


The Symbolic and Cultural Meanings of Arabic Calligraphy and Islamic Ornaments in Relation to Function and Social Status in the Mamluk Era

Mohga Mohamed Fouad Mohamed^{1,2*}, Hartono Hartono¹, Wahyu Lestari¹ 

¹Universitas Negeri Semarang, Gunungpati, Semarang, Central Java, 50229, Indonesia

²Ain Shams University, 1 Elsarayat St., Abbaseya, Cairo, 11517, Egypt

*Corresponding author, email: mohga@students.unnes.ac.id

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Abstract

This study examines the symbolic and cultural meanings of Arabic calligraphy and Islamic ornamentation in the Mamluk period, with particular attention to their functional roles and relationship to social status across manuscripts and architectural contexts. Employing a qualitative, comparative visual analysis, the research investigates how script styles, ornamental systems, materials, and spatial placement operated as intentional communicative strategies rather than mere decorative elements. The findings demonstrate that calligraphy and ornamentation formed an integrated visual language that articulated religious authority, political legitimacy, and hierarchical social order. In manuscripts, refined scripts and illuminated compositions emphasized textual sanctity and elite patronage, while in architecture, monumental inscriptions and durable materials projected authority and collective identity within public space. The study further reveals that visual hierarchy was carefully calibrated to audience, medium, and function, enabling meaning to be transmitted beyond textual literacy. By foregrounding the relationship between form, function, and social context, this research contributes to a deeper understanding of Islamic applied arts as systems of cultural communication. The study offers a framework for interpreting Mamluk visual culture as a cohesive and purposeful design practice, with implications for heritage interpretation, arts education, and contemporary applications of Islamic visual principles in promoting cultural continuity and inclusive access to historical knowledge.

1. Introduction

Arabic calligraphy and Islamic ornamentation represent core components of Islamic visual culture, functioning as primary media through which religious values, cultural identity, and social structures are expressed. Within Islamic civilizations, visual forms were not conceived as autonomous artistic expressions but as meaningful systems embedded in architecture, manuscripts, and applied arts. During the Mamluk period (1250–1517), this integration achieved a particularly sophisticated level, as calligraphy and ornamentation were extensively employed in religious, civic, and domestic contexts to convey authority, piety, and social hierarchy. The Mamluk sultanate, ruled by a military elite of diverse ethnic origins, depended heavily on visual culture to legitimize power and articulate ideological messages within the urban and architectural landscapes of Cairo, Damascus, and other major centers (Smarthistory, n.d.; Woo, 2020).

Although Mamluk calligraphy and ornamentation have long been recognized as distinctive features of Islamic art, scholarly approaches have frequently emphasized stylistic classification or material description. Less attention has been given to the ways in which symbolic meanings intersect with functional roles and social stratification. A comprehensive understanding of Islamic applied arts requires an examination of how calligraphy and ornament operated simultaneously as sacred text, architectural device, and marker of social status. Addressing this intersection is essential for interpreting Mamluk visual culture not merely as aesthetic production but as an active instrument in shaping religious experience, social order, and political legitimacy.

Previous scholarship on Mamluk visual culture can be grouped into several thematic strands. Studies on Islamic calligraphy emphasize the refinement of monumental scripts and the role of elite patronage in the production of Qur'anic manuscripts, where calligraphy and illumination served both devotional and dynastic functions (Blair, 2006; Smarthistory, n.d.). Research on the provenance and origins of Arabic calligraphy further underscores its development as a distinctly Islamic visual language, shaped by Qur'anic transmission, epigraphic practice, and evolving aesthetic conventions (Mojib Alzahrani, 2020). Architectural research highlights the integration of calligraphy and ornament within spatial and environmental systems, demonstrating how geometric and vegetal motifs regulated light, movement, and perception while reinforcing symbolic hierarchies

(Woo, 2020; Ornament and Efficiency: Material Performance and Environmental Logic of Arabesque in Bayt al-Razzaz). Other studies focus on inscription placement, showing that textual content and spatial positioning were carefully coordinated to reflect functional and semantic priorities in public and palatial architecture (Ziad Baydoun, 2025). Social-historical perspectives further reveal the role of calligraphers and craftsmen as participants in transregional networks of patronage and cultural exchange (Alessandro Gori, 2023).

Early biographical sources such as Qadi Ahmad's accounts of calligraphers and painters further demonstrate that calligraphers occupied a socially elevated position within Islamic societies, where artistic mastery, religious knowledge, and courtly patronage intersected (Qadi Ahmad, 2017). Archaeological scholarship further confirms that inscriptions and ornamental programs functioned as integral components of spatial organization, ritual practice, and political symbolism in Islamic built environments (Flood & Necipoğlu, 2017).

Arabic calligraphy and Islamic ornamentation functioned in the Mamluk era as an integrated visual language through which religious authority, political legitimacy, and social hierarchy were simultaneously communicated. Historically rooted in the sacred transmission of the Qur'an, Arabic calligraphy extended beyond manuscript culture to monumental architecture, where scripts such as *Kufic* and *Thuluth* were projected onto mosques, madrasas, mausoleums, and civic buildings, transforming architectural surfaces into carriers of symbolic meaning. Studies on visual literacy in Islamic calligraphy emphasize that meaning is produced not only through textual content but also through rhythm, proportion, and compositional structure, enabling calligraphic forms to communicate across varying levels of literacy (Blair & Bloom, 2017).

The deliberate selection of script types, their scale, and their placement reflected the function of the space and the social status of its patron, with monumental and highly refined inscriptions signaling elite sponsorship and institutional power. Islamic ornamentation particularly geometric, vegetal, and arabesque systems operated alongside calligraphy as a structured symbolic system expressing metaphysical concepts such as divine unity, infinity, and cosmic order. As demonstrated by later theoretical interpretations of calligraphic-ornamental systems, the repetition, rhythm, and balance inherent in arabesque design were not merely decorative but encoded cultural values and ideological stability. In the Mamluk context, the integration of calligraphy and ornament thus served both functional and representational purposes: sanctifying religious spaces, asserting political authority, and visually reinforcing social stratification through material richness, technical mastery, and spatial hierarchy (Abdel Baki, 2016).

While these studies have significantly advanced understanding of Mamluk calligraphy and ornamentation, most have examined these elements in isolation either as stylistic phenomena, architectural components, or social practices. Fewer studies have explored how symbolic meaning, functional performance, and social status intersected to form an integrated visual system. In particular, the relationship between visual hierarchy and social hierarchy how script types, materials, and spatial placement communicated rank and authority across different media remains insufficiently addressed. This study seeks to fill this gap by adopting a contextual and cross-media approach to Mamluk calligraphy and ornamentation. Recent historiographical critiques caution that Eurocentric analytical frameworks have often marginalized indigenous theoretical perspectives in the study of Islamic art and architecture, underscoring the need for context-sensitive and culturally grounded interpretations (Samer Akkach, 2021).

The objective of this study is to examine the symbolic and cultural meanings of Arabic calligraphy and Islamic ornamentation in relation to their functional roles and social significance during the Mamluk period. By analyzing these visual elements across manuscripts, architecture, and applied arts, the study aims to demonstrate how calligraphy and ornament functioned as interconnected instruments of religious expression, social differentiation, and political legitimation in Mamluk society.

2. Method

This study adopted a qualitative historical case-study design grounded in art historical and visual culture analysis. The qualitative approach was selected because the research objectives focus on interpreting symbolic meaning, functional integration, and social hierarchy as embedded in visual and material culture, rather than measuring variables statistically. The case-study design enabled an in-depth examination of representative examples of Mamluk calligraphy and ornamentation across different media, allowing for contextual interpretation within their architectural, social, and ideological settings.

This research did not involve human participants. Instead, the analytical units consisted of Mamluk-period visual artifacts, including architectural inscriptions, Qur'anic manuscripts, ornamental architectural programs, and applied art objects documented in the selected literature. These artifacts functioned as historical evidence through which social meanings and functional roles were examined, in accordance with established methodologies in Islamic art and architectural history.

The target population comprised visual and material productions associated with elite, religious, and public patronage during the Mamluk period (1250–1517), particularly in Cairo and Damascus. A purposive sampling technique was employed to select case examples frequently discussed in scholarly literature due to their significance, preservation, and documented patronage. This sampling strategy was appropriate because the study seeks analytical depth and interpretive clarity rather than representativeness in a statistical sense.

Data collection relied on a systematic visual and contextual analysis framework developed from established Islamic art historical practices. The framework examined script type, scale, material, ornament type, spatial placement, textual content, and associated patronage. These analytical categories enabled consistent comparison across manuscripts, architecture, and applied arts. Content validity was ensured by grounding the analytical criteria in peer-reviewed scholarship on Islamic calligraphy, Mamluk architecture, and ornamentation (Blair, 2006; Smarthistory, n.d.; Woo, 2020). Reliability was maintained through the uniform application of the same analytical framework to all examined cases.

Measurement in this study was qualitative and interpretive. Architectural layouts, manuscript descriptions, and photographic documentation from published sources were used to assess spatial hierarchy, visibility, and functional placement of inscriptions and ornaments. Comparative typologies of scripts and ornament patterns served as reference tools for identifying correlations between visual characteristics and social rank. Observations were recorded descriptively and analytically rather than numerically, consistent with humanities-based research standards.

The research followed a sequential analytical procedure. First, relevant literature was reviewed to identify recurring themes related to calligraphy, ornamentation, function, and social status. Second, selected artifacts and architectural examples were analyzed using the established framework, with observations systematically documented. Third, cross-media comparisons were conducted to synthesize patterns across manuscripts, architecture, and applied arts. The study progressed analytically rather than chronologically, reflecting the interpretive nature of historical visual research.

Data analysis employed thematic qualitative analysis combined with comparative visual interpretation. Analytical themes such as authority, hierarchy, piety, monumentality, and material prestige were identified and traced across different media. Interpretations were contextualized within existing scholarship on Mamluk art and Islamic visual culture. As the analytical methods used formal analysis, contextual interpretation, and thematic synthesis are standard in art historical research, no statistical analysis was applied.

3. Results and Discussion

The analysis demonstrates that Arabic calligraphy and Islamic ornamentation in the Mamluk period functioned as a coherent visual system through which religious meaning, architectural function, and social hierarchy were simultaneously articulated. Across manuscripts, architecture, and applied arts, the choice of script, scale, material, and placement consistently corresponded to the status of the patron and the intended audience. Monumental scripts such as *thuluth* and *muḥaqqaq* predominated in royal Qur'anic manuscripts and major architectural complexes, while smaller or less visually dominant scripts appeared in secondary or administrative contexts. This pattern indicates that script selection was not arbitrary but encoded rank and authority through visual hierarchy (Blair, 2006; Smarthistory, n.d.).

Recent studies on geometric Kufic inscriptions in late Mamluk architecture further demonstrate that angular script forms were deliberately employed to enhance monumentality and visual authority across architectural surfaces (Salah al-Din, 2023).

In architectural contexts, inscriptions were positioned according to a clear spatial hierarchy. Qur'anic verses emphasizing divine authority, justice, and piety were placed in highly visible locations such as domes, mihrabs, portals, and cornices, whereas dedicatory inscriptions and foundation texts were generally located in transitional or lower zones. Ornamentation, particularly geometric and vegetal patterns, was densest and most elaborate in elite religious and civic buildings, reinforcing distinctions between sacred, public, and private spaces (Woo, 2020). Contemporary Mamluk textual sources further suggest that architecture was perceived as a sensory and symbolic environment, in which inscriptions, materials, and spatial sequencing shaped moral and emotional experience (Nasser Rabbat, 2012). These findings confirm that ornament and calligraphy were integral to architectural performance, shaping perception, movement, and spatial experience.

In manuscripts, especially Qur'anic codices produced under royal patronage, calligraphy and illumination were employed to sacralize the text while simultaneously signaling political legitimacy. The use of costly materials such as gold illumination and fine pigments transformed manuscripts into symbolic objects of authority rather than purely devotional tools. The visual emphasis placed on opening pages, chapter headings, and margins demonstrates a structured hierarchy of sacred meaning aligned with elite patronage (Smarthistory, n.d., *Dating Mamluk Manuscripts from Levantine Collections*).

Across applied arts, including metalwork fittings and architectural elements, inscriptions functioned as markers of ownership, institutional identity, and patronage. The presence of titlature and dedicatory texts on functional objects suggests that even utilitarian items participated in the broader visual language of power and status (Mamluk Metalwork Fittings in Their Artistic and Architectural Context).

These results reinforce and extend existing scholarship that views Mamluk calligraphy and ornamentation as active agents of social communication, rather than passive decorative features. As Blair (2006) argues, Islamic calligraphy historically served as a privileged medium through which sacred authority and political legitimacy were visually expressed. The present findings demonstrate that, in the Mamluk context, this role was intensified by the strategic integration of calligraphy into architectural and material environments, making authority visible and experiential.

The hierarchical placement of inscriptions supports previous studies on architectural semiotics, which emphasize that textual content, spatial position, and viewer interaction were carefully coordinated to convey meaning (Ziad Baydoun, 2025). By situating Qur'anic verses in dominant architectural zones, Mamluk patrons embedded moral and religious authority directly into public space, ensuring that governance was visually aligned with divine law. This strategy was particularly significant given the Mamluks' need to legitimize their rule through religious symbolism rather than dynastic lineage.

The findings also align with recent architectural research highlighting the functional intelligence of Islamic ornamentation. The study of Bayt al-Razzaz demonstrates that arabesque patterns were not merely symbolic but contributed to environmental regulation, light diffusion, and spatial continuity (Ornament and Efficiency: Material Performance and Environmental Logic of Arabesque in Bayt al-Razzaz). In the Mamluk period, this functional role reinforced symbolic meaning, as the visual experience of order and harmony mirrored theological concepts of divine unity. Ornament thus operated at the intersection of aesthetics, function, and ideology.

From a social perspective, the results underscore the role of artisans and calligraphers as key participants in elite visual culture. While operating within patronage systems, calligraphers occupied a socially complex position, gaining prestige through their association with religious texts and monumental architecture. Research on the ethnic and social backgrounds of Mamluk-era calligraphers highlights the transregional and multicultural dimensions of this artistic production, suggesting that Islamic visual culture was shaped by mobility and exchange rather than fixed identities (Alessandro Gori, 2023).

Importantly, the comparison between manuscripts and architecture reveals a shared symbolic logic adapted to different media. In manuscripts, hierarchy was structured through page layout and illumination, addressing a limited elite audience. In architecture, hierarchy was communicated through scale, visibility, and spatial dominance, addressing a broad public audience, including the illiterate. This confirms that Mamluk visual culture functioned as a mass communicative system, relying on visual literacy rather than textual comprehension (Smarthistory, n.d.).

By integrating evidence across media, this study addresses a gap in existing research that often treats manuscripts, architecture, and applied arts separately. The results demonstrate that these forms operated as interconnected components of a unified visual strategy designed to assert authority, reinforce social stratification, and embed religious meaning into everyday environments. In doing so, the study contributes to a more holistic understanding of Islamic applied arts as socially embedded practices.

Table 1. Relationship between Arabic Calligraphy, Islamic Ornamentation, Function, and Social Status in the Mamluk Era

No	Visual Element	Primary Function	Symbolic Meaning
1	Monumental scripts (<i>thuluth</i> , <i>Mohaqiq</i>)	Visual dominance in manuscripts and architecture	Divine authority, legitimacy, permanence
2	Qur'anic inscriptions in domes, mihrabs, portals	Structuring sacred and ceremonial space	Piety, moral order, divine surveillance
3	Dedicatory and foundation inscriptions	Identification of patron and institution	Patronage, commemoration, political legitimacy
4	Geometric and vegetal ornament (<i>arabesque</i>)	Regulating light, movement, and perception	Unity, infinity, cosmic order
5	Luxurious materials (gold, marble, inlaid metal)	Enhancement of visual and material prestige	Wealth, divine favor, power
6	Calligraphy on applied arts (metalwork, fittings)	Ownership marking and functional identification	Authority, institutional affiliation

Table 2. Comparative Functions and Meanings of Calligraphy and Ornamentation in Mamluk Manuscripts and Architecture

No	Aspect of Analysis	Manuscripts (Qur'anic and Elite Codices)	Architecture (Religious and Public Buildings)
1	Primary Function	Preservation and sanctification of sacred text	Structuring space and guiding movement
2	Dominant Scripts	Monumental <i>Mohaqiq</i> and refined <i>thuluth</i>	Monumental <i>thuluth</i> and architectural Kufic
3	Ornamentation Type	Illumination, geometric frames, vegetal motifs	Carved stone, stucco, marble inlay, arabesque
4	Material Quality	Gold illumination, high-grade paper, pigments	Stone, marble, gilded stucco, inlaid metals
5	Spatial / Visual Hierarchy	Centralized focus on the written word	Hierarchical placement on domes, portals, mihrabs
6	Symbolic Meaning	Piety, dynastic devotion, textual authority	Power, legitimacy, divine order in public space
7	Audience	Elite patrons, religious scholars, controlled access	Broad public audience, ritual and civic users
8	Social Status Indicator	Royal or elite patronage through material luxury	Monumentality signaling sultanic or elite authority

4. Conclusion

This study concludes that Arabic calligraphy and Islamic ornamentation in the Mamluk period functioned as an integrated visual language through which religious authority, architectural function, and social hierarchy were systematically communicated across manuscripts, architecture, and applied arts. Rather than serving as decorative embellishments, inscriptions and ornamental systems operated as strategic instruments of legitimacy, embedding Qur'anic meaning and political symbolism into both elite objects and public space. The findings underscore that script selection, material quality, and spatial placement were deliberately aligned with patron status and intended audiences, reinforcing visual hierarchies that transcended literacy. These results support the hypothesis that Mamluk visual culture constituted a unified communicative system in which textuality, space, and materiality converged to assert power and piety simultaneously. Future research is recommended to test this hypothesis comparatively across other Islamic dynasties and regions, as well as to explore how contemporary architectural and educational practices might reinterpret these principles to promote cultural continuity, inclusive heritage awareness, and equitable access to visual knowledge, thereby contributing to broader goals of quality education and the reduction of cultural inequalities.

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Data Availability

The datasets generated during and/ or analyzed during the current study are available from the corresponding author on reasonable request.

Declaration on AI Use

The authors declare that no artificial intelligence (AI) or AI-assisted tools were used in the preparation of this manuscript.

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