

Article

Architectural History and Painting Art at Ajanta: Some Salient Features

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Abstract: The present paper deals with the period of India's greatest cultural florescence, The Golden Age. A lively intellectual debate has been going on among historians and archaeologists on the subject of the chronology of the caves at Ajanta. The study shows addition of many iconographic styles from Ajanta to Bagh caves and vice-versa due to movement of skilled workers and craftsmen between these two Buddhist sites. Many iconographic figures were added / deleted depending on the local condition of rock at both the sites. The art and architecture of these sites reflects India's great materials culture. The Ajanta paintings are not just a milestone in the history of development of world art but they also convey unique insights about the life of ancient Indians and their culture. This paper outlines some of the architectural features introduced from Ajanta into the other cultures. Furthermore, structural conservation measures and scientific methodology adopted for the preservation of Ajanta murals have also been highlighted.

Keywords: Ajanta; art; architecture; blending of colors; solstices; conservation

1. Introduction

The murals in the Buddhist monasteries of Ajanta (2nd B.C. to 4 A.D.) are of same significance for the history of Ancient Indian culture as the fresco of Pompeii for Greco-Roman antiquity since development of art at Ajanta (WHS) influenced the art and culture of Asia. India had a great cultural evolution called The Golden Age [1]. The conventional view is that the Golden Age is specifically associated with great Gupta dynasty [2,3] and that it gradually lost its luster with the Gupta's decline in the late 5th and 6th century A.D. [4]. But now the arguments have lead to quite different conclusion [5]: that it was the Vakataka emperor Harisena who brought the Golden Age during his brief but dynamic reign over central India [6].

The great empire which Harisena created in central India, extending from the eastern to the western sea, broke back into component parts when Harisena's many Vakataka feudatories rose up against his weak successor and shattered the empire [7]. The key to this conception can only be found at Ajanta [8], as it is Ajanta evolution that unlocks and reveals the connections to epigraphy and literary evidence [9]. Ajanta with its related sites Bagh caves and Aurangabad Caves [10] gives us hundreds of architectural, sculptural, painted, technological and epigraphic features, which can be used as spectrum of bench marks.

Many Buddhist cave created by the Vakatakas in a remote ravine near the ancient town of Ajanta that form a devotional complex which ranks one of the world's most startling achievements. These caves are for more elaborate than earlier 2nd B.C. caves (9,10,12,13 &15A) at Ajanta complex. More than 20 caves were excavated by Vakataka dynasty who were allied and related to the Gupta thanks to the marriage of princes from the reigning house at the beginning of the fifth century [11]. All these later monuments are the result of dramatic burst of pious activity early in the reign of Vakataka emperor, Harisena.

Harisena, with his power centered in ancient Vidharbha (eastern Maharashtra) was the greatest king in India. His reign extended over the whole of central India from western to eastern sea, as we know from the conquests recorded in an inscription of his chief minister in Cave No. 16, Ajanta [12]. Like the ancient province of Asmaka just to the north, the Anupa to the south, ancient Risika in which Ajanta was included, were parts of the extensive domains that Harisena inherited when he came to power, he did not have to conquer it. That is the reason that after a year or two of Harisena's accession, it was possible for the ambitious undertaking of Ajanta to begin [13]. The high powered courtly patrons who initiated Ajanta's renaissance were surely energized by interests political as well as pious. They included the imperial Chief Minister, Varahdeva, donor of cave 16 as well as Ghatotkacha Vihar, around 12 miles away from Ajanta; the local Risika king, Upendragupta, responsible for the adjacent complex of Cave No. 17,18,19,20 and short lived 29; as well as connected monk Buddhahadra who drawing authority from his friendship with the great minister of Asmaka; "who was attached to him (the monk) in friendship through many successive birth" [14], sponsored the huge chaitya cave 26 and various related caves, and one Mathuradasa, both rich and influential, who donated the largest of all caves at Ajanta, the doom ridden cave 4. A number of other donors also participated in this inaugural activity but their inscriptions have either been lost or (more probably) were never written, as many of the Ajanta caves were still very incomplete.

The excavation of these caves represented an extraordinary renaissance in rock architecture in the Western Deccan after a century of abandonment and decline in this important artistic form. The main reason for this artistic following at Ajanta is due to the fact that Harisena succeeded in creating a period of relative stability in the territories he governed. The site benefited from its position along an important caravan route, connecting the ports of Western India with the cities of the interiors and therefore become a stopping place for itinerant pilgrims, monks and merchants as testified by numerous pictures and sculptures of the Bodhisatva Avalokiteswara, in the guise of protector of travelers.

Apart from the Brahmanical caves at Udayagiri near Vidisha in neighboring Madhya Pradesh, consisting of single quadrangular room, cut a little more than fifty years earlier, no other sites have been excavated in the whole of the Western Deccan for about three hundred years. Architects and workmen employed on the site therefore had to recover a technique that had been partly lost to living memory. As a consequence, the artists were totally unfamiliar with the procedures needed to both laying out and for cutting the caves and had little awareness to the problems presented by flawed basaltic scarp [15].

Thus, during the first few years of work, the excavators used many of the features for the simple earlier (Hinayana) caves at Ajanta itself for models copying the typical early octagonal pillar, the plain windows, the non-trabeated doorways and pillarless and shrineless vihara interiors. It is to be mentioned that the most ancient caves of the Vakataka phase appears to have a rather irregular structure as a result of poor planning and numerous second thoughts, and furthermore has very simple architectonic elements. However, year by year they incorporated more complex and up to date forms. Now they were adding peristyles to their vihara and new vihara was planned with the shrine at rear and those that had already been started without such shrines being revised to include them. Moreover, due to rivalry among the artists as well as among the proud donors, the sculptured decoration of the caves approached the lavish norms clearly contemporary to wooden palace structures so often represented in Ajanta murals themselves. A fine example of uncertainty during excavation in initial year (462 A.D) can be noted in cave no.11, Ajanta [8]. The cave was planned as vihara of a similar nature as Cave no. 12 excavated before the Christian era. The cave was cut between the ancient Chaitya 10 and vihara 12 but the architects did not calculate that Chaitya 10 lay on a diagonal axis inside the hill, a detail that is not apparent to the eye and having already started the excavation, they had to modify the traditional vihara plan. The cave should have contained cells on all three sides, but they were forced to abandon the excavation of the living quarters for the monks on the right, the side directly connected with the vault of Chaitya 10. Instead of cells, a seat was cut in that portion. Immediately, after the first phase of experimentation, the architects devised more ambitious plans with the excavation of cave 16 and 17, a typical of vihara of Ajanta. In only a few years since the excavation of the first area, the work force had already gained considerable experience and began to develop increasing confidence in handling of the hard volcanic rock of Ajanta.

The addition of shrine completely transformed the concept of vihara that from a simple place of residence for the monks, become the metaphor—the paradise in which Buddha preaches to Bodhisattvas. In this microcosmic reproduction of Buddhist paradise, the monks who live in vihara symbolize a sort of incarnation to the Bodhisattvas themselves. In the inscription, vihara 16 is linked to the palaces of Indra in the heaven of 33 Gods (verses 27).

The emperor Harisena, obviously approving the vast project, apparently did not get directly involved himself until work at the site had already been underway for four or five years. As a consequence, his ‘regal’ cave 1 had to be cut in less than ideal location at the eastern extremity of the site, since the central area of the scrap had already been taken during the first few years of excavation. However, in compensation, Harisena’s splendid cave benefited greatly from the experiences that the excavators have already gained by this time. Therefore, compared to relatively clumsy cave 16 started by the Chief Minister, the highly elaborate and dignified cave 1 is truly a monument “fit for a King”. Figure 1 shows the plan and location of various caves of Ajanta.

Figure 1. The plan and location of various caves of Ajanta.



Looking at the mural paintings, on the other hand, we see no such struggle. This is because painters could decorate the walls of the caves in essentially the same way that they had always decorated the walls of structural palaces, temples, *etc.* [16]. The great variety of styles seen in the Vakataka period murals were done by many different artists from many different regions. Of course, judging from the analysis of “hands” it is clear that there were at least few dozen of different painters working at the site during the course of Vakataka patronage.

The Asmakas, who are mentioned in the inscription of cave 17, were supposedly responsible for another cave complex situated at the western end of rock face, whose fulcrum is represented by Chaitya 26 and dedicated to the monk Buddabhadra. Probably, due to conflict between the Asmaka and local Risika, the excavation of this complex was interrupted for a number of years. As a result of conflict, the activity of the site came to complete halt between 472 to 474 A.D. This was why the Upendragupta ambitious project of excavation was never resumed and Upendragupta cave 19 had never been used for cult worship and was abandoned because of its association with that sovereign. After the conquest of territory of Ajanta by Asmakas, the excavation was instead resumed in the complex that developed around Chaitya 26, an undertaking that lasted almost until the final phase of the site.

It appears that great number of artists, along with allied workers spent the troubled years working on a new excavation at Bagh, in peaceful Anupa [17]. As we know from the historical evidence, the Bagh caves were under the vicegerency of one of Harisena's son during this period. Indeed, the excavation of Bagh was probably inaugurated at just this time, due to sudden availability of so many out of work and highly skilled craftsmen. Many of Bagh's features—stylistic, iconographic and technological—suggest such an immediate influence from the already started Vakataka cave at Ajanta while in a significant turnabout; we can see a profound influence of forms at Bagh upon post excavation at Ajanta. During the period of disruption when the administrative control so suddenly collapsed, dozens of anxious devotees, who had never been able to make offering before, took advantages of the anarchic state and added their own votive images whenever they wished at Ajanta. It is indeed remarkable that deep in the ravine beneath, the unique record of India's material and spiritual culture still exists.

2. Discussion

2.1. Architecture and Painting Art

Ajanta is the sole monumental record of classical Buddhist culture that is preserved in a land that gave birth to this religion, and also influenced the culture of other Asian countries. The thirty odd caves cut into horse shoe shaped scrap of a steep cliff overlooking the Waghura river are the best creations of the time which inspired Buddhist in central Asia, China and south-east Asia.

Ajanta painters were guided by a highly developed sense of blending of colors with a view to produce total impression with three dimensional effects giving true perspective to line and plane. Besides, the technique of giving three dimensional effects to the painting was first introduced in India in the cave paintings of Ajanta in 3-4 century A.D. Figure 2 shows some of the paintings of Ajanta showing three dimensional effects. This technique was later copied by the other artist in the Asian region.

Figure 2. Showing Three Dimensional Paintings from cave 1 and 26, Ajanta.



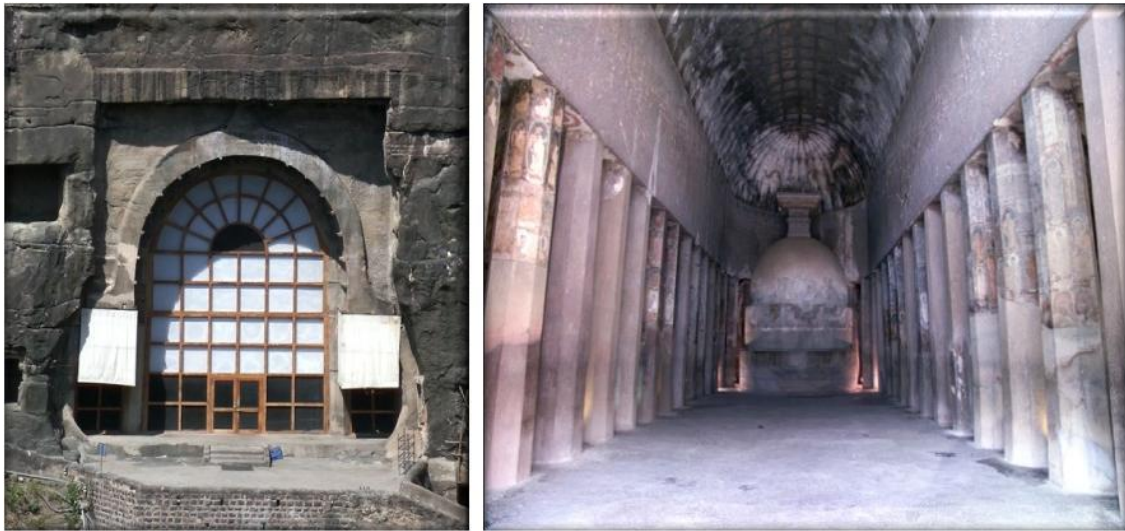
The first of Ajanta caves were started in about the first century B.C. (Figure 3) that included the impressive chaitya hall, cave 10 and simple associated vihara cave 12 all done by true community effort [18]. The repainting in old Hinayana cave no 9 & 10 was made in 3-4 A.D but the plan was never realized except by painting some more areas of the cave [19, 20].

Figure 3. Showing View of Hinayana Caves 9 & inner view of Cave 13.



The dramatic idea of creating rock cut monasteries at both Ajanta and Bagh was developed by their respective patrons in Vakataka period 3-4 A.D. Undertaking Ajanta excavation some 400 to 500 years after the Hinayana phase must have involved advance planning as well as supporting patrons, monks, workers, who must have come from number of different parts of the Vakataka empire [21]. It seems clear that when such a major cave was started, the delegation of architects (now the excavators) and members of Buddhist sangha must have surveyed the site, deciding upon the best and appropriate location. In the case of vast cave 26 complexes, patronized by Asmaka, they were careful to choose the location into which the projected monument would fit and monks may reside in vihara at right in cave 21-25 and left in cave 27, 28. Cave 26 drew upon the precedent of the Hinayana chaitya cave 10; though again with the intention of adding appropriate modern features (Figure 4). When the four wings were planned for this ambitious cave complex, all were essentially based on the layout of ancient cave no 12. Similarly, the plan of cave 19 drew the precedent of Hinayana cave 9. The two impressive chaitya hall of cave 19&26 conceived as intended ceremonial centers for the site. The former (cave 19) is referred as “Vakataka” area including the entire excavation upto cave 20. The other (cave 26) is described as “Asmaka” area starting with cave 21 to 28. The Asmaka were in fact feudatories of the Vakataka emperor.

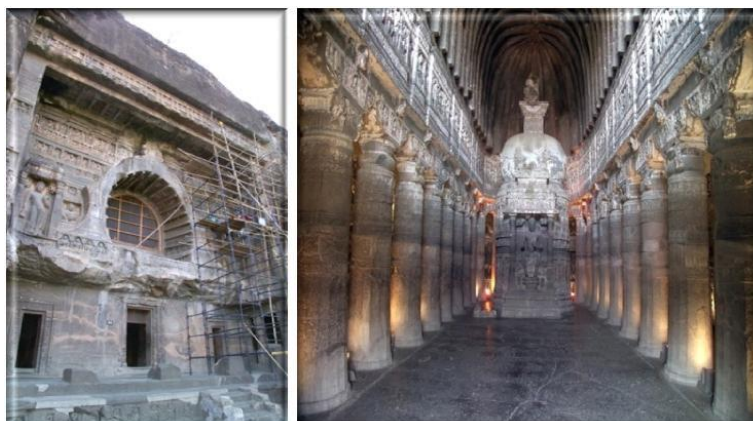
Figure 4. Outer and Inner View of Hinayana Cave 10, Ajanta.



In course of time when two chaitya hall caves 19 and 26 were still being roughed up, the controlling officials have decided that the two chaitya halls should be oriented to the solstice's, cave 19 to winter solstices and cave 26 to summer. The sun rays should coincide with the axis of cave. Such a significant astrological alignment must have meaning and importance to the planners. This was all very well had the excavation of two caves not already been started at a quite different angle. In fact, the cutting of both the caves had proceeded to the point that new required adjustment could not be effected.

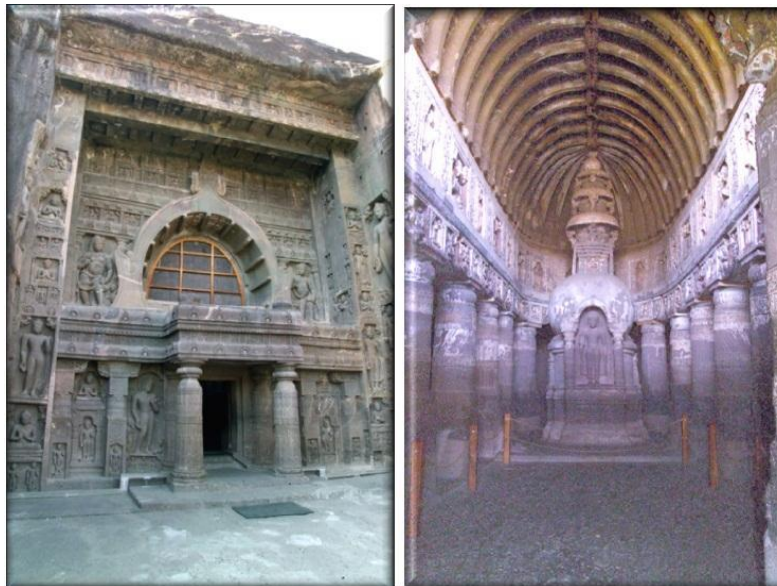
To implement the order in cave 26, the excavators were able to locate the stupa by adjusting forward almost two feet from its normal position (Figure 5). In fact, this is the only chaitya hall in India where the space around the stupa is not equidistant at left, rear and right. Then, at the same time by adjusting the frame of the great inner arch under the outer vault rightward in relation to outer facade arch, the planners were able to achieve the desired solstice alignment through the “sun-window” to the stupa.

Figure 5. The outer and inner view of cave 26, Ajanta. The stupa was aligned for summer solstice and is not in the center of cave.



Cave no.19 presented much greater difficulties (Figure 6). Fortunately, the interior pillars and stupa had already been roughed up by the time the order came and hence cannot be re-positioned. However, the carvers did what they could do to surge the stupa to the left, its upper elements were shifted leftward and even Buddha image stands slightly to the left, while the whole stupa base is wrenched into a leftward asymmetry. The pillars towards the cave left rear were squeezed a few inches left ward and pillar 1 and 7 just to the left of stupa were slightly reduced in size. The exterior of the cave 19 was also angled in the solstitial direction to a significant degree, through it does not reach the proper solstitial alignment, as it has already been roughed up and could not be twisted more than at present.

Figure 6. Outer and Inner view of cave 19, Ajanta: for its alignment to winter solstices external part was little curved and inner part also altered.



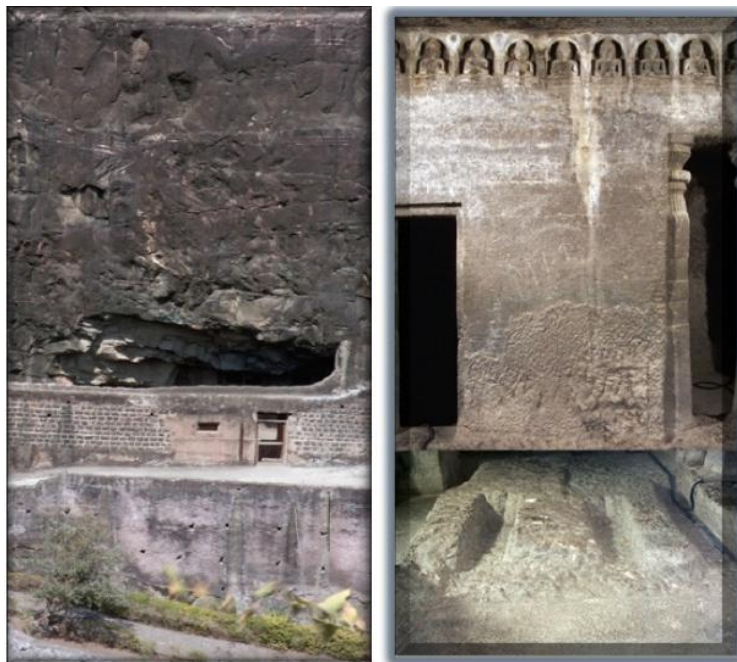
Some alignments were also made due to flaws or faults in the rock being cut. One fine example is cave 26: R.H.S Buddha on upper portion of wall wherein one Buddha has been positioned differently due to flaw in the stone. Figure 7 shows this deviation.

Figure 7. The last eighth Buddha from right to left in different Mudra due to flaws in the stone.



Geological factors were yet another feature that imposed restraints, although at first the planners seemed less concerned or less aware than was the case later when excavators more and more adjusted the positioning of their cave in accordance with the problematic flaws in the rock. The positioning of early cave 8 is the case in point. Planners thought this location, lower than any of the adjacent caves and easy to access from the old river path, were quite ideal but it surely reflects inexperience of early Vakataka undertaking. There is a thick horizontal deposit of red bole, a very weak clayey rock running through the basalt at a descriptive height and presenting problem that would have warned to abandon any excavation. As we see, work went on with dire consequences (Figure 8).

Figure 8. Cave 8 with weak rock causing problem to its stability and various excavators working on the same pillar of cave upper 6.



The same lack of awareness or thought resulted in an equally embarrassing situation in cave 11 and the mistake was particularly costly in terms of time, money and desired results. One of the initial patron opted to put small vihara planned with three cells on each side in the unusual space between the old Hinayana cave 10 and 12. The space may have been seemed quite auspicious and patron thought ample space towards the rear of the cave than towards the front. However, this is not the case here. The old Hinayana cave 10, it turns out, does not follow the expected pattern. It is angled subtly but sharply to the left, probably to adjust for a troubling vertical flaw in its façade area and this had dire consequences to the excavators. As noted, cave 11 by error was located too close to ancient cave 10 and as consequence the three cells on the right side could not be cut to make up the loss; the planners “relocated” the missing cells with considerable difficulties in the porch of cave 11. Indeed, they even added one more to compensate for the loss of hall rear central cell. It seems reasonable to assume that this innovation of the planner in cave 11 sparked a new trend of putting cells in the porch affecting caves 4, 15, 16, 17, 20, 26, 26 LW and 27. Indeed, in few cases the planners now dissatisfied with old fashioned single cells, converted them to

more complex forms by cutting new pillared fronts out of their front wall. Figure 9 shows both the simple and complex outer cells at Ajanta.

Figure 9. Simple and complex outer cells at Ajanta.



Cave 11 and cave lower 6 were supplied with interior pillars for purely expedient reasons: Cave 11 out of concern that ceiling might collapse due to serious flaw in the rock just above, and cave lower 6 out of concern that ceiling might collapse because of the earlier unanticipated presence of its added story.

Further development of great importance was the beginning of work of cave 1 by the emperor Harisena himself. At Bagh, the friable nature of sandstone so much weaker than Ajanta basalt apparently made it impossible to excavate the expected chaitya hall at the side. Probably, for this reason, cave 2 Bagh was converted into chaitya hall by addition of a chamber with stupa. The slightly later cave at Bagh was intended to be shrine from the start.

These development at Bagh revolutionized Ajanta as well (Figure 10).

Figure 10. Inner view of cave 2 and its beautiful medallion.



This is because the great cave 1 was probably the very first vihara at Ajanta to have been planned from the start with a shrine, and although cave 1's shrine today contains a fine Buddha image, it is almost certainly originally intended to house a stupa. Although stupa rapidly yielded to the Buddha image, an abandoned stupa in cave 11 backs the completed image, while the image in cave lower 6 may have been cut from a block originally shaped to hold stupa. Cave 11's stupa was clearly its original focus. In fact, it was abandoned in favors of an image carved from the same matrix. This seems to represent the moment of transition from stupa to image (Figure 11).

Figure 11. Addition of attendants in later cave 17's Buddha whereas cave 6's Buddha was cut from a proposed stupa with adjustment

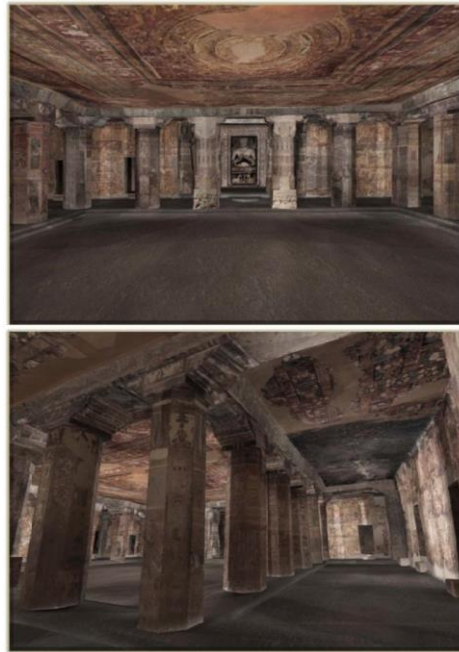


One important feature needs special attention in cave 4, 16 and 17: they splay outward as we approach the rear of the cave. That is the rear side is considerably longer from its left to its right end than in case of front aisle. Due to understandable inexperience of the excavators, they were not able to control their cutting as they proceeded from front to back with the effect the wall surface angled outwards. By the time the rear of the cave was reached, the misalignment could amount to as much as few feet, making the cave unexpectedly trapezoid. This has happened in early caves but discipline later prevented this problem.

In cave 4, the excavators accumulating error resulted in cave 4 ceiling rising nearly five feet from the front of the hall to the rear of the shrine. Of course, the floor level has shown similar rise having been made parallel to the ceiling by consistent measurement with something like bamboo pole. Later on, the excavators corrected these early errors by leveling the ceiling and the floor at the shrine by about five feet. Of course, these corrective measures to level the cave was able to house the tallest Buddha at the site in cave 4.

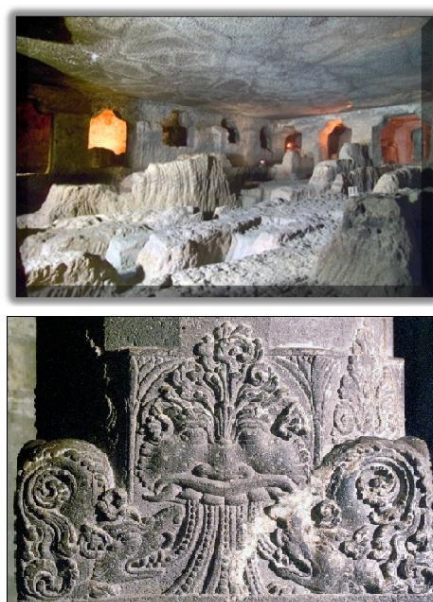
However, the situation was different in case of ceiling of cave 17. It was also exposed quite early and was subjected to similar error. However, it seems that the excavators kept correcting their errors as work proceeded. Thus, when ceiling level angled upward, they soon brought it down when it angled upwards again they brought it down again. The result of these continuous corrections was waviness of surface, which is now explained as attempt to create the effect of flying carpet or shamiana (Figure 12).

Figure 12. A 3D view of cave 17's ceiling (Flying Carpet) and aisle.



Some unfinished caves like 5 and 24, gives an idea about cutting the rock with long chisel and hammer, without any need of scaffolding (Figure13). Probably, the excavators used intermittent left over part of the rock to climb and finish the work before its actual removal from cave interiors. As we can also see from still incomplete interiors of cave 24, a considerable amount of matrix was left enclosing the projected pillars. Thus, later adjustment was possible for the pillars, which could be slightly repositioned to achieve a more balanced spacing.

Figure 13. General view of unfinished cave 24 and later ornamentation of Ajanta Pillars based on Bagh caves design.



The late work of Ajanta was under deep influence of developments at the far most stable Buddhist site at Bagh in peaceful Anupa [17]. The Bagh, also a Vakataka site started at about the same time that of Vakataka phase at Ajanta. However, unlike Ajanta the Bagh regions was not troubled and it provided a safe haven for Ajanta workers during the fight of feudatories. Surprisingly, by when the displaced workers were able to return to Ajanta, they brought back many things that they learned at Bagh. Important iconic innovation, being the concept of Buddha with attendant, elaborated doorways, decoration of pillars and pilaster etc. are some examples.

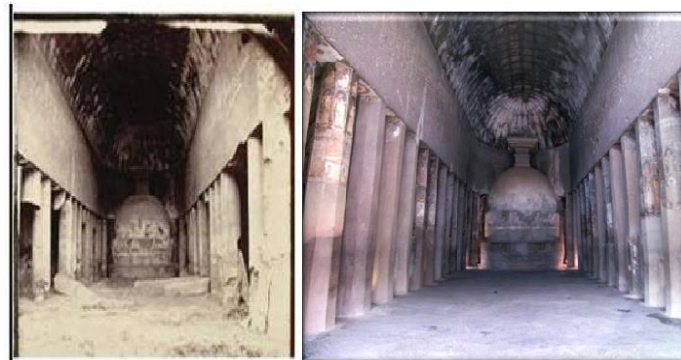
2.2. Structural Conservation at Ajanta Caves.

Ajanta Caves are monotonously covered with massive basaltic hill called Deccan trap. The basalt is of dark grey to black hard compact rock having very fine to medium grain texture. The caves were excavated by scooping into the vertical surface of the rocky hill. The Deccan trap is defined by cleavages, fault and cracks in the body of the basaltic rock for the rain water to seep through inside the caves. The monument stone is also vulnerable to damage by environmental condition.

Major structural conservation measures, in the form of construction of drains for run off of rain water, were executed in the year 1920-21. Five drains to cope up with a run off of 4 inches per hour of rain water with a slop to develop a velocity of 4 to 6 feet per second were made on the top of the cave. A zinc drain was also inserted in the important painting of Padmapani and Vajrapani at Ajanta. Based on Geotechnical studies carried out by the Geological Survey of India for Ajanta caves, some structural conservation measures in the form of strengthening the existing drainage system on the top of the caves were also executed very recently [22].

Ever since the Ajanta Caves were abandoned by the Buddhist monks in around 6th century A.D., the facade of almost all the caves have fallen, the pillars, support and walls in many caves also fell and in some caves the rain water along with mud, supposed to flow in the ravine of Waghura River, entered inside the caves with deposition of slit up to a height of 3-5 feet. Structural conservation measures in the form of removing the filth from the cave interior and making new support pillars as per conservation needs were extensively carried out. The finest example is 2nd B.C. cave 10 at Ajanta and figure 14 shows view of before and after structural conservation measures for the cave.

Figure 14. Before and after structural conservation measures for the cave 10, Ajanta.



Ajanta is also known for its beautiful sculptures of Buddha hewed out of basaltic rock. However, due to environmental impact and flaw in the original basaltic stone, many of the sculptures were in bad condition showing loss of parts, exfoliation and weathering to different extent. Extensive consolidation and mending works of all outside sculptures were carried from 2003 onwards at Ajanta with Ethyl silicate introduced through saline technique into the cracks, crevices of weathered sculptures. Subsequently, as per archaeological norms and condition the lost part of the sculptures were mended with basaltic stone powder and ethyl silicate as per requirement. Most of the sculptures of Ajanta have now been consolidated by this process and figure 15 shows ethyl silicate mending of the sculptures of Ajanta. The work was executed after creating proper atmospheric condition for execution of mending work.

Figure 15. Consolidation of sculptures of Ajanta using ethyl silicate.



2.3. Conservation of Mural Paintings:

Ajanta is a monument to paintings of Buddhist faith. Many of the paintings have been executed on mud plaster, which contains clayey matter of high to low swelling nature admixed with organic additives such

as rice husk, plant seeds and leaves, *etc.* Due to variation of 40-50% in relative humidity inside the cave [23], the nature of support has an important bearing on the overall condition of Ajanta paintings. The clayey fraction and its plasticity is a major factor of interaction of earthen support with other structural elements, with the painted surface and with environmental changes.

With the discovery of the caves in 1819, many of the paintings in most ancient caves 9 and 10 were copied in the 19th century when they were in much better state of preservation than today [24]. In 1920, the Italian conservators applied thick coat of unbleached shellac varnish to the already varnished surface without removing the old varnishes. Meanwhile the thick shellac oxidized and changed color to reddish brown in Indian climatic condition. Besides, contraction and expansion due to environmental factor also created pattern of cracks in the body of original paintings. Around two third of Ajanta paintings are also found covered with dirt, dust, altered shellac, natural resins and at few places polyvinyl acetate. Deposition of soot is also noticed in those caves that were under worship at Ajanta.

The presence of a large quantity of superimposed materials does not always allow a clear vision of the original pigment layer and also renders the cleaning operation difficult. Besides altering visual appearance of pigment layer, the superimposed materials also restrict the breathability of underlying surface, thereby causing ridges, gaps, lacuna and sometimes the fall of pigment layer. Pigments of Ajanta have now been clearly identified with non-destructive/destructive analysis of micro samples [25].

As the Ajanta paintings have been executed by tempera technique with animal glue as binding media, use of any water based solvent mixture for cleaning is totally ruled out. Many of the painted surfaces of Ajanta were cleaned by first consolidating the fragile surface with the help of a lime and caseins mixture and allowing it to dry properly. After complete drying, the varnishes layers along with soot and grime were removed using mixture of organic solvents such as morpholine, butyl lactate, n-butyl amine, butyl lactate, butanol, ethanol, and dimethyl formamide in various ratios with dexterity and patience [26]. No attempt was made to remove last traces of accretions as precautionary measures. The main intention of chemical cleaning measures was to make the surface to breathe. Figure 16 shows before/after treatment photograph of recently executed chemical cleaning of painted surface of Ajanta. Around 10–15 % of the surface accretions were left as such during cleaning operation as safety layer.

Figure 16. Scientific conservation of murals of cave 10, Ajanta.



3. Conclusion

The excavation of Ajanta represents extraordinary rock architecture in western Deccan after about three hundred years of abandonment in rock art. It seems technicians avoided a massive basalt trap full of flaws as much as they could in choosing cave site. As mercantile and royal endowments grew, cave interiors became more elaborate, with interior walls decorated with murals and intricate carvings. The technique of mural paintings was copied from Ajanta and taken to south-east Asia where many Buddhist countries represented India's great material culture. Application of varnishes for copying and general conservation pose problems for mural paintings.

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Conflict of Interest

The authors declare no conflict of interest.

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