CH. 3: Teleological, geological, and geographical dimensions of the *śailagṛhas*

This Chapter seeks to explore the teleology of cave dwelling and the geology of Indhyadri range of Western Ghāṭs, which was obviously found ideal for the creation of the Ajantā *saṅghārāma*.

VARṢĀVĀSA

Vassāvāsa (Pāli) or *Varṣāvāsa* (Sanskrit) is the rainy retreat season in Buddhism still followed and practised in Buddhist monasteries around the globe (Table 14). However, the rainy retreat season cannot be ascribed to be the sole reason why the Ajantā caves were created. For Ajantā was essentially a *saṅghārāma*, like dozens of other *saṅghārāmas* spread across the landscape of ancient India—from the lower Deccan, including the Andhra and Konkan regions up to the north and Gandharan provinces (Figures 5, 6, 7). An archaeological survey of the Buddhist *saṅghārāmas* would show that they were

built in a variety of media and materials—constructed of stone, brick, and wood. Monolithic architecture was just another variety, but admittedly, it was one of the major media of architectural expression. Just as the Hindu or Jain temples and pilgrimage sites had no fixed preference for media or materials for their architectural setting—as often, even now, it is the local media and materials that dictate the terms—so seems to have been the case of the Buddhist *saṅghārāmas* and pilgrimage sites. Equally, as can be observed, the rock-cut monolithic type of architectural setting was chosen even by the Hindus and Jains, as also by the Christian monastics in other countries. Thus, taken as a *saṅghārāma*, Ajantā was never a unique project. If any distinctions are observed, they are but natural, as the architectural setting of a pilgrimage site would never be the replica of other sites. A pilgrimage site, in fact, always *grows* over a period. It is always impacted by the larger as well as the local conditions ranging from the socio-economic conditions to climatic conditions. These are the forces, in addition to the local and larger political and cultural conditions that dictate, impact, and condition the nature of the growth of a pilgrimage site—no matter to what religion the site belongs. It is in this context that the *saṅghārāma* of Ajantā must be seen, and all distinctions must be evaluated keeping these factors in mind.

From the above angle, it would be seen that a *saṅghārāma* is not just made for the purpose of *Varṣāvāsa*, although of course, since a *saṅghārāma* always comprises of monastic dwelling units, in addition to stupa or Buddha temples, the *saṅghārāmas* became, and are still, the place where a monk's retreat would take place. Thus, the *saṅghārāmas* were the places for *Varṣāvāsa*, no doubt, but it was not the sole reason for their making, nor was it the sole purpose to which a *saṅghārāma* was devoted.

While the above is the case, one must also consider the point of the rock-cut *saṅghārāmas*, which seem to reflect a clear distinction from the rest in terms of their location and geographical setting. They were usually located at a distance from the nearest city or town. Many of them are located deep inside the uninhabitable terrains, jungles, or hilly slopes. The same is not true of other *saṅghārāmas* made of brick or wood. Many such *saṅghārāmas* have been found that are within the range of ancient towns or cities like those of Vaishali, Rajgir, Mathura, Nalanda, Taxila, Amaravati, Nagarjunakonda, and Bamiyan.

Thus, it appears that rock-cut *saṅghārāmas* were clearly distinguished from the rest because of the remote locations and peculiar geographical settings, although admittedly the locations were not very remote from areas of habitation. It is clearly known that most of them are located along ancient

trade routes and highways. The relative proximity was necessary, for the monks did not maintain any kitchen. They needed to go to the laity for daily rounds of alms. Thus, the rock-cut *saṅghārāmas* were neither too far nor too close to areas of habitation or highways.

This is exactly what the Buddha is said to have prescribed. Pali soures maintain that the Buddha asked the monks to abstain from all types of dwellings. In *Ćulavagga* though he finally gave in to Ananda who requested that the rainy season often brought illness and threats of insect bites, besides damage to the crops due to monks travelling in large groups. Then the Buddha permitted the monks that they could dwell in a cave during the rainy season. Thus, *Varṣāvāsa* was aimed at protecting plant life. While walking along rain-soaked and muddy pathways, one was likely to trample the green grasses, young plants, and tiny creatures. This had made the Buddha prescribe that monks avoid travelling during the rainy season as much as possible and remain in the *vihāras*. The Buddha prescribed, however, that the period of such dwelling should not exceed three months. Thus, cave architecture was initiated with the laity's participation that came forward to fund excavation projects through the Saṅgha. Thus, the initiative was made, later to be picked up by the Hindu and Jina faiths too. During the non-rainy seasons, it was not that the caves were abandoned.

Such monks who had erred in practising the *vinaya* and *dhamma* were prescribed cave dwelling for contemplating and regaining the path of righteousness (Clarke 2009).

We do not know, however, why it took about three centuries from the times of the Buddha for the excavation of the first rock-cut dwelling. The earliest rock-cut cave monastery are the group of caves named Lomaṣ Ṛṣi and Paraśurāma caves at Barābar Hills near Bodhagayā. They are dated to third century BCE.

Vihāras or monasteries, not necessarily of the rock-cut types existed right from the times of the Buddha. Buddhist texts refer to the erection of many *vihāras*. A merchant of Vaiśālī had presented a *vihāra* to the Buddha in Jetavana for Varṣāvāsa, which was adorned beautifully and painted too. Buddhist texts mentions that for this *vihāra,* the Buddha himself had provided various specifications on the architectural and artistic details.

Varṣāvāsa had another purpose. The Buddha had advised it to be a kind of educational and confessional retreat for the monks, undertaken for introspection and the performance of devotional rites. He fixed two spells of *Varṣāvāsa* each of a three-month period falling between the Āṣāḍhī Pūrṇimā and Kārttika Pūrṇimā (Table 14). Even now, in various monasteries around the globe, if sickness precludes a monk from undertaking Varṣāvāsa from Āṣāḍhī Pūrṇimā to Āśvayuja

Purnima, he can undertake it from Madhu Pūrṇimā (Śrāvaṇa Pūrṇimā) to Kārttika Pūrṇimā, also a three-month period (Table 14). During Varṣāvāsa, monks perform various religious rites on every *aśṭamī* (eighth day of the lunar fortnight), *amāvasyā* (the last day of the lunar month), and *Pūrṇimā* (full moon). They fast on these days and visit families to talk to them about religious practices and rites. During Varṣāvāsa, Buddhists take vows of meditation, intense contemplation, and learning. Non-monks also join monks in performing religious rites. Every monk is required to perform monsoon rites on penalty of committing a grave sin. Varṣāvāsa, Pravaraṇa, and Kāthin ćivar Dān are all inter-related festivals (Table 12). Without Varṣāvāsa, no monk can accept Kāthin Ćibar Dān. The seniority of monks is determined by counting their Varṣāvāsa.

SEMANTICS OF GUHĀ

However, the very nature of cave dwelling is not unique to the Buddhists, as the Jains, Hindus, and Christians have resorted to cave dwelling. A question thus arises: what is it that cave dwelling offers that other architectural spaces do not offer in the same way? Etymology provides the clue, the teleology, and the very *raison d'etre* of caves. The word for cave in Sanskrit is *guhā*, which means many things in English: a pit, cavern, hiding-place, secretly, in secret, confidential, intellect, and heart. The Sanskrit synonyms for

guhā are *guhya* (secret), *guhyatā* (secret worthiness or confidentiality), *guhyam* (confidential subject), *guhyatamam* (the most confidential), *guhyataram* (still more confidential), *guhyanām* (of secrets), *goha* (a lair or hiding place), and *gu* (darkness) ((Apte 1890), (S. M. Williams 1899), (Merriam-Webster n.d.)).

Thus, *guh* (darkness) is the *dhātu* (root) of *guhā*. The cognate words are *garbha* and *gṛha*. Of these, the former is synonymous to womb, foetus, embryo, inner apartment, interior chamber, hole, and hollow. Its root is also traced in *grabha*, which means to conceive, womb, having in the interior, containing, filled with, inner apartment, sleeping room, interior chamber, adytum, sanctuary of a temple, and the inside, middle, or interior of anything.

The latter *gṛha* is synonymous to accommodation, edifice, habitation, home, house, that which contains, abode, premises, temple of a god, family, and household. When combined the two words become *garbhagṛha* (womb-house). It denotes the sanctum sanctorum, or shrine of a sacred space, especially that of a Hindu temples. The sanctum sanctorum is the most central and fundamental component of any sacred architecture. Thus, *garbhagṛha* encompasses a collective total of the various layers of meanings, i.e. the synonyms listed above.

The two cognate words retain in part the semantics of the root (*dhatu*) resisting historical mutations in the course of time. The full range of semantics shares many things: *guhā*, *guhya*, *gehe*, *garbha*, *gṛha*, and *garbhagṛha*. Although these cognate signifiers maintain specific meanings of their own, due to their generic and cognate affiliation, they make a family with shared meanings and associations, as *inner* or *secret space* that *contains*, *conceals*, or *hides*. This is opposite to exterior spaces, entities, or conditions that are not hidden; they are exposed, revealed, and manifest outwardly.

Thus, the *guhā* connotes a house, shrine, or womb-like entity; it is the inner space, a secret region, as opposed to outer spaces, entities, or conditions. In such inner recesses, the primordial being or the source of life resides. *Guhā* is the microcosmic space, as opposed to the macrocosmic space of the outside world. What *garbha* is to the human body *gṛha* and *guhā* are to the world of habitation. What *gṛha* is to the world of habitation *garbhagṛha* is to the sacred architecture. In *garbha* resides the foetus, the genesis of a *being*. In *gṛha,* resides the *gṛhastha*, the family man—the microcosm, a unit, of which the multiples make a society, and which is opposed to the macrocosmic sphere of civilization. In the microcosmic sphere of the *garbhagṛha*, the God resides, who is referred to as the macrocosm in religions, the

omnipresent, all-pervading entity. Likewise, in *guhā* resides the one who is withdrawn from the world, who goes back to the inner recesses of the mind. In *guhā*, resides the soul, the *atman* of the *jīva*.

It is in such inner spaces engulfed in *śūnyatā* that the *jīva*, the *bhikṣu*, wanted to retreat and reached up to the remotest, the darkest, and the most secretive of all spaces—whence the life and knowledge begins, where the distinction between the body and soul, mind and matter, being and non-being, living and non-living, nature and culture, life and death, born and unborn, *prāṇa* and *vāyu*, *nāma* and *anāma* (the named and the unnamed) is obliterated. Lokesh Chandra has expressed the *guhā's raison d'etre* most succinctly:

> Caves were the earliest habitations of man. Long after they were not needed for habitation, these caverns drew men to their depths and stirred the spirit as well as the eye. What a dream it was to be in the *śunyatā* and *rūpaṃ* of the caves, grooved by the gods, syllogisms in stone, symbolic tangents of what took place in the secret gardens of human ideas and ideals: *dharmasya tattvaṃ nihītaṃ guhāyāṃ*. The cave is a womb for illumination, the away from the world to attain transcendence. The Sanskrit word for cave *guhā* is from the root *guh* 'to conceal, keep secret,' *guhya* 'concealed, and secret, mysterious.' In the Rig-Veda, 10.45.2 *guhā* (short instrumental case form) means '*geheim*' (PW): *vidma te nāma parāmaṃ guhā yat*. The *Atharvaveda* 11.5.10 *guhā nidhi nihītau brāhmaṇasya*, which means that the treasures of sacred lore of a brāhmaṇ are hidden in a cave. The *Śatapatha-brāhmaṇa* 11.2.6.5 equates the *guhā* with the heart: *tasmad idaṃ guheva hṛdayaṃ*. In the *Śvetāśvatara-upaṇiṣad* 3.20 the macrocosmic and microcosmic soul resided in the *guhā* or deeps of being (*anor*

aniyan mahāw mahiyan ātmā guhāyaṃ). In a cave, psyche finds the hidden that smiles in its dream of deep meditation. The cave is called a *guhā* as the categories of knower, knowledge, and knowable are hidden herein, or the soul secrets in it (*guḍha jṇātṛ-jṇāna-jṇeya-padārthah asyam, guhāte 'śyam ātmā īti va'*, *Vācaspatya lexicon*). *Bhāgavata-Purāṇa* 2.9.24 says: The Divine Being, the Lord of all beings dwells in the *guhā* (*Bhagavān sarva-bhūtānām adhyakṣo 'vasthito guhām*). Brāhmaṇ resides in the *guhā*, the supreme space (*brahma yo veda nihītam guhāyam parame vyoman: Indiche Studien* 2.217). *Guhārāja* is the best temple-form in Varahamihira's *Bṛhatsamhitā* 56.18.25. *Guhā* is the angelic guardian of a person and hence the name Guhāgupta for a bodhisattva in the *Mahāvyutpatti* and the *Sadharma-puṇḍarika-sūtra*. Divinities are located in a cave within a stupa. In *sādhana* 191 of the *Sādhanamālā* 2.394 the goddess, Uṣṇiṣa-vijā sits in a cavern in the *ćaitya* (*ćaitya-guhā-garbha-sthitam*). Cave is the solitary vision beyond reflections, where time falls into the timeless. The solemnity of its original silence--deep, dark, oneiric, unfathomable--has so many lessons for meditation. We are hypnotised by solitude, hypnotised by the gaze in a solitary cave. The intimacy of concentration therein leads us to the light on the far horizon. Small caves without murals or relief served as places for austere meditation. In Tibet, there are caves near monasteries for meditation-retreats. On the other hand, the rock-cut caves with relief and full sculptures served as worship chapels for the laity as well as for the monks (Chandra 2005).

GEOLOGICAL AND GEOGRAPHICAL FACTORS

A monk while in renunciation still needed to be in daily contact with the laity. The site of the Indhyādri hills offered the required solitude while being not far from the ancient highway. Perhaps there were small settlements too in

the vicinity. Thana village mentioned in a donative inscription of Cave 12 is still there. The present researcher has found, for the first time, remains of ancient Sātavāhana and Gupta type of bricks there. This village is just a few kilometres from Ajantā caves.

Pratiṣṭhāna (modem Paiṭhaṇ), once the capital of the Sātavāhanas, is not very far away from Ajantā. It was a major trade centre. Ancient trade route connected Pratiṣṭhāna with the Uttarāpath (northern regions) and Dakṣiṇāpath (southern regions) of the subcontinent ((Ghosh 1967), (Jamkhedkar 2005)). Trade routes passed through the Sahayādri region. Alongside, countless villages, small towns, and cities were established (Figure 6). They provided the required support system.

As to why the Western Ghāṭs were chosen, there has been little explanation about geological factors in the literature on Ajantā. Scholars have so far explained only the socio-political and geographical factors.

The Deccan trap is formed of volcanic lava flow millions of years ago. The rock type is basalt. Not many people know that the inner core of basalt of the monolithic hills is actually quite soft underneath if not exposed to the air and weather. Apparently, it looks very hard and uncouth, but on digging somewhat deeper, the rock is quite soft inside. That is why compared to other rock types, it was relatively easy

to excavate caves and cave temples in basalt. The work had to be faster before the rock gets harder on being exposed to weather. If we observe the chisel marks on any of the cave sites across the Western Ghāṭs, we shall not fail to notice the big tracts of chisel marks, which would not have been possible, had the rock been harder. The above fact was revealed to this researcher by two of the experienced persons. One is Md. Mustaq, the official mason of the Archaeological Survey of India, who has been working on the site's restoration projects since the last four decades. He was involved in digging the water conduit and channels on top of the caves, when I asked him how difficult it was to excavate the rock. The other person is Mr Shrikant Jadhav, Deputy Superintending Archaeologist of Aurangabad and Vadodara Circle.

The *ghāṭs* have areas where the rock has little or no cracks or flaws due to expansive tracts and extensive volumes of amygdaloidal lava flows. These offered the most desirable locations for cave excavation. The regions with different quality of rocks do not exactly afford such ideal monolithic conditions. The Deccan's amygdaloidal trap have lengthy sinuous *ghāṭs* along the Indian peninsula. They harbour isolation, idyllic, and spiritual ambience. Unspoilt nature, wildlife, and scenic beauty are abundant in the present age of acute ecological imbalance. Surely, in the ancient times,

the ecology was much opulent where the humans lived greater harmony with nature than they do now.

All the rock-cut *saṅghārāmas* have been created at such typically isolated locations of the ghāṭs, and always there has to be a water body, preferably a waterfall. Ajantā is no exception (Figure 3). It is situated near the origin of a seasonal river called the Waghur or Waghora River (Tiger River). We do not know whether this was the ancient name of the river. However, earlier accounts of the notice of the caves would seem to justify the name of the river, because it was infested with wildlife, and tigers lived there. Even now, there are three tigers, and many boars, bears, and other wild animals. The site's wildlife did not escape the attention of G. Yazdani who was once the official custodians of the caves who did so much for their preservation and restoration during the rule of the Nizams of Hyderabad in pre-Independent times. Yazdani described:

> The air resounds with the sweet notes of birds, great flocks of which, among them parrots and blue pigeons being prominent, are seen flying about. Apes also are abundant, and, although mischievous at times, their nimble movements and wild antics please the eye. The hoot of the motor-car and the rush of visitors have driven away the wild denizens of the valley; but even now, when the crops are ripe, herds of deer are seen grazing in the fields, and the hyena and his comrades, wolf, black bear, and leopard, sometimes also the lordly tiger, resort to their old haunts in search of the water and prey (Yazdani 1931, 1).

Waghur is a seasonal stream.[1] The discharge of water in this stream is double maximum during heavy seasonal rainfalls in monsoon. It does not have sustained flow to make it a perennial stream. The stream flow decreases markedly during dry summer and these days ceases altogether due to the unfortunate construction of a modern damn upstream. The dam is needed for development, but development often is against nature and culture. Ajantā has to witness this brutal fact. All along the river, there is human habitat and settlement as the river meanders across the plains of Tapi. Population is sparse, and depends considerably on Waghora for sustenance. The region's soil quality is not very fertile. Tracts of arid land dominate the landscape. These factors still provide a melancholy to the site, and it must have been greater in ancient days—just the right choice for the monk's retreat from society.

Waghur River originates from a waterfall (Figure 3), which is nothing more than a seasonal rivulet of accumulated waters from countless channels upstream on the surrounding tableland of the Deccan plateau. The waterfall is the result of discontinuous vegetation cover, well-packed surface soil, and occasionally intense rainfall that promote rapid surface runoff, conversion of overland to channelled flow, and the multiplication of channels. The waterfall characteristically

has a head cut receding backwards upstream. In peak season during intense rainfall the velocity of water is intense, and the plunge of the fall is more erosive creating a large pit at the site of the plunge. The gravel, devoid of soil and sand here, faces least migration downstream; they sediment on the bed and maintain the depth of the trench. In course of time, however, the effects of the rapid plunge of the fall are seen on the width-depth ratio of the riverbed inside the gorge. At the foot of the head cut is the plunge pool downstream of which occurs a deposition of low downstream gradient. Formation of successive head cuts at a discontinuous spacing of few metres, and the construction of depositional slopes below each, has caused the profile to be stepped with multiple and discontinuous pools of various sizes and shapes. The speed of head cut recession, and the consequent length, width, and depth of the gorge would have been far greater if the stream was not seasonal but perennial, because waterfalls are characterised by great erosive power. The rapidity of erosion depends on the height of a given waterfall, its volume of flow, the type and structures of the rock involved, and other factors. The energy available for erosion at the base of a waterfall is great. The streambed inside the gorge is almost flat containing gravel. Both the bed and banks are being cut by erosion. This process has created a ninety-metre deep trench with a flat.

There is a notable degree of coastal erosion on the turns of the stream in the gorge, which in main is responsible for cutting the horseshoe-shaped scarp. Coastal erosion is still alive at the foot of the cliff, especially on the river's turns where the impact of the cut is the maximum. This leads to landslides originating from below the perpendicular cliff thereby triggering off the upper portions to fall down as a chain reaction. The landslide, thus, moves upward from below. The gorge is expanding in the process, and the cliff on the turns is receding backwards in course of time. The pace of the cliff's recession has become rather fast in the last two millennia judged by the cliff's recession near Cave 26, which is as great as thirty metres as found in my study (Singh 2012b). Cave 26, which was originally approached from the riverbed (like many other caves), through a long flight of steps, has lost about thirty metre of its façade and court near the original site of the cliff. The perished portions include not only the flight of steps from the riverbed, but also the main gate (which was once evidently there) and the portions of the lower and upper wings. Many other caves, such as 6, 7, 12, 15, 16, 17, 19, and 20 have also lost their front portions due to the landslide originating from below.

The Geological Survey of India (GSI) evaluated the pace of scarp retreat on request by the Archaeological Survey of India (ASI). However, its conclusions are entirely incorrect.

The GSI maintains that the extent of landslide on the cliff is to a maximum degree of five metres:

> The process of valley formation has been active and the scarp surface has been retreating leading to instability of slopes and widening of the valley: The original entrances to the caves were from the riverbed through a series of rock cut staircases. None of these steps now exists (except for a few steps below Cave 17). The outer portions of a few caves have also been destroyed. Thus, it is estimated that scarp retreat is of the order of 5–7 m in the last millennium and half, since the caves were excavated (Geological Survey of India n.d.).

The above is a gross underestimation. GSI depended on satellite mapping of the site, and erosion from rainfall. However, it does not seem to have noticed the aspect of coastal erosion caused by the Waghur River. A bit of art historical research—perhaps in combination with the ASI's expertise—on the original shape and extent of Cave 26-complex would have made clear that the extent of loss on the cliff is no less than thirty metre in course of last two millennia! It is certainly not the paltry five metre, which the GSI concluded at the end of its so-called 'geo-scientific and interdisciplinary analysis of Ajantā caves.' The true extent of the cliff's recession is massive, which is alarming. If urgent preventive measures are not taken to arrest the pace, emanating from below untold damage may be caused in future. Perhaps, concrete tetra pods like those placed at Mumbai's

Marine Drive, could be placed at the foot of the cliff, especially on the turns to arrest coastal erosion.