

Digital Reconstruction of Maritime Heritage in the Ajanta Murals

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ABSTRACT

India's maritime heritage dates to around 4,500 years, since the Indus Valley Civilization. The impetus to revisit and re-develop maritime links was trade (primarily in cotton, pepper, and other spices), due to the monopoly of the Persians and, later, the Arabs over land-based caravan routes. Later maritime journeys spread the influence of ancient and medieval Indian civilization as far as the islands of Indonesia to the East, the islands of Japan to the north, and the east coast of Africa to the west. There are many representations of ships and boats in early Indian art. The earliest are those found among the Sanchi sculptures belonging to circa. 2nd century B.C. At the Ajanta caves, paintings from the 5th century C.E. reveal the life of the people of the time. The frescoes depict sea-going vessels conveying goods overseas, representing ships and boats from an era that witnessed India's expansion and the spread of Indian thought and culture over the more significant part of the Asiatic continent. The vitality and individuality of Indian civilization, fully developed during the era of Vakataka-Gupta imperialism, by the end of the 7th century transplanted itself to the farther East, affecting the cultures of Java, Cambodia, Siam, China, and at the most significant distance, even the to Korean peninsula and Japan. A painting on the wall of Cave No. 1 at Ajanta is still easily recognizable as a vivid representation of the Persian envoys' ceremonial presentation of their credentials.

Griffiths rightly interprets the representations of ships and boats in the Ajanta paintings as a "vivid testimony to the ancient foreign trade of India." The present paper deals with the ships and boats depicted in the paintings of Ajanta. Several scholars have studied these images, more particularly from Cave Nos. 1, 2, 16 and 17. In continuation of the Magnum Opus work of Dieter Schlingloff, the author shall try to show the missing features depicted in the panels of ships and boats through newly reconstructive line drawings and photographs. Digital restoration utilizing photographs processed to adjust the brightness and contrast forms a significant step in studying the original painting and analyzing its remains and damage. This process allows digital reconstruction with line drawing and color using the original color palette. As a result of this detailed work, one may visualize the paintings and their use of ancient maritime activity as subject matter.

ART HISTORY - GENERAL DESCRIPTION

The caves of Ajanta (lat. 20 32' N.; long. 75 45' E.; Dist. Aurangabad), occupies a unique position among the monuments in India by the superb symphony of architectural forms, sculpture, and above all the world-famous mural paintings. The caves are cut in a crescent-shaped bend of a steep rock overlooking the head of a narrow glen, and are completely shut off from the bustle of the mundane world. These caves are cut out of the amygdaloidal trap rock aligned 550 meters in a horseshoe form (Mitra 1971).

In all there are 30 caves of which five belong to the early period or phase (Hinayana) i.e. Nos. 9, 10, 12, 13 and 15A, dated to circa. first century BCE - first century CE on a modest scale. The rock-cut excavation was revived on a more ambitious scale in the middle of the 5th century A.D. This phase of activity began during the supremacy of the Vakatakas (ascribed to the period of Harisena of the Vakataka dynasty who was ruling in this region in the last quarter of the fifth century CE) (Spink 1994).

The second phase of Ajanta synchronized with the rule of the Vakatakas, with the high watermarked remains of the painter's brush-work. Substantial remains of this phase have survived in Caves 1, 2, 16 and 17., though originally all the finished caves. The paintings of this period throughout maintain an exalted height and enthrall the spectator by their rich beauty, superb expressiveness, color-scheme, balanced and effective composition, fine shading and highlight bringing into relief a plasticity, suppleness and sensitive modeling of the figures. Infact, the paintings have stood the test of the highest art-standard of mural paintings. The theme of the paintings on the walls is intensely religious in tone and mostly centers around Buddha, Bodhisattvas, incidents from the life of Buddha and the Jatakas (Mitra 2003, 10-11).

The author shall briefly describe the boats and ships depicted in Cave Nos. 1, 2 and 17 with the help of newly made reproductions (line drawings and photographs), on the basis of previous work, more specifically that of Dieder Schlingloff's Magnum Opus work on Ajanta paintings. There are three stories related to seafaring, the first, on the wall of the left aisle of the hall in Cave 1, depicts the sea voyage and shipwreck of prince Kalyanakarin. The second on the wall of the right aisle in Cave II, represents the experiences of the merchant seaman, Durukarnin: and the third, the shipwreck and oceanic crossing of the sea-traders, and later king Simhala appears on the wall of the right aisle in Cave XVII, (Schlingloff 1988, 195)

Cave No. 1- Kalyanakarin/ Shipwreck: Mahajanaka Jataka

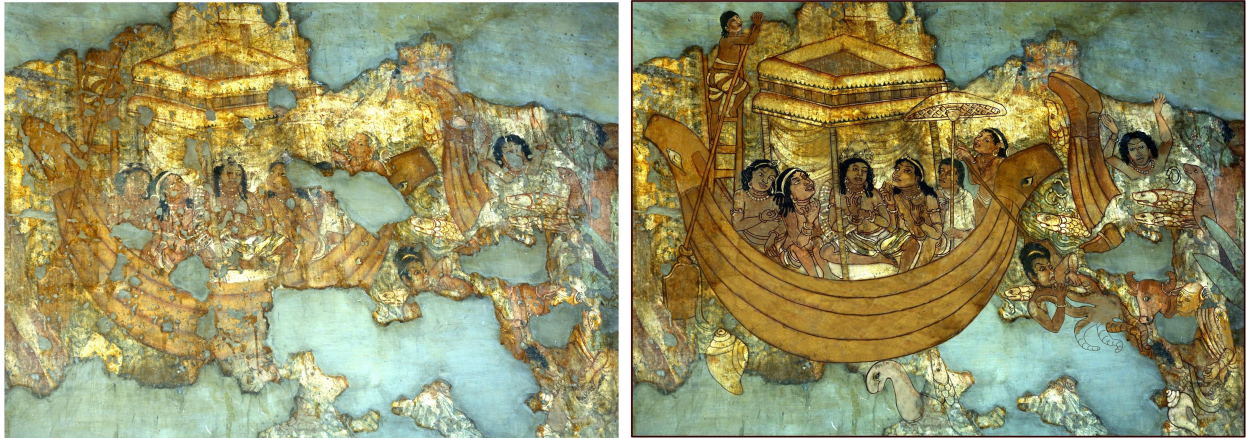


Figure 1 This subject is delineated on the back wall of the left aisle above the door of the fourth cell. The fresco is considerably damaged (Yazdani 1930, 22).

There are no less than ten known versions of the Kalyanakarin story: three in Sanskrit (KaDru, BAK 3I and BAK 45)," four in Chinese (T156, T202, TI428 and TI450), two in Tibetan, and one in Uighur. However, if we discount all those translations or adaptations which merely stem from earlier versions, 15 we are left with five versions from independent. (Schlingloff 1976, 6).

The subject, as painted on the rock-wall, may be described thus we see a chief (merchant - prince?) sailing in a boat with several attendants. The gesture of his hands, which is rather conventional, denotes that he is faced with some dilemma. Behind the attendant to the left of the chief is an obliterated figure, overshadowed by a Canopy (*chhatar*). This figure seems to have been attired in a robe and may represent Mahājanaka in plain costume, before his acquiring the kingdom of his Father, the canopy above him being emblematic of his divine personality. The boat appears to be of considerable size, and a pavilion, similar to those shown in the palace scenes: is erected in the middle of it. The hull is massively constructed and in its side four courses of planking are visible above the water. The bow and stern have carvings of animal heads at their ends. There are eyes painted on both the bow and stern. A large fish (shark?) is attacking the boat near the Stern; and a sailor has climbed up the ladder placed against the mast and he is steering the boat with a long pole or oar from there. Another sailor is at the helm, but as the fresco is damaged in this part, his action is not quite clear.

To the right of this scene, the sinking of the boat has been painted. The stern only is visible, the rest of the boat being submerged nose downwards. A man is being attacked by fishes and a sea-monster. He has raised both his hands in alarm. Another person is shown being carried off by an alligator or shark, while to get free of its jaws he is trying to open its mouth. The wild stare and firmly closed lips of this man show that he is struggling with death itself. One sea-monster resembles a beaver, while another, which is painted white, has the head and ears of a cat (Yazdani 1930, 23).

Significance of Eyes

The eyes of Horus, the Egyptian Sun-god, plays an important part in mythology and superstition of the ancient Egyptians. They are called by Egyptologists *ujas* or mystic eyes on account of the mystic influence which they exercise on enemies of those whom they protect." He further says that this Eye of Horus or *ujas* "was worn as an amulet hanging down from the neck like a pendant; it also formed the decoration of a bracelet. These *ujas* acted as " protective amulets " and as such " were found on Egyptian mummies ' Even the Divinities of Egypt were " in danger or attacks from their enemies, the evil spirits," and so, " they are often placed under the protection of the eyes of Horus." They stand on guard in the heavens exactly over the prow and over the helm of the barque (Maspero, *Histoire ancienne des peuples de l'Orient Classique* page 93)". These *ujas* " were excavated in recent years from the ruins of Susa, the Capital of ancient Elam ". These *ujas* or " mystic eyes " of the ancient Egyptians, especially those found " over the prow and over the helm of the barque" remind us of the figures of eyes, which we see on some of our Asiatic boats (Unwala 1928). The custom of providing boats with eyes is very old.

Ornamental eyes first appeared on the prows of Egyptian funeral boats and were then adopted by almost all the seafaring people in the Mediterranean area, and did not go out of fashion on larger vessels until the Middle ages. Even today they can still be seen on Indian, Indo-Chinese, and European fishing boats and other smaller craft (Quigley 1955, 191).

Among the frescoes in the Ajanta caves, of about 600 CE there is depicted a three masted ship and a royal barge both provided with eyes on the brows (Mookerji 1912, 41)

Cave 2: Purna Avadana



Figure 2 The subject is painted between the second and third cell doors of the right corridor of Cave 2.

The fresco represents some scenes of the Purna Avadana, which are painted with great vividness.

The painter has shown in this scene the sea voyage of Bhavila, the elder brother of Purna, who has been caught by a storm raised by a *Yaksha* Mahesvara. The surf and deep blue water have been rather conventionally shown by curved black and white lines which however, are not displeasing to the eye. Among the fishes are the figures of two Naga spirits who have either come to rescue the boat, or like the traditional mermaids, have appeared on the scene. Their pose is striking, being suggestive of rapid movement. One has a halo of three serpent's hoods above her head. We see another semi-human figure below the boat itself. We notice a large variety of fishes in the sea, many of them are obviously mythical, but some are real. (Yazdani 1933,46)

The representations of ships and boats in the Ajanta paintings are therefore rightly interpreted by Griffiths as only a "vivid testimony to the ancient foreign trade of India."

The sea-going vessel has a high stem and stern, with three oblong sails attached to as many upright masts. Each mast is surmounted by a truck, and there is a lug-sail. The jib is well filled with wind. A sort of bowsprit, projecting from a kind of gallows on deck, is indicated with the out-flying jib, square in form, like that borne till recent times by European vessels. The ship appears to be decked and has ports. Steering-oars hang in sockets or rowlocks on the quarter, and eyes are painted on the bows. There is also an oar behind; and under the awning are a number of jars, while two small platforms project fore and aft. The vessel is of the Agramandirā type as defined in the Yukti Kalpataru, our Sanskrit treatise on ships. (Mukhopadhyaya 2020, 12-13).

Water is no less formally indicated, sometimes by markings like basket-work, in others by flowing wave scrolls; but fishes, tortoises and mermen are generally added to prevent mistakes (Griffiths 1983, 14).

Under the awning are a number of jars, while two small platforms project fore and aft as on native boats of today. The sole occupant of the boat is a man with long hair, in the act of prayer to, or in adoration of, two flying figures: one of whom may represent Chandra (the moon) as a crescent is seen behind him. (Griffiths 1983, 30)

This representation is again a production of a special atelier of the Vakataka style painters at this site.

The other interesting treatment in this panel is the emphasized and decorative-mat-type treatment of the turbulent sea. On the other hand, following the early Indian art tradition there is no sky; this is suggested by the hovering angel in the sky-region. (Rai 1991).

Amphora or Torpedo Jars

The pottery depicted in the Purna vadhana scene seems to be torpedo Jars (Balvally et. al. 2019). Similar type of pottery has been revealed in the excavation at Nagardhan, a village located in Ramtek Taluka of Nagpur district, 6 km south of Ramtek, the Taluka headquarter in the state of Maharashtra. The site has been excavated by a joint team from the Department of Archaeology (Nagpur Division, Maharashtra) and Deccan College, Pune since 2015 (Sontakke *et al.* 2016).

Interestingly, images of a boat transporting jars are seen in a painting of the Purnavadana in Cave 2 at Ajanta. The implication of such a painting is of immense significance for the concept of trade (Brancaccio 2011, 307 fig. 114).

Apart from Nagardhan, torpedo jars have been reported under the category of ‘Amphora’ from the excavations at Paunar (Dist. Wardha) from levels dated to around 2nd-3rd century CE. (Deo & Dhavalikar 1968, XXII, nos. 5-6) and have been described as jars with their ‘interior bearing ripple grooves and coated with black resin’ (Deo & Dhavalikar 1968, 48). Torpedo jars are also reported from Nevasa as amphora (Lal 1960).

Apart from the Sasanians, the Axumites—of East Africa, acting as middle men for the Romans—were also depicted in the Ajanta paintings, thus showing the effect of trade on artistic designs of the period (Brancaccio 2011, 213).

Some scholars state that the phase after the Satavahana period (i.e. the Vakatakas period) in Maharashtra is devoid of trade and shows a decline in trade networks (Thakuria 2017, 181-186). Others further claim that most early historic sites in Vidarbha were deserted after the Vakataka period, until the Medieval Period (Sawant 2006; 2010, 57).

The excavations at Nagardhan and the finds of the torpedo jars within the Vakataka phase thus exhibit the continuation of trade/cultural contact well into the Vakatakas phase, in particular with the Sasanians. The context of the torpedo jar found at Nagardhan further strengthens the idea of ‘wine carriers’ of the later Sasanian

period imported into western India. The period of Indo-Sasanian contact had both intellectual and economic dimensions, as proven by the textual and archaeological remains respectively. (Ritvik et. al. 2019).

Simhala Avdana Cave 17

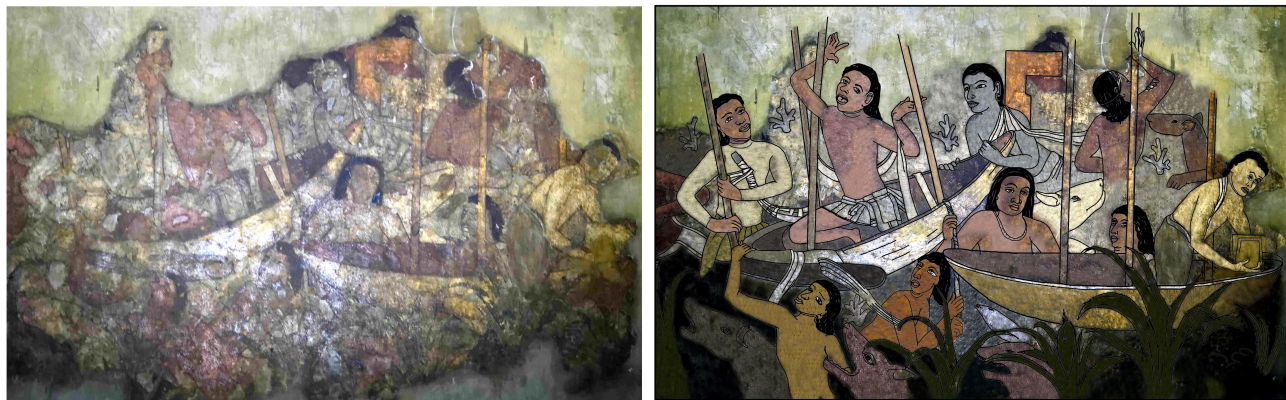


Figure 3. The story is painted on the entire wall of the right corridor and is continued to the upper part of the pilaster between this corridor and the one at the back of Cave 17.

The portion of the fresco showing the shipwreck scene is much damaged, but the wreckage of the boats, caused either by the attack of the monsters or by the striking of the boats against a coral reef, can easily be made out. The coral growth and some sea-anemones with dentate leaves are shown at the bottom of the water. There are large fishes around the boat, two of which appear to be of colossal size; they may be sharks, which abound in the Indian Ocean. Two men may also be noticed holding ropes which would seem to have been thrown from the boats in an attempt at rescue. They are both near the bow of the boat, in the rear. Some men may be seen still in the wrecked boats; in the rear vessel, a tall strong man is visible at the end of the boat, and he is perhaps the steersman. Another stalwart figure is holding firmly to the rear mast near the stern. There is another figure, the head of which is now destroyed, who is clinging to the mizzenmast of the bait, with his arm around it. In the front boat there are also two men, and one of them, in the bows, holds in his hands a box tied with string. The box evidently contains some precious articles which the merchant does not want to lose, even when in peril of his life. The man behind this merchant holds a rope in his hands with a view to throwing a line to such passengers as have fallen into the sea and whose lives he is attempting to save (Yazdani 1955, 82-84).

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BIBLIOGRAPHY

Balvally R. et. al. "Sasanian Contacts with the Vakatakas' Realm with Special Reference to Nagardhan." Nameh, Afarin. "Essays on the Archaeology of Iran in the Honour of Mehdi Rahbar." Edited by: YOUSEF MORADI With the assistance of Susan Cantan, Edward J. Keall and Rasoul Boroujeni Tehran The Research Institute of Cultural Heritage and Tourism (RICHT) 2019.

Brancaccio, P. *Buddhist Caves at Aurangabad: Transformations in Art and Religion*. Leiden: Brill's Ideological Library. 2011.

Deo, S.B. and Dhavalikar, M. *Paunar Excavation (1967)*, Nagpur: Nagpur University 1968.

Griffiths, John "The Paintings in the Buddhist Cave Temples of Ajanta Khandesh." Vol 1 Caxton Publications Delhi 1983.

Lal, B.B., . "Report on the Black Deposit of the Inner Surface of a Sherd from Nevasa", in: H.D. Sankalia, S.B.Deo, Z.D. Ansari, and S. Ehrhardt (eds.), *From History to Pre-History at Nevasa (1954-56)* (Department of Archaeology and Ancient Indian History, Deccan College Publication No 1), Poona: Department of Archaeology and Ancient Indian History, Deccan College, (1960):527.

Mitra, Debala. *Buddhist Monuments*. Calcuttal Sahitya Samsad. 1971.

Mitra. Debala. "Ajanta" Archaeological Survey of India. Bengal Offset Works, New Delhi 2003.

Mookerji, Radha kumud "A History of the Sea Borne Trade And Maritime Activity of the Indians from Earliest Times." Indian Shipping. Longmans, Green and CO 8, Hornby Road Bombay, 303, Bow bazar Street Calcutta, London and New York.1912.

Mukhopadaya, Radha Kumud. "A History of The Sea-Borne Trade And Maritime Activity of the Indians From The Earliest Times." *Indian Shipping Book 1 Part 1*. Mushiram Manoharlal Publishers Ltd. New Delhi 2020.

Quigley, C.Certain. "Considerations on the Origin and Diffusion of Oculi." *The Americian Neptune* 15 (1955): 191.

Rai Anand Krishna. "Certain Ateliers Sub-Schools and Allied Schools of the Vakataka Period Ajanta Paintings." Edts: Ratan Parimoo Deepak Kannal, Shivaji Panikkar Jayaram Poduval Indramohan Sharma. *New Perspective Vol 2*. Books and Books New Delhi 1991.

Sawant, R., Vidarbha: *An Archaeo- Historical Approach*, Unpublished Ph.D. thesis submitted to Deccan College Postgraduate and Research Institute, Pune. 2006.

Schlingloff, Dieder, "Studies in The Ajanta Paintings," Identifications and Interpretations. Ajanta Publications, New Delhi, 1988.

Schlingloff, Dieder. Kalyāṇakārīn's Adventures. The Identification of an Ajanta Painting. *Artibus Asiae* 38, No. 1 (1976): 5-28 Artibus Asiae Publishers.

Sontakke, V., S. Ganvir, S. Vaidya, and P.P. Joglekar. Excavation at Nagardhan." Nagpur District, Maharashtra (2015-2016), *History Today* 17 (2016): 43-51.

Spink, W.M. "*Ajanta A Brief History and Guide*." Asian Art Archives of the University of Michigan. Bombay. 1994.

Thakuria, T. "Society and Economy during Early Historic Period in Maharashtra: An Archaeological Perspective", *Heritage: Journal of Multidisciplinary Studies in Archaeology* 5 (2017):169-190.

Unwala, Jamshed, Maneekji, "The Introduction. Eyes of Horus " read before the Anthropological Society of Bombay on the 4th January 1928.

Yazdani, M.A. "The Colour And Monochrome Reproduction Of The Ajanta Frescoes Based On Photography With an Explanatory Text." and an Appendix on Inscriptions By John Allan. PART II Text Published Under The Special Authority Of His Exalted Highness The Nizam. Oxford University Press London, Humprey Milford. 1933.

Yazdani, M.A. "The Colour and Monochrome Reproduction Of The Ajanta Frescoes Based On Photography With an Explanatory Text." and an introduction by Laurence Binyon. Part 1 text published under Special Authority Of His Exalted Highness The Nizam. Oxford University Press London, Humprey Milford. (1930): 23.