CHAPTER–2
DEVELOPMENT OF ROCK-CUT ARCHITECTURE
Development of Rock-cut Architecture

Architecture is the art and science of enclosing and decorating the space created by nature. In terms of built heritage, it has been the most dominating art in Indian history and all the other modes of art are sometimes considered as accessories to it. Especially, temples constitute the most significant architectural forms in India are found almost everywhere - on mountains and hilltops, in the plains, by the riversides, in deep ravines and inside the dark and uninhabited caves, amidst thick jungles, on the seashore, in deserts, on the frontiers as well as in the centres of the villages and towns. These can be tiny or huge, ordinary or magnificent, simple or gorgeous and sometimes very powerful.

The temple architecture is simply not a representation of the skill of the architect or a craftsperson, but it is the realization and culmination of the religious concept. It is an embodiment of devotion which inspire their existence in a visible form. In ancient times, religious considerations were not only behind the forms and structure of temple, but also the aesthetic idioms at particular point of time when they were commissioned. T. V. Sairam has aptly said “They are the symbols of art and religion”1.

The architecture of any region has influences of its geographical position, climate, social-political conditions and other related factors. In ancient India, the water bodies were the hubs for the settlements of human civilization. For example, the Indus Civilization had its maximum settlements alongside the rivers or other water bodies.2 The water bodies were source of varieties of building materials for construction. Even after the decline of Indus civilization

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water bodies have been mentioned as an important component of town planning in the *Vastushastras* \(^3\) text of India, and also been mentioned in the *Arthashastra*\(^4\) of Kautilya and *Smaranganasutradhara*\(^5\) of King Bhoja.

Being situated near the water bodies, clay was the easily available material in Gangetic plains\(^6\). Also along with the clay, in forested region, wood played an important role of useful construction material. Here, not only the wood but sometimes different species of grass, reed bamboo were also frequently used\(^7\).

The availability of local building material was the obvious choice to be used for construction. For instance, trap in Deccan and granite were used in the region of south around Halebid\(^8\). Besides, the topographical features such as mountains, hills, ravines provided opportunities to experiment different artistic skills. Certainly, due to these experimentation, we find rock-cut activities in region naturally blessed with hills\(^9\).

The setting up of sacred spaces such as tumuli, hut, temples, groves and enclosures has been a characteristic feature in the religious movements throughout history of the world. All such temple structures have remained the expressions of deeply ingrained religious sentiments and spiritual values. In India various types are known as *Devagriham, Devagra, Devyatnam, Devalaya, Devakulam, Mandiram, Bhavanam, Mandir*\(^10\) etc.

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\(^6\) Sairam, T.V., op. cit., p.22.


\(^8\) *Ibid*, p. 26

\(^9\) Shukla, D. N. op. cit., pp. 486-87.

\(^10\) *Ibid*, 488
Etymologically, the term *temple* is derived from the Latin word, *templum*, which, in its original sense would mean a square or a rectangular place marked out by the augur for the purpose of his observations. In extended sense it gave the meaning of a consecrated place or building inaugurated by an augur. Though, in its primitive sense, this word corresponds to a place marked off as sacred to a god, in which the house for god may be erected.\textsuperscript{11}

Indian architecture is essentially an architecture laid on principles of *vastu*shastra and it has given space to the imagination while crafting the various decorative elements. Stone or brick is articulated in terms of forms derived from timber construction to create an expressive language architecture.\textsuperscript{12}

In terms of structure, it is a matter of heavy, piled up masonry, beams and corbelling rather than arches and true domes. Imagination and expression are chiefly utilized in the sculpted exterior. Expression of structure of load and support seems no issue in this universe of weightlessness, inter-penetrating heavenly structures.\textsuperscript{13}

With the beginning of the second phase of urbanization (6\textsuperscript{th} Century B.C.) sixteen *Mahājanapadas* came into existence. The substantial archaeological relics provide ample evidences about the circumstances of that period. The growth of Jainism and Buddhism were two popular sects which were briskly taking over the Brahmanism during that period.\textsuperscript{14}

Due to popularity of these two sects, Brahmanical lineage had to struggle for some time when these sects were prominently patronized by the royal court. There was a gradual change in mode of worship. Transformations in the

\textsuperscript{13} Ibid, p. 86
religious order were also accepted by the masses due to the over-burdened rituals and the rigid low-caste status.\textsuperscript{15}

The kingdom itself protected the Buddhist monasteries, where trader got shelter and sometimes, probably deposited their money. Gradually, it created a vast network among the traders of India and outside. The chaityas and vihāras began to flourish along with the ancient trade routes also known as ‘Silk Route’.\textsuperscript{16}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{wooden_construction_from_rock_cut_examples.png}
\caption{Wooden Construction from Rock-Cut Examples}
\end{figure}

\textbf{Courtesy:} Brown, Percy. (1971), Indian Architecture: Buddhist and Hindu Period, Bombay

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In addition to the natural factors, contemporary socio-political, economic and most importantly religious conditions also played pivotal role. It is evident in history that in politically unstable society the importance was given to security than artistic embellishments. Similarly, when the society or state was prosperous, it provided a conducive environment for the development of sophisticated arts\textsuperscript{17}.

Before the advent of Buddha (6\textsuperscript{th} century B. C.) the perishable and less durable materials such as wood, bamboo, brick, reed, cloth and clay were used. As per the Hindu traditions wood was considered as the best suited medium for making sacred objects\textsuperscript{18}. Also, the wood was easy to transform in any shape; for instance bamboo could be easily bent to obtain curvature, architraves etc. The solidarity of the rock carved down by the artisans who were professional. The arduous job of creating dwellings inside the stone by chiselling was not an easy task though the carving of the rock was based on the earlier wooden prototypes of the contemporary region.\textsuperscript{19} It seems that the sound of chisel was alike the sound of tinkling of bells for the artisans. The continuous flow of frequency of sound created the music of mysticism and bound them to the prolonged work without tiring. The chiselling of stone started a new phase of experiments. The motto was to create stylistic edifice from a living rock for the deity and the followers.

It is to the Buddhism that we owe the earliest monumental architecture still more or less intact in South Asia, consisting of mounded reliquaries or \textit{stupas}, monasteries and rock-cut sanctuaries\textsuperscript{20}. As per Tadgell \textsuperscript{21}, ‘the great

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\begin{footnotesize}
\item[17] Mahajan, Malti, p.19.
\item[18] Shukla, D. N., \textit{op. cit.}, p. 329.
\item[19] Srinivasan, K. R., \textit{op. cit.}, p. 4-5.
\item[20] Srinivasan, P. R. \textit{op. cit.}, p.85.
\item[21] Tadgell, Christopher \textit{op. cit.}, p. 12.
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transformation in Buddhism was accelerated from the 3\textsuperscript{rd} century B.C’. The beginning of earlier rock-cut cave architecture goes back to the Mauryan period.

During the Mauryan rule the stone was used as medium for column and statues. The Mauryan emperor Ashoka (268 BCE-232 BCE) used stone as a medium of proclamation for the message of law and tolerance known as ‘Dhamma’ through the rock edicts and pillar edicts. The rock edicts were carved on the living rock which later became as a source of encouragement for the architectural activities in the rock. The architectural remains from Mauryan dynasty onwards are overwhelmingly Buddhist but Vedic traditions of Brahmmins also flourished, as did the Jainism.\footnote{Beck, Elisabeth. (2006). \textit{Pallava Rock Architecture and Sculpture}. Pondicherry: Sri Aurbindo Society. p. 5-7.}

\begin{figure}
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\includegraphics[width=\textwidth]{figure7.png}
\caption{Stages of development in cave architecture}
\end{figure}

\textbf{Courtesy}: Brown, Percy. (1971), Indian Architecture: Buddhist and Hindu Period, Bombay
Later on, devotional worship through sculpted images increased in popularity among various cults which grew and merged into later forms of Hinduism, becoming the dominant form of religion under the Gupta dynasty (320-550 CE). This required monumental temples in which to enshrine the divine embodiment.\(^\text{23}\)

The inner sanctum of a temple the idol of main deity, most often Vishnu or Shiva, was established. As pantheon grew, the entourage or as the manifestations of the central god, was encased in the temple walls, especially outside, requiring niche to frame their images, or to evoke their presence. Buddhist practices, by the Gupta period, also entailed the use of images.\(^\text{24}\)

Though originally atheistic, by this time Buddhism in India had developed into forms known as the \textit{Mahayana} (greater vehicle). It became more pantheistic, more accessible to the congregation and more devotional in attitude. Images of the Buddha were enshrined, along with those of past and future incarnations of the Buddha.\(^\text{25}\)

The \textit{bodhisattavas} got prominent position in Buddhist pantheon. To serve this purpose, Buddhist architecture was tending towards aedicular\(^\text{26}\) structure even though the Hindu temple architecture was its preliminary stages of development. Analogous trends can also be seen in Jainism, having begun like Buddhism, as an atheistic philosophy, Jainism developed a pantheon of its great teachers (\textit{Tirthankaras}).\(^\text{27}\)

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\textit{Development of Rock-cut Architecture}
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\textbf{23} Ibid, p. 8


\textbf{25} Kail, Owen C., \textit{op. cit.}, p. 126

\textbf{26} An opening such as a door or a window, framed by columns on either side, and a pediment above

\textbf{27} Preira, Jose, \textit{op. cit.}, p. 23.
These *Tirthankaras* populated its heavens alongside some of the Hindu gods and throngs of celestial beings. Jain temples, therefore came to require a profusion of images installed in aedicular architecture and for a given region and period, Jain temple architecture is still distinguishable from Hindu temple architecture mainly by its iconography and to some extent its layout.²⁸

The architecture of Indian temples, with its aedicular components, grows from an earlier tradition of timber construction, known to us through early Buddhist stone structures dating from 1st century B.C. Monastic remains and worship halls, built of masonry or carved in solid rock, reserve the shapes and details of structures made of wood and roofed in thatch. A greater variety of such structures is depicted in relief carvings. Certain building types with distinctive roof forms stand out, which were clearly in common use for both secular and sacred purposes. These types, transformed into masonry, are the basis for the simpler forms of image housing shrines, which in turn are reflected in the early range of aedicules from which more complex temples are composed.²⁹

There are seven rock-cut chambers, four on Barabar hills and three on Nagarjuni hills in Bihar (Gaya). Archaeologically, these chambers are important as they are the earliest example of rock-cut technique copied from wood and thatch architecture. On the Barabar hills, Sudama and Lomas rishi caves are most significant

![Facade of Lomas Rishi cave](image)

*Figure 8: Facade of Lomas Rishi cave evidently displaying the wooden curvature into the rock supported by two upright beams © Archaeological Survey of India*  
*Courtesy: Indra Gandhi National Centre for the Arts, New Delhi*

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²⁸ *Ibid*, p. 24
example. The doorways of both these chambers have been carved in the fashion of wooden arch.\textsuperscript{30}

As far the ground plan concerned, they are not different from one another. Both of these consist two parts-hall with barrel vaulted roof and separate circular cell with domical roof interior doorway in the centre at the end of hall. The exterior wall of Sudama cave has perpendicular grooves and it has an enamel like polish which is evidently a feature of Mauryan artistic excellent. The facade of Lomas Rishi cave appears to be the exact copy of wooden doorways.\textsuperscript{31}

These stone monuments imitate beam and rafter constructions and their reliefs depict houses and other buildings completely constructed in wood. The \textit{toranas} (gateways) of the Buddhist stupa has its origin in a portal consisting of two wooden or bamboo uprights super-imposed by single wooden plaque which later on developed into three super imposed cross bar, made by banana stems for creating sacred space. Historically, the existence of palaces are mentioned by Megasthnes (4\textsuperscript{th} century B. C.) completely made of wood not of stone\textsuperscript{32}.

\textsuperscript{31} Mahajan, Malti, \textit{op. cit.}, p. 46
It has been generally accepted that the germs of monolithic carvings lay in the rock-cut Buddhist stupas. The genesis of monolithic architecture may be assumed from the dwelling units of monks, which later on developed as a centre of religion, trade and other cultural festivities. The pre-historic man also used the caves as a residential complex. The rock-cut architectural term may be introduced as manipulation of natural rock for the purpose of utility.

During the early phase of developments of the monolithic architecture, there are several sub-regional developments, which cover the activities under the rock-cut cave architecture in Indian sub-continent. Here need to be mentioned those activities of cave architecture as they can be regarded as **Genesis of monolithic architecture.**

**Development process in rock-cut caves**

As one can notice in many rock-cut caves, the carving technique was in developmental process throughout the phases of rock-cut architecture in the country. The rock-cut activities are mostly associated with Buddhist, Jaina and Hindu sects. The association of Buddhist monasteries along with the trade routes shows that these rock-cut caves were not only the place for meditation but were also exploited as trade centres by the traders. The chiselling out of resting places demonstrated the skill of artisans.

It seems that these artisans were deliberately associated with the religious system. It may be proposed that the philosophy working behind the excavation of caves was inspired from the *Vedic* philosophy which mentions *the deep*...

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35 Sundaram, K., *op. cit.*, pp. 44-46.
knowledge resides in caves’. In the Atharva Veda\textsuperscript{37}, cave (guha) assumes the mystical meaning of the ‘secret, mysterious, concealed place’.

\begin{quote}
Arvaganyah paro anyo divaspristhad guha nidhi nihito brahmanasya I

Tau rakshiti tapst brahmcharti tat keval krinte brahm vidvan II\textsuperscript{38}
\end{quote}

Bettina Baumer\textsuperscript{39} has opined that ‘expressions like guhachara, nihito guhayam and the like the Agni in the Rig Veda (e.g. RV III: 11, 9) and they are transferred to the Atman in the Upanishads. Agni is born in secret and is hidden in the secret place (guha): Though you are hidden (guha), you are visible everywhere (vishvadarshamtam), O auspicious One’ (RV V:8, 3).’

During the Mauryan rule, the use of stone had become common for column and statues, the sort employed being sandstone, which was to survive for centuries. Buddhist stone relief of 1\textsuperscript{st} century B.C. fortunately make an attempt to depict more ancient building which had been existed.\textsuperscript{40} The apartments are cut along the face of the rocks and doorway of the latter carries at the top of arched shape framework imitating the pattern of the curved roof in wood. This series of caves indicate that the simplest form of such temples consisted of a circular cell or shrine alone. T. V. Sairam\textsuperscript{41} has pointed out – ‘with such simple beginnings, the cave-architecture in India attained great skill and impressiveness as in Ellora.

The narratives carved on the reliefs of the gateways and railings of the stupas such as Sanchi and Bharhut provide details about the wooden architecture of that period. City gates, huts, shrines, palaces have been depicted in detail. We can have a better idea about the wooden architecture into rock-cut

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\textsuperscript{37} Chand, Devi. (1982). \textit{The Atharvaveda}. Delhi: Munshiram, Manoharlal. pp. 27,
\textsuperscript{38} Ibid, p. 506
\textsuperscript{40} Beck, Elisabeth, op. cit., p. 5.
\textsuperscript{41} Sairam, T. V., op. cit., p. 41.
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architecture. These gateways are profusely carved, illustrating the Jataka stories and various episodes from the life of Buddha. The wooden buildings are shown as multi-storey shrines, pavilions, palaces with master strokes of the carpentry. The inhabitants of these wooden buildings are depicted peeping out of the balconies.

K. R. Srinivasan has opined that “With the predominantly brick and timber architecture of early times there arose movement at the time of Ashoka which resulted in series of temples and other religious resorts being excavated into living rock. Being made of more permanent material, these have survived to the present day”. By the orders of the king, the carver imitated the contemporary thatch and brick structures to give an immortal expression of integrity in the living rock. All the architectural details of the period in their frontal and interior aspects were produced. This enables us to form an idea about the front and interiors of contemporary temples which were cut into rock and created partial or total imitations of structural examples. T. V. Sairam also testifies the notion- ‘the style with which the stone media has been treated so as to erect pillars, carve out friezes and architraves and built up facades and toranas reflect the translation of wood carving techniques on the stone medium.’ The Buddhist stupas, monasteries and chaitya halls grew up from 3rd century onwards along the ancient trade routes of India. It is well-known fact that Ashoka himself built stupas made of brick which were later encased by the stone during Śunga and Sātvāhanas period. The phase of rock architecture extended approximately over a period of more than a thousand years from the time of Ashoka, and is found scattered over different parts of India.

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42 Hardy, Adam, *op. cit.*, p. 15.
43 *Ibid.*, p. 74
The well preserved stone railings of Bharhut stupa in Indian Museum Kolkata provide a pictorial representation of the contemporary wooden building. The narratives from Jatakas have been evidently depicted with perfection and continuation. The episodes in stone are so well carved that give a pictorial details of everyday life of the society. The flora and fauna, human figurines, rituals, shrines are well represented in the bas-relief of the railings. More interestingly, the images of Yakshas, Nagas etc. represent the synthesis between the Buddhist and Hindu religion\textsuperscript{47}.

The rock-cut viharas also transform timber detailing into stone but there is a limitation of copying the whole due to the inside out nature of the carving technique. These rock-cut shrines increasingly shared the tradition of the structural one\textsuperscript{48}.

The rock-cut architecture consists of pillars and pilasters representing the various wooden prototype such as erecting a wooden post into a kalasha full of water, serving both the purpose symbolic and utilitarian. The early chaitya halls are almost a replica in rock of wooden prototype is evident from their design and execution which are peculiar wooden architecture\textsuperscript{49}.

The rock architecture seems to appealing to different sects. It was not only a permanent/posterior material but was also immovable being a part of living rock. It provided a permanent shelter and impressed the people who were accustomed to reside in the houses made of wood, brick, reed, wattle and daub\textsuperscript{50}.

\textsuperscript{47} Ibid, p.3.
\textsuperscript{48} Ibid, p.82.
\textsuperscript{49} Brown, Percy, \textit{op. cit.}, p. 23.
\textsuperscript{50} Kail, Owen C., \textit{op. cit.}, p.10.
As there was not any previous example existed in rock-cut architecture, the only alternative was probably the wooden architecture to be copied. In earlier rock-cut examples, several forms and fitments were directly copied. The artisans reproduced arches, ribs to strengthen curved roof, pillar to support, lattice windows for light and ventilation and railings for the protection of the edifice. The wooden constructions had been a long part of architecture due to abundance of forests. The people developed skill in working on wood. The carpenter held a place of honour among the villagers as they were depended on his handiwork for routine goods. In Ellora there is a cave known as ‘Vishwakarma’ or carpenter’s cave. It is well known fact that Vishwakarma is regarded as the God of carpenter community in India which also celebrated every year as Vishwakarma Day.

**Architectural forms**

The architectural forms varied across India due to the availability of the raw materials. It is quite possible and evident that the vernacular wooden architecture influenced the later rock-cut architecture throughout the Indian sub-continent. Especially, the Buddhist monuments were predominantly decorated by the wooden impression in the rock. In early reliefs of stupa at Sanchi, square, circular and rectangular huts have been depicted altogether.

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52 Tadgell, Christopher, *op. cit.*, p. 76.
On the frame of bowed bamboo conical roof takes shape in centre as pot-shaped finial. Some of them are gable ended apsidal and semi-cylindrical. In Vedic literature the most commonly used material was wattle and daub. The reliefs also depicts the work in brick and tile. Buddhism, however, frequently used the sacred enclosure vedika (railing) as mentioned in Vedic literature\(^53\).

These sacred railings were used for the uninterrupted Vedic rituals which later developed as protection palisade for the village. Actually, it symbolizes traditional ritual of circumambulation which is still followed in case of Hindu temples as pradakshina\(^54\) (circumambulation) of sanctum. The evolution of rock-cut architecture was based on the munificent grants by the kind as evident in case of Lomas rishi and Sudma rishi caves along with caves at Nagarjuni hills. On establishing chaityas and viharas Tadgell\(^55\) says, ‘*Beyond the everyday sustenance provided by laity, rich patrons endowed the Sangha with estates for sanctuary during the rainy season.*’ A relieffrom Bharhut, the ‘Palace of the Gods’\(^56\), shows the vihara as a multi-storey prasada (palace) and the attached shrine as a canopy like chhattri (umbrella), the three jewels of Buddhism viz., 1. Buddha 2. Dharma and 3. Sangha. It was the need of the Buddhist sect to distinguish lay followers and monks. To demarcate line, they developed congregational halls inside and outside the viharas. The relief shown in the picture show open pillared pavilions (mandapa) in adjacent to a chaitya.\(^57\)

During the Satvahanas reign, the Sangha flourished with the support of traders. The monasteries building and chaityas proliferated to a larger extent. Apart from the stupa, monasteries are the most impressive remains in the living rock. The Western Ghats became the centre of rock-cut activities due to the routes for

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53 Kail, Owen C. *op. cit.* p.17.
55 Tadgell, Christopher, *op. cit.*, p.12
56 *Ibid*, p. 13
the potential followers and patrons linked with Sopara and Arabian seaports.58 As a result of this, more than a thousand excavations came into being. Among these most famous are: Bhaja, Nasik, Junnar, Bedsa, Karle, Kanheri, Kondane, Pitalkhora, Aurangabad, Ellora and Ajanta. Each of these site has at least one chaitya-griha and several viharas. These are situated with each other in consistency59. These caves represent the finest skill of the craftsmen chiseling from top to bottom till finishing of each section before starting new60. The multi-storey structures, railings, terraces, balconies, lattice windows etc. ones which were predominantly produced in the timber work were literally translated into the living rock.

Figure 11: Chaitya Hall at Bedsa
**Courtesy:** American Institute of Indian Studies, Gurgaon

The transition can be seen in case of chaitya hall at Kondane is somewhat like Sudama Rishi in plan but its chaitya hall is domical and its hall is flat roofed. Lomas Rishi and Sudama Rishi chaitya-griha have barrel vaulted halls.61

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58 Ibid, 8
Rock-cut counterparts of wooden circular shrines are also seen in the Tulaja Lena group of Junnar and in a cave at Guntupalli. The rock-cut chaitya at Guntupalli has the small circular chamber which explains the kind of shelter that was first erected over the stupa- the beginning of the chaitya hall.

It is circular hut imitated in rock with a domed roof of thatch resting on framework resembling an inverted wooden basket and a monolithic stupa in the centre for worship. A passage for circumambulation and a porch in front of its doorway have been carved nicely. Similar imitation of timber including the torana (arch/gateway) above the lintel has been carved as a porch.

The Tulaja Lena cave at Junnar is also an excavation after the model of a circular chaitya. This mode of rock architecture shifted in the next century mainly to the softer trap formations of the hills of western India. Between 200 BCE and 200 CE, a number of Buddhist excavations were made in this region.

Figure 12: Facade for Bhaja caves

Courtesy: National Museum, New Delhi

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65 Ibid, 25
Rock-cut chaitya shrines of Western India may be divided into two groups representing two phases of development, Hinyana and Mahayana. Among these two kinds of structure, the chaitya hall and the vihara that were copied in the rock-cut manner, the more importance was given to the chaitya hall. There are eight of these belonging to the Hinyana period as follows: Bhaja, Kondane, Pithalkhora, Ajanta (no. 10), Bedsa, Ajanta (no. 9), Nasik and Karle, most probably executed in the order named. The two at Ajanta are part of that long series of both Hinyana and Mahayana monasteries all on one site comprising altogether as many as four chaitya halls and over twenty viharas.

All these seems to be excavated just previous to the Christian era, the first four in the second century BCE, and the remainder in the first century BCE. Two chaitya halls from Junnar, one of which is small but complete while the other is unfinished, may be added into this group. The chaitya hall at Kanheri executed towards the middle of the second century CE on the island of Salsette adjacent to Bombay seemingly marks the end of the Hinyana movement as far as its rock-architecture is concerned.

It may be noticed that chaitya hall of Bhaja represents the initial effort more convincingly. The entrance has an open archway, bringing the entire interior of the hall into view owing to the action of time and the climate. It seems that the open spaces were filled in with a highly finished and appropriate wooden construction, which completely screened the lower portion. It also affected to a little extent the appearance of the upper parts of the facade. It is possible to reconstruct the scheme of wooden frontage from the shape and position of the

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67 Mahajan, Malti, op. cit., p. 48.
68 Kail, Owen C., op. cit., p. 22-23.
69 Ibid, 24.
70 Ibid, p.115.
71 Brown, Percy, op. cit., p. 22.
mortice\textsuperscript{72} holes. The two uprights fitting into each side of the rock-cut archway the cross piece being a horizontal beam connecting them and holding them into position. The lower half was filled in by a screen containing one central and two side doorways, while above the cross-beam was projected a hanging balcony on four pillars.\textsuperscript{73}

The replication of woodwork was done profusely in the interior of the hall of Bhaja. It is evident by the roof ribs as well as the finial of stupa its umbrella being originally of wood. But even with these have an austere appearance, although its proportions are good.\textsuperscript{74} As to the stupa this central feature in its present condition is a plain conception in two simple parts consisting of a cylindrical base supporting a tall domical body with a railing finial. It seems that the stupa along with most of the parts of the hall were freely decorated with paintings, plasters and wooden embellishments.\textsuperscript{75}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{karle_caves_frontal_view.jpg}
\caption{Frontal view of Karle caves}
\label{fig:karle_caves_frontal_view}
\end{figure}

\textit{Courtesy:} Indra Gandhi National Centre for the Arts, New Delhi

\textsuperscript{72} A square hole made to receive a tenon and to form a joint.

\textsuperscript{73} Kail, Owen C., \textit{op. cit.}, pp. 72-74.

\textsuperscript{74} Brown, Percy, \textit{op. cit.}

\textsuperscript{75} Percy Brown, \textit{op. cit.}, p. 21.
An identical design of a Buddhist shrine of two apartments is evident by a cave at Kondane where the semi-circular chamber at the back has been carved out to contain a votive chaitya. The design of the circular sanctuary preceded by a hall seems to be a transitional stage in the evolution of the chaitya shrine of apsidal form. This is a noticeable bold move in driving apsidal hall axially into the depth of the rock.

In the case of the Pitalkhora, another advance in the development may be seen in roof-ribs in the side-aisles. These are carved out of the rock, evidently a further attempt to reduce the wooden attachment.

The next class of chaitya halls, judging mainly by the design and treatment of the facade, Ajanta (no.9) and Pandulena at Nasik are the two principal

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76 Dulari, Qureshi, op. cit., p.10.
77 Ibid, p. 11
78 Tadgell, Christopher, op. cit., p. 24.
examples, as both have no wooden additions to their frontage, the whole having been carved out of the rock\textsuperscript{79}.

The Ajanta facade is a well-balanced design. It has a doorway in the centre and a window on either side. These windows are carved above by an elegant cornice thrown out on brackets like a shallow portico. Over this is the rood-loft\textsuperscript{80}, a sill or ledge used as minstrel gallery, and rising above the whole is the sun window within a *chaitya* arch of graceful curves\textsuperscript{81}.

On the flat surface around the archway are carved as objects of decoration several small lattice windows, conventional renderings of the projecting casements copied so realistically from wooden originals as seen on the previous type at Bhaja and Kondane\textsuperscript{82}.

As already mentioned the plan of this hall is a rectangle and the ceiling on the side aisles. The other example of this class, the Pandulena cave at Nasik can also be added with the unfinished Manmoda\textsuperscript{83} *chaitya* hall at Junnar, although both differ considerably in

\textsuperscript{79} Mahajan, Malti, *op. cit.*, pp. 54-55.
\textsuperscript{80} A cross on a beam or screen at the entrance
\textsuperscript{81} Brown, Percy, *op. cit.*, pp. 22-23.
\textsuperscript{82} Qureshi, Dulari, *op. cit.*, pp.10-11.
\textsuperscript{83} Kail, Owen C., *op. cit.*, pp. 102-03.
their details. In both instances a lunette carved with symbolic design, in the Pandulena this is above the doorway, but in the Manmoda it fills the upper space of the archway over the sun window. In both frontages the decoration, the rock edifices at Pandulene, Nasik and the chaitya hall at Junnar have the similarity of being carved out of the rock and they bear no portico or vestibules.\(^8^4\)

![Figure 16: Wooden attachments depicted in stone at Kondane](image)

**Courtesy:** American Institute of Indian Studies, Gurgaon

At Pandulene sculptures are in relief then in an arcade containing pilasters. The caves at Nasik decorate the pillar to separate them from the conventional impression of posts. They introduced in some of the rudimentary capital in the form of a square abacus.\(^8^5\) In this phase the attention was paid to the base of the pillars than to the capital, as it can be postulated by the evidence of pot shaped

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\(^8^4\) Brown, Percy, *op. cit.* p. 23.

base. It is a replication of embedding a post in a pot to protect its lower part from insects or the damp. The pillars of this chaitya hall are not rudimentary in shape instead they are tall and slender covering diameter of one eighth of their height.\textsuperscript{86}

The next group, Bedsa and Karle, there are two very good examples mentioned by Percy Brown, \textsuperscript{87} one of the very fine examples of the maturity of the earlier phase. The basic difference is in facade. In both instances, the exterior takes the form of a massive part carved out of the rock face and serving as a kind of vestibule to the arcaded screen in its rear. One of Bedsa, that is probably the earlier one, is composed of two columns between pilasters and it is guarded by the masses of rock left in the rough on either side.\textsuperscript{88}

The design and execution of the pillars and pilasters of the portico make the facade a remarkable structure. They act as supports to the main beam of the roof. The peculiarity is that all in one solid piece as the entire frontage is carved out of the natural rock. The monolithic pillar of Maurayan period transformed in terms of their style. The earlier was plain but now in octagonal shape. The identical features like vase-shaped base (ghatpallav) the symbols of Buddhism denotes the architectural innovations and indigenous attribute.\textsuperscript{89}

\textsuperscript{86} \textit{Ibid}, p. 25
\textsuperscript{87} Brown, Percy, \textit{op. cit.}, pp. 21-24.
\textsuperscript{88} \textit{Ibid}, 26
\textsuperscript{89} Sundaram, K., \textit{op. cit.}, p.44.
Though the hall is small in size, being 45.5 feet long and 21 feet wide but having traces of painting on stupa and pillars. This work of craftsmanship in rock is exceptionally vivid in terms of beams, binding joist and imitation of wood work in stone.  

In comparison to the Buddhist rock-cut temples the rock shrines belonging to Jainas are not on a large scale. A group of caves in the hills of the Khandagiri and Udayagiri in Puri district of Odisha represent the earliest examples of the rock-cut building. These sandstone hills are situated on the either side of a narrow gorge. According to the inscription in the cave known as Ranigumpha on the Udayagiri hill is about 160 B.C. The difference from the Buddhist rock-cut dwellings can easily be noticed here. These cells are having the varanda (courtyard) in front and does not have central hall with cells like their Buddhist counterpart. It seems that these cells are excavated at convenient spots at different heights and connected with the rock-cut staircases. A few sites like Badami, Aihole and Ellora may also be named.

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90 Ibid, 45
91 Shukla, D. N., op. cit., p.485.
92 Mahajan, Malti, op. cit., pp. 101-02.
93 Brown, Percy, op. cit., p.29.
The Gupta Vakataka rock-cut architecture

As we have already noticed, the oldest stone temples of India belong to a period when Buddhism was at its zenith. The Hindu temple took a more durable shape only at a later date with the re-emergence of the Hindu religion due to the rich patronage of the Gupta dynasty. Construction pattern and technique of these Hindu temples show a great deal of Buddhist influence. Buddhism was not, however, free from the Hindu impact. At the same time or even earlier the Hindu concepts had started making tremendous inroads into the Buddhism which resulted in the emergence of a new Buddhist order, the Mahayana Buddhism. The Buddhist structural influence is surprisingly more intense as one could see it on the South Indian super-structure.

The difference from the Buddhist rock-cut dwellings can easily be noticed here. These cells are having the varandah (courtyard) in front and does not have
central hall with cells like their Buddhist counterpart. Even the height and width of these cells are not sufficient as the latter having in any example elsewhere. It seems that these cells are excavated at convenient spots at different heights and connected with the rock-cut staircases.

In the fifth century the art was augmented at the early Hindu temples of Deogarh, Bhitargaon and those erected under Vakataka influences as exemplified by sculptures preserved at Paun Ashram of Shri Vinoba Bhave near Nagpur an at the Hindu rock excavations at Udayagiri. Many of the caves at Kanheri have elaborate reliefs. Caves 17 and 26 at Ajanta mark a definite shift away from the art of painting in the direction of sculptural panels.

Gupta dynasty progressively marks the beginnings of the new phase of the rock-cut architecture. It is most important to note here that the architecture of the period represents the skill of the artisans in terms of composition of architectural elements. Gupta temples between 4th to 6th centuries CE are marvellous in the history of Indian architecture. The rock cut chambers at Udayagiri seem to be the earliest rock-cut temples belonging to the Hindu lineage. These may also be taken as an early example of initiation of rock cut activities for a Hindu temple. The nine cells, though not completely carved out, have been assigned to reign of King Chandragupta II (382-401 CE).

According to N. L. Mathur, "The Gupta age saw the revival of Brahmanism which found full expression in the carving of Brahmanical divinities". Cave groups of Bagh, Kolvi, Dhamner and Udayagiri need to be mentioned here in the Central India. Though first three are of Buddhist group and fourth one is of Hindu in nature. Cave temples at Udayagiri hills, one of which bears

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95 Mahajan, Malti, A Gate to Ancient Indian Architecture, pp. 80-82.
inscriptions of 401 CE, has some sculptures representing the incarnation of Vishnu as Varaha (boar) and also river goddesses, Ganga and Yamuna. The massive rock-cut relief is simple and monumental thronged with gods, men and celestial beings. It is one of the fine representations of the bhudevi uddhar (rescuing the earth goddess) scene in which earth is rescued from the waters by the Varaha God. This depiction of Boar God is an example of the mastery of the artisan who not only personified him well but also the size and proportions of the other characters are contrasted well to the deity. The earth goddess raised from the depths of the primeval sea is depicted on the right side of the God. On two sides are carved Ganga and Yamuna descending from the heaven and then flowing in to the sea. The two rivers join together and enter the sea where they are received by the God of sea personified as a male figure.

After the decline of Vakatakas and their allies the Guptas, the Deccan was captured by early Kalchuris of Maharashtra and Early Chalukyas of Badami by the middle of 6th century A.D\textsuperscript{97}. They were responsible for the flowering of Hindu architectural traditions beyond Gupta domain. The Pallavas of Kanchipuram subdued Cholas by 4th Century CE, and later defeated the Ikshavakus of Andhradesha.

**Elephanta Caves**

The other magnificent cave temple is Elephanta. For centuries. It had been a commercial, military, and religious centre, and it still has traces of the early Buddhist culture. With the resurgence of the Brahmanical religion the great cave, dedicated solely to Shiva, came into existence. In this regard Walter Spink has opined that this cave edifice was constructed by the Kalchuris in the mid sixth century\textsuperscript{98}. There is so much made of Kalachuri Kings particularly

\textsuperscript{97} Tadgell, Christopher, *op. cit.*, pp. 74-77.
\textsuperscript{98} Berkson, Carmel, *op. cit.*, p.5.
Sankaragana and Krishnaraja being devout worshippers of Maheshvara ‘from the very birth’ as seen in the inscriptions.  

The plan of cave is much similar like a Buddhist monastery with its cells for living aligned along three walls of a square court. As the worship of the figure of Buddha began to be encouraged with the development of Mahayana Buddhism, a shrine was introduced to house this image, replacing cells at the center of the back wall. All the later monasteries at Ajanata, Ellora and Aurangabad are built in this way. These more elaborate monasteries lead us directly toward Elephanta. The halls, columns, varying in number, are positioned in a square which permits circumambulation between the columns and the cell walls. It seems that same family of craftsmen and sculptors were employed in the construction of Brahmanical and Buddhist shrines.  

At Jogeshwari near Bombay, the idea of square shrine is linked to an earlier structure, the fifth century temple at Deogarh. This temple is a square structure situated atop a square terrace. Three doors are provided for entrance. Even today, within the chaturmukha (four-doored) shrine, the priest at Jogeshwari still moves ritually from door to door chanting and ringing his bell. But the walls at Jogeshwari are solid.  

It was the architect of Elephanta who first conceived the idea of opening the temple to the outside on three sides. It permitted and encouraged subtle transitions from light to dark and vice versa. Sunlight entering from so many directions and changing from moment to moment and season to season defines the nature of the experience here and later at Dumarlena at Ellora.  

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100 Huntington, Susan L., op. cit., p. 281.  
101 Ibid, p. 282  
The profuse alterations in the shadings of light are more integrally involved with the space and mass of the cave. Keeping the idea of the Buddha shrine in the back wall and the original front veranda, the architect replaced the side cells and walls of the monastery with verandas. No doubt, the cave was the creation of an unknown genius, a master architect.\textsuperscript{103}

He must have mastery over traditions of the carving of independent freestanding sculpture and rock-cut architecture. The continuation from the past can be traced in composition, iconography, \textit{puranic} narratives, spatial arrangement, style and use of mathematically precise measurements for figures and architecture.\textsuperscript{104}

The achievements of the Elephanta artists represent an abrupt departure from the past. Its ultimate synthesis of infinitely diversified and mobile forms with new modes of expressions and metaphysical conceptions of deity are a step ahead from the previous architectural traditions.\textsuperscript{105}

\textbf{The Pallava and Chalukyas rock-cut Architecture}

During the sixth century CE, the two Great empires- Chalukyas of Badami and the Pallavas of Kanchi in Deccan and Southern India respectively had ushered in an era of vigorous temple activities, reflecting in its mores the mingling of forms and ideals.\textsuperscript{106}

The dominant period of Pallava started with the reign of Mahendravarman I (580-630 CE). He was a Jaina, but his conversion to Shaivaisam proved to be a disaster for Jainism. He was the one who initiated the Hindu rock –cut tradition in Southern peninsula. Mahendravarman lost Andhradesha after defeated by the

\begin{flushright}
\textsuperscript{103} \textit{Ibid}, 49 \\
\textsuperscript{104} Shukla, D.N., \textit{op. cit.}, p. 242. \\
\textsuperscript{105} Huntington, Susan L., \textit{op. cit.}, pp. 291-294. \\
\textsuperscript{106} \textit{Ibid}, 295
\end{flushright}
great Chalukyan King Pulkesin II (610-642 CE). But later on, Narsimhavarman I Mamalla (630-668 CE) regained some of their lost territories and occupied Badami in 642 CE.\textsuperscript{107}

Adam Hardy has conducted a deep study on Indian architecture which refers to various architectural developments in the subcontinent. He has categorized the architectural traditions broadly in the two great classical language of Indian temple architecture, the northern Nagara and southern Dravida, draw on this common legacy. They were formed and differentiated during the 6\textsuperscript{th} and 7\textsuperscript{th} century CE Nagara and Dravida may be called as styles, but they cover vast area and time spans.\textsuperscript{108}

Two relatively example simple example can be used as an illustration at this point. First, the Bhutanatha temple stands on a promontory built out into the tank at Badami, the early Chalukya capital. It is a Dravida temple of modest dimensions. The shrine itself has the Dravida pyramidal outline –here with three \textit{talas} (levels) and contains the dark, cubical sanctum to house the principle image of the deity.\textsuperscript{109}

The spires of the shore temples at Mahabalipuram (mid-seventh century) actually form the precursor to the later versions of \textit{vimana}. It seems to be inspired from the Mahabodhi temple at Bodhgaya. The latter seems to be only example survived in Gangetic plain dates back to the Mauryan regime. It was built around \textit{vajrasana} constituting of seven storeys which used to accommodate monks and scholars. Its aesthetic sense was copied in regional architecture by the Pallavas who ignored its utility. This shore temple depicts a \textit{vimana} which is having seven storeys not for utility but for beauty.\textsuperscript{110}

\textsuperscript{108} Hardy, Adam, \textit{op. cit.}, pp. 15-16  
\textsuperscript{109} \textit{Ibid}, 17  
\textsuperscript{110} Tadgell, Christopher, \textit{op. cit.}, p. 20
In Dravidian shrine (vimana) the lower tiers support horizontal bands or cloisters (*haras*) of pavilions based on timber prototypes. The pavilions at the corners being square, domed ones (*kutas*), the central pavilions being rectangular and barrel roofed (*shalas*). The crowning element is at the top in isolation—would be described as large *kuta*. The pairing of pilasters under the *kutas* and *shalas* are integral parts.

![Figure 20: A view of Shore Temple of Mahabalipuram](image)

*Courtesy:* Lalit Kala Akademy, New Delhi

The elements of the Chalukyan and other southern cave temples, primarily depicting the *sala*, *kuta* and *panjara*, are again presented in the Brahmanical caves around Bombay. These caves, however generally vary in Buddhist examples at Ajanta and Ellora. The internal unity of *mandapesvar*, Elephanta,

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Jogesvari of Bombay, Ramesvara (Ellora) and Dhumarlena (Ellora) are well known.\textsuperscript{112}

They are totally different from the Buddhist groups which, however, have an internal commonness among themselves. It shows the several stages of development. It has to be inferred from this that pillar and layout details changed quickly within even one decade, as is sometimes being proclaimed in successive stages of Ajanta and Elephanta-Jogesvari.\textsuperscript{113}

Moreover, it can be said that the same sculptors had actually been commissioned. Although it could be true that craftsman for Vidarbaha may have been involved at Kanheri, the same cannot be automatically predicated to the Brahmanical monuments. It can be inferred that craftsmen were easily switching over form Buddhist to Brahmanical carvings around Bombay.\textsuperscript{114} In this case, Brahmanical cave-architecture is not a finite evolutionary stage in temple arts but a prestigious departure from structural erections, for which the environment around Bombay or around Ellora was into yet found conducive. It was only given to the Rashtrakutas to visualize and concretize the temple models such as Ellora monoliths even in the trap mass.\textsuperscript{115}

The caves at Elephanta, Jogesvari and Ellora (early phase) were styled for Brahmanical gods and on Brahamical temple models. It may be presumed that prototypes were existing in brick or stone. The architecture of Elephanta shows development, integration and elaboration over a fairly long and mutually related period and cannot be the command of the single king. Nor is \textit{pasupatism} the overwhelming keynote of the cave temples under reference.\textsuperscript{116}

\begin{flushright}
\textsuperscript{112} Srinivasan, K. R., \textit{op. cit.}, pp. 69-71. \\
\textsuperscript{113} \textit{Ibid}, p. 72 \\
\textsuperscript{114} Rajan, K. V. Soundara, \textit{The art of South India}, p. 139. \\
\textsuperscript{115} Kail, Owen C., \textit{op. cit.}, p. \\
\end{flushright}
They bring Shiva, Karttikeya, Ganesa, Lakshmi, Saraswati, Durga, Kalyanasundara and Saptamatrikas in an integrated framework which was part of a prevailing hieratic temple formula. They are the resonant, creative articulations of kings who had a plan and a purpose to propagate Agamic Brahmanical religious art at its best, of Vaishnava and Shaiva.\textsuperscript{117}

The Chalukyas of Vatapi erected the multitudinous edifices and structural excavations in that age and simultaneously Elephanta and Ellora cave can be attributed. Jogesvari, on the other hand, implies a long period of excavations and virtually should have got completed only by the time of the Chalukya-Rashtrakuta transition.

The main cave at Dharasiva\textsuperscript{118} particularly so clearly patterned after the Mahayana shrine cave of Ajanta has its much later use for Jainism. From an art historical point of view, Mandapeshwar, Elephanta and Jogesvari seem to be from one cohesive group in that order. And it would be artificial and unsound to isolate Elephanta without the study of Mandapeshvar or Jogeshvari. It would also be difficult to sustain the assumption that Ajanta or Jogesvari layout has something in common with both the religions concerned.\textsuperscript{119}

Further, sculptural forms of Deccan were strongly influenced by the artistic style of the Pallavas. It is characterised by tall and slender figures which could be distinguished easily from their Orissan or Vindhayan counterparts. Female forms are slim, with narrow waists and small shoulders. The breasts are well-rounded but smaller.\textsuperscript{120}

\begin{flushright}
\textsuperscript{117} \textit{Ibid}, p. 141.
\textsuperscript{118} \textit{Ibid}, 142.
\textsuperscript{119} Srinivasan, K. R., \textit{op. cit.}, p. 65-70.
\textsuperscript{120} \textit{Ibid}, p. 71
\end{flushright}
They wear fewer ornaments and garments. The male figures are somewhat heavier with broad shoulders, supported on elongated torso. Less attention is paid to the expression of emotions through facial movements, pose and gestures. These descriptions apply both to human and divine forms. In fact, this trait has been carried over for several centuries down South as evident in the various bronze figures of later dates.\textsuperscript{121}

**Development Dravidian monolithic temple**

Temples built all over India may not be classified at some points of overlapping of certain characteristics due to interaction of different cultures and intermingling of artisans belonging to different regions. Places of worship consecrated to various religions, their sects and sub-sects in different parts of

\textsuperscript{121} Srinivasan, K. R., *op. cit.*, pp. 1-5.
the country exhibit a variety which is again a highly typical feature of this land.\textsuperscript{122}

**Monolithic temples at Mahabalipuram**

The same way the religious thoughts could evolve with permutations and considerations of old concepts and the fresh ones. So was here a discernible line of evolution in the temple structures, which, while adopting certain basic traits also started incorporating several new feature. Fortunately, the possibility of synthesis of cultural and regional diversities among the shifting populations which alone could bring about an enlargement of scope for innovations, within the bounds of traditions which are no doubt, powerful and greatly influential.

T. V. Sairam\textsuperscript{123} has done a wonderful work on the literary tradition of architecture he says “Manasara and the Kashyapa, the treatises on architecture, profusely describe the construction principles and forms of Vimana. Manasara recognizes *vimanas* up to twelve storeys, Kasyapa describe sixteen storeys to the extent. A *vimana* may be round or contain four, six or eight sides. The form of the edifice may be uniformly the same from the basement up to the spire. There are three types distinguishable on the basis of the construction medium.\textsuperscript{124}

1. Sudha-constituting of a single material
2. Mishra- consisting of two materials and
3. Sanchirana- of three or more material

There are again three sorts of *vimana*, distinguishable on the basis of the dominance of height, breadth and *sayana* length. It can be seen that these shapes are generally in accordance with posture of the idol installed in *vimana*.\textsuperscript{125}

\begin{itemize}
\item \textsuperscript{122} *Ibid*, p. 7
\item \textsuperscript{123} Sairam, T. V., *op. cit.*, pp. 22-46.
\item \textsuperscript{124} *Ibid*, p. 48
\item \textsuperscript{125} Srinivasan, K. R., *op. cit.*, pp. 74-79.
\end{itemize}
The archaeological evidences postulates that the Southern *vimana* development must have originated from a more primitive *kuta vimana* (vimana with a prominent spire carrying a single stupid or finial). Leading to *sabha* type *vimana* (superstructure) having vault like or inverted bat-shaped spire carrying a series of *stupies* (pinnacle).\(^{126}\)

The simplest possible *Dravidavimana*\(^{127}\) (shrine) is a prototype of primitive hut with just a base, a wall and a roof, even today, many village shrines are of this type. In case of group of *Rathas*\(^{128}\), the only one known in monumentalized form is Draupadi’s *ratha* at Mahabalipuram. The basic class of Dravida temple comprises of a sanctum crowned by a pavilion in one form or another of domed *kuta* or barrel roofed known as *shala*. The lower tiers support horizontal bands or cloisters (*haras*) of pavilions based on timber prototypes\(^{129}\). The pavilions at the corners being square, domed ones (*kutas*), the central pavilions being rectangular and barrel roofed (*shalas*). The crowning element is at the top in isolation-would be described as large *kuta*. The pairing of pilasters under the *kutas* and *shalas* are integral parts\(^{130}\). Such shrines, as mentioned earlier, representation in stone of contemporary perishable material\(^{131}\). Probably the earliest surviving full-size square *alpa-vimana*\(^{132}\) is a small, sandstone shrine in front of the Ravana Phadi cave at Aihole (early 7\(^{th}\) century)\(^{133}\). This tradition later on developed into highly stylized edifices both structural and rock-cut.

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\(^{126}\) *Ibid*, p. 80

\(^{127}\) Hardy, Adam *op. cit.*, p.126.

\(^{128}\) *Ibid*, p. 127


\(^{130}\) Hardy, Adam *op. cit.*, p. 206-7.

\(^{131}\) Dayalan, D., *op. cit.*, p. 96.

\(^{132}\) Hardy, Adam, *op. cit.* p.206-07

\(^{133}\) Srinivasan, K. R., *op. cit.*, p. 76
Ratha Group of Temples

N. L. Mathur elaborates on the development “Gradually, in Tamil Nadu, by the time of Pallavas, during 7th century CE, the layout of a temple had been settled. This is known from the vast body of the literature known as Tevaram and Nalayiradivya prabandham. These are basically outpouring of saints of Shaivism and Vaishnavism, surcharged with spirituality who visited the various shrines and sang about them. The references to the terms like mata, malikai, kuta, kopuram in Tevaram portray the layout of the temples. Accordingly, mata was the sanctum; malikai was the hall in front of the sanctum and kopuram, the entrance structure. Matm meant a raised dwelling and hence matakkoyil was a temple with high platform”.

Narsimhavarman 1 (630-668 CE), known as Mahamalla of the Pallava dynasty was a great patron of architecture and further in his lineage Narsimhavarman II (680-720) who had a peaceful reign several temples were built during his time. One of striking example is Kailashnath Temple at Mahabalipuram. In terms of creating monumental wealth, Pallavas in Southern India created a landmark in the history of architecture. It seems that the artistic style was inspired by the art of Amravati.

The accentuated tubular form of the limbs has given the impression on the temple architecture of Pallava domain. Further Stella Kramrich observes, “Into their South Indian sculptures went something of floating impetuosity of long limbed figures of Amravati”. The rock-cut cave temples at Mahabalipuram are an expression of artistic genuine at creating monolithic temple from the living rock. Due to style and experimentation of Dharamraja mandapa is thought to be the earliest among the others. As given earlier example of

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135 Ibid, p. 32
Udayagiri caves, the Varah mandapa is an outstanding representation of asymmetrical arrangement of carved figures where Vishnu is shown lifting the earth from the cosmic ocean. In *Mahisha mandapa*, the fury and ferocity of the Mahishsura is beautifully represented. Another impressive panel depicts Vishnu as resting on *Sheshanaga*. Dr. N. L. Mathur\textsuperscript{137} observes “The tranquillity and repose as shown in Vishnu’s sleep is a marvel of plastic art”.

![Figure 22: Ratha Temples of Mahabalipuram](image)

**Figure 22:** Ratha Temples of Mahabalipuram  
**Courtesy:** National Museum, New Delhi

The panel of Krishna in Panch Pandva cave proportionally depicts the Goverdhana lifted by Krishna. In another panel, the scene of milking cows in Brindavana has been carved aesthetically. It may, however, be taken as representation of the Hindu epics in living rocks. The structural edifices seem to be inspired by the Buddhist example of the Jatakas representation variously found at Ajanta and other cave temples in India.\textsuperscript{138}

\textsuperscript{137} Mathur, N. L., *op. cit.*, p. 31.

\textsuperscript{138} *Ibid*, p. 32
The craftsmen further took a step experimenting to create monolithic temples or these may be treated as prototype of creating monolithic marvel at Ellora as an antecedent. The eight rock-cut Rathas- Dharamraja, Arjuna, Bhima, Sahadeva, Draupadi, Ganesha, Valiyankuttai, Pidari, however, may not be created in same order stands side by side.\textsuperscript{139}

The Rathas are beautifully carved and the sculptures on them represent the Hindu mythology. The reference may be given of carved images of bull, lion and elephant, the vehicle of Shiva, Durga and Indra respectively. The influence of Amravati art can easily be noticed here in terms of the movements and expressiveness of poses and gestures. The tubular exaggeration of the thinness of the arms and legs, heart shaped faces and high cheekbones represents a new dimension in the plasticity of the art as a precursor of forthcoming developments in monolithic architecture.\textsuperscript{140}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{lion_cave.png}
\caption{Lion cave at Mahabalipuram}
\textbf{Courtesy:} Indra Gandhi National Centre for the Arts, New Delhi
\end{figure}

\textsuperscript{139} Tadgell, Christopher, \textit{op. cit.}, p. 74.
\textsuperscript{140} Huntington, Susan L., \textit{op. cit.}, pp. 304-06
The Dharamrja Ratha is the tallest among all. On its base, there are four corner blocks each with the two niches carved with the images of Harihara, Brahma and Skanda. One niche portrays King Narsimhavarman with a conical crown. The upper balcony of Ratha having a series of relief figures of Shiva. The Ardhnarishwara image of the Rudra is very impressive.\textsuperscript{141}

Draupadi Ratha seems to be more elegant in this group. The dwar-kanyakas figures are lively depicted on the panels on each side of the doorjambs. The open air carving in relief on the rock surface is like an artistic expression of a canvas.

The decent of Ganges does not look like a work of novice, but a masterly realism. The 90 x 23 feet granite boulder was chosen to mark the skill of the artisan. The grandeur of the expression imbibed into the carving of relief is remarkably satisfies the thirst of the lover of art. Bhagirath is depicted on his one leg for the descent of the River Ganges. Here, Shiva is shown bestowing boon.\textsuperscript{142}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image}
\caption{Figure 24: Rock-cut panel bears the various narratives from Hindu Mythology}
\textbf{Courtesy:} Archaeological Survey of India, New Delhi
\end{figure}

\textsuperscript{141} Ibid, p. 307
\textsuperscript{142} Huntington, Susan, L. op. cit., pp. 296-304.
Thus, these representations of densely populated containing various life-size figures are marked by natural expressions. The whole scene of overflowing water genuinely transformed into the living scene of Himalayas. The depiction of Naga couple cuddling in the middle of the stream is a natural representation. A Brahman is shown going back to home with a pot of water on one of his shoulders. A deer approaches the stream to appease its thirst. Above are two swans’ plunges into the water. Such a realistic picture of the nature imagined and carved at this rock is an example of highly skilled artisans.¹⁴³

One remarkable scene which attracts is performing the penance of numerous ascetics around a small shrine of Vishnu. Similarly, on the other side of the stream, a cat is depicted imitating the same postures of penance by lifting the whole body in its hind legs and raising front paws above its head, and the nearby, the mice of the forest, on seeing their enemy in such an ascetic posture, run about fearlessly. One of them even seem daring enough to worship him as their god.¹⁴⁴

The open air panel of Arjuna’s penance is an example of the skill of the Pallava artists cutting stone directly. The representation of faunal world shows the artists’ consummate skill in depicting the habits and manners of animals very realistically. The sculptures of animals reached its apex, the deer, the elephant, the monkey, the bull and the cat at Mahabalipuram are skilfully chiselled out and an example of outstanding mastery in monolithic rock.¹⁴⁵

The concept of unity is obviously expressed in the relief sculptures of Mahabalipuram in two ways. Firstly, the unconscious stone emerges as the conscious form of animals, men and gods, who are engaged in various

¹⁴³ Ibid, p. 305  
¹⁴⁴ Ibid, p. 308  
¹⁴⁵ Ibid, p. 310
activities. Secondly, sculptures like the Gangavatrana of Mahabalipuram narrate allegorically the unity of the three worlds\textsuperscript{146}.

In this series, the Kailasanath temple at Kanchipuram was built by Rajasimha shortly after the Shore temple in the 8th century CE, and compared to the latter, is larger in dimensions and more majestic in appearance. The Kailashnath temple is situated in a rectangular courtyard surrounded by a peristyle\textsuperscript{147} composed of a continuous series of cells resembling rathas. But there the Pallava style is further evolved and more elaborate. It consists of the sanctum (garbha griha), a pillared hall (mandapa), the ambulatory, the vestibule in the shape of a hall. The flat roofed pillared mandapa, which was a separate building originally, was connected.\textsuperscript{148}

**Impact of religious domain**

During the time of Ikshvakus in Andradesa, the Brahmanical faith was revived and made a great impact on art as well. The worship of Kartikeya, Vishnu-ashtabhujaswami and Shiva was prevalent during 3\textsuperscript{rd}-4\textsuperscript{th} century CE The growth of Shaivite cult can be witnessed in the sculptural art during 6\textsuperscript{th} century CE in the following iconic forms-Shiva as Lingdharin and Shiva as Ardhanarishvara (androgyny), Nataraja and Uma-Maheshwara at Undavalli and Mogarajpuram caves. The Kalchuris favoured the Lakulisha images during 6\textsuperscript{th} century CE in Western India and during the time of Renandu rulers in Andhradesa the Lakulisha was so favoured that inscription were written with the invocatory verses to Shiva –Lakulisha.\textsuperscript{149}


\textsuperscript{147} A colonnade surrounding a building or enclosing a court.

\textsuperscript{148} Huntington, Susan L., *op. cit.*, pp. 313-17.

Andhradesa which came under the control of Chalukyas, witnessed the growth of Alampur as a great art centre of seminal importance. Following the innovative trends initiated at Alampur and perhaps under the guidance of the Alampur guild temples were raised at Kuaveli, Mahanandi, Panyam Satyavolu and Kadamarkalava. The unique feature of the architectural form is its kinship with Nagara temple form the temple of Dravidian style is exception. This moment for the first time in the history of architecture created a landmark and envisaged a new era.

**Political Influence**

The Chalukyas ruled the entire Deccan comprising Karnataka and Andhra from sixth century to the middle of eighth century CE. Being a principal power in Deccan its confrontations with the northern and southern powers created extensive contacts with different cultural zones. And later it became a supplement for evolution of a variety of architectural styles to Karnataka. At Aihole, the Nagara style of temple appeared during the reign of Pulkesin II and it was adopted subsequently. The Chalukyas were true patron of art and architecture. The extension of their kingdom to Andhradesa made a great cultural impact on the region and also on the western region. The comingling of several religious embellishments resulted out in form of temples that Chalukyan raised. They, as at Aihole, too favoured the latina temple form which was fundamentally of Nagara style architecture.

The Chalukya of Badami especially the king Pulkesin I (543 CE) was the real founder of the dynasty. The hills at Badami were fortified during his time. His

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150 Ibid, pp. 9-10.
151 Rajshekhara, S. (Early Chalukya Art at Aihole, pp. 7-8.
152 The term latina is from lata, meaning creeper and refers to the central spire of the tower (shikhar), so called because of the plant like patterns of horseshoe arches (gavakshas) climbing up it.
153 Ibid
successor Kirtivrmn I (566-598 CE) not only preserved the monarchy but also led campaign against Kadamas, the Nalas, the region between Bellary and Kurnool cave under the control of Chalukyas. During the reign of Manglesha the uncle of the King Pulkesin II succeeded Kirtivrmman as latter as a minor.\textsuperscript{154}

Pulkesin II became the monarch in 609-10 CE. His victorious campaign against the Kadamba of Vanvasi, Alupas, the Western Gangas, the Mauryas of Konkan, the Latas, the Malwas and the Gurjaras proved his intention of conquest of all then region and expansion of his reign. The battle with Harsha demarcated his empire as Narmada its frontier and the region between Narmada and Tapti came under the Chalukyan control. Again, he led his army against Kalinga, Kosala and Andhra which brought the whole region between the east and the west coasts under Chalukyan control.\textsuperscript{155}

Due to expansion of Chalukyan empire, a branch of came into existence in 624 CE, known as Chalukyas of Vengi. The command of this branch was in the hands of Kubja Vishnuvardhana, the brother of Pulkesin II. The Chalukyas of Vengi were a collateral line that had independently started ruling the Andhra coast from the commencement of the seventh century under Kubja Vishnuvardhana, the intrepid brother of Pulakesin II, and continued throughout the period.\textsuperscript{156}

The cave-temples are to be found at Badami, Aihole, Ellora, Bhokardan, Elephanta, Jogeshvari, Poona, Arvelam (Goa), Mahur, Adví Somanpalli, Vijayawada, Mogulrajapuram, Undavalli, Sítaramapuram, Penamaga and Bhairavakonda are product of this branch.\textsuperscript{157}

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\textsuperscript{154} Huntington, Susan L., \textit{op. cit.}, p. 283. \\
\textsuperscript{155} Tadgell, Christopher, \textit{op. cit.}, pp. 76-79. \\
\textsuperscript{156} J. Ramanaiah, \textit{The Chalukya and the Kakatiya Temples}, pp. 2-3. \\
\textsuperscript{157} \textit{Ibid}, p. 4
\end{flushright}
Pulkesin II’s copper plate grants found in the western Andhra, especially the Tummayamuru grant refer to Chalukya vishya and also to lord Sangameshvara at the confluence of the river Tungabhadra and Krishna. Hence, the control of Andhra region had been effective since Pulkesin II’s time. With the conquest of Bana and Renandu Chola territories including the districts of Anantapur, Cuddpah and Chittor. Pulkesin was victorious over the Pallava Monarch Mahendravarmana I.

In subsequent battle against Banas and Telugu Cholas, Pulkesin met the Pallava Narshimavarman that resulted in the death of Pulkesin sometime in 642 CE. After the death of Pulkesin II the Chalukyan empire began to stumble. After some time Vikramaditya ascended the throne in 654AD.

Aityavarmana, brother of Vikramaditya governed the principality of Chalukya vishyas. The epigraphical records mention about their region over Alampur region. The inscription that predate 670 CE and the Nausari plates postulate that Vikramaditya was pre-occupied with the southern region of the kingdom. And the invasions into the Pallava kingdom which began quite early seemingly achieved complete success by about 671 CE, a fact recorded in Nausari plates.

Vikramaditya was succeeded by Vinayaditya in 681-696 CE. He played a pivotal role in administrator. He gave munificent gifts to the cause of religion by royalty, particularly in the name of his queen, as mentioned in the inscription of Alampur. It records that the Svarga-Brahma temple was built in honour of his queen. Vijayaditya, son and successor of Vinayadiya in 696 CE marked

158 Prasad, B. Rajendra, op. cit., pp. 6-7.
159 Ibid, p. 8
160 Huntington, Susan L., op. cit., p.
162 Ibid, p. 8
another long reign and prosperity. This encouraged the activities of art. Vijayaditya’s inscripational records testify his stay at Elapura (Ellora) in 706 CE, Hatampura (Alampura) in 718 CE, Raktpura (Lakshmeswra) in 730 CE. Pattadkal became a centre of religious activities during his time. The temple built by the king were Vijayesvara now known as Sangameshvara.\(^{163}\)

After Vijayaditya, Vikramaditya ascended the throne in 733-34 CE and repelled the Arab invasion on the northern frontiers. After him, Kritivarman led three expedition subsequently against Pallava which all were won by him.\(^{164}\) His inscriptions in the Rajsimheswara temple at Kanchi and Pattadakal testify the victory of Chalukyas over Pallava. The templenamey Lokeshvara and Trailokeshvara at Pattadkal were built by queens Lokamahadevi and Trailoky Mahadevi, have been identified as Virupaksha and Mallikarjuna respectively.\(^{165}\)

Kirtivarman was last Chalukya ruler who ascended in 744-45. He ruled almost for a decade and as defeated by the Rastrakuta King Dantidurga by 753 CE.

The Chalukyas were mostly of Hindu persuasion but they encouraged the Jain creed. As such one could perceive a congruity of purpose, technique and the raw material chosen to stabilise Hinduism and foster Jainism and perpetuate their traditions at the cost of Buddhism which was having till then a greater hold on the rich, lay, agricultural and mercantile sections of the people.\(^{166}\)

The choice of all these dynasties was the local soft-stone formations, viz. sandstone, as in Badami and Aihole and in most other places, lateritic, as at Arvelam on the extreme west coast, schist as at Bhairavakonda, and trap on the north-west Deccan and western India around Aurangabad, Poona and Bombay.

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\(^{165}\) *Ibid*, p. 286

\(^{166}\) Deglurkar, G. B. *op. cit.*, p. 54
The Western Gangas alone despite their Chalukyan affinities were votaries of Jainism. They made a deviation in that they excavated into the hard local granite as at Melkote (Mysore).\textsuperscript{167}

As inscription proclaim Chalukyas as \textit{parambhagyavata} and ardent devotees of Lord Vishnu, Kartikeya and \textit{smartkeyas} and were tolerance to Shaivism and Jainism. It was after the succession of Vikramaditya I to the throne, the munificence of the royalty underwent towards a certain change, the Shiva religious sect. Here need to mention of Amudalapadu epigraph recording \textit{shaivcharyas}.\textsuperscript{168}

Another grant from Nausari dated 671 CE refers Vikramaditya as \textit{Paramaheshvara} and meditating at the feet of Sri Nagavardhana. This influential evidence denotes the importance of Pashupati cult. The predominance of Pashupti cult is also reflected in the iconography by placing Lakulisha in the niche along with the temples of Shiva, Vishnu, Sakta, Kaumara, Soma and Ganapati images.\textsuperscript{169}

It seems that a \textit{matha} (monastery) was established at Alampur with growth of temples related to Shiva. A reference to \textit{matha} of Alampur is recorded in CE 781. The cult of mother goddess was also prevalent in this area which also successively evident at Ellora in various caves as Satamatrakas panels. Several images of Lajjagauri (the nude headless goddess) emphasize the long tradition of primitive cult. Later also emerged as Shaktipeetha during 10\textsuperscript{th} Century CE. K. V. Soundara Rajan has opined that \textit{“It is observable that the Chalukyan structural style well preceded the Rashtrakuta monolithic enterprise at Ellora”}.\textsuperscript{170}

\textsuperscript{167} Ibid, p. 55
\textsuperscript{168} Prasad, B. Rajendra, \textit{op. cit.}, pp. 6-7.
\textsuperscript{169} Ibid, p. 8
\textsuperscript{170} K. V. Soundara Rajan, \textit{The Ellora Monoliths}, p. 15.
The early Chalukyan interaction with the caves of Badami and Aihole are represented in four at Badami and five at Aihole respectively. Among them two are Vaishnava, one Shaiva and one Jaina at cave at Badami. At Aihole, two are Shaiva, one Jaina, one Budhhist and one Jaina. One cave (III) is dated at Badami. It was excavated by Mangalesha in 578 A.D.\textsuperscript{171}

The temples belongings to the Chalukyan style were either square or rectangular from within. The important movements in the history of the \textit{Nagara} temple style, they represent the early group. As it is well known, the Chalukyan style is the result of the blending of the elements and characteristics of the \textit{Nagara} and Dravida style. In its origin, thus it is hybrid, but later on constituted a well-defined and separated style of decorative significance. The mandapas of those temples are of cruciform plan as it is in the Kailash at Ellora\textsuperscript{172}.

The Chalukyas of Badami from the middle of the sixth century CE and the Rashtrakutas of Manyakheta who supplanted them effectively in the middle of the eighth century, together with the Eastern Chalukyas of Vengi have left a number of cave-temples in the region between the Tapti and the north Pennar rivers, extending from coast to coast.\textsuperscript{173}

The Chalukya-Rashtrakuta dominion of the area to the west resulted in the upper Deccan affiliations becoming quite distinct from what obtained in the lower Deccan, thus exhibiting two regional idioms. This was because the northern zone lay nearer the sites of the earlier Buddhist cave art and rock architecture. The skills and traditions that had prevailed for more than eight centuries among the local guilds of craftsmen thus continued in the generations that took up Hindu and Jain rock architecture and cave art.\textsuperscript{174}

\textsuperscript{171} Bakshi, S. R., \textit{Architecture in Indian Subcontinent}, p.68.
\textsuperscript{172} Deglurkar, G. B. \textit{op. cit.}, pp. 35-36.
\textsuperscript{173} Srinivasan, K.R., \textit{op. cit.}, pp. 45-50.
\textsuperscript{174} Deglurkar, G. B. \textit{op. cit.} pp. 35-40.
Rock architecture was also sustained longer as mode in the northern zone. It developed more vigorously particularly under the Rashtrakutas as could be seen from their enormous output and such large scale compositions as the caves at Elephanta, Dhumarlena and Jogeshvari, not to speak of the monolithic carvings of the Kailash temple, and the Jain Chota Kailash and the Jain chaumukh in the Indra Sabha complex. But rock architecture soon became a mere second to structural stone constructions in the southern zone of the Chalukyas as would be seen in the sequel.  

K. V. Soundra Rajan has a firm view that “it is of no small significance that the Chalukyas should have chosen Elephanata and Ellora for their marathon innings, largely because they were the political panorama of the erstwhile Vakatakas and Kalachuris which latter unmistakably laid low politically, culturally and logistically and did not stop this chase until Harshvardhana of Kannauj also had been stemmed across the banks of Narmada to show how authentically they were the lord of Dakshinapatha. The ring of the Mahakuta pillar record and the Aihole prashasti (eulogy) of Pulkesin and the glow of the resurgent art of the Chalukyas do not befit nor admit of a borrowed art legacy for themselves after the fall of the Vakatakas, through the Kalachuris who claimed Konkan by proxy and the area around Ajanta and Ellora by sheer strategy”.  

If we see from the architectural point of view, the cave art at Ellora has many sidelights. Its ritual framework is reasonably elaborate and well sustains an integrated god-consort pattern. It presents purely Shaiva contexts as well as mixed Shaiva and Vaishnava nexus, often predicated in context to a basic Shiva shrine. The one example prior to it is presented only at Badami, the parent zone,

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177 Ibid, p. 142
a purely Vaishnava situation in cave no.3. Rashtrakutas also initially continued the Shaiva-Vaishnav nexus in its creation at Ellora.

In monolithic stage, this becomes less and an exultant Shaiva domain is revealed. But one element which spotlights the monolithic mode of the Rashtrakutas is the provision not only for both extra-Vindhyan and south Indian usages in layout, but also in a meticulous of a prakāra (surrounding wall) wall for the temple complex. Thus it may be stated that the Rashtrakutas, in their monoliths, desired to present the whole temple panorama and transplanted the scene available at Pattadkal in Karnataka region.

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