

## A CRITICAL REVIEW OF AJANTA PAINTINGS

Maithili Ray<sup>1</sup>, Dr. Loveneesh Sharma<sup>2</sup>

<sup>1</sup>Amity School of Fine Arts, BFA (Animation), Amity University Kolkata

maithili.ray@s.amity.edu

<sup>2</sup>Associate Professor Amity School of Fine Arts, BFA (Animation), Amity University Kolkata

lsharma@kol.amity.edu

### ABSTRACT

Ajanta stands as one of the preeminent surviving centers of ancient Indian mural painting, representing an exceptional fusion of architecture, sculpture, and pictorial art. Carved into the sheer basalt rock face of a horseshoe-shaped gorge along the Waghora River in present-day Maharashtra, these caves preserve a rich corpus of murals and decorative schemes produced across two distinct historical epochs, an early phase under the Satavahana dynasty and a later, highly refined phase associated with the Vakataka period. This review article examines the Ajanta murals as an autonomous artistic tradition, synthesizing secondary literature, historical historiography, and formal visual analysis to explore their chronological evolution, Buddhist iconography themes, complex narrative structures, tempera techniques, line work, color application, volumetric modeling, and aesthetic dimensions. Special attention is devoted to iconic masterpieces—such as the *Bodhisattva Padmapani* and *Vajrapani*—as well as the moral complexities of the Jataka narratives, reflections of ancient social life, and their foundational impact on pan-Asian mural traditions and modern animation layout principles. By positioning Ajanta within broader art-historical discourse, this paper demonstrates how Buddhist theological tenets converged with sophisticated visual storytelling and secular observation, establishing an enduring foundation for Indian visual culture.

**Keywords:** Ajanta, mural painting, Buddhist art, Jataka narratives, Bodhisattva, Padmapani, Vajrapani, tempera technique, Indian aesthetics, Vakataka period, animation staging.

### 1. INTRODUCTION

The Ajanta Caves represent a monumental achievement in ancient Indian art, architecture, and religious engineering [1]. Situated in the Sahyadri ranges of Maharashtra, this complex of rock-cut monuments bridges spiritual devotion with high artistic sophistication [2]. Recognized globally as a UNESCO World Heritage site, Ajanta has captivated historians, artists, and theoreticians since its modern rediscovery in the early 19th century [6]. While early colonial and post-independence academic inquiries frequently subordinated Ajanta's paintings to textual illustrations of canonical treatises—such as the *Chitrastotra* of

the *Vishnudharmottara Purana*—modern art-historical scholarship treats the murals as self-contained visual texts [7]. This review article investigates the Ajanta murals through a critical lens, examining how line, color, spatial organization, and emotional resonance function across sacred and secular domains [3]. By synthesizing historical documentation, technical analysis, and stylistic evaluations, this paper highlights the profound ways in which Ajanta records both spiritual ideals and lived human experience [5].

## 2.LITERATURE REVIEW: HISTORIOGRAPHY, ARCHAEOLOGICAL DISCOVERIES, AND MODERN SCHOLARSHIP

The academic trajectory of scholarship surrounding the Ajanta Caves spans over two centuries, evolving dynamically from early colonial documentation and topographical mapping to advanced iconographical, technical, and conservation-focused evaluations [6]. Following the accidental rediscovery of Cave 10 in April 1819 by a British hunting party led by John Smith, initial European engagement with the site was driven primarily by recording, surveying, and copying its rapidly deteriorating murals [8]. Early government-commissioned projects, notably those by Major Robert Gill who spent over two decades painting manual copies of the frescoes (tragically compromised by a devastating fire at the Crystal Palace in London in 1866), established the urgent imperative for systematic visual preservation [8]. Subsequent monumental documentation endeavors—such as John Griffiths’ 1896 portfolio and Lady Christiana Herringham’s comprehensive 1915 color reproductions—saved invaluable records of pigments and compositions that have since vanished due to environmental humidity and visitor-induced microclimatic fluctuations [4], [8].

During the early-to-mid 20th century, scholarly focus shifted decisively toward epigraphic analysis, dynastic chronology, and iconographical interpretation [9]. The monumental multi-volume study by Ghulam Yazdani (*Ajanta: The Colour and Monochrome Reproductions of the Ajanta Frescos*, 1930–1955) represented a watershed moment, providing high-resolution photographic plates accompanied by detailed descriptions of Buddhist iconography and narrative structures [9]. Building upon Yazdani’s foundational work, the decades-long research of Walter M. Spink (*Ajanta: History and Development*, 2005–2006) fundamentally transformed art-historical paradigms regarding the site’s chronology [5]. Through meticulous epigraphic readings, architectural phasing, and numismatic cross-referencing, Spink conclusively demonstrated that the vast majority of Ajanta’s magnificent Mahayana monuments—specifically Caves 1, 2, 16, and 17—were not excavated across centuries as previously

assumed, but were instead executed within a remarkably compressed, frenetic burst of patronage during the late 5th century CE under the direct imperial aegis of the Vakataka monarch Harishena [5].

Concurrently, pioneering art historians and theoreticians of Indian aesthetics, such as Ananda Coomaraswamy, C. Sivaramamurti, and Stella Kramrisch, integrated Ajanta into broader philosophical frameworks of *silpa* (indigenous artistic canons) and traditional Indian theatre [10]. Their scholarship examined how classical Sanskrit treatises—including the *Natya Shastra* and the *Chitrasutra* of the *Vishnudharmottara Purana*—inform the visual grammar of the murals, particularly regarding proportions (*mana*), posture (*bhanga*), line quality (*rekha*), and the evocation of emotional states (*bhava*) leading to aesthetic relish (*rasa*) [7], [10]. More recent scholarship has expanded into material science and interdisciplinary conservation [3]. Comprehensive technical analyses conducted by UNESCO conservation teams and archaeological scientists (such as Dieter Schlingloff's exhaustive investigations into narrative iconography) have meticulously mapped the chemical composition of Ajanta's mineral pigment palettes, organic binding media, and stratigraphical plaster layers [2], [3]. This modern synthesis of art history, archaeology, and material science ensures that Ajanta continues to be evaluated not merely as a static religious relic, but as a living, highly sophisticated apex of classical visual culture [5], [6].

### 3. METHODOLOGY

As a critical review article, this study adopts a qualitative, text-based, and analytical methodology designed to evaluate existing secondary literature, archaeological records, art-historical scholarship, and technical conservation reports [3]. Rather than engaging in primary archaeological fieldwork or empirical material testing in situ, the investigation relies on systematic source triangulation, textual criticism, and formal visual analysis. This methodological framework acknowledges that historical monuments like Ajanta cannot be fully understood through isolated empirical metrics alone; instead, they require a multi-disciplinary synthesis that bridges archaeological data, historical timelines, and aesthetic theory [5].

To achieve academic rigor and comprehensiveness, the investigative process and methodological workflow are structured around four core analytical phases:

**Corpus Curation and Historiographical Filtering:** This initial phase involves the comprehensive collection and critical evaluation of primary and secondary texts, ranging from 19th-century colonial portfolios (such as those by John Griffiths and Lady Christiana Herringham) to rigorous, epoch-defining chronological frameworks established by modern authorities like Walter Spink [4], [5], [8]. Special attention is given to official UNESCO periodic reports and archaeological conservation documentation to

ensure absolute factual accuracy regarding physical deterioration, restoration history, microclimatic pressures, and structural integrity across the thirty rock-cut caves [1], [2].

**Comparative Iconographic and Stylistic Cross-Referencing:** This analytical stage entails a systematic examination of visual and compositional paradigms across major painted monuments, with a primary focus on Caves 1, 2, 9, 10, 16, and 17. The visual evidence is critically cross-examined against classical Indian aesthetic treatises—most notably the *Natya Shastra* attributed to Bharata Muni and the *Chitrasutra* of the *Vishnudharmottara Purana*—to understand how canonical principles of line (*rekha*), proportion (*mana*), bodily posture (*bhanga*), and emotional state (*bhava*) find practical, tangible expression in mural execution [7], [10]. This allows the study to evaluate how religious iconography intersects with secular observation.

**Material and Technological Synthesis:** This phase comprises a critical review of scientific and conservation studies concerning plaster composition, ground preparation, organic binding media, and mineral pigment identification [3]. By drawing upon technical analyses by scholars like Dieter Schlingloff and institutional conservation bodies, the methodology assesses how ancient artisans engineered durable mud-plaster grounds and lime-wash priming layers (*chuna*) to overcome the severe environmental and thermal challenges inherent in basalt rock-cut architecture [2], [3].

**Socio-Cultural and Interdisciplinary Application:** The final methodological tier integrates classical art history with contemporary visual culture studies, drawing insights directly applicable to modern animation, character design, and narrative pacing. By evaluating how Ajanta artists utilized continuous narration, spatial hierarchy, and psychological depth without the aid of modern perspective systems, this review bridges ancient Indian art traditions with contemporary pedagogical frameworks in visual arts and digital media layout.

#### 4. HISTORICAL BACKGROUND, ARCHITECTURE, AND THEMATIC EVOLUTION

##### CHRONOLOGICAL PHASES AND DYNASTIC PATRONAGE

Ajanta's development occurred across two distinct historical epochs, separated by roughly four centuries of stylistic transformation and changing religious landscapes [5]. The earliest excavations date to the 2nd and 1st centuries BCE, corresponding to the Satavahana dynasty and emerging under early Buddhist monastic impulses [1]. These early caves—specifically Caves 9, 10, 12, and 13—are primarily Hinayana (Theravada) foundations characterized by aniconic modes of worship where the Buddha is never represented anthropomorphically [2]. Instead, veneration was directed toward symbols such as the stupa, footprints, the triratna, or the empty throne. The painting fragments surviving from this first phase,

notably within the magnificent horseshoe-shaped arch of Cave 10, exhibit a restrained palette dominated by earthy ochres and a vigorous, linear vitality that shares deep stylistic affinities with the relief sculptures of Sanchi and Bharhut [8].

Following a prolonged period of relative inactivity, the second and most prolific phase of artistic creation occurred during the 5th and 6th centuries CE under the Vakataka dynasty and their imperial feudatories, most notably during the brief, highly concentrated reign of Emperor Harishena [5]. Propelled by the flourishing of Mahayana theology, this period witnessed a dramatic theological shift toward the direct anthropomorphic representation of the Buddha, transcendent Bodhisattvas, and celestial hierarchies [9]. Caves 1, 2, 16, and 17 were excavated, sculpted, and elaborately painted during this golden age [5]. UNESCO documentation highlights this phase for its unprecedented mastery of expressive figural grouping, sophisticated tonal shading, and volumetric modelling that gave painted forms an illusion of three-dimensional sculptural relief [2].

### **Architectural Typologies and Spatial Integration**

Ajanta is not merely a collection of isolated paintings, but a unified architectural and artistic complex comprising thirty excavations cut into a steep basalt cliff above the Waghora River [1]. These monuments are divided into two primary functional typologies:

**Chaityagrihas (Prayer Halls):** Apsidal, vaulted halls designed for congregational worship and circumambulation, featuring a monolithic stupa at the apse (such as Caves 9, 10, 19, 26, and 29) [1].

**Viharas (Monastic Residences):** Large, quadrangular pillared halls surrounded by rows of monk cells, serving simultaneously as living quarters, assembly rooms, and devotional shrines.

The integration of painting across walls, monolithic pillars, entablatures, and ceilings creates a total immersive environment [3]. Ceilings are dominated by intricate geometric, floral, and zoomorphic patterns that establish a rhythmic, tapestried canopy, while walls serve as expansive narrative canvases. This architectural zoning ensures that the visual language adapts fluidly to sacred transit, monastic contemplation, and narrative instruction [2].

### **Thematic Universe and Narrative Paradigms**

The thematic universe anchored within this architectural matrix is deeply rooted in Buddhist cosmology, ethics, and narrative literature. The principal subjects encompass:

**The Buddha's Life and Miracles:** Monumental depictions of historical and transcendent events, including the birth at Lumbini, the Great Renunciation, the temptation by Mara, and major miracles at Sravasti [9].

**Bodhisattva Ideals:** Revered celestial beings such as Padmapani and Vajrapani, who embody supreme compassion (*karuna*) and spiritual elevation, offering grace to suffering beings [9].

**Jataka Narratives:** Extensive visual cycles detailing the Buddha's previous incarnations across animal and human forms, serving as moral exemplars of self-sacrifice, generosity (*dana*), patience (*kshanti*), and righteousness (*dharma*) [9].

**Secular and Courtly Life:** Interwoven royal processions, court audiences, dance performances, hunting scenes, and domestic interactions that ground transcendental doctrines in the vibrant reality of ancient Indian society [11].

## 5. TECHNICAL EXECUTION, STYLE, AND AESTHETIC SIGNIFICANCE

### MATERIAL SCIENCE AND PLASTER TECHNOLOGY

The survival of Ajanta's murals on exposed basalt cliff faces across fifteen centuries is a testament to the extraordinary technical ingenuity of ancient Indian plasterers and painters [2]. Technical analyses compiled by UNESCO conservation programs and archaeological studies reveal a rigorous, multi-tiered layering process [3]. First, the rough, porous volcanic basalt rock was chiseled with rough grooves and pecked marks to provide mechanical keying for the plaster.

A thick mud-plaster ground—composed of clay, ferruginous red earth, pulverized rock, and organic binding agents mixed with vegetable fibers, rice husk, and animal hair—was then applied in generous layers (ranging from 1 cm to several centimeters) to level the uneven surface and absorb moisture [2]. Over this dried mud ground, a smooth lime-wash priming layer (*chuna*) composed of pulverized shell lime and plant gum was laid to create a luminous white reflective ground [3]. Colors were applied using water-soluble pigments bound with animal glue in a true tempera (*gouache*) technique, utilizing mineral and earth pigments such as yellow and red ochres, terra verte, lamp-black, lime, kaolin, gypsum, and imported lapis lazuli [2].

### Stylistic Mechanics: Line, Color, and Volumetric Modelling

Stylistically, line (*rekha*) holds supreme authority in Ajanta's artistic vocabulary, aligning closely with traditional Indian aesthetic canons [10]. Contours are executed with fluid, confident brushstrokes in bold red or brown ochre that define anatomical boundaries and drapery without stiffness, cooperating directly with internal tonal shifts [7]. Color is deployed both naturalistically and structurally, with earthy reds, warm ochres, deep browns, and muted greens establishing a resonant chromatic harmony [3]. Volume is rendered not through Western-style optical chiaroscuro, but through subtle gradations of tone—delicate

highlights on the brow, nose, and shoulders paired with soft shadow transitions that give figures an organic, breathing presence [10].

### **Human Morphology, Gesture, and Aesthetic Rasa**

The human figure serves as the primary vehicle for narrative and emotional expression, depicted with stylized grace, flexible torsos, and elongated limbs that evoke vital breath (*prana*) rather than rigid anatomical correctness [9]. Emotional expression (*bhava*) is communicated through nuanced postures (*bhargas*), intricate hand gestures (*mudras*), and shifting gazes, successfully evoking specific aesthetic relishing (*rasa*) in the spectator [10]. In the context of Indian aesthetics, Ajanta provides tangible proof of the principles articulated in classical treatises such as the *Natya Shastra* and the *Chitrasutra*, demonstrating that sacred art can achieve profound emotional resonance without sacrificing decorative harmony or narrative clarity [7], [10].

## **6. GLOBAL LEGACY, PAN-ASIAN INFLUENCE, AND RELEVANCE TO ANIMATION**

The aesthetic and technological paradigm established by the Ajanta murals extended far beyond the Deccan plateau, serving as the fountainhead for classical mural traditions across Buddhist Asia. As monastic networks, trade routes, and diplomatic missions linked India with Central Asia, China, and Southeast Asia, the distinctive Ajanta idiom—characterized by flowing rhythmic lines, volumetric shading, and compassionate facial expressions—was absorbed and reinterpreted by foreign ateliers.

At the Sigiriya rock fortress in Sri Lanka, the famous celestial maiden frescoes reveal direct stylistic kinship with Ajanta's graceful bodily postures, transparent drapery, and sensitive tonal modelling. Similarly, along the Silk Road, the cave temples of Dunhuang (Mogao Caves) in northwest China and Kizil in Xinjiang exhibit profound Indian stylistic influences transmitted via Buddhist monks and traveling painters. The undulating contours, tiered spatial arrangements, and gentle meditative gazes found at Dunhuang demonstrate how Ajanta's visual grammar successfully transcended linguistic and cultural boundaries. This pan-Asian diffusion underscores Ajanta's pivotal role not merely as an isolated regional achievement, but as the foundational archetype for medieval sacred painting throughout the Eastern world.

Furthermore, Ajanta holds profound pedagogical value for contemporary visual arts, particularly in the fields of animation, character design, and digital layout staging. The continuous narrative technique utilized across the walls of caves like Cave 17 operates on principles remarkably similar to modern storyboard pacing and multi-plane layout composition. Rather than relying on rigid panel borders, Ajanta artists organized complex, time-based narrative events within a unified spatial field by employing

directional gazes, architectural overlapping, and scale hierarchy to guide the viewer's eye seamlessly across sequential episodes. For modern animators and visual development artists, Ajanta's mastery over stylized anatomy, dynamic weight distribution, fluid gesture drawing (*bhanga*), and emotional nuance offers timeless lessons in how to stage character performance and breathe life into sequential visual media.

## 7. KEY FINDINGS AND CRITICAL INSIGHTS

The comprehensive synthesis of historical documentation, archaeological surveys, technical conservation reports, and stylistic analyses yields several pivotal findings regarding the Ajanta painting tradition. These insights reshape how the murals are understood—shifting the academic perspective from viewing them merely as illustrative religious backdrops to recognizing them as a sophisticated, highly calculated system of visual communication, material engineering, and social documentation.

**Confluence of Chronological Precision and Mahayana Patronage:** One of the most significant historiographical findings—pioneered by Walter Spink—is that Ajanta's artistic brilliance was not an incremental accumulation over centuries, but the result of an intense, highly compressed burst of excavation and painting during the late 5th century CE under Vakataka rule [5]. The empirical evidence confirms that monuments like Caves 1 and 17 were executed with remarkable speed and administrative coordination under Emperor Harishena, reflecting a centralized royal patronage network that prioritized rapid, ambitious spiritual and artistic accumulation [5], [9].

**Sophistication of Indigenous Material Technology:** Material and conservation analyses demonstrate that Ajanta's survival across fifteen centuries is attributable to an advanced indigenous engineering process rather than mere chance [2]. The empirical findings reveal that ancient artisans successfully adapted organic-mineral composites—combining coarse basalt-keyed mud plaster, vegetable fibers, rice husk, and animal glues with a refined lime-wash (*chuna*) ground—to actively regulate interior moisture and thermal expansion within the porous volcanic rock [2], [3]. This proves that ancient Indian muralists possessed sophisticated chemical and material expertise tailored specifically to basalt cave architecture.

**Codification of Aesthetics and Real-World Observation:** Cross-referencing visual execution with classical treatises such as the *Chitrastotra* and *Natya Shastra* confirms that Ajanta operates on a deeply codified aesthetic system where line (*rekha*) and tone serve structural and emotional purposes rather than rudimentary ornamentation [7], [10]. However, a vital finding of this review is that Ajanta transcends dry canonical prescription. The inclusion of contemporary courtly scenes, diverse social strata, flora, and

fauna indicates that artists intentionally grounded transcendental Buddhist narratives in the empirical reality of 5th-century Indian society [3], [11].

**Prefiguration of Sequential Visual Storytelling:** From the perspective of visual arts and animation pedagogy, a critical finding is Ajanta's mastery of continuous narration and spatial staging. By utilizing overlapping figures, directional gazes, and architectural framing without internal panel borders, Ajanta artists solved the complex problem of depicting multi-phase temporal events within a unified spatial field [9]. This spatial organization anticipates modern storyboard pacing and multi-plane layout mechanics, establishing Ajanta as an early architectural precursor to sequential visual storytelling in global art history [11].

## 8. CONCLUSION

The Ajanta Caves represent an extraordinary and enduring apex of human creative expression, where spiritual theology, architectural mastery, and visual narrative coalesce into a seamless whole. Through a sophisticated command of fluent line work, volumetric shading, color harmony, and psychological nuance, the master artists of Ajanta forged a transcendent visual vocabulary that bridges profound religious devotion with vivid secular observation

By critically synthesizing historical scholarship, material technology, and classical aesthetic philosophy, this review underscores Ajanta's vital position as an irreplaceable cornerstone of Indian art history. Its influence extends far beyond its physical confines, rippling across pan-Asian mural traditions and providing invaluable, enduring principles for contemporary animation, character staging, and visual storytelling. Ultimately, Ajanta remains a timeless testament to the power of art to communicate universal human emotions across centuries and cultures.

## REFERENCES

- [1] UNESCO World Heritage Centre. "Ajanta Caves." World Heritage List, Property 242. UNESCO. <https://whc.unesco.org/en/list/242/>
- [2] UNESCO World Heritage Centre. "Periodic Report on the State of Conservation of Ajanta Caves, India." UNESCO World Heritage Centre, 2003. <https://whc.unesco.org/document/162845>
- [3] Schlingloff, Dieter. *Ajanta: Hand-Printing and Painting Techniques*. Monograph Series, Indological Institute, 1999.
- [4] Herringham, Lady Christiana. *Ajanta Frescos: Being Reproductions in Colour and Monochrome of Frescos in Some of the Caves at Ajanta*. London: Oxford University Press, 1915.

- 
- [5] Spink, Walter M. *Ajanta: History and Development*. Vol. 1–5. Leiden: Brill, 2005–2006.
- [6] Mitra, Debala. *Ajanta*. New Delhi: Archaeological Survey of India, 1996.
- [7] Dey, Monisha. *A Study of Chitrasutra of Vishnudharmottara Purana: Techniques, Line Quality, Proportion and Bhava with Special Reference to Ajanta Paintings*. Department of BFA (Animation), Amity University Kolkata, PNTG165: Aesthetics – V.
- [8] Griffiths, John. *The Paintings in the Buddhist Cave-Temples of Ajanta, Khandesh, India*. London: W. Griggs, 1896–1897.
- [9] Yazdani, Ghulam. *Ajanta: The Colour and Monochrome Reproductions of the Ajanta Frescos Based on Photography*. London: Oxford University Press, 1930–1955.
- [10] Sivaramamurti, C. *Indian Painting*. New Delhi: National Book Trust, 1970.
- [11] Khandalavalar, Karl. *The Development of Style in Indian Painting*. Macmillan, 1983.