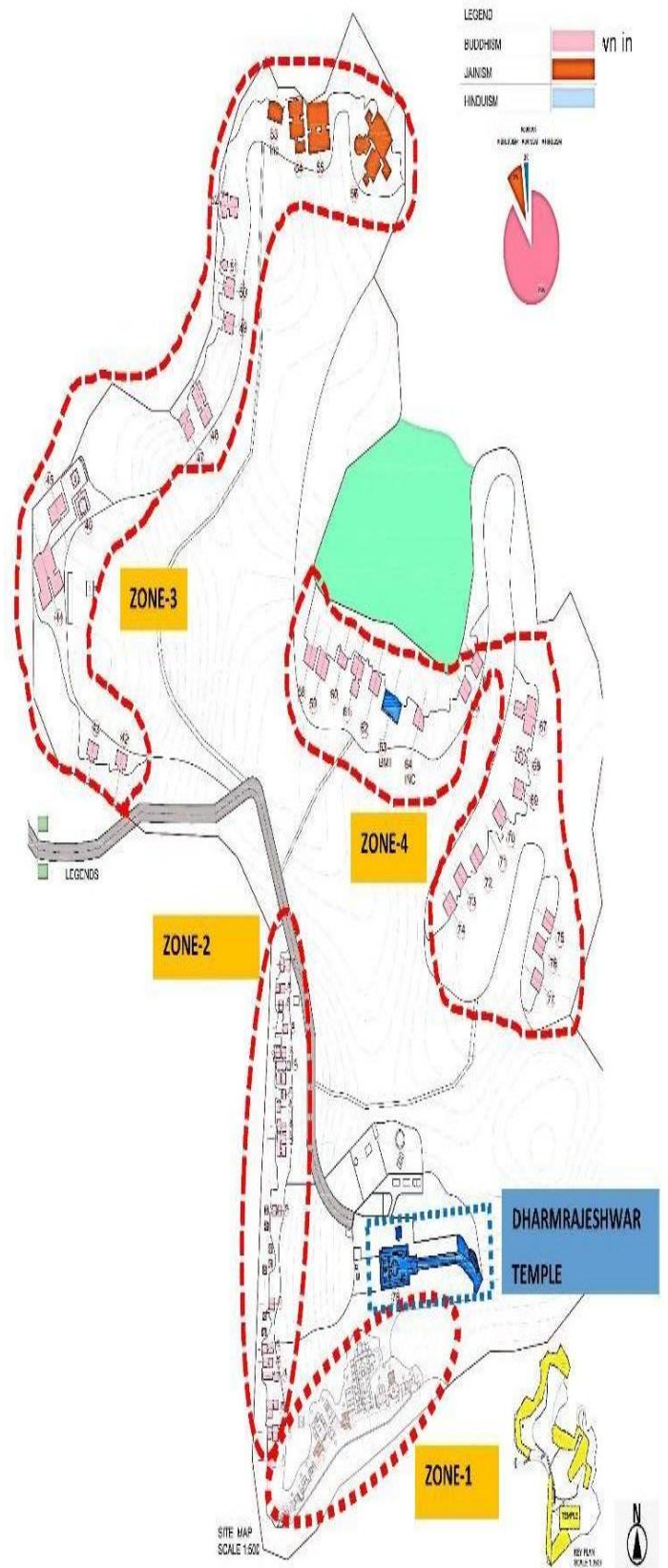
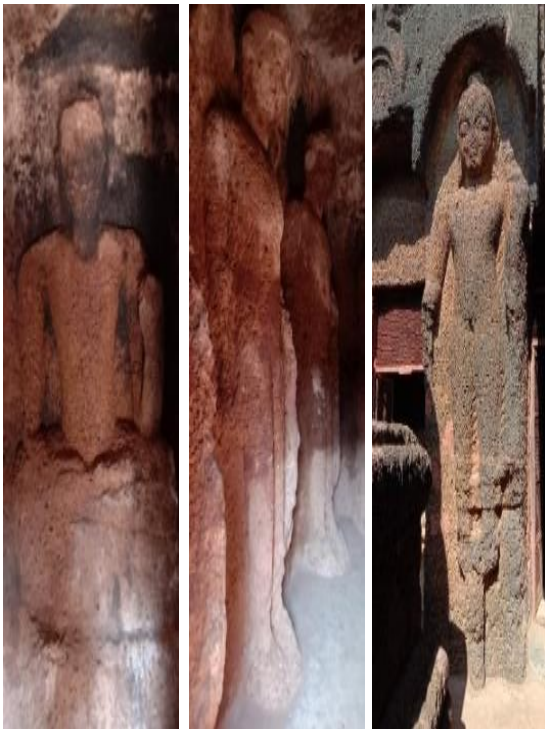


Figure SEQ Figure * ARABIC 2. Site Plan of Dhamnar Caves at Chandwasa Hill showing all the zones and location of caves.

Source: Author

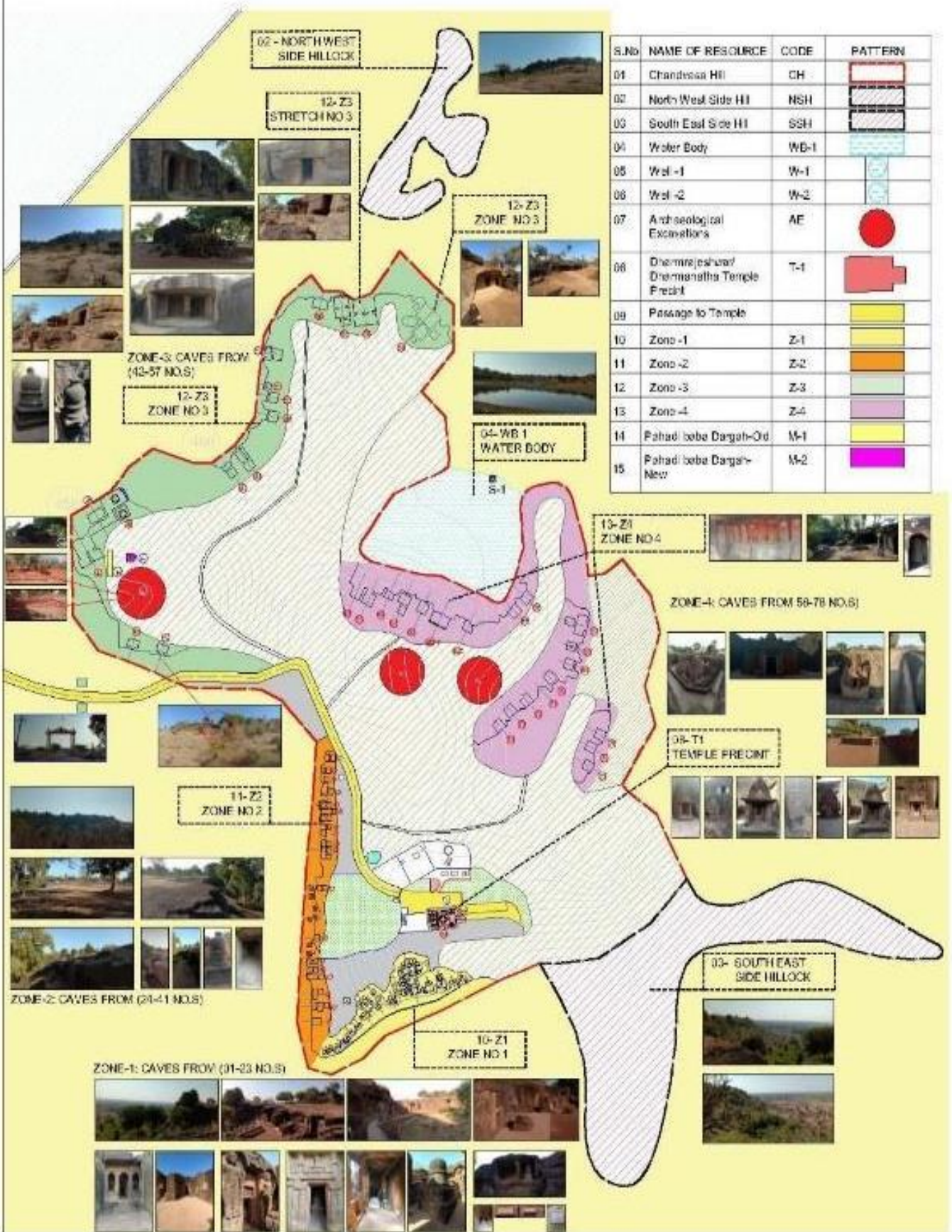


Figure 3. Cultural Resources mapping of Chandwa Hill.

2.2 Kolvi Rock cut Caves At Kolvi Village

Co-ordinates- (24° 0'42.18"N, 75°50'55.88"E)

Protection Status- ASI State Protected (Jaipur Circle)

Kolvi caves is also named as Kholve caves, it is located in the Kolvi village of Jhalawar district of Rajasthan. Very close to Chandwasa hill of the Dhamnar caves. [1] The natural topography and terrain of the hill creates a shape of horse shoe form with a decent elevation from the ground level. The rock formation of the Kolvi caves hill is similar to Chandwasa hill of Dhamnar Caves (Case-1). The slope of Kolvi hill is much steeper as compare to Dhamnar and is completely covered by brushwood's. The ancient Buddhist caves of Kolvi carried an archaeological & Historical values and also a great example of National Heritage Importance. The principal excavation of Kolvi has 50 No. of Buddhist caves. These ancient caves excavated structurally from front to rear excavation process and also carved with stupas and rare figures of Buddha are the exemplary evidence of Indian art. These caves were an abode to the Buddhist monks who came here seeking peace between 5th and 8th Century AD. [1] Similar type of caves can also be found in nearby villages, which proves the existence of a flourishing civilization several centuries ago and the Buddhist influence in the region. The eastern & northern side of the cave is completely damaged due to the weathering, but their remains are of the archaeological importance. Many of the caves have open pillared verandah. Caves are completely unoccupied at present condition and due to decaying of stone material the images and figurines of Buddha's are lost and not visible. All the cave shown in (fig.-...) are grouped together

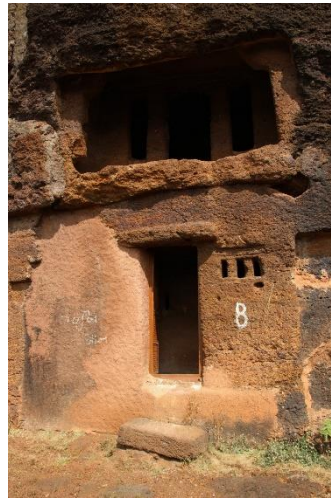
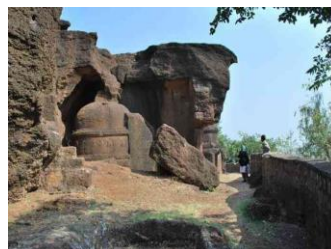
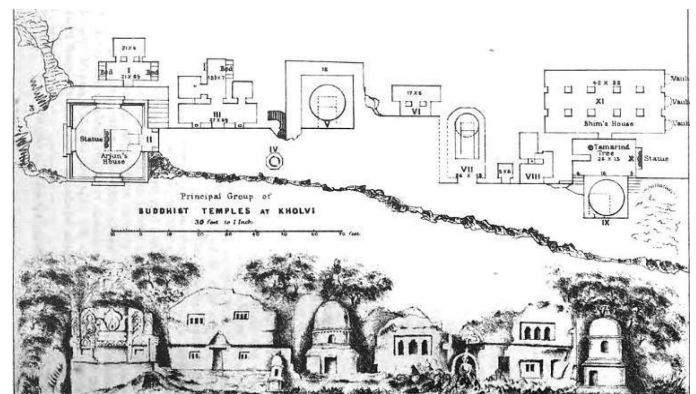
on the southern side of the hill. On the other eastern & northern side of the hill have many more similar caves are there but those caves are not accessible because of dense vegetation, damaged conditions & topographical limitations. The eastern face there is a large assembly hall (Mandapa) with open court area with a fallen roof which is not accessible because of current conditions. The Buddhist remains at Kolvi are comparatively few in numbers and small in size as compare to Dhamnar and other parts of the country.

3. RESEARCH ANALYSIS: Dhamnar & Kolvi Caves

The development of rock-cut cave temples connected to share faiths of Buddhism and Jainism. Numerous cave temples found in all parts of the country which presents the development of this cave temples of various periods and phases. The northern & eastern part of the country is also filled with such religious

Cave temples such as Dhamnar caves, Kholvi caves, Poladongar caves, Binnayaga Caves, Bagh caves etc.

Figure SEQ Figure * ARABIC 5. Glimpses of Kholvi Caves.

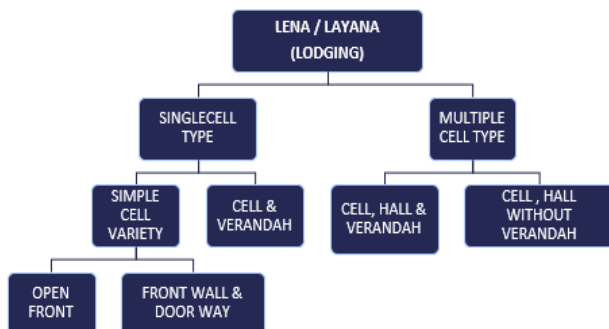


SEQ Figure * ARABIC 4. Layout of Kolvi caves, : Archaeological Survey report (1862, 63, 64, and 65)

CAVE ANALYSIS: After studying the two cases, there are four common typologies of cave architecture which is been visible in all the cases and will be discussed below in detail.

a) **Type-1: Lena's (Lodging cells): Monastic hall of residence with cells**

The term Lena is found in Pali & Prakrit in the 5th century CE, Later it was rendered as Layana. **Lena's or Layana are classified in to two categories, single cell & multiple cell type.**



Flow Chart SEQ Flow_Chart * ARABIC 1.

Flowchart 1: Classification of type-1(Lena's)

Single Cell Type: - It is the smallest and single type of caves. It is further classified in to two types' simple variety and cell & verandah. In simple cell variety the plan of cell is of two types one with open front means a cave which has open front and three side closed. The size of the cell is very small, (L= 1to 1.2 Meters, W= 1to2M and H= 2.4to 3.0M max). The other one is with front wall and doorway means that it is enclosed from three sides but the fourth wall has an opening or door way. Another type of single cell is Cell & verandah, the layout of caves is planned in such a manner that it has an entrance

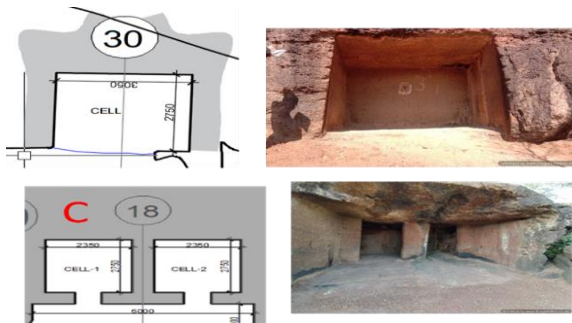
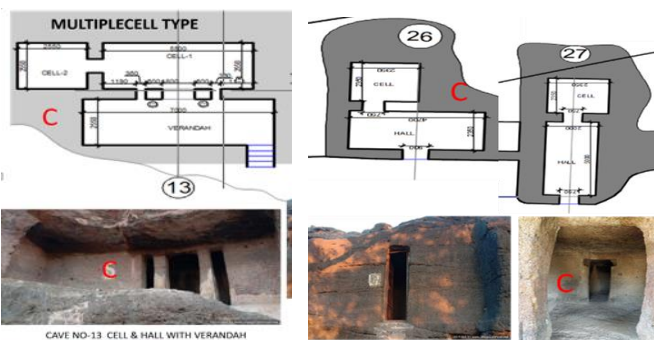


Figure SEQ Figure * ARABIC 6.Cave 30 Simple variety with open front & Cave No-18 Simple variety with front wall at Dhamnar cave.

verandah which leads inside the cell.

Multiple Cell type: - This cell type is varied from the single cell type and also bigger than the single cell type. It is classified into two types, Cell, Hall & Verandah which means a



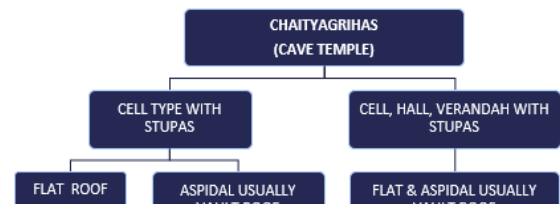
cave is designed with combination of multiple cells with large hall & entrance verandah and another type is without verandah.

b) **Type-2: Chaityagriha (Cave Temples): Chaityagriha: Hall or cell with a stupa with or**

Figure SEQ Figure * ARABIC 7. Multiple Cell type without relics.

The term Chaityagriha is known that the patrons (Traders or Rulers) themselves provide donations for the construction and called these monuments as Chaityagriha. The chaitya/stupa evidently meant the dome-shaped votive, cultic, structure having the five elements or parts: the Medhi, Anda, Vedica, Harmika, and chhatra. It is an exclusive category of the Buddhist architecture.

Chaityagriha is classified in to two categories, Cell type with Stupas & Cell, Hall, and Verandah with Stupas. - It is small model of Chaityagriha which

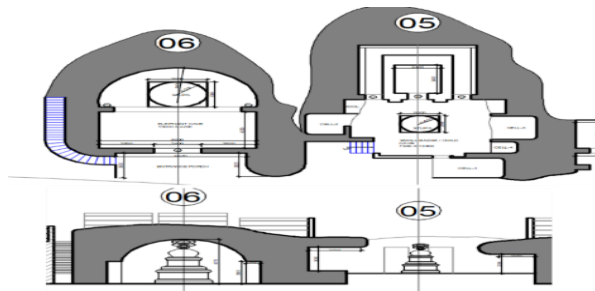


Flow Chart SEQ Flow_Chart * ARABIC 2.

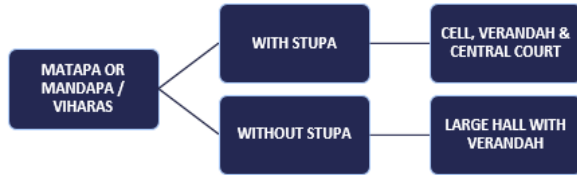
consist a small single cell with stupa inside. The stupa inside the cell is having a circumambulatory path. The shape of the cell is cubical and Apical both with flat & vaulted roof. This places are used only for worshiping purpose. This Chaityagriha typology is a combination of cell, hall & verandah with stupa inside in it. This is a big Chaityagriha as compare to the cell type category. The stupa inside the shrine is having a circumambulatory path. The shape of the cell is Rectangular and Apical both with usually covered with vaulted roof

c) **Type-3: Viharas / Matapa (Community / Assembly hall): Hall with cells or without cells for resting, assembly & dining.**

Mandapa word derived from the Prakrit word Matapa, means (community / assembly hall or pavilion) in Sanskrit. Matapa was a special type of edifice, completely different in terms of its Architecture & Function from the Chaityagriha & Lena. Matapa are of two types, with stupa or without stupa. With stupa type of Matapa



having cells, verandahs and multiple courts and without stupa type having large halls and verandah for



Flow Chart SEQ Flow_Chart * ARABIC 3. Classification of Type-3 (Matapa or Viharas) the meeting purposes.

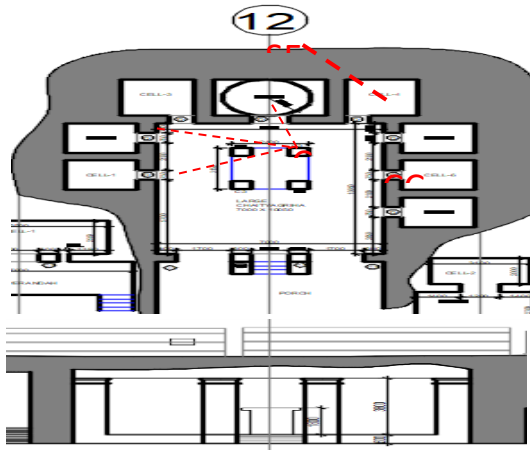
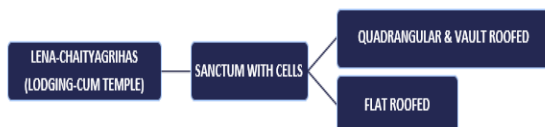


Figure SEQ Figure * ARABIC 8. Layout of Cave No

d) **Type-4: LENA- CHAITYAGRIHAS (LODGING CUM TEMPLES)**

Lena-Chaityagriha typology originated in late 2nd century CE and continued up to the last phase of the rock-cut architecture. The later monuments of the type flourished everywhere, and became the standard in Ajanta, Ellora, Dhamnar, Kolvi, Poladongar, Binnayaga, etc. The functional system of this typology is a combination of two types Lena & Chaityagriha (Type1 & Type 2).

This typology offers triple functionality at one place such as worship, dwelling, and assembling space. No need of their separate typologies only one was enough to fulfill the all three activities. The shape of the roof is Quadrangular-and-flat-roofed and very easy to excavate as compare to other typologies roofs such as (Apsidal and Vault roofs).



Flow Chart SEQ Flow_Chart * ARABIC 4. Classification



Figure SEQ Figure * ARABIC 10. Images of cave

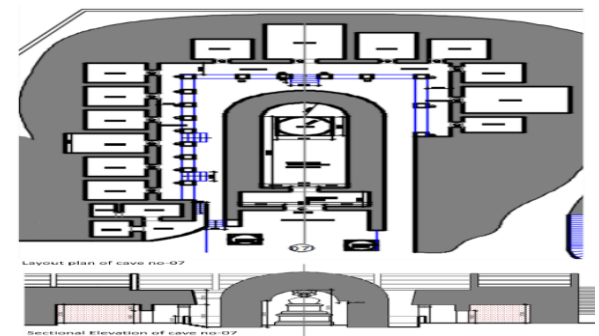


Figure SEQ Figure * ARABIC 11. Layout of cave

4. Comparative Analysis of Selected Cases

This comparative analysis shows the similarity and patterns of the evolution of Both Dhamnar caves & Kolvi caves during 3rd to 9th century CE and also shows the current status of the Sites.

Table 1. Comparative Analysis of both Cases. Source: Author

Parameters	Dhamnar caves & Brahmanical temple (MP)	Kolvi caves
Establishment Periods	(5 th -7 th CE)	(6 th -7 th CE)
Rediscovery Period	19 th Century (1845)	19 th Century
Geographic Location	(24°11'36.52" N, 75°29'54.38" E)	(24°0'42.18" N, 75°50'55.88" E)
Site Area	30 (HA)	6 (HA)
Natural	Forest Hill,	Forest Hill,

Settings	River & Lake	River & Lake
Dynasties	Aulikar, Kalachuris, Rashtrakutas, Pratiharas & Parmaras Dynasties	Aulikar, Kalachuris, Rashtrakutas, Pratiharas & Parmaras Dynasties
Construction Material	Coarse laterite rock	Coarse laterite rock
Construction Type & Method	Caves – Horizontally (Front to Rear) & Temple Vertically (Top to Bottom)	Caves – Horizontally (Front to Rear)
Architectural Typologies	Rock cut Caves & Monolithic Temple	Rock cut Caves
No. Of Buddhist caves	70 No.s of all typology	13 No.s of all typology
No. Of Jain caves	7 NO. of caves	Partially unexplored,
No. of Hindu caves	1No.s	None
Worshipping Stupas	YES	YES
Burial Stupas	YES	YES
Buddhist, Jain & Hindu Abodes	YES	YES
Brahmanical temple	Dharmrajeshwar Temple (Vishnu & Shiv Idols)	None
Iconography of shared faiths	Buddhism, Jainism & Hinduism	Buddhism
Cultural Practices	Active: Daily Rituals in Temple	NO
Major Festivals	Buddhpurnima, Mahashivratri, Hariyali, Amavasya	NA
Values	Archaeological, Architectural, Associational Cultural & Historical	Archaeological, Architectural, Associational Cultural & Historical

Uniqueness	Architectural Characters	
Heritage Potential	Very High	Average
Tourism Status	Average	Rare
Current Condition	Good but in need of Restoration	Average but in High need of Restoration
Protected status	Bhopal Circle – ASI	Jaipur Circle – ASI

5. Conclusion:

Rock-cut Architecture in India is classified in two types one is cave structures & the other is monolithic structures. The cave structures consists of natural and Man-made caves which were excavated horizontally from front to rear and the other monolithic structures consists of temples which were excavated vertically from top to bottom. The rock-cut caves & monolithic Temples are unique in its own resemblance of Geographical & Geological settings, Art, Architecture, Sculptures, forms & spaces. It also represents the utmost combination of man and nature, Shared sacred faiths (Buddhism, Jainism & Hinduism). The physical settings & potential of the place it is certainly undeniable that the royal patronage provided a conducive environment for the rock-cut architecture.

The body mass of coarse laterite rock & Black Basalt Rocks was excavated and large number of cases that have survived in the course of centuries, no doubt convey us a fairly good idea about their architectural peculiarities, the representation of variety of dwellings ranging from Chaityagriha, viharas & shelters of various types with monolithic temple with religious establishments. It is evident that all the cases was so designed as to make it appear like a shelters with an open or pillared verandah in front of one or more chambers dug out in the interior in the shape of cells, the verandah being provided. These shelters looks like dwellings of the monks and recluses may be judged with their peculiar roofs as patterns of the Buddhist monasteries & other places. In its architecture and the spirit, the caves & Monolithic temples are not only different in its style but also very rare of their respective regions. However, its solidity and firmness on the ground is like a broad-based pyramid amidst supplementary structures enclosed within a high wall. The variety of the sculptures and profusion of carving makes it a bold representation in a living rock. A close look on the temple overwhelms faithful representations of sculptures on its walls, ceilings. The temple itself becomes an enormous piece of sculpture and its architectural features seem to subordinate to the carver's skill. Figures of gods and goddesses, floral motifs. A fairly well distributed patronage favoring monolithic models was observed by the late 7th

century CE, and the one following and these largely followed the prevalent local composition in style. Dhamnar & Kolvi rock cut architecture contributions thus, alike in quality as in quantity, that they shared sacred faiths (Buddhism, Hinduism and Jainism) & contributed immensely to the culture, philosophy and art of the region. These rock cut Architecture sites through the nation is an exemplary & exquisite example of craftsman ship and architectural evolution. It also express and respect the culmination of shared faiths, and also the Man & nature. The research paper concludes that the selected cases of rock-cut shared sacred sites are unique in their own resemblance of Geographical & Geological settings, Art, Architecture, Sculptures, forms & spaces. These sited represents the utmost combination of man and nature so, it can be called as a sculpted museums of the shares sacred faiths. There could be many more undiscovered, unknown rock cut sites in several parts of the country, so it is essential to carry out systematic and exploration for the further research.

6. References

[1]	Alexander Cunningham, "Archaeological Survey of india four report 1862-63-64-65 volume II", 1871, pp. 270-287.
[2]	Mr. James Burgess & Mr. Fergusson, The cave temples of india.
[3]	Moti Chandra, Trade & Trade routes in ancient india, 1977.