Between Walls and Words: Architectural Vocabulary in Mughal Miniatures

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MA Cultural Economics and Entrepreneurship
June 2025

Abstract

This thesis looks at how architecture appears in Mughal miniature paintings from the sixteenth and seventeenth centuries, focusing on the ways space and structure were imagined within the art of the imperial court. It studies a group of paintings that show palaces, gardens, mosques, and ceremonial settings, and places them alongside actual Mughal buildings in Agra, Delhi, and Fatehpur Sikri. The goal is to understand whether the paintings reflect real buildings, idealized spaces, or a mix of both. Through direct visual observation and field visits, the work identifies common features such as domes, iwans, garden layouts, and balconies, which serve as familiar forms within the painted scenes. These details are not simply decorative, but help to shape how space is understood. Instead of using Western rules of perspective, Mughal painters relied on vertical layering, repeated forms, and careful framing to show depth and order. These choices reveal a visual language that expresses ideas of power, ceremony, and hierarchy. A method of comparison brings together paintings, buildings, and literary references to highlight shared ideas about space and meaning. Texts and poetry from the period help place these images in a wider cultural setting. Rather than treating painting and architecture as separate arts, the study shows how closely they are linked. The miniature is seen not just as a record of architecture but as a way of thinking about space in its own right. The buildings in these paintings may be small and stylized, but they carry real weight in how they shape ideas of rule, devotion, and beauty. This study offers a new way to look at Mughal painting, one that sees it as an important part of architectural imagination in early modern South Asia.

Keywords: Mughal architecture, miniature painting, spatial representation, typological analysis, visual syntax, architectural vocabulary, imperial patronage, comparative analysis.

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Introduction

This thesis examines the representation of architecture in Mughal miniature paintings produced in the sixteenth and seventeenth centuries, a period associated with the expansion of artistic and architectural activity under imperial patronage. It analyses how these paintings serve as a visual articulation of architectural principles, depicting the formal and spatial features of palaces, forts, mosques, and gardens. The selected miniatures are noted for the clarity of architectural detail and their connection to urban centres such as Delhi and Agra. These are listed in Appendix 1. A central aspect of the study is the comparison between architectural elements in the paintings and surviving Mughal structures. The aim is to assess whether the visual representations reflect existing forms, reinterpret them, or construct idealised versions. The built environment considered includes structures in Agra, Delhi, and Fatehpur Sikri, chosen for their historical relevance and the opportunity for direct field observation. The analysis focuses on architectural types such as *maqbaras* (mausoleums), *shikarbaghs* (hunting lodges), and *diwans* (audience halls). It explores the relationship between painted representation and built space, and considers the possibility of interaction between painters, architects, and patrons in the articulation of a common aesthetic vocabulary.

The nature of this investigation lies in the exploration of commonalities and differences depicted in Mughal miniature paintings and their corresponding built forms. The built form serves as a reference point in search for architectural characteristics that emerge in both two-dimensional and three-dimensional Mughal artistic representations. This research examines formal principles such as symmetry, axial planning, and the use of decorative elements in both mediums, identifying correlations that may indicate a shared conceptualization of space and design among Mughal artists, architects, and patrons. The miniatures discussed provide a set of records of a wealth of experiential moments that are transformed by the artist's vision onto paper and that are as informative about architectural knowledge as textual documents are.

In the absence of surviving theoretical texts on painting or architecture authored by contemporary Mughal thinkers, the visual material itself becomes the primary source for interpretation. These miniatures are read as records of architectural knowledge, shaped not only by observation but also by the artist’s engagement with courtly ideals and visual conventions. They form part of a wider body of evidence through which I reconstruct elements of Mughal aesthetic and spatial thought. Thus the methodology for this study is based on a combination of visual, historical, and comparative analyses. The first approach involves an examination of the visual space and formal organization within Mughal miniatures, focusing on their representation of architectural features such as domes, arches, diwans, and charbagh gardens. The second approach analyzes the cultural and historical context in which these miniatures were produced, considering their relationship to Mughal literary works, and courtly traditions. The third method involves a comparative analysis between existing Mughal architectural monuments and their depictions in miniature paintings, exploring whether these illustrations serve as accurate representations or idealized

interpretations of built environments. A fourth dimension of analysis investigates conceptual and philosophical underpinnings of Mughal spatial representation by examining potential influences from Persian, Indian, and Central Asian traditions.

The central questions guiding this study include: Is it possible to discern a distinct architectural language within Mughal miniature painting? How are architectural principles translated into pictorial form? What symbolic or conceptual meanings are embedded in the representation of space?

Outline

The first discussion will consider a body of literature that reflects on how visual art is analysed, with a particular emphasis on developing tools for interpretation. Although much of this scholarship draws from Western traditions, the observations it offers on visual perception and analytical methods extend beyond their immediate cultural context and are applicable here. These theoretical perspectives are not employed for direct comparison, but rather to provide a conceptual structure that will aid the discussions and interpretations in this study. A key outcome of this review is the formulation of a vocabulary that supports both close observation and broader comparison. This vocabulary serves to connect what is seen with how meaning is constructed, and it enables a more systematic engagement with the representational techniques found in miniature painting.

In the second discussion, the vocabulary used in miniature painting will be explored through an analysis of form and composition. This section will include a catalogue of observations made about the selected miniatures, providing a basis for interpretation that will be further developed in the final section on Matrix analysis. The discussion will progress from simple to more complex arrangements, examining how different elements relate to one another. Two methods will be used in this analysis: first, visual analysis through line sketches to reveal the basic structure and layout of each miniature, helping to identify how space is organized independently of the subject matter; and second, visual analysis of shapes, outlines, and the arrangement of elements to understand how they create impressions of depth and three-dimensional space.

Thirdly, the vocabulary of literature related to miniature painting will be discussed. The section will begin by examining the subject matter of the miniatures, followed by an overview of the different schools and styles to understand their context and development. These stylistic changes often reflect local architectural traditions. For example, the emphasis on surface ornament and symmetry seen in the Mughal monuments of Agra and Fatehpur Sikri differs from the layered compositions and verticality found in the structures of Delhi or Lahore. The way architecture is represented in miniature painting is also shaped by the broader literary tradition, which serves as an important medium for cultural expression. The poetry and literary works of authors such as Abul Fazl, Faizi, Abdul Rahim Khan-i-Khanan, Tulsidas, Mirza Ghalib, Wali Deccani, and Bedil provide much of the narrative and symbolic content for these miniatures. This discussion will conclude with an examination of these literary sources and the intellectual thought that shaped them.

The fourth discussion will focus on the architectural vocabulary, which is drawn from two main sources. The first consists of scholarly research, including documented morphologies, typologies, historical analyses, and architectural surveys. The second is based on direct personal observations made during fieldwork in Agra and Delhi. These on-site investigations have often revealed spatial relationships, structural layers, and formal characteristics that are absent from published sources and have necessitated the development of new descriptive terms. The discussion will begin with a brief overview of the urban forms of Agra and Delhi to establish contextual grounding, followed by an analysis of architectural features and spatial patterns that will be compared with their representations in the miniatures.

The final stage, centred on matrix analysis, will involve the interpretation of visual and spatial patterns that emerged from the preceding discussions. These patterns, once identified and cross-referenced, begin to suggest a consistent visual system through which architectural meaning is constructed. Certain configurations recur with notable regularity, such as the central placement of domes above key figures, the measured sequencing of arches and minarets to define spatial zones, and the ordered layering of architectural elements to establish visual hierarchy. The interpretation of such patterns will help formulate a visual language that is specific to the miniature tradition yet deeply informed by the experience and ideology of built Mughal architecture.

The structure adopted in this study moves from observation to perceptual engagement and ultimately to comparative analysis. This process is not of empirical certainty and is fundamentally interpretative (or speculative). Archival or textual references serve as initial entry points but do not dictate the direction of analysis; instead, it is the visual evidence itself that offers the central ground for interpretation. The relationship between the architectural elements represented in the miniatures and those of extant Mughal structures is not one of direct equivalence. Rather, it is through recurring typologies and formal arrangements that meaningful correspondences emerge. Thus, this enquiry is structured as a set of interlinked discussions, each of which begins with a specific mode of visual investigation. In every instance, the analysis unfolds through a sustained conversation between the visual languages of miniature painting and the spatial strategies of Mughal architecture, recognising that both operate within distinct but overlapping systems of representation.

Discussion 1: Methods

In this section, a framework of visual terms and definitions is developed within which the miniatures are to be analysed. In the following discussions, this framework will be used to explore how different elements in the miniatures relate to one another and to develop structural patterns that clarify their visual impact. This section also serves as a brief review of literature, providing context for understanding the study's scope.

A natural starting point for the observation of the miniatures was the notion of visual balance, which Arnheim, in his work *Art and Visual Perception*, defines not as a static property of the image but as an experiential state produced by the distribution of visual weight, tension, and direction. "What a person or animal perceives," Arnheim writes, "is not only an arrangement of objects, of colors and shapes, of movements and sizes. It is, perhaps first of all, an interplay of directed tensions… These tensions are as inherent in any perception as size, shape, location, or color."[1] These tensions may not be visible in any direct way, but they are nonetheless operative, acting through compositional axes, diagonals, and implicit centres of gravity that structure the way an image holds together or, at times, deliberately unravels under the gaze. The field of vision, as Arnheim describes it, operates as a "dynamic landscape,"[2] one that must be grasped not simply through the identification of individual parts, but through a sensitivity to how those parts are made to interact as a system of perceptual relations.

The eye does not apprehend discrete elements in isolation. Rather, it is predisposed to seek unity, to group, to simplify, and to impose order. Arnheim points out that perception is inherently relational and integrative. "No object is perceived as unique or isolated. Seeing something involves assigning it a place in the whole."[3] The viewer instinctively interprets visual elements in terms of their proximity, similarity, continuity, and alignment, forming larger structures out of smaller units. Thus, the observation of the miniatures attends not only to what is present in the image, but also to how it is structured, how repetitions and variations are employed to establish rhythm and emphasis, how disjunctions or anomalies interrupt and redirect visual attention, and how grouping functions to create visual coherence or, in some cases, calculated disorder.

At this point, Gombrich's ideas in In Art and Illusion expand the role of perception in analysing the paintings. He refutes the notion of the "innocent eye," arguing that perception is not a neutral or given act, but a learned, culturally mediated process.[4] "Perception," he writes, "is not a given but a learned practice," and pictures themselves are not direct reflections of the world but "relational models of reality."[5] This insight reveals that the structures analysed

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[1] Arnheim, R. (1974). *Art and visual perception: A psychology of the creative eye* (The new version, p. 12). University of California Press.
[2] Ibid., p. 16.
[3] Ibid., p. 11.
[4] Gombrich, E. H. (1960). *Art and illusion: A study in the psychology of pictorial representation* (p. 253). Princeton University Press.
[5] Ibid., p. 253.

through Arnheim's perceptual categories are not universal laws, but culturally conditioned visual habits. Artists and viewers alike approach images with expectations, shaped by exposure to particular visual traditions. Thus, the space, balance, and rhythm of an image must be understood not only as perceptual phenomena, but also as part of a broader system of historical and cultural conventions.

Miniature painting often creates depth through the arrangement of planes, vertical stacking of figures, and a layered visual structure. This method allows for an illusion of space without strict adherence to mathematical rules. Instead, spatial coherence emerges from relational placement, where figures and forms are positioned based on narrative, symbolic, or hierarchical significance rather than physical realism. Arnheim acknowledges that linear perspective constitutes one possible solution to the problem of depicting depth, but he is equally concerned with a wider range of devices that produce the experience of spatial recession and hierarchy. "Depth is created by overlapping, figure-ground relationships, oblique views, and central perspective."[6] These means of suggesting space are not merely optical conventions but are bound to the viewer's expectations and habits of seeing. The comprehension of space, then, emerges from the image as navigable and coherent, with spatial depth conveyed through visual cues such as overlapping, colour modulation, and architectural framing.

Once space is understood as a constructed and experienced phenomenon, it becomes necessary to consider the forces that animate that space and direct the eye through it. Arnheim's account of perceptual tension is central here, as he understands the image not as a frozen moment but as a configuration of forces that guide, attract, resist, and propel the viewer's attention. Visual movement, in this sense, need not be literal or representational. It can be generated through the orientation of lines, the tilt of a plane, the posture of a figure, or the direction of a glance. These elements produce lines of force that channel visual attention along particular paths, establishing sequences, interruptions, and focal points. "They have magnitude and direction," Arnheim observes of these tensions,[7] and their presence is what allows an image to unfold in time, engaging the viewer in a temporally structured act of perception. Any analysis that aims to move beyond static description must take into account the choreographic quality of visual composition as a way in which looking is compelled to move, pause, return, or shift as part of the image's internal organisation.

The final element of Arnheim's visual methodology is his distinction between shape and form. While shape may be described in terms of measurable outlines or graphic contours, form, in Arnheim's usage, refers to the manner in which these shapes operate within a visual configuration to express content, emotion, or symbolic resonance. "Shape refers to spatial appearance," he writes, "while form conveys the visual representation of content and meaning in art."[8] What matters here is not the isolated shape itself, but the role it plays within the composition, how it is modulated by context, scaled in relation to surrounding elements,

[6] Ibid., pp. 233–285.
[7] Ibid., p. 13.
[8] Ibid., p. 96.

repeated or distorted, and made to contribute to the overall expressive economy of the image. Form, in this sense, is not imposed from without but emerges from within, as the visible manifestation of internal structure and meaning.

What Arnheim provides to this study is not a prescriptive model of analysis. Rather, it is a flexible language for attending to the visual intelligence of images. His method recognises the centrality of perception in the formation of pictorial meaning and enables one to move from the most basic aspects of visual organisation such as balance, grouping, and spatial depth to more complex considerations of expression and signification. In the following discussions, the vocabularies developed through this framework will serve as a formal foundation for visual analysis, offering a means of engaging with the pictorial logic that structures the miniatures.

DISCUSSION II: FORM AND SPACE IN MINIATURES

This discussion centers on the nature of architectural representation in miniature painting and seeks to explore how form and space are expressed through visual structure, symbolism, and perception. Architecture in these miniatures does not function merely as a background or illustrative frame, but emerges as a distinct representational language formed through repetition, reduction, and typological recognition. Rather than isolating technique from content, the visual organization is understood as the product of cultural cognition and historical experience.[9] Observations are derived from individual folios, but they contribute to a larger reading of the spatial logic underpinning miniature painting, where form becomes a vehicle of meaning and spatial comprehension occurs through visual syntax rather than optical illusion.[10]

ELEMENTS

Architectural elements in miniature painting appear with consistent clarity and are rendered in simplified forms that are recognizable despite their abstraction. These forms, including domed kiosks, iwans, arches, latticed windows, and enclosed gardens, do not reflect specific buildings but stand as typological symbols. They convey place, function, and atmosphere through their form and compositional role. The recurrence of these elements across multiple miniatures produces a visual vocabulary that enables the viewer to read space through pattern, outline, and configuration. In Babur Supervising the Layout of the Garden of Fidelity, this typological approach is evident in the depiction of garden geometry in plan and built pavilions in elevation. The composition combines frontal and overhead views not to mimic perception, but to clarify relationships of orientation, order, and symbolic hierarchy. The dome, placed centrally and upright, becomes not only a visual anchor but a structural and narrative center, organizing both composition and meaning.

Material differentiation is also achieved through color and ornament rather than shading or modeling. Surfaces are coded through chromatic and patterned cues—red sandstone walls, white marble panels, stippled screens, and checkerboard tiles. These visual devices serve to define surface planes and spatial divisions without recourse to naturalistic rendering. In *Akbar Receiving News of the Victory at Gujarat*, for example, the viewer is presented with a series of sequential chambers, each distinct in material treatment and pattern. The carpeted floors and ornamental walls create a sense of spatial transition, while the repetition of processions suggest movement through thresholds. The architecture here is not rendered in depth but unfolded across the image, producing a rhythmic sequence that corresponds to the emotional and narrative arc of the story. What appears decorative often signals structural intent. In this miniature, ornament, pattern, and spatial configuration work together to convey a psychological landscape of enclosure, and revelation.

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[9] Arnheim, 1974, p. 12

[10] Gombrich, 1960, p. 253

Ephemeral architecture, such as tents and canopies, is treated with equal formality. In The Wedding Procession of Dara Shikoh, the repetition of nearly identical tents, each rendered with compositional regularity and rhythmic spacing, generates an architectural field[11]. Though temporary in material, the spatial logic of the procession is made permanent through its visual organization. The tents define not only the ground of the ceremony but its structure. Here, architecture becomes ceremonial—a ritualized environment constructed through the repetition of portable enclosures. The depiction implies that architectural space, even when mobile, retains the order and clarity of constructed form.

ARRANGEMENT OF ELEMENTS

The coherence of spatial construction in miniature painting relies not on vanishing points or recession but on compositional principles such as vertical stacking, alignment, and rhythmic grouping. Space is articulated through relational positioning rather than illusionistic projection. In Jahangir Preferring a Sufi to Kings, this strategy is clearly visible. The emperor sits within a jharokha framed by an architectural arch that flattens around him, emphasizing his centrality and sanctity. The framing device operates simultaneously as an architectural niche, a symbolic enclosure, and a compositional anchor.[12] This layered structure guides the viewer's attention while articulating visual and ideological hierarchies.

In Dara Shikoh with Mian Mir, spatial layering is achieved through nested enclosures—arches within iwans, courtyards behind walls, and domes placed atop shallow chambers. The architectural forms do not recede into the distance but unfold as successive zones of increasing intimacy. The composition leads the eye through a sequence of thresholds, each one marked by architectural framing.[13] The absence of perspective does not imply a lack of depth, but rather a different conception of space—one that privileges symbolic progression and perceptual clarity over optical verisimilitude. Each enclosed layer suggests a movement inward, not only visually but spiritually.

Architecture also serves a narrative function. In Akbar Presiding Over a Religious Debate, space is articulated through the placement of architectural components that distinguish speakers, audience, and ceremonial enclosures. The speaker's elevated platform, the surrounding arcaded colonnades, and the grouping of listeners are not organized for visual realism but for rhetorical clarity.[14] Each segment of space corresponds to a specific function or action. The architecture here choreographs the event; it segments the pictorial surface into zones of meaning. Temporal progression is translated into spatial division, as each area becomes a stage for a moment in the narrative.

In many miniatures, the picture plane is itself treated as an architectural boundary. Frames are echoed by painted borders that resemble terraces or walls, producing an effect of visual

[11] Canby, 1998, p. 105
[12] Grabar, 1987, pp. 64–66).
[13] Golombek, 1988, p. 143).
[14] Wartofsky (1979, p. 218)

containment.[15] The image becomes an enclosure within an enclosure, where the act of viewing is equated with entry. These frames are not passive margins; they are structural devices that mediate access, organize perception, and establish directionality. In this way, miniature painting constructs a layered visual space in which form, narrative, and composition are fused.

ILLUSIONS AND IMPRESSIONS OF FORM

Though one-point perspective is not employed in these miniatures, space is nonetheless constructed through relational logics such as verticality, alignment, repetition, and directional emphasis. The architecture within these images generates a spatial field calibrated not to mimic physical experience but to evoke conceptual clarity and symbolic resonance. In Ladies in the Zenana, the interaction of vertical screens with horizontally aligned carpets produces a cruciform composition that organizes the interior space without using depth cues. The walls do not recede; they are stacked and angled to suggest enclosure. The viewer remains outside this domestic scene, yet the logic of interiority is perceptible through the arrangement of elements. Here, architecture functions diagrammatically. Rather than simulate physical space, it reveals a structured environment that is read through its components.

Jahangir's Dream of Seeing Shah Abbas enacts a different kind of spatial strategy. The vertical ascent of muqarnas niches, stacked domes, and tiered platforms suggests a metaphysical elevation. The layering of architectural forms guides the eye upward, forming a visual trajectory that corresponds to the spiritual content of the dream. The architecture in this painting is not structural in a literal sense, but symbolic.[16] The vault is interpreted as sky, the dome as a signifier of celestial ascent. Space here is not entered but traversed by the gaze.

In contrast, the painting of Jahangir Holding a Picture of the Virgin Mary introduces a framed European painting within the Mughal pictorial field. The naturalistic depth of the imported image—achieved through foreshortening and atmospheric shading—is enclosed by the flat architectural frame of the miniature. This containment does not negate the foreign perspective but absorbs it. The surrounding architecture asserts local spatial conventions, maintaining the structural integrity of the image. The frame becomes a boundary that domesticates the foreign. This act of framing is not neutral; it signals visual sovereignty and compositional control.

Across these examples, it becomes clear that space in miniature painting is not constructed for mimesis but for structured perception. Architectural forms are not simply representations of built structures but elements of a visual language that articulate concepts of order, sanctity, and ceremony. The pictorial surface functions as a site of visual organization, where meaning emerges from the arrangement, repetition, and orientation of forms. The act of viewing is not passive; it is directed, guided, and shaped by conventions of seeing that are embedded in the cultural and symbolic logic of the image. In this way, the miniature becomes not only a

[15] Beach, 1992, p. 88
[16] Koch, 2006, p. 212

record of spatial thought but a model of how space is conceptualized, experienced, and made legible through form.

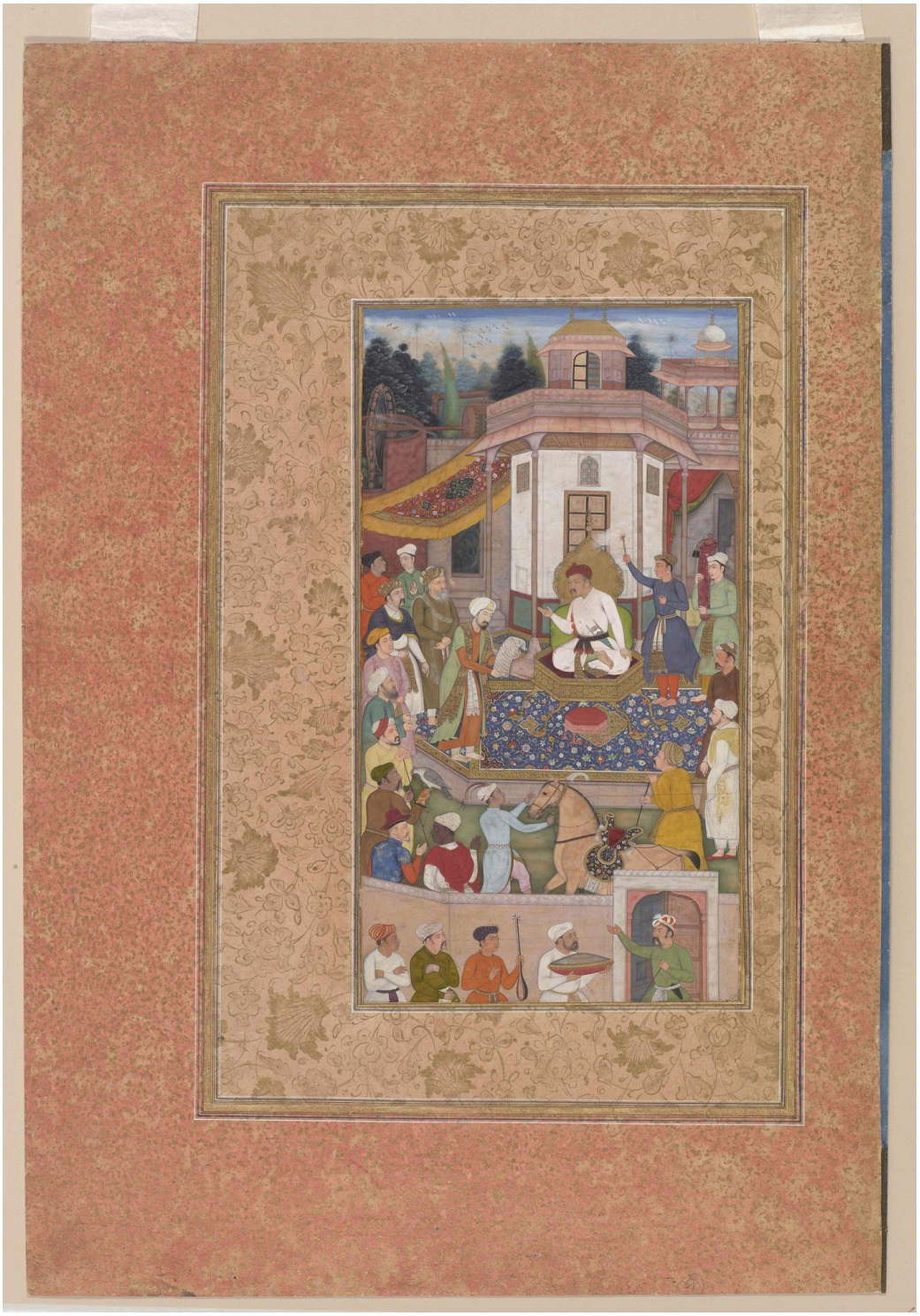


Figure 1. *Akbar Receiving News of the Victory at Gujarat*, c. 1596–1600. Freer Gallery of Art, Smithsonian Institution, Washington, D.C.

Depicts architectural elements such as crenellated walls and balconies in orthographic projection, emphasizing imperial order through repetition and flat compositional logic.

Figure 2. *Akbar Presiding Over Religious Discussions in the Ibadat-khana*, c. 1603–1605. Chester Beatty Library, Dublin.

Structured around a central dais within a symmetrical hall, the miniature articulates spiritual and political authority through a carefully balanced architectural enclosure.

Figure 3. *Babur Supervising the Layout of the Garden of Fidelity*, c. 1590s. Victoria and Albert Museum, London.

Figure 4. The Death of Khan Jahan Lodi, c. 1633. The Metropolitan Museum of Art, New York.

Military architecture is fragmented across the image plane, transforming the fortified environment into a narrative of collapse and conquest.

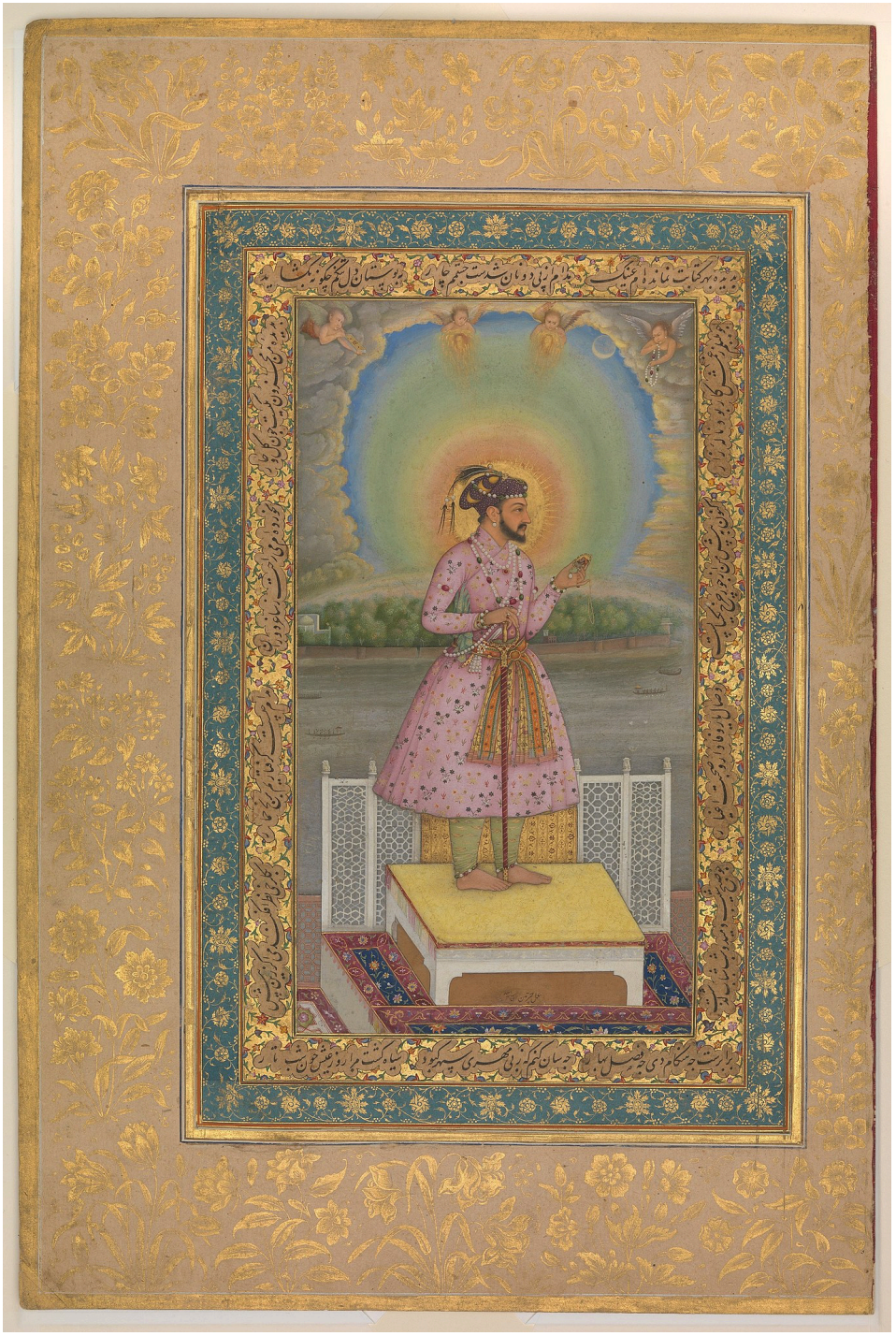


Figure 5. *Shah Jahan on a Terrace Holding a Pendant*, c. 1627–1628. The Metropolitan Museum of Art, New York.

The emperor appears within a delicately articulated architectural frame, where elevation, symmetry, and ornament signal sovereign presence.

Figure 6. *Jahangir Preferring a Sufi to Kings*, c. 1615–1618. Freer Gallery of Art, Smithsonian Institution, Washington, D.C.

A tiered architectural space visually privileges spiritual authority over worldly rulers, underscoring Mughal ideological hierarchy through composition.

Figure 7. *The Wedding Procession of Dara Shikoh*, c. 1740–1750. National Museum, New Delhi.

Imperial tents and portable canopies are rendered with architectural precision, mapping ritual procession as mobile sovereignty.

Figure 8. *Dara Shikoh with Mian Mir and Mulla Shah*, c. 1640s. Freer Gallery of Art, Smithsonian Institution, Washington, D.C.

A layered composition of iwans and arches enacts spiritual depth through sequential framing and nested thresholds.

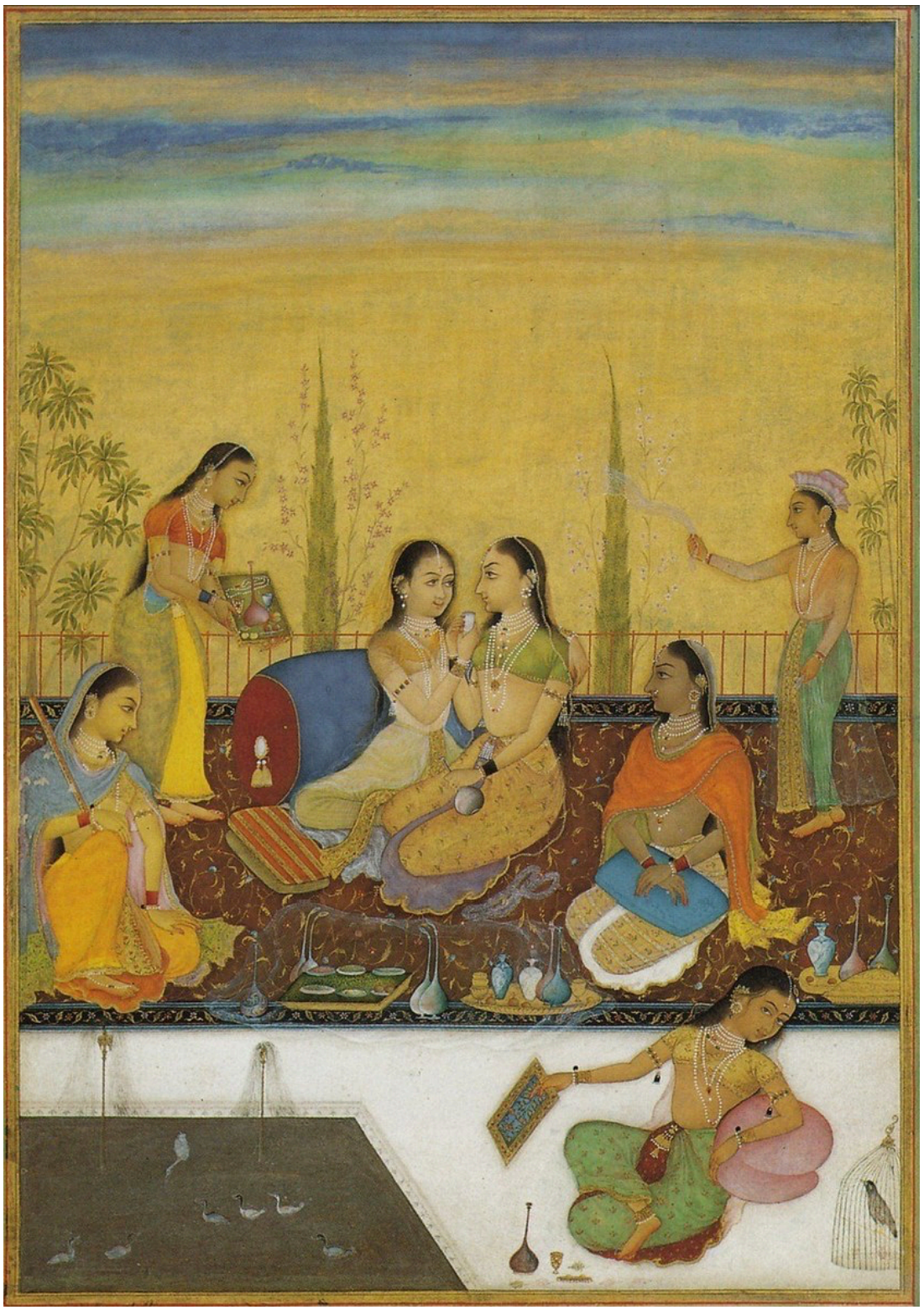


Figure 9. *Ladies in the Zenana on a Terrace*, c. 1650–1697. The Metropolitan Museum of Art, New York.

Depicts a richly patterned zenana interior where vertical screens and horizontal carpets compress space into a single symbolic surface.

Figure 10. *Jahangir's Dream of Seeing Shah Abbas*, c. 1618. Freer Gallery of Art, Smithsonian Institution, Washington, D.C.

A vertical arrangement of muqarnas and spandrels creates a cosmological ascent, translating architectural space into spiritual allegory.

Figure 11. *Jahangir Holding a Picture of the Virgin Mary*, c. 1620. National Museum, New Delhi.

A Mughal arch frames a European-style landscape, integrating foreign illusionism into a native formal system without disrupting Mughal visual authority.

DISCUSSION III: LITERATURE

Early Content

A consideration of the historical and cultural setting that gave rise to Mughal miniature painting shows that the development of literary traditions within the Islamic world preceded the emergence of illustrated manuscripts.[17] This rich body of literature, shaped by Persian, Arabic, and regional South Asian influences, formed the intellectual backdrop for later visual interpretation. With the establishment of the Mughal Empire in the 16th century, rulers of Timurid descent brought with them Central Asian artistic and literary traditions which they adapted to the cultural and linguistic landscape of the subcontinent.[18] From this point onward, surviving manuscripts show a marked increase, especially under the patronage of emperors such as Akbar, Jahangir, and Shah Jahan,[19] who encouraged the production of illustrated works ranging from Persian epics to Indian texts in translation. This discussion begins by tracing the evolution of themes and narratives that were most frequently illustrated and how these stories were adapted within a South Asian context. It also examines the emergence of distinct schools of painting in cities such as Delhi, Agra, and Lahore and the movement of artists and techniques between them. The stylistic differences that developed across regions suggest that approaches to space, architecture, and visual storytelling were closely tied to local preferences, courtly taste, and the merging of inherited Timurid conventions with broader cultural influences.[20]

A number of themes have been identified as the principal foci of early illustrated manuscripts in the Mughal context. These themes can be traced through their historical development and across regions of influence. The initial visual tradition inherited by the Mughals stems from the artistic culture of the Timurid court, where miniature painting had reached a high level of refinement by the 15th century.[21] Under rulers such as Shah Rukh and Ulugh Beg, cities like Herat and Samarkand became leading centers of manuscript production.[22] These works reflected a combination of Persian elegance, Mongol structural clarity, and influences drawn from Chinese and Arab sources.[23] The work of painters such as Kamal al-Din Behzad set a precedent for compositional precision and expressive detail. Babur, the founder of the Mughal Empire, was shaped by this Timurid cultural background. Educated in the literary and artistic environment of Central Asia, he was familiar with the illustrated manuscripts of the Timurid courts and carried their aesthetic values with him into the Indian subcontinent. While the production of illustrated manuscripts under Babur[24] was limited, his autobiographical text, the Baburnama, later became a key source for the visual imagination of the early Mughal atelier. These early images reflect an understanding of architectural framing, symbolic landscapes, and the interplay between text and image that had been

[17] Grabar, 2006; Subtelny, 1993
[18] Dale, 2004; Thackston, 1996
[19] Beach, 1987; Canby, 1998
[20] Soucek, 1992; Grabar, 1983
[21] Subtelny, 1993
[22] Binbaş, 2016
[23] Grabar, 2006
[24] Canby, 1998

developed in the Timurid world.[25] The artistic environment established under Babur formed the basis for later developments under his successors. His attention to Persian literary forms and the manuscript tradition helped ensure the continuation of Timurid models in a new context. This early period of Mughal manuscript culture represents a phase of transmission and adaptation, in which the conventions of the Timurid book arts were preserved and reinterpreted within the changing courtly and cultural settings of North India.

The theme of scientific and moral inquiry was sustained in Timurid intellectual culture through the adaptation of Indian sources into Arabic and Persian.[26] Indian astronomical texts, such as the Siddhānta of Brahmagupta, reached Central Asia through earlier Arabic translations and were examined in scholarly circles in cities like Samarkand. These treatises, containing detailed planetary models and numerical methods, were incorporated into the broader corpus of Timurid astronomy, particularly under Ulugh Beg,[27] who established observatories and commissioned updated ephemerides that drew upon this material. A related tradition developed around moral and political instruction. The collection known as Kalila wa Dimna, derived from the Indian Panchatantra, continued to circulate in elaborately copied and illustrated Persian versions, often prepared in the royal ateliers of Herat. These fables, composed of allegorical narratives conveyed through animal characters, were intended as mirrors for princes and remained popular in courtly settings for their instructive value. This body of literature was further developed in works such as Anvar-i Suhayli by Husayn Va'iz Kashifi, produced under the patronage of Sultan Husayn Bayqara.[28] Here, Indian-derived tales were restructured into polished Persian prose, suited to the literary expectations of the Herat court. These texts, alongside scientific compilations and narrative epics, depict a rich environment of scholarly exchange, with figures shown in observatories, libraries, and palatial settings, consistent with the detailed compositional style associated with the Timurid manuscript tradition.

The concept of a narrative structure in miniatures is important to this study. This suggests the consideration of time as an organizational device, wherein sequences of events are depicted not as fixed or isolated, but as unfolding in recurring cycles of triumph and decline. Among the texts most commonly illustrated within this framework is Firdausi's Shahnameh (Book of Kings, 955–1005), the celebrated epic of Persian literature.[29] The Shahnameh became the most extensively copied and illustrated work of its kind within the Timurid courtly tradition. Its appeal lay in the breadth of its subject matter—spanning myth, history, and ethical allegory—through tales of kingship, heroism, and the cosmic struggle between order and chaos. Central characters such as Rustam, Iskandar, and Zahhak served not only as literary figures but also as exemplars of moral and political ideals. Within the Timurid world, where notions of dynastic legitimacy, heroic virtue, and divine sanction were central to kingship, the Shahnameh offered a powerful visual and ideological source. The manuscript tradition of the Shahnameh reached a pinnacle in productions such as the 1330–31 Demotte Shahnameh,

[25] Dale, 2004; Thackston, 1996
[26] Ernst, 2003
[27] Binbaş, 2016
[28] Subtelny, 1993
[29] Hillmann, 1986

where scenes of enthronement, supernatural battles, mourning, and succession were rendered with dramatic precision and symbolic depth.

This visual and ideological tradition continued under the Mughals, whose imperial self-image drew heavily on Timurid and Chinggisid claims.[30] Babur viewed his ancestry as a source of both identity and legitimacy. As a descendant of Timur on his father's side and of Chinggis Khan through his mother, Babur saw himself as heir to the political and cultural legacy of Central Asia. His writings reveal a deep emotional attachment to the region of Ferghana, where he was born and first ruled. In the Baburnama, he writes: "In the whole habitable world there is no country so pleasant as Shiraz, no people so civilized as the people of Hindustan… but Ferghana is the place I truly long for."Elsewhere, he recalls: "Every time I look at the spring flowers of Hindustan, I am reminded of the mountain meadows of my home."[31] This nostalgia was not merely personal; it reflected a broader desire to transplant Timurid ideals of courtly culture, visual grandeur, and literary refinement into the Indian landscape.The illustration of the Shahnameh under the Mughals was closely tied to these claims of inheritance. Through engagement with the epic's themes and visual models, the Mughals positioned themselves within the lineage of Persianate kingship. Manuscripts produced under Humayun and Akbar adapted the Timurid tradition to new materials, artistic personnel, and regional styles. The themes of just rule, dynastic succession, and heroic virtue remained central. These works did more than preserve a literary tradition—they articulated the Mughal vision of sovereignty through image, narrative, and lineage.

The increasing refinement of architectural and garden representations in miniature painting under Jahangir and Shah Jahan may be read as part of an evolving vocabulary of spatial construction that both inherits and elaborates on Timurid conventions.[32] The visual expression of architecture in these later Mughal manuscripts becomes more codified through rhythmic geometric layouts, symmetry in elevation, and sectional clarity, particularly in the depiction of built pavilions, walled enclosures, and watercourse gardens. The application of such compositional strategies reflects a continuation of the earlier chahar bagh paradigm introduced by Babur, yet it is under Shah Jahan that the formal garden becomes the principal signifier of imperial order, both in built form and its representation. Miniatures depicting court life and processions increasingly employ multi-domed pavilions, scalloped arches, and axial alignments, structured in layers that mirror the hierarchical spatial zoning observed in palace complexes. The consistent use of built thresholds, enclosed terraces, and perspectival recessions mark a shift toward an increasingly stabilized architectural field, one that aspires to reflect both the cosmic and temporal order of the Shahjahani court.

This articulation of architecture in the miniature is not only formal but also conceptual, shaped by the influence of a wider Indo-Persian literary tradition. The continuation of illustrated poetic cycles such as the Khamsa and the Shahnameh, as well as Persian translations of Indian epics including the Ramayana and Mahabharata, introduced narrative

[30] Dale, 2004
[31] *Baburnama*, as cited in Beveridge, 1922
[32] Koch, 2006

modes wherein architecture functioned as a spatial anchor for allegorical and historical storytelling.[33] It is within this layered narrative structure that the architectural scene in the miniature becomes both setting and signifier. The literary subject matter—now drawn from an expanded corpus that included local Indian traditions—brought with it new iconographic possibilities and demanded a flexible yet codified system of spatial representation. This synthesis of text and image produced a visual culture in which the architecture of the miniature served not merely as a depiction of built reality, but as an active element in the construction of narrative meaning, political symbolism, and imperial legitimacy.[34]

Contemporary Content

The following discussion follows the architectural trajectory outlined in earlier sections, turning now to the evolving literary frameworks and spatial strategies that shaped miniature painting in the later Mughal period. Whereas early paintings drew primarily from Persian epics and cosmological allegories—texts such as the *Shahnameh* or *Kalila wa Dimna*, where architecture functioned symbolically—Mughal painters working under Akbar, Jahangir, and Shah Jahan began to reframe built space with greater specificity, technical precision, and compositional depth. The shift is not merely stylistic but conceptual, signalling a transformation in how architecture was understood, inhabited, and visually staged in relation to poetic and political ideals.

This visual and intellectual reorientation emerged within a historical context marked by intensified cross-cultural contact and literary diversification. As Mughal territorial and diplomatic ambitions expanded in the late sixteenth and seventeenth centuries, painters and poets alike responded to new textual forms and cultural encounters. Jesuit emissaries brought with them not only religious imagery but also engravings and European modes of spatial rendering, including linear perspective and atmospheric modulation. These foreign idioms were not copied wholesale but assimilated selectively, often reframed within Indo-Islamic conventions of symmetry, axiality, and ornamental density. Simultaneously, court-sponsored translations of Sanskrit epics and an increased patronage of vernacular bhakti poetry introduced modes of devotion and intimacy that reshaped the emotional tenor and spatial vocabulary of painting. Tulsidas's *Ramcharitmanas*and Brajbhasha compositions associated with Krishna devotion generated new visual environments—shrines, forest clearings, twilight terraces—that disrupted earlier hierarchies of space. Regional painting idioms, particularly the jewel-like opulence of the Deccan and the compressed, angular spatiality of Rajasthan, further refracted the Mughal pictorial tradition, producing a visual field rich with competing formal logics.

In contrast to earlier miniatures that often flattened architecture into symbolic decor or used it as a visual foil for heroic action, later works under the Mughals transform built space into a narrative and ideological agent. This transformation mirrors a larger shift described by philosopher Marx Wartofsky, who argued that "representational artifacts are not reflections of

[33] Ernst, 2003; Richards, 1993
[34] Wartofsky, 1979

reality but modes of cognition,"[35] suggesting that Mughal painting began to construct architecture not merely as a background but as a means of thinking through sovereignty, devotion, and perception. This evolution is especially evident in the spatial sophistication of (for pictures refer to the previous section) *Akbar Receiving News of the Victory at Gogunda* and *Shah Jahan Watching the Taj Mahal Being Built*. In the former, the architectural frame mirrors the order described in the *Ain-i-Akbari*; in the latter, the scaffolding and unfinished dome stand as metaphors for sacred aspiration and temporal ambition. Kalim Kashani's line, "The dome of paradise bows to the line of your compass,"[36] functions here not simply as poetic flourish but as an epistemological claim about architecture's capacity to render cosmic ideals.

As miniature painting matured under the influence of vernacular texts, the visualisation of space became increasingly conditioned by literary rhythm and emotional tenor. In *Babur Supervising the Layout of the Garden of Fidelity*, the composition embodies both the hydraulic rationalism and spiritual sensibility of the *Baburnama*. The garden is no longer a symbol of paradise alone but a diagram of sovereign intent. This shift from mythic to measured space reflects what Ernst Gombrich referred to as "the conquest of space"[37]—not merely in illusionistic depth but in conceptual organisation. Architectural space thus becomes both subject and method, an apparatus for ordering the world according to literary and political values.

In *A Court Scene in the Diwan-i-Khas*, Mughal painters extend the notion of courtly space beyond its ceremonial function. The modular arrangement of columns and the use of jalis to frame and veil visibility render power not only as centralised but as layered. As Oleg Grabar observes, "Islamic architecture constructs meaning through spatial hierarchies and partial concealments,"[38] a principle vividly enacted in this painting. Light filters through carved stone, figures are compartmentalised within recesses, and the emperor occupies a geometrically privileged axis—all elements that articulate vision as a means of authority. Compared to earlier depictions from Timurid or Safavid sources, where hierarchy was often shown through scale or position alone, Mughal miniatures achieve hierarchy through spatial rhythm and architectural depth.

This notion of layered visibility is further explored in miniatures like *The Emperor's Encampment Near the River* and *Ladies on a Terrace at Night*, where the architecture of tents and balconies becomes a metaphor for transience and intimacy. Bedil's couplet—"The door was open, yet I lingered in the corridor"[39]—takes visual form in the soft enclosures and slow rhythms of the encampment. The women's terrace, bordered by low parapets and lit by interior glow, stages longing through threshold rather than overt gesture. As historian Lisa

[35] Wartofsky, 1979, p. 188

[36]Kashani, as cited in Welch, 1978

[37] Gombrich, 1960, p. 106
[38] Grabar, 1983, p. 10
[39] Bedil, as cited in Schimmel, 1975

Golombek has noted, “In Islamic art, privacy is often articulated not by walls but by screens, folds, and rhythms of access.”[40] These compositional logics derive as much from poetic syntax as from architectural precedent, suggesting that miniature painters internalised not just the narratives but the cadences of literary form.

The blending of Indo-Islamic and European pictorial systems is evident in *Jahangir’s Dream of Seeing Shah Abbas of Persia* and *The Reception of a Jesuit Ambassador*. Both works rely on spatial framing to construct diplomatic equivalence. In the former, twin domes and symmetrical iwans mirror the mirrored encounter of the emperors, literalising the ghazal’s central conceit of “one face, many reflections.”[41] In the latter, perspectival depth and foreshortening—techniques absorbed from European engravings—create an expanded chamber of reception. Yet the architectural elements retain their Mughal sensibility: chattris, bracketed beams, and surface ornament index a visual field that remains tied to local idioms. “Cross-cultural interaction in Mughal painting,” Sheila Canby writes, “was not a matter of substitution but of layering,”[42] and this layering is nowhere clearer than in the hybrid spaces of diplomatic encounter.

The influence of regional styles, especially from the Deccan and Rajasthan, plays a crucial role in this spatial evolution. The bold chromatics and lyricism of Deccani painting, often infused with poetic allegory, encouraged a more atmospheric rendering of architecture, where pavilions seem to float and palaces blur into landscape. Rajasthani inputs, on the other hand, contributed to a tighter spatial compression and linear emphasis, visible in works like *The Court of Asaf Khan*. These influences did not dilute the Mughal idiom but rather sharpened it, allowing painters to experiment with density, rhythm, and framing in new ways. Priscilla Soucek has noted that “the Mughal miniature functions as a negotiated surface,”[43] absorbing the formal pressures of multiple traditions while maintaining its own compositional integrity.

Across these examples, architecture in painting becomes more than just a vessel for narrative; it operates as a mode of representation shaped by literary form, political ideology, and perceptual theory. If earlier miniatures illustrated text by housing it in frames of symbolic architecture, later works construct meaning through the very logic of spatial organisation. Poetic verses no longer simply inspire images—they infuse the structure of pictorial thought. This synthesis transforms the miniature from a decorative artefact into a site of conceptual architecture, where vision, ideology, and narrative are built not only with pigment and line, but with space itself.

[40] Golombek, 1988, p. 45
[41] Bedil, as cited in Schimmel, 1975
[42] Canby, 1998, p. 52
[43] Soucek, 2000, p. 121

DISCUSSION IV: ARCHITECTURAL VOCABULARY

The architectural vocabulary discussed in this section is drawn from two sources. The first is published research on the architecture of the Mughal period, including typologies, morphologies, and stylistic studies. The second is a series of direct observations made during field visits to Delhi, Agra, and Fatehpur Sikri. These cities have been selected for the presence of a significant body of imperial architecture that coincides with the timeline and stylistic parameters of the miniatures under investigation. While the literature provides an academic framework, the field visits allowed a first-hand understanding of the experiential qualities of architectural space. In particular, spatial transitions, layering of structure, and formal hierarchy became evident through these encounters and revealed relationships not fully addressed in published studies. The buildings selected for observation include maqbaras, diwans, hammams, gardens, and complexes that combine public, private, and ceremonial functions. These observations are discussed in relation to their appearance and treatment in Mughal miniature painting.

The architectural forms observed in Agra and Delhi present several features that recur in miniature paintings. These include the use of the iwan form—an arched, recessed space typically opening onto a courtyard—domes centered over key figures, and sequencing of interior and exterior spaces through colonnades, terraces, and portals. The rhythm of architectural order is often established through the repetition of arches and the framing of spaces along an axis. These features are not only structural but also visual, establishing a vocabulary of depth, transition, and spatial emphasis. In the field, these relationships are seen most clearly in the Diwan-i-Khas of Fatehpur Sikri, where layers of columns and trabeated ceilings create shifting planes of sight. In the miniatures, similar effects are achieved by stacking forms vertically and separating zones of activity with patterned bands, lattice screens, or stylized walls.

A notable architectural feature common to both media is the use of thresholds. In the built environment, thresholds are articulated through gates, platforms, and framed doorways. These become moments of symbolic and physical transition, marked by elevation, inscription, or decorative framing. In the miniature, the doorway becomes a point of narrative tension—a location for action, entrance, or encounter. The recurrence of partially opened doors, angled thresholds, and figures situated in doorways in the miniature corresponds to the architectural emphasis placed on entrances and their role in guiding movement. These forms express the concept of passage, not just as a functional element but as a compositional and symbolic device. The miniature compresses this transition into a single visual frame, while the building extends it across spatial sequence. Despite the difference in medium, both share an interest in the articulation of the in-between.

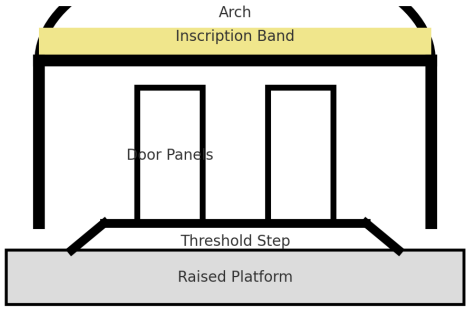
Field observation has also revealed the importance of vertical layering and modular accretions in architectural composition. In structures such as Akbar's tomb at Sikandra or the Salim Chishti tomb, a compositional logic unfolds in plan, section, and elevation. Layers of arches, domes, and projecting chajjas create depth and texture, while the use of colour and material further defines spatial character. In the miniature, similar layering is often reduced to

patterned surfaces or diagonal cuts, yet the sense of visual density remains. The spatial compactness observed in miniature paintings is reflected in the way built forms are arranged within walled enclosures, and in the accumulation of units around a central form or node. These structural groupings form typologies—courtyard complexes, garden pavilions, prayer halls—that reappear in both two- and three-dimensional expressions. The possibility of identifying architectural types in the miniature lies not in literal correspondence but in these conceptual and organizational similarities.

A particular area of correspondence is the treatment of garden architecture. The chahar bagh, as seen in the gardens of Itimad-ud-Daulah and the Ram Bagh in Agra, demonstrates a geometry of control. The division of space by water channels, raised walkways, and planted quadrants produces an ordered environment that balances natural and built elements. In the miniature, these forms are abstracted into visual grids, with lines of trees, watercourses, and tiled paths marking the axes. The idea of the garden as an image of paradise, both in architectural planning and pictorial depiction, provides a shared conceptual ground. In both forms, the garden becomes a spatial metaphor—a setting for hierarchy, repose, and revelation. Its significance lies not just in physical configuration but in its cosmological and poetic associations, which were central to both Mughal architecture and literary culture.

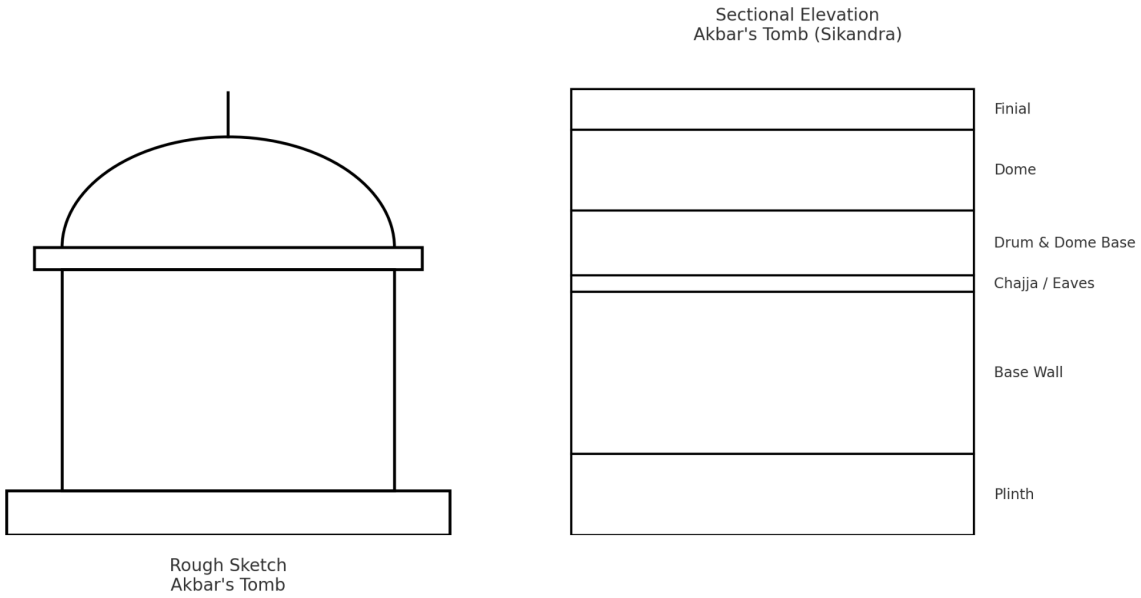
An additional feature observed during fieldwork is the play of scale and proportion in architectural forms. Mughal buildings frequently employ devices such as false ceilings, miniature domes, and layering of elements to modulate human perception. This manipulation of space also appears in the miniatures, where architectural scale shifts according to narrative importance rather than literal dimension. A throne may occupy the same visual weight as an entire courtyard, or a single arch may stand in for an entire façade. These adjustments are not errors but strategies of representation that privilege symbolic function over measurable accuracy. In this way, the architecture of the miniature operates according to its own internal logic, one that nonetheless echoes the spatial sensibilities of the built form.

Thus, the architectural vocabulary revealed in these observations includes not only forms—arches, domes, iwans, thresholds—but also principles of organization: axiality, layering, enclosure, and transition. These are formalized in miniature paintings through compositional devices such as stacking, framing, and sectional juxtaposition. The miniature emerges not merely as a representation of architecture but as a parallel expression of architectural thinking. It reflects a shared sensibility toward space, form, and symbolism that is not medium-specific but culturally embedded. In the following discussion on matrix analysis, these correspondences will be examined in greater detail, with attention to recurring spatial patterns, visual rhythms, and typological consistencies that further define the relationship between architecture and miniature.

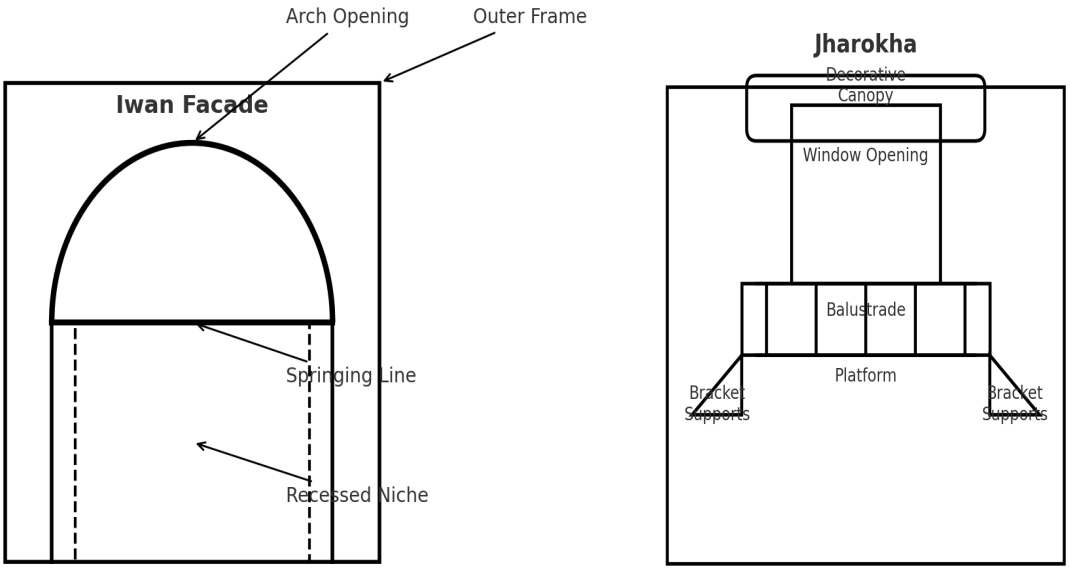


Transition

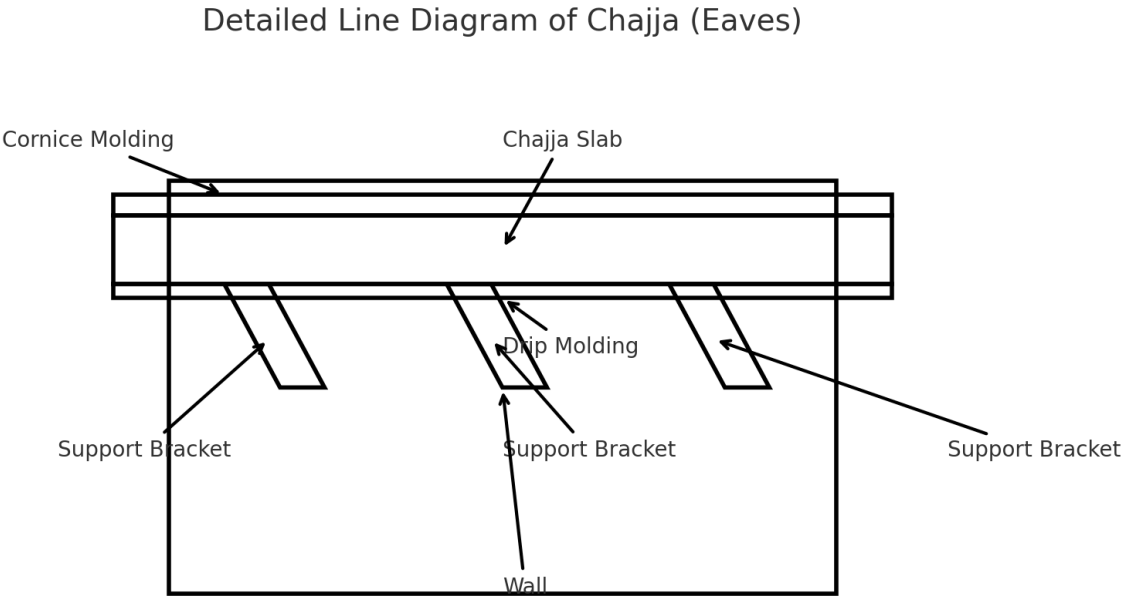
Left to Right: This line diagram interprets the architectural threshold as depicted in Mughal miniatures such as *"Night Time in a Palace."*Mughal School, late 16th–early 17th century, opaque watercolor and gold on paper. Collection: [Freer Gallery of Art]. It highlights key structural elements including the arched frame, inscription band, door panels, threshold step, and raised platform used to organize spatial transition.



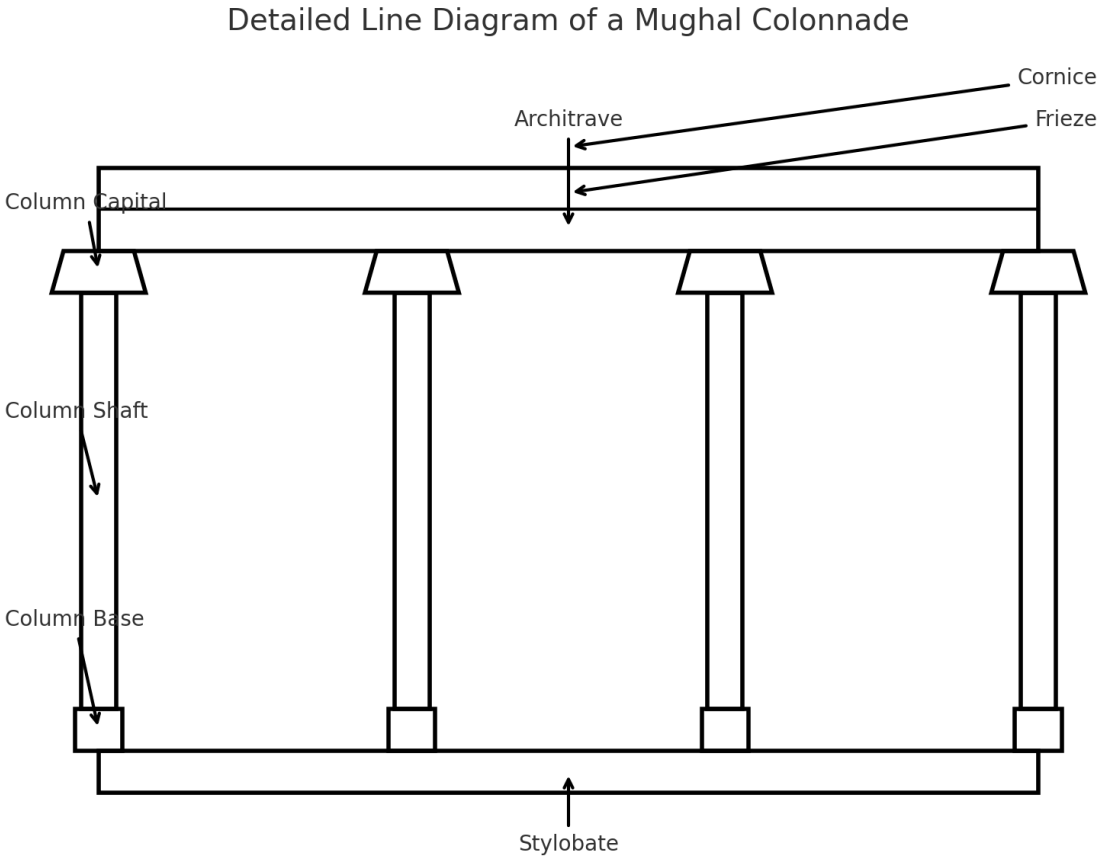
Left to Right: A clean sectional elevation of Akbar's Tomb at Sikandra, with the plinth, base wall, chajja/eaves, drum & dome base, dome, and finial stacked vertically (site diagram)



Left to Right: Line diagram of a Mughal iwan, highlighting its recessed arch and framing as key components of the imperial architectural vocabulary and a Mughal jharokha detailing its decorative canopy, window opening, balustrade, platform, and bracket supports (site diagram)

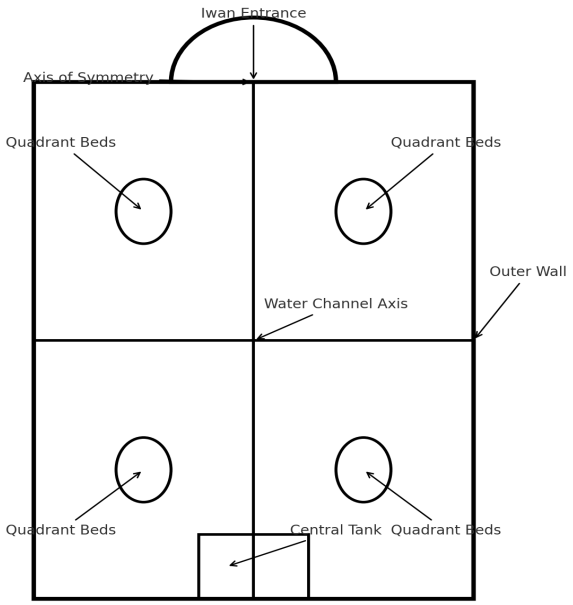


Line diagram of a Mughal chajja (eaves), showing the cornice molding, drip molding, projecting slab, support brackets, and underlying wall to highlight its structural and decorative layers (site diagram).



Line diagram of a Mughal colonnade, detailing the stylobate, column base, shaft, capital, and entablature components to illustrate its modular hierarchy and rhythmic repetition (site diagram)

Detailed Line Diagram: Chahar Bagh Miniature



A line diagram of the chahar bagh layout in the *Babur Supervising the Layout of the Garden of Fidelity* miniature, annotating its enclosing wall and iwan entrance, intersecting water-channel axes, central tank, and quadrant beds.

DISCUSSION V: COMPARISONS

The study uses comparative analytical methods. The matrix method involved visual analysis and led to insights into forms and types. The following discussion will highlight architectural features observed in the miniature, along with notable characteristics revealed through the architectural analysis.

Matrix analysis

The matrix method developed in this thesis is intended as both an analytical and conceptual structure. Its purpose is to bring together a variety of elements such as architectural forms, miniature painting traditions, literary sensibilities, and spatial experiences into a single field of inquiry. These domains, though often treated as separate areas of study, frequently engage with and inform one another in the context of visual and architectural culture. The matrix is therefore not a fixed system but a flexible, evolving framework that supports the exploration of interrelated ideas. It allows for the visual and intellectual alignment of diverse examples without requiring them to conform to a singular narrative or stylistic formula.

This approach seeks to move beyond the conventional boundaries that typically divide disciplines such as architecture, art history, and literary analysis. Instead of isolating miniature painting from the physical environments it often depicts, or separating architecture from its visual representation in courtly imagery, the matrix invites these elements to coexist and be read in parallel. It opens the possibility of understanding not only how these forms were constructed or painted, but also how they were imagined, interpreted, and rearticulated across media.

Central to this method is the act of observation. Interpretation begins not with a predetermined hypothesis but with close attention to visual form, typological repetition, spatial sequences, and symbolic arrangement. The analysis proceeds by placing selected examples side by side in order to identify architectural types, compositional strategies, and spatial patterns that recur across both built and illustrated contexts. Through this comparative process, visual relationships begin to emerge that might otherwise remain obscured. These may include, for instance, the symmetrical layout of a garden pavilion in both a miniature and its architectural counterpart, or the repeated use of arches, canopies, and framing elements in both media to structure hierarchical space.

This method also acknowledges the limits and risks inherent in such a cross-disciplinary comparison. There is always the danger of imposing external theories or frameworks that do not align with the cultural and historical context of the material. For example, the application of Western concepts such as linear perspective would be inappropriate here, as such systems were neither in use nor relevant to the way Mughal artists and architects conceived of space. Instead of seeking a vanishing point or depth constructed through optical illusion, one must look for the spatial cues that are intrinsic to the visual logic of the time. These include flattened pictorial space, vertical stacking of elements, fixed horizons, and compositional layering that prioritizes symbolic order over naturalistic realism.

Moreover, the matrix does not attempt to force cohesion where it does not exist. It is open to contradictions, disjunctions, and variations in form and meaning. Not every architectural structure depicted in a miniature has a built counterpart, and not every building embodies the pictorial clarity or ideal symmetry found in manuscript paintings. These inconsistencies are not weaknesses of the method but rather valuable moments that reveal the fluidity of visual culture and the multiplicity of ways in which space was represented, imagined, and inhabited in the Mughal world.

At its core, the matrix is a method for making visible the deeper connections between space, image, and ideology. It is a tool for uncovering how the same architectural vocabulary could serve different purposes depending on context—political, spiritual, ceremonial, or narrative. It reveals how architectural elements such as the domed chamber, the iwan, the chahar bagh, or the jharokha were not only structural forms but also conceptual markers that organized visual experience and conveyed authority. In miniature paintings, these elements often function symbolically, creating a stage upon which imperial presence and divine order are performed. In architecture, they shape physical movement and ritual practice, guiding the viewer through a series of spatial thresholds that reinforce hierarchies of power and access.

Through this process, the matrix becomes more than a diagram or catalog of forms. It becomes a mode of inquiry that allows for a dynamic and historically grounded reading of Mughal visuality. It encourages a relational understanding of objects and spaces, one that does not privilege medium over meaning but recognizes how meaning is produced across media. By structuring the thesis around this matrix, the analysis remains open, responsive, and attuned to the complexity of its subject matter. It provides a platform from which new insights into the Mughal conception of space and form can be drawn, and offers a method by which these insights may be meaningfully interpreted.

A discussion of the diverse systems available to these artists for negotiating the problem of distance would contribute an additional layer of understanding to this study. Among the available techniques were Persian methods of vertical stacking and symbolic spatial arrangement, often preferred over the perspectival illusion created through foreshortening, although the latter was not unfamiliar to the artists in question.[44] Indian conventions drawn from Jain and Rajput painting traditions, such as narrative zoning, flat color planes, and tiered compositions, structured scenes without relying on vanishing points or naturalistic depth.[45] The influence of Chinese painting is evident in the stylized rendering of landscape elements, the use of negative space to suggest atmosphere, and the measured placement of trees, rocks, and water forms.[46] Byzantine visual practices, encountered through Persian intermediaries, appear in the form of optical distortions and diagrammatic flattening.[47] European techniques, introduced through Jesuit prints and engravings, contributed elements such as chiaroscuro, naturalistic portraiture, and partial linear perspective into the visual vocabulary of the Mughal

[44] Arnheim p. 75
[45] Schimmel p. 161
[46] Richter p. 18
[47] Richter discusses these techniques in different periods of Byzantine art

atelier.[48] Richter, for example, refers to a convention in which an open door is depicted with one leaf closed and the other simply omitted, a visual shorthand that also appears in several examples considered in this study.[49] It becomes increasingly clear that representation in these miniatures was not a spontaneous response to the physical environment. It is more accurately understood as a visual engagement shaped by the intellectual and artistic conventions of the time. These painters were responding to a broader context informed by poets, scholars, theologians, and patrons. Their visual choices were shaped by the conceptual frameworks circulating within their milieu. For this reason, the focus of this study must remain on the emergence of representational forms in painting and architecture, not on the pursuit of technical mastery in systems like linear perspective. The task is to identify the compositional strategies developed by the miniaturists using architectural vocabulary and to attend to other forms of expression across the visual and decorative arts that respond to literary and philosophical texts. In this way, the presence of a self-aware visual language and disciplined compositional structure becomes evident, offering deeper insight into the formal intentions and conceptual depth of Mughal miniature painting.

The second category of inquiry comprises studies focusing specifically on the representation of architecture within the miniature tradition. Gülru Necipoğlu's examination of architectural drawing practices in the Islamic world is presented in *The Topkapi Scroll: Geometry and Ornament in Islamic Architecture* (1995). This study analysed a rare architectural scroll from the Topkapi Palace collection in Istanbul, containing a series of precisely rendered geometric and ornamental designs. While these drawings do not belong to the narrative miniature tradition, they offer valuable insight into the conceptual systems and visual strategies through which architectural form was conceived, structured, and communicated in the early modern Islamic world. Necipoğlu identifies a broad vocabulary of forms with domes, iwans, arcades, courtyards, and decorative motifs, placing them within a framework of spatial logic and mathematical precision that defined architectural practice of the period. A significant aspect of her work lies in her detailed discussion of projection techniques, including orthographic and axonometric systems, which enable the communication of spatial relationships through two-dimensional representation. These methods parallel the visual logic seen in miniature painting, where space is constructed not through illusionistic depth but through organized spatial hierarchies. Though the scroll lacks figural narrative, the structural clarity and compositional intent it displays suggest conceptual affinities with the way architecture is rendered in illustrated manuscripts. This points to a shared understanding of space across different visual media. In a separate line of inquiry, Papadopoulos introduces the idea of spiral organization as a structuring device within miniatures, an observation that has surfaced in this study through the analysis of spatial movement and figural placement. His approach suggests a visual rhythm that governs how architecture and narrative interact across the image plane.[50] Complementary to these interpretations are the studies by De Angelis and Lentz in *Architecture in Islamic Painting*(1982), which offer a survey of building typologies as depicted in miniature painting and explore their symbolic and cultural significance. Their

[48] Schimmel p. 163
[49] Richter p. 18
[50] Papadoulis in Spiral Structure of Muslim Painting

work draws particular attention to the use of inscriptions integrated into architectural elements, not merely as ornament but as bearers of ideological and poetic meaning. Lentz continues to examine these themes across later publications, consistently emphasizing the ways in which miniature paintings articulate architectural thought through pattern, hierarchy, and visual structure.

These works have pursued the following directions: interpretations of classical treatises on geometry and its role in architectural design and construction, as seen in the works of scholars such as Kashi and Buzajani;[51] writings focused on building materials and construction techniques, including those by Ibn Abdun[52] and others; treatises that position architecture within the broader framework of various professions, exemplified by the writings of Ibn Khaldun[53]; texts that document and describe the architectural monuments of specific regions, such as the contributions of al-Maqrizi[54]; works that compile and define architectural terminology, as in the *Risale-i Mimariyye*; and finally, discussions centered on theories of optics and visual perception, including those attributed to al-Hazen.[55]

The matrix of analysis under consideration here remains open in the range and nature of issues it may absorb. Elements lacking immediate relevance are placed aside for later reflection and potential integration. As the number of interconnections between various aspects and disciplines increases, the study gains in complexity and depth. By analogy, Hindustani poetry may itself be understood as a matrix, capable of being read in multiple directions including vertically, horizontally, and diagonally, with Arabic verses woven among Persian lines and shifts in word forms offering layered interpretations. The structural discipline found in poetic forms such as the Ghazal or the Doha supports this method of analysis and brings to mind the measured and formal qualities present in Mughal miniature painting and architecture. The selection of elements included in the matrix followed a set of clear criteria. Miniatures that presented a notably high density of architectural detail were identified for close examination. These were then studied with attention to their compositional arrangement. An additional criterion for selection was based on architectural typology. Four types of structures were isolated for further inquiry. Among these, the iwan was chosen as the initial focus. Six miniatures illustrating scenes within Diwan-i Khas were assembled for this analysis. This selection was guided by an indirect architectural reference, specifically the custom of adorning gardens with painted images to uplift the mood of those within.

The second category included Charbagh, closely related architectural forms that continue to exist today. Various examples of Mughal Gardens were examined to identify common structural features and layouts. The third category was the palace form, notable for its strong

[51] Texts such as Jamshid Ghiyath al-Din al-Kashi's *Miftah al-Hisab* and *al-Risala al-Muhitiyya* (c. 1423), which apply mathematics to design including tables for setting arches (Lewcock, 1978), Abu al-Wafa' al-Buzajani's writings on geometric principles (Khorasan, 949–98; Holod, 1988)
[52] Abu-l Wafa' al Buzajani from Khorasan (949-98)
[53] Rosenthal, 1980, vol. 2,chapter 5,The craft of Architecture
[54] ibid
[55] noted in Grombich, p.15, also known as Ibn al-Haytham

focus on interior spatial organization. The fourth category involved clusters of urban buildings, characterized by the arrangement of different forms in close proximity.

The following material has been included in Matrix Analysis:

1. Miniature paintings from manuscripts associated with the artistic schools of Baburi, Akbari, Jahangiri and Shahjhani schools. These miniatures were examined for their methods of spatial organization. While stylistic variations between cities and schools made it difficult to identify specific buildings, they did allow for the recognition of architectural forms and regional characteristics.
2. Line sketches of building façades, floor plans, and architectural groupings from Agra, Delhi and Fatehpur Sikri, based on on-site observations. These line sketches are minimalist and focus on the key architectural features only.
3. Literary and poetic texts that suggested connections between the realms of poetry, painting, and architecture. Many of the cited authors, such as Abu'l Fazl, originated from Central Asian regions and Khorasan, adding cultural and geographic relevance to the analysis.

Interpretation

How can observations made about buildings be compared to those made about miniatures? A direct comparison reveals a number of consistent architectural elements that appear in both forms. The repetition of iwans, domes, chaar bagh enclosures, and patterned wall surfaces in Mughal miniatures and in buildings such as those at Fatehpur Sikri, Agra, and Delhi suggests that artists were visually engaged with their built environment. These parallels support the idea that the painter was not only an interpreter of courtly life but also a recorder of its spatial language.

Coincidences in architectural type may be noted across several examples. The single iwan form appears frequently, as in the depiction of *Dara Shikoh with Mian Mir and Mulla Shah*, where a recessed space frames the seated figure. This structure closely resembles the iwan forms in the Salim Chishti complex or the audience chambers at Agra Fort. The variation in spatial depth beneath these iwans, sometimes shallow and at other times nearly square, finds parallel in built examples such as the Diwan-i-Khas. Windows and doorways are rendered with formal clarity, often showing the relation of the aperture to the enclosing wall, and the passages leading into these structures are narrow in proportion to the larger chambers they serve. This narrowing is also evident in the spatial arrangement of the Diwan-i-Am and private zenanas at Fatehpur Sikri. The recognition of such similarities supports the idea that the artists were drawing from lived architectural realities.

It becomes necessary then to ask whether these correspondences extend to the experience of space. In a number of miniatures, the spatial sequence is clearly marked. A figure waits at a gate or threshold, another is shown entering, while further figures are positioned within arched spaces, windows, or upper galleries. In *Akbar Receiving News of the Victory at Gujarat*, the figure groupings proceed along a linear visual axis, from outer threshold to inner

court. The center of the space is rarely occupied. Instead, emphasis is placed on the edge, the corner, or the architectural node. Each part of the structure appears to have a designated spatial role. This suggests that the artist was aware of patterns in movement, visibility, and transition within the building.

Entrances and transitional spaces hold particular importance. The arch becomes a recurring motif across different types of buildings and artistic schools. In miniatures, the arch is used not only to signify a portal but to define the rhythm and order of the space. In buildings such as the Jami Masjid in Fatehpur Sikri or the tomb enclosure of Itimad-ud-Daulah, arches are used to demarcate repetitive units, frame figures, and contain inscriptions. In the miniatures, these forms are compacted to express scale and repetition. Doorways carry the weight of both function and meaning. The act of passing through an entrance often signifies a change in status, as in *Jahangir Preferring a Sufi to Kings*, where the platform is elevated and enclosed by a double arch. The poetic and spiritual quality of these spaces is also evident. In both the built and painted examples, the presence of Ko'ranic inscriptions at doorways reinforces the spiritual dimension of architecture. In miniature paintings, these inscriptions are reduced to decorative bands, yet their placement corresponds to real locations on the building.

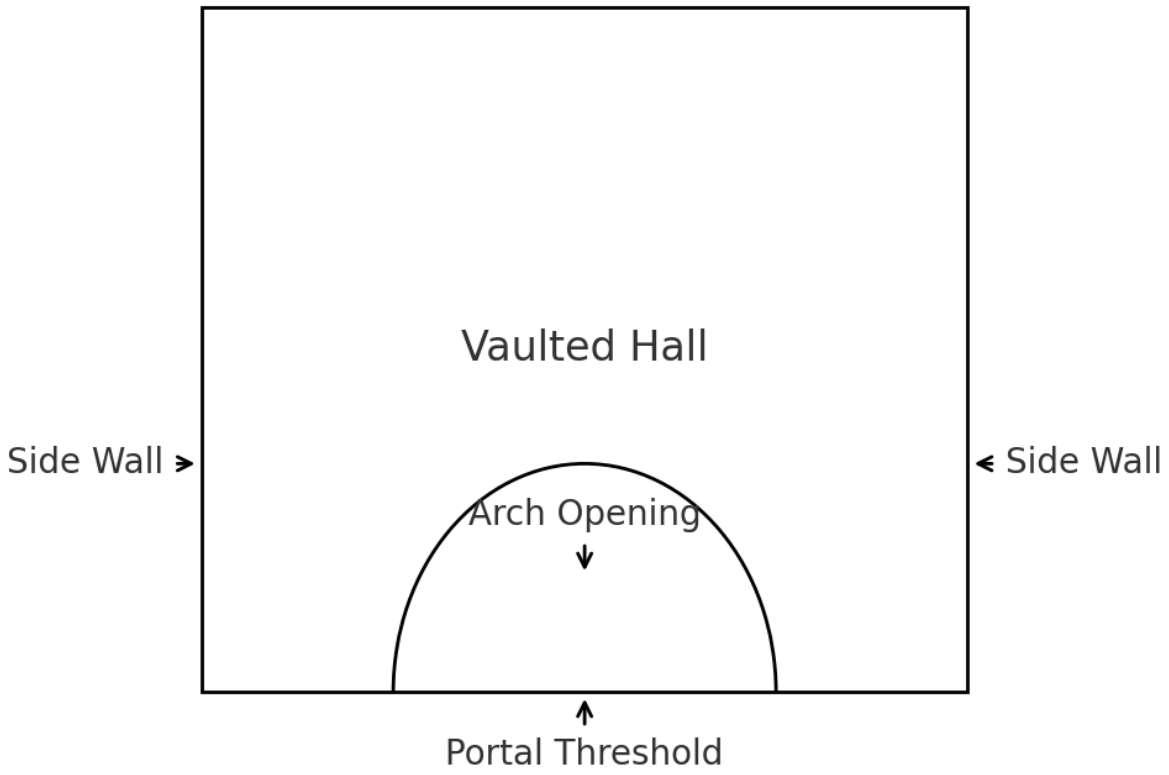
It is possible to extract planimetric and sectional information from the miniatures. In *Babur Supervising the Layout of the Garden of Fidelity*, for example, the artist combines frontal elevation with a simplified garden plan. The enclosure is suggested through flat patterned walls or the repetition of tents and canopies. Representational ambiguities remain, but they do not reduce the value of the image as a spatial document. Instead, these variations may reflect different representational conventions. Some scenes are read as elevation, others as a combination of elevation and plan. Each presents a generalized view that still adheres to architectural types observed in physical structures.

Enclosure is a significant component in both the built and painted record. Walled compounds, bordered terraces, and enclosed gardens are regularly featured in miniatures. Even where the subject is temporary architecture, as in *The Emperor's Encampment Near the River*, the tent units are arranged with a sense of perimeter and internal division. By contrast, nomadic or rural scenes are often presented without this structural clarity, suggesting that the idea of urban or courtly space is closely tied to its boundedness. The formation of built ensembles such as that at Fatehpur Sikri appears to follow similar compositional rules. Structures accrete in a directional sequence, sometimes defined by courtyards, at other times by axial corridors. In the paintings, a similar effect is achieved through layering, visual stacking, and the use of pattern to define surface and boundary.

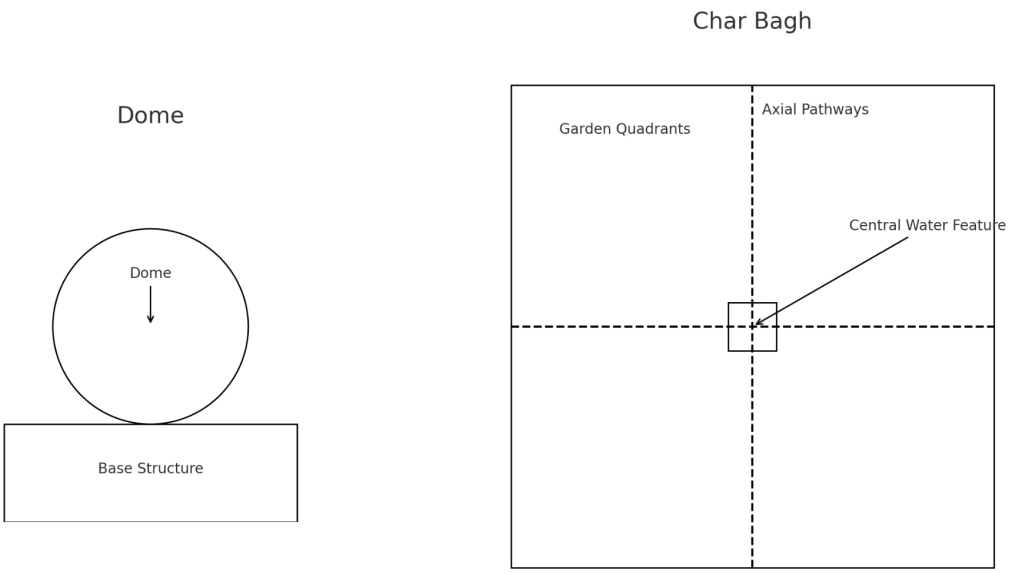
Some surfaces in the miniatures are folded or tilted to suggest multiple angles of view. In *Jahangir Holding a Portrait of the Virgin Mary*, the architectural setting is presented as a flattened interior, yet the arrangement of arches and platforms conveys enclosure and containment. This visual method echoes the warping planes and overlapping geometries seen in architectural facades. It suggests a practiced eye that understands space both as a lived environment and as a visual construction.

These comparisons suggest that Mughal miniatures are not just illustrative. They preserve a formal vocabulary of architecture, one that reflects spatial organization, compositional sequence, and symbolic meaning. By studying the way space is structured in the miniatures, and by comparing these forms with physical monuments, a clearer picture emerges of how built form was represented, interpreted, and encoded in visual culture.

Figure 12. Jahangir Preferring a Sufi Shaikh to Kings, c. 1615–1618. Freer Gallery of Art, Smithsonian Institution.



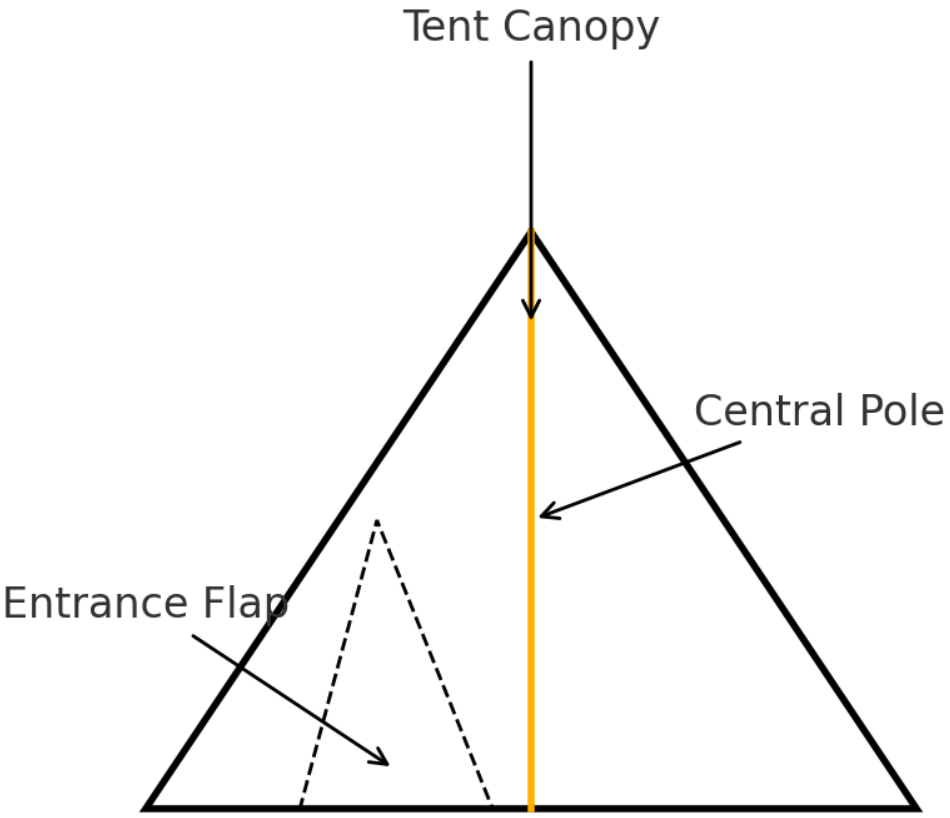
Iwan: A prominent architectural element characterized by a large vaulted hall, recessed behind a monumental arch, flanked by solid side walls. As noted in the thesis, the iwan functions as both a structural form and a symbolic device, shaping spatial hierarchy and framing imperial presence in Mughal miniature painting.



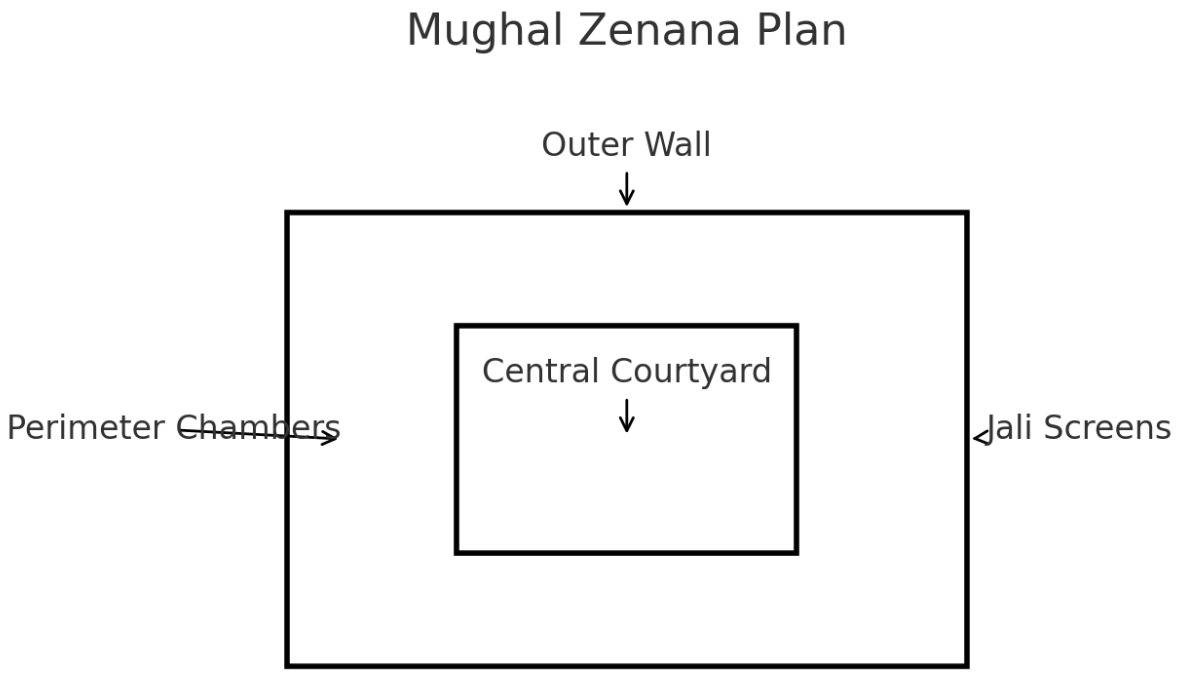
Dome: Hemispherical shell rising from a cylindrical drum, symbolizing the celestial vault and distributing weight evenly to supporting walls.

Char Bagh: Quadripartite garden divided by orthogonal pathways converging on a central water channel, embodying paradise's axial harmony.

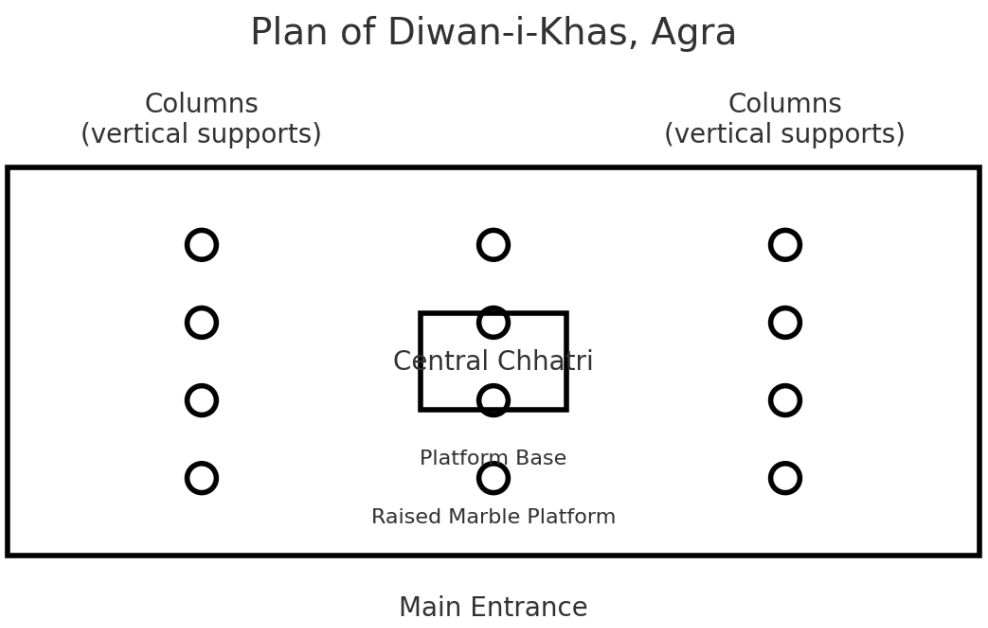
Mughal Tent Diagram



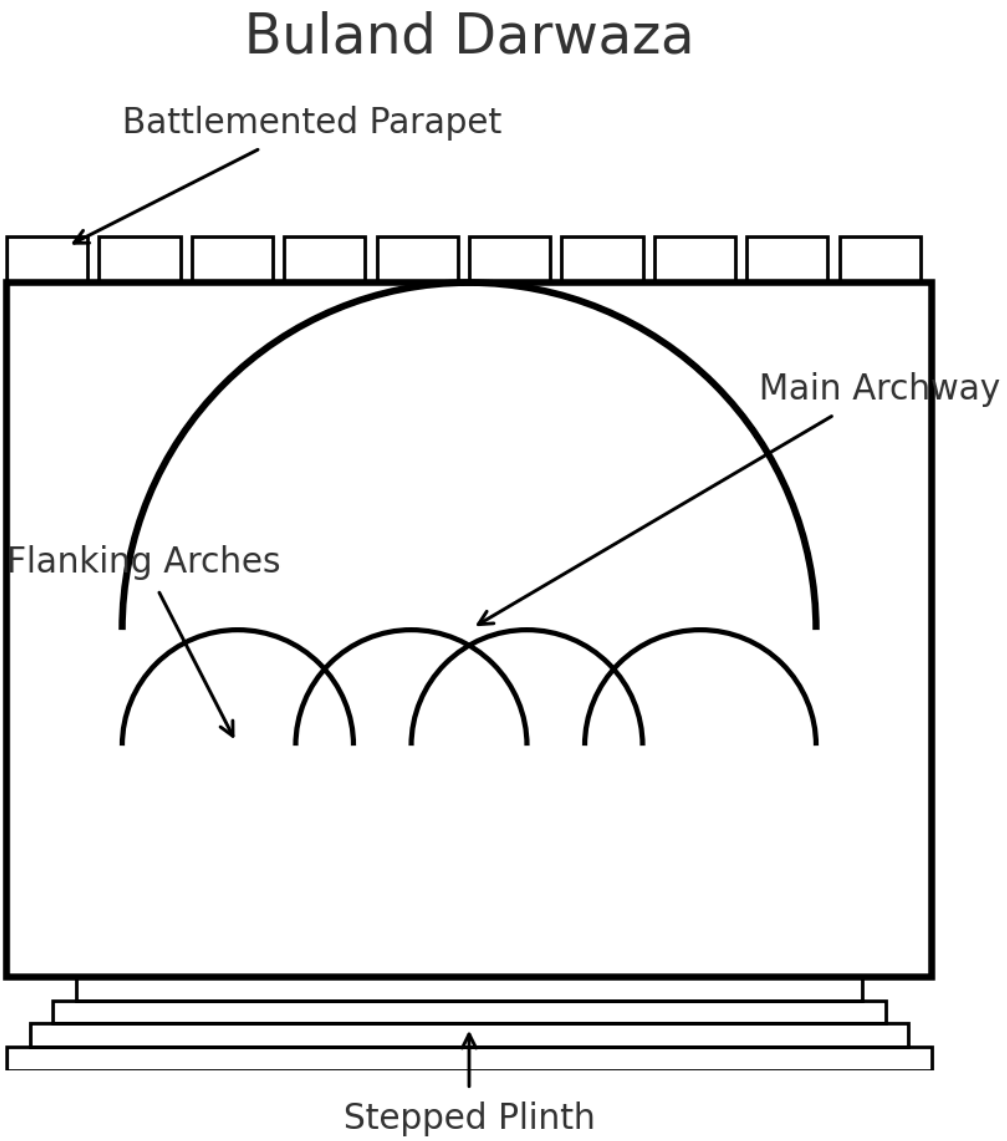
Mughal tent: a triangular fabric canopy supported by a central pole, with a defined entrance flap for access and ventilation.



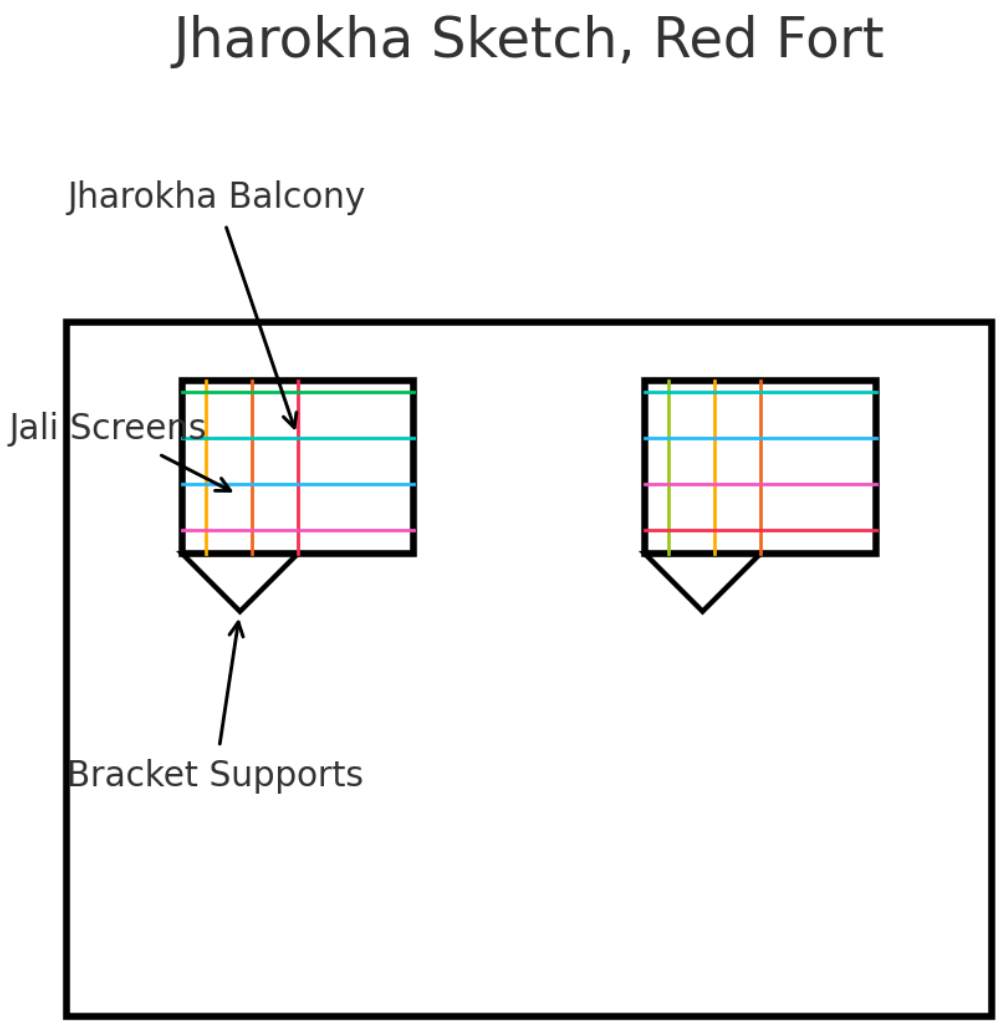
Zenana: a private women's quarter enclosed by high outer walls, with perimeter chambers opening onto a central courtyard, and perforated jali screens that admit light and air while preserving seclusion.



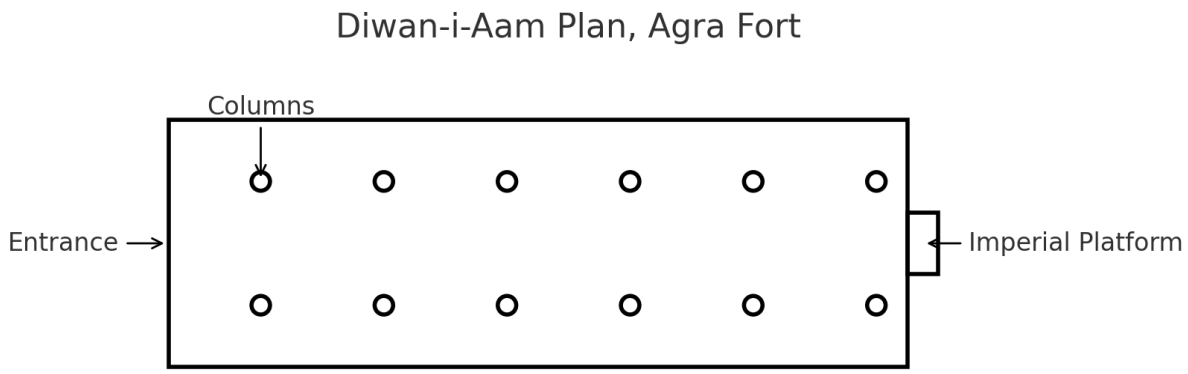
Diwan-i-Khas: a rectangular audience hall defined by a symmetrical grid of columns, centered on a raised marble chhatri platform, and entered through a central portal.

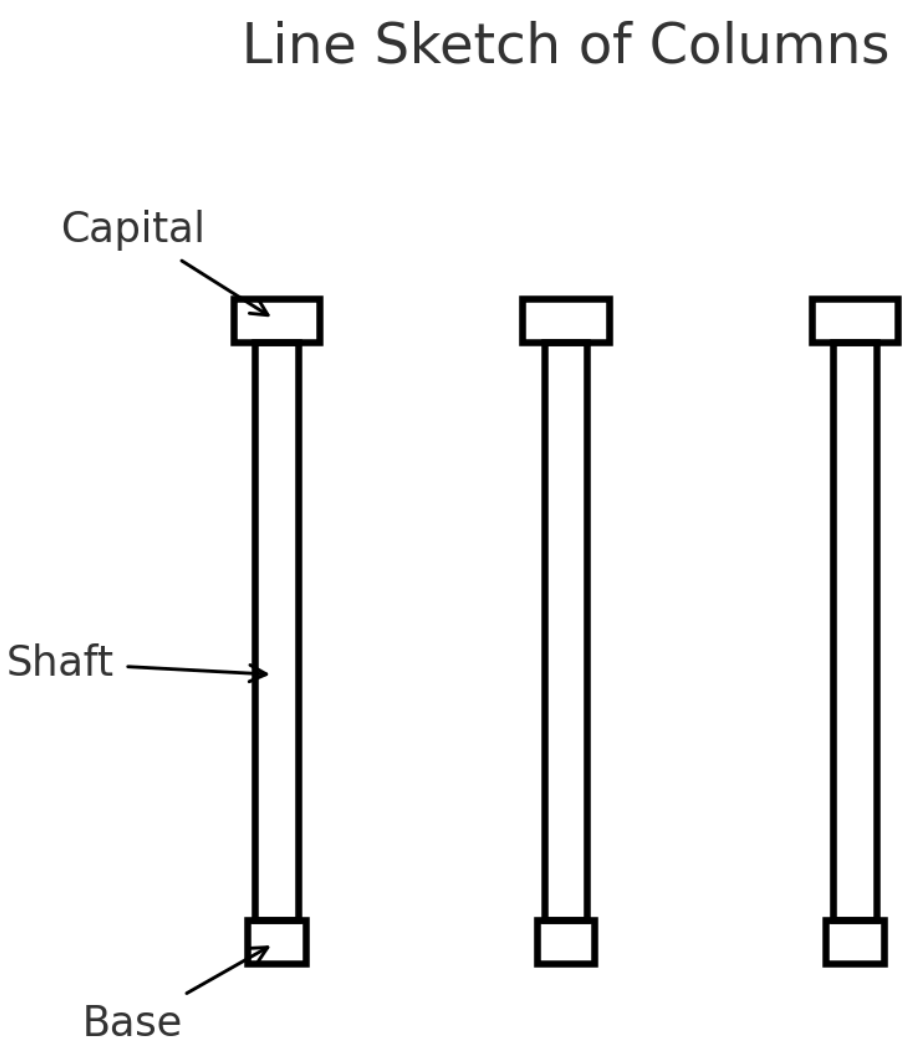


Buland Darwaza: a monumental gateway rising on a stepped plinth, with a central horseshoe arch flanked by four smaller arches and crowned by a battlemented parapet.

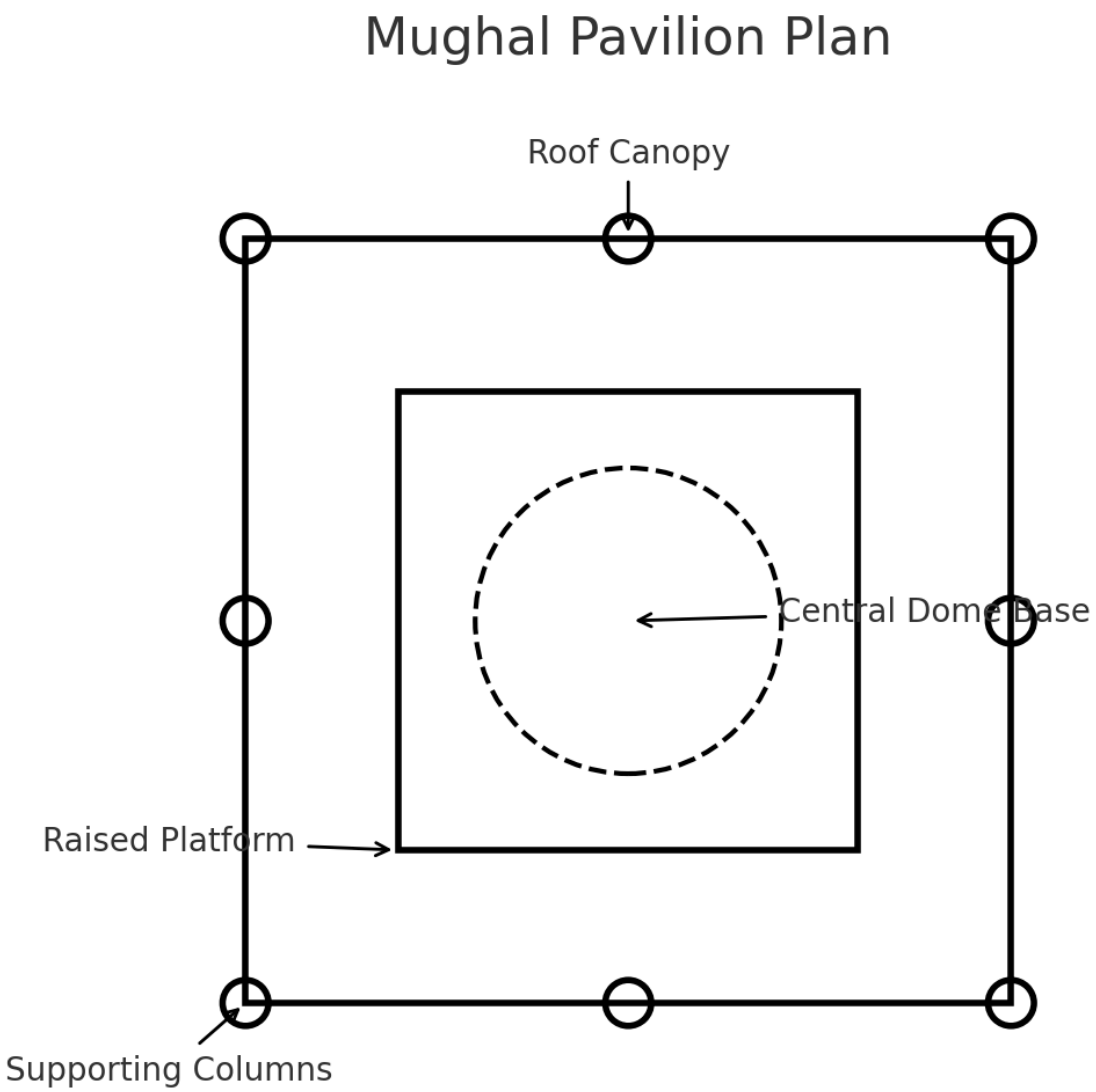


Jharokha: a projecting balcony supported by bracketed corbels and enclosed with perforated jali screens for light, ventilation, and privacy.

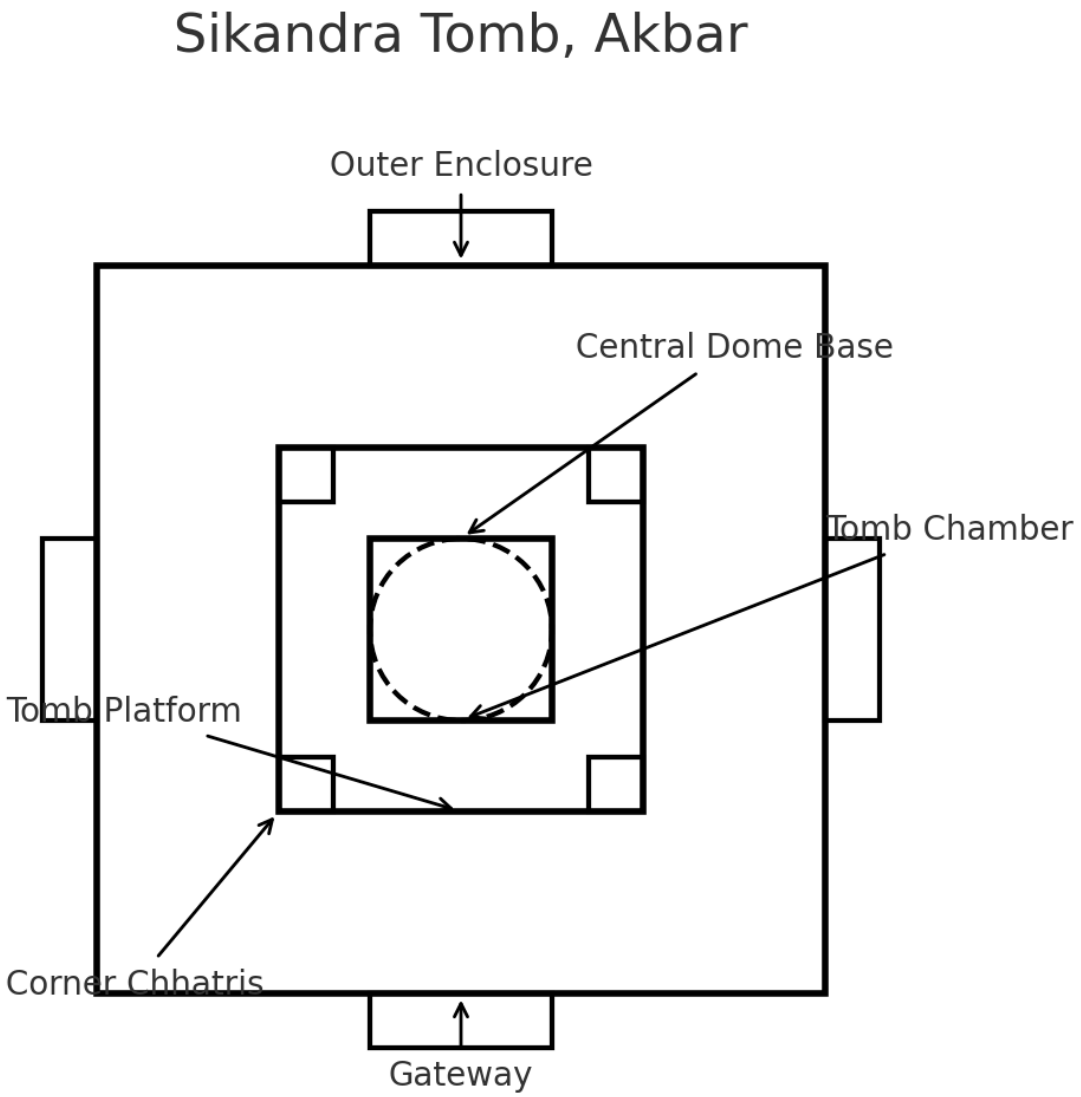




Diwan-i-Aam columns: two parallel rows of slender marble pillars supporting the flat roof and defining the public audience hall's open arcade.



Mughal pavilion: an eight-columned canopy sheltering a raised central platform, with a circular dome base at its core.



Sikandra Tomb: a square walled enclosure with axial gateway, enclosing an elevated tomb platform topped by corner chhatris and centered on the main dome base.

Conclusion

This study employed five distinct methods to investigate whether a coherent architectural language exists within the miniature tradition. These included a formal analysis of spatial representation, a study of the cultural content and context, an examination of architectural forms for parallels in representation, a comparative analysis of formal, poetic, and architectural elements, and finally, the construction of three-dimensional models to translate planar imagery into spatial configuration. Each method aimed to determine whether a legible spatial order could be discerned in the miniatures and whether the parts related to each other and to the whole in a way that reflects architectural logic. The investigation revealed a recurring visual system defined by typological elements such as iwans, terraces, jharokhas, and walled enclosures. These elements appeared consistently across different painting schools, suggesting a shared visual language that corresponds to real architectural types. Spatial sequences marked by thresholds, transitional zones, and focal nodes reinforce this impression. The presence of such identifiable features across both painted and built forms suggests that the miniature was not a separate imaginary domain but one that actively engaged with architectural conceptions.

The recurrence of these spatial strategies across schools of painting and historical phases reflects a formal coherence that mirrors the spatial experience of buildings from the period. Arches, portals, layered elevations, and compositional axes establish a spatial rhythm that corresponds to the organization of built forms in cities such as Agra, Delhi, and Fatehpur Sikri. Miniatures often employ oblique angles, warped planes, and overlapping forms to suggest depth and connectivity between spaces. This spatial articulation was further explored through the construction of physical and folded models, which revealed that angled lines and folded surfaces function as devices of spatial subdivision. Figures were frequently placed within these divisions, implying a visual and conceptual awareness of hierarchy and spatial movement. In contrast, other regional schools used flatter orthogonal layering to depict depth. This distinction suggests variations in the conception of space, possibly reflecting architectural differences. The integration of visual and architectural strategies within the miniature tradition indicates that these were not decorative compositions alone but rather encoded with spatial thinking informed by built experience.

Although direct documentation of collaboration between artists and architects remains limited, the convergence of spatial logics points toward a shared conceptual field. In the courtly environments of the Mughal period, where architecture, poetry, and painting were often patronized together, such exchanges were likely part of a larger visual culture. Parallels from other historical contexts, such as the Renaissance, reinforce this possibility. The miniature thus becomes more than a visual record. It acts as a conceptual model for architectural imagination. The consistent deployment of typological forms, spatial framing, and symbolic articulation suggests that the artist's rendering of space may reflect intentional design principles found in architecture. Through this lens, the miniature serves as a document of spatial and cultural ideals shaped by the same intellectual and aesthetic concerns that governed the construction of buildings. It is within this interplay of image and architecture

that one may locate a deeper understanding of the visual and spatial culture of the Mughal world.

Appendix A

1. **Akbar Receiving News of the Victory at Gujarat**, dated circa 1596–1600. This painting is likely from the *Akbarnama*, the official chronicle of Akbar's reign, and is housed in the Freer Gallery of Art, Smithsonian Institution, Washington, D.C.

2. **Akbar Presiding Over Religious Discussions in the Ibadat-khana**, dated circa 1603–1605. Also likely part of the *Akbarnama*, this miniature is held in the Chester Beatty Library, Dublin.

3. **Babur Supervising the Layout of the Garden of Fidelity**, dated to the 1590s. Believed to be from the *Baburnama*, the memoirs of Babur, this painting is in the collection of the Victoria and Albert Museum, London.

4. **The Death of Khan Jahan Lodi**, created around 1633. Although the manuscript source is not specified, this historical narrative scene is part of the collection at The Metropolitan Museum of Art, New York.

5. **Shah Jahan on a Terrace Holding a Pendant**, dated to circa 1627–1628. Likely from a series of imperial portraits, this work is also located at The Metropolitan Museum of Art, New York.

6. **Jahangir Preferring a Sufi to Kings**, created between 1615 and 1618. This iconic painting is held in the Freer Gallery of Art, Smithsonian Institution, Washington, D.C., and is considered part of the imperial portrait tradition.

7. **The Wedding Procession of Dara Shikoh**, dated between 1740 and 1750. Though not linked to a specific manuscript, the painting belongs to the National Museum, New Delhi.

8. **Dara Shikoh with Mian Mir and Mulla Shah**, from the 1640s. The painting is in the Freer Gallery of Art, Smithsonian Institution, Washington, D.C. The manuscript source is not specified.

9. **Ladies in the Zenana on a Terrace**, dated approximately between 1650 and 1697. This scene of domestic life is part of the collection of The Metropolitan Museum of Art, New York.

10. **Jahangir's Dream of Seeing Shah Abbas**, dated circa 1618. A notable allegorical painting in the Freer Gallery of Art, Smithsonian Institution, Washington, D.C., without a specified manuscript.

11. **Jahangir Holding a Picture of the Virgin Mary**, dated to around 1620. This miniature is part of the National Museum, New Delhi's collection and reflects cross-cultural visual influences.

12. **A Court Scene in the Diwan-i-Khas**, undated. The manuscript source is not specified, and the location of the painting is not mentioned in the thesis.

13. **Shah Jahan Watching the Taj Mahal Being Built**, undated. This work reflects architectural allegory but does not have a clearly attributed manuscript or institutional collection.

14. **The Emperor's Encampment Near the River**, undated and without manuscript attribution. The collection details are not provided in the thesis.

15. **Ladies on a Terrace at Night**, undated. This painting captures intimacy and atmosphere. The collection is not mentioned.

16. **The Reception of a Jesuit Ambassador**, undated. Likely related to diplomatic themes found in the *Padshahnama* or court chronicles. The collection is not specified.

17. **The Court of Asaf Khan**, undated. The miniature is not linked to a known manuscript or collection in the thesis.

18. **Night Time in a Palace**, attributed to the Mughal school and dated to the late 16th–early 17th century. This painting is part of the Freer Gallery of Art's collection and is noted for its depiction of architectural thresholds.

Glossary (Alphabetical Order)

1. **Abdul Rahim Khan-i-Khanan** – A poet and noble in Akbar's court, known for Hindi couplets and Persian verse.
2. **Abul Fazl** – Court historian and vizier of Akbar, author of the *Ain-i-Akbari*.
3. **Ain-i-Akbari** – A detailed administrative record of Akbar's empire, written by Abul Fazl in Persian.
4. **Baburnama** – The memoirs of Babur, founder of the Mughal Empire; originally in Chagatai Turkish, later translated into Persian.
5. **Bedil** – Persian Sufi poet noted for philosophical depth and stylistic complexity.
6. **Char Bagh / Chahar Bagh** – "Four Gardens"; a Persian garden layout divided into quadrants by walkways or water channels.
7. **Chhatri** – Elevated, dome-shaped pavilion in Mughal and Rajasthani architecture.
8. **Diwan-i-Khas** – "Hall of Private Audience" used in Mughal palaces for royal gatherings.
9. **Doha** – A two-line rhyming poetic form common in Hindi and Urdu, used by poets like Kabir and Tulsidas.
10. **Faizi** – Persian poet and scholar, brother of Abul Fazl, prominent in Akbar's court.
11. **Ghazal** – A poetic form consisting of rhyming couplets and a refrain, expressing love, loss, or metaphysical themes.
12. **Hammam** – A traditional Islamic bathhouse with heated rooms and bathing pools.
13. **Iskandar** – The Persian name for Alexander the Great, symbolizing heroic or imperial ideals.
14. **Iwan** – A vaulted architectural space open on one side, prominent in Persian and Islamic design.
15. **Jali** – Latticed screen used in architecture for light and ventilation.
16. **Jharokha** – Overhanging enclosed balcony common in Indo-Islamic architecture.
17. **Kalila wa Dimna** – A collection of moral fables of Indian origin, translated into Persian and Arabic.
18. **Kalim Kashani** – Persian poet at Shah Jahan's court known for rich and elaborate poetry.
19. **Khamsa** – A collection of five long Persian narrative poems, notably by Nizami.
20. **Maqbara** – A tomb or mausoleum in Islamic architecture.
21. **Mirza Ghalib** – Celebrated 19th-century Urdu and Persian poet renowned for ghazals.
22. **Padshahnama** – Lavish illustrated chronicle of Shah Jahan's reign.
23. **Ramcharitmanas** – A Hindi retelling of the *Ramayana* by Tulsidas.
24. **Shahnameh** – An epic Persian poem by Ferdowsi recounting the mythic and historic past of Iran.
25. **Taj Mahal** – Mughal mausoleum in Agra built by Shah Jahan in memory of Mumtaz Mahal.
26. **Tulsidas** – Devotional poet and author of *Ramcharitmanas* in Hindi.

27. **Wali Deccani** – Early Urdu poet from the Deccan, credited with shaping the language's literary tradition.
28. **Zahhak** – Mythical Persian ruler associated with evil, featured in the *Shahnameh*.
29. **Zenana** – Secluded women's quarters in Mughal households or palaces.

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