

Artistic Localisation of Islamic Art Motifs on Batu Nisan Aceh

Norziyanti Mohammed Ghani¹, Muhammad Uzair Ismail^{2*}

¹School of the Arts, Universiti Sains Malaysia, 11800, Penang, Malaysia.

Email: norziyanti.mohd.ghani@outlook.com

²School of the Arts, Universiti Sains Malaysia, 11800, Penang, Malaysia.

Email: uzairismail@usm.my

CORRESPONDING

AUTHOR (*):

Muhammad Uzair Ismail
(uzairismail@usm.my)

KEYWORDS:

Batu Nisan Aceh
Islamic Art Motifs
Islamic Funerary Art
Comparative Term
Penang

CITATION:

Norziyanti, M. G., & Muhammad Uzair, I.
(2026). Artistic Localisation of Islamic Art
Motifs on Batu Nisan Aceh. *Malaysian
Journal of Social Sciences and Humanities
(MJSSH)*, 11(7), e004122.
<https://doi.org/10.47405/mjssh.v11i7.4122>

ABSTRACT

This study examines visual culture of early Islamic funerary art in Penang by integrating art historical analysis with a visual semiotic framework. Analysing selected Batu Nisan Aceh specimens from the Masjid Melayu Lebuah Aceh site, the research deconstructs three core motifs: the Blooming Flower or Bud motif, the Four-Petaled Flower, and the Hexagonal Frame. Denotatively, these elements appear as stylised botanical shapes and geometric borders guided by strict symmetry. Connotatively, they operate as an interconnected sign system articulating Islamic theology: the blooming bud evokes mosque lamps (qanādil) to chart the soul's ascent, the four-petaled rosette expresses cosmic harmony, and the hexagonal frame imposes structural containment. Rather than a passive replication of transregional templates, findings demonstrate a sophisticated process of localisation. By filtering external Khatā'ī and Kit'a traditions directly into indigenous artistic grammar such as pola pemicang layout, regional artisans achieved a complete structural integration, forging a unified, distinctly regional Malay-Islamic visual language on stone.

Contribution/Originality: This study contributes to the existing literature by offering a systematic visual analysis of Islamic art motifs on *Batu Nisan Aceh* in Penang. By decoding these symbolic forms, it uncovers Penang's hidden history and reveals that the early Malay Muslim community possessed distinct intellectual and artistic capacity.

1. Introduction

Historical landscape of maritime Malay world was fundamentally characterised by its ability to absorb, filter, and reinterpret external cultural influences without deserting its indigenous artistic foundations. Situated strategically along major Indian Ocean trading networks, Malay Archipelago functioned as an active meeting point between Arab, Persian, Indian, Chinese and Southeast Asian civilisations for centuries. through these extensive commercial and intellectual exchanges, the region became increasingly exposed to foreign religious ideas, artistic traditions and material cultures. Among most transformative developments was gradual spread and consolidation of Islam between 12th and 16th centuries CE, particularly across major coastal depots and trading

organisations throughout Southeast Asia (Azra, 2004). This process significantly reshaped regional political structures, literacy traditions, systems of knowledge and visual culture.

However, Islamisation within Malay world did not produce a complete rupture from earlier indigenous traditions. Instead, adoption of Islam initiated a dynamic process of cultural integration in which external Islamic artistic and intellectual traditions were carefully adapted into existing Malay cultural frameworks through trade, religious networks and migration of scholars and artisans. As a result, Islamic art in Malay world developed into a distinct regional artistic language in which universal Islamic symbolism became inseparable from visual grammar and cultural sensibilities.

One of clearest cultural objects of this transregional artistic synthesis can be observed through *Batu Nisan Aceh*, a distinctive form of carved stone funerary monument originating from Aceh, Indonesia (Yatim, 1988). Yatim (1988) further explained in his study that *Batu Nisan Aceh* spread extensively across Malay Peninsula, dating from 15th to 19th centuries CE through maritime networks because these gravestones located either prominent place or major route of local and foreign traders. These historical tombstones commonly marked the graves of rulers, nobility, merchants and religious scholar (*ulama*) reflecting deceased status, political legitimacy and Islamic identity (Nadri, 2020; Perret et al., 2004; Yatim, 1988). Within this extensive maritime trade network, Penang serves as significant historical position due to regional trade and local settlement explained by Musa (2012) which pulled communities of Acehnese, Kedahan and Sumatran settlers to the island long before colonial era. One of historical sites that reflecting foreign settlement in Penang was Masjid Melayu Lebuah Aceh heritage site that found by wealthy Acehnese royal descendent Tunku Sayyid Hussain Al-Aidid. Presence of authentic *Batu Nisan Aceh* specimens at cemetery of Masjid Melayu Lebuah Aceh offer invaluable, localised physical record of Penang's early Islamic roots.

Previous study on *Batu Nisan Aceh* has primarily focused on typology, chronology and epigraphy, historical distribution and regional classification systems (Nadri, 2020; Perret et al., 2004; Yatim, 1988). While Nadri (2020), Perret et al. (2004) and Yatim (1988) successfully documented typology and ornamentation found on *Batu Nisan Aceh*, their works remained strictly descriptive that lead to leave deeper symbolic and cultural meanings of Islamic art motifs uninterpreted. Furthermore, a recent study on Islamic art motifs of *Batu Nisan Aceh* by Ismail (2025) highlighted a significant finding that certain motifs carried Turco-Persian influences, further emphasised the need to conduct a thorough analysis on Islamic art motifs presented on *Batu Nisan Aceh*.

To address the gap, this paper adopts visual semiotic and art historical approach grounded in the work of Ismail (2025, 2023), who argued that traditional Malay art tradition engages external influences through a process of thorough artistic refinement and conscious reinterpretation. Under this framework, identified Islamic art motifs presented on *Batu Nisan Aceh* are systematically analysed to uncover element of broader Islamic context that was integrated with local art visual grammar. This process of localisation is evaluated here through a dual lens of visual semiotic theory (Barthes, 1977) and Malay art tradition (Ismail, 2025, 2023).

1.1. Problem Statement

Research on *Batu Nisan Aceh* has largely concentrated on issues of typology, chronology, distribution, and epigraphy where resulting in the establishment of important classification systems for these funerary monuments (Nadri, 2020; Perret et al. 2004; Yatim, 1988). While these studies provide valuable historical and archaeological foundation, decorative records of the gravestones remain comparatively underexamined. Islamic art motifs presented on *Batu Nisan Aceh* are frequently recorded and classified, yet their symbolic functions, artistic organisation and cultural significance are rarely explored in depth.

This limitation is particularly significant because ornamentation represents one of the most visually prominent features of *Batu Nisan Aceh*. Beyond their decorative appearance, these carvings potentially preserve evidence of religious concepts, artistic conventions, and cultural exchanges that shaped the development of Islamic visual culture in the Malay world. Without a systematic examination of their visual structure and symbolic content, role of ornament as a medium of cultural expression remains insufficiently understood.

The issue is further compounded by deteriorating condition of many surviving gravestones. Continuous exposure to tropical weather, biological growth and environmental erosion has gradually distorted numerous carved details which threatening long term preservation of their visual information. As physical degradation accelerates, opportunities to document and analyse these motifs become increasingly limited.

Therefore, a focused visual investigation is required to identify, categorise and interpret identified Islamic art motifs that preserved on *Batu Nisan Aceh*. Such an approach contributes not only to documentation of endangered cultural heritage but also to a broader understanding of how Islamic artistic traditions were visually articulated and adapted within historical Malay world.

2. Methodology

This study applied qualitative methodology through art historical analysis with visual semiotics analysis (Ismail, 2025). This dual layered approach is utilised to has a comprehensive analysis on Islamic art motif found on *Batu Nisan Aceh*. First, art historical analysis serves as the empirical foundation to document physical attributes, structural layouts and visual languages of the Acehnese gravestone's motifs. Second, visual semiotics provides the theoretical structure to decode identified Islamic art motifs as a structured sign system operating at both denotative and connotative. Denotative level identifies the literal, physical form of the carved motif, while connotative level uncovers the deeper symbolic, theological and metaphysical meanings embedded within those forms.

The research will be focuses on two selected specimens of *Batu Nisan Aceh* belong to historical figure Tunku Sayyid Hussain Al-Aidid (Figure 1) and another unknow deceased (Figure 2). Visual data were obtained through direct observation and photographic documentation. Identified motifs were subsequently catalogued according to their formal characteristics, compositional arrangement and frequency of occurrences.

Figure 1: Batu Nisan Aceh 1 – Tunku Sayyid Hussain Al-Aidid (Source: researcher, 2025)



Figure 2: Batu Nisan Aceh 2. Unknown deceased (source: researcher, 2025)



Art historical approach in this study operates as foundation to utilise a thorough formal and compositional analysis to document physical attributes of the stone reliefs. Through this approach, carvings are evaluated based on their symmetry, scale, line work, and stylistic evolution. This involves mapping the motifs against traditional design layout classifications, specifically distinguishing between *pola bujang* (one single pattern) and *pola pemedang* (frame pattern) to reveal visual system. This physical tracking provides necessary stylistic evidence to connect tombstone back to transregional Islamic art traditions and documented Acehnese typologies.

Accompanying this formal analysis, a visual semiotic framework was applied to decode symbolic dimensions of ornamentation. Drawing upon semiotics theory by Barthes (1977) visual elements are treated as structured sign systems operating at two analytical level. At denotative level, motifs are identified and classified according to their literal visual features. The analysis then proceeds to connotative level where these forms

are interpreted as cultural signs capable of conveying symbolic, religious and philosophical meanings.

Interpretation of connotative meanings is guided by Islamic art theory and Malay art tradition. Islamic art theory provides a framework for understanding ornament as a visual expression of metaphysical concepts such as divine unity, harmony, spiritual order as discussed by Grabar (1992), Sutton (2007) and Burckhardt (2009). Meanwhile Malay art tradition offers insight into processes of artistic refinement, stylisation and localisation which discussed by Ismail (2025, 2023), Yusof et al. (2023), Dasuki et al. (2017), Basaree and Silah (2012), and Rashid (2009).

By interpreting formal observation with semiotic interpretation, this methodology enables researchers to analyse identified Islamic art motifs simultaneously as artistic forms and cultural expressions. This combined approach provides a systematic framework for investigating how visual structures communicate meaning and how broader artistic influences are negotiated within local artistic traditions.

3. Analysis and Discussion

Visual analysis of two selected Batu Nisan Aceh specimens from Masjid Melayu Lebu Aceh site demonstrates that their ornamentation functions within a highly structured, deliberate artistic system rather than functioning as random ornamentation. Three identified motifs were examined in this study which are four petaled flower, blooming flower or bud motif and hexagonal frame. These three identified motifs revealed a clear compositional hierarchy where the design layout is governed by repetition, strict symmetry and calculated framing layouts. These arrangements correspond closely with formal principles documented in foundational studies of *Batu Nisan Aceh* where physical shapes and surface distributions follow consistent structural conventions which may reflect early religious symbolism (Perret et al., 2004; Yatim, 1988). While these earlier studies categorised physical gravestones, specific placement of one single pattern (*pola bujang*) and frame pattern (*pola pemedang*) layouts on the tombstone relief surfaces directly reflects localised ornamental logic outlined by Malay visual grammar discussed by Basaree and Silah (2012). Hence, it demonstrates that the existing Islamic art motifs on Acehnese gravestone reflect an integration between broader Islamic art and Malay art tradition.

To explicitly demonstrate how broader Islamic art and Malay art tradition integrate, comparative terminology in Table 1 offers further insight into transregional artistic origins of these motifs. The blooming flower or bud motif corresponds to broader Islamic motif known as heading motif and for Turco-Persian known as *khatā'ī* and *toranj*. Meanwhile four petaled flower aligns with four petaled almond rosettes in broader Islamic term and *khatā'ī Penc* for Turco-Persian. For the third motif, hexagonal frame relates directly to Islamic geometric framing system historically associated with manuscript *kit'a* borders. At the regional level, these identified motifs are recognised and filtered through local Malay terminology such as *bunga pecah empat*, *bunga kelopak* and *motif geometri*. This layered vocabulary demonstrates an active participation in a universal Islamic visual tradition. However, it simultaneously maintains a distinct regional identity.

Table 1: Comparative Terminology and Contextual References of Identified Motifs

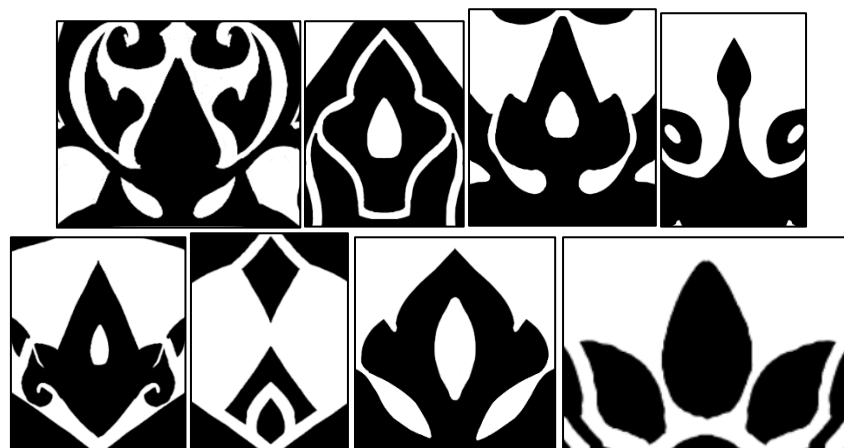
Motif	Broader Islamic Art Term	Turco-Persian Term	Local / Regional Term
Four Petaled Motif	Four petaled almond rosette (Steward, 2020)	Khatā'ī penç (Ismail et al., 2024; Ismail, 2023)	<i>Bunga Ladu Pecah Empat</i> (Bakar et al., 2022) <i>Bunga Pecah Empat</i> (Dasuki et al., 2017)
Blooming flower / Bud Motif	Heading motif (Al-Jazzar et al., 2025)	Khatā'ī / Toranj (Ismail et al., 2024; Ismail, 2023)	<i>Bunga Kelopak Tiga</i> (Rashid, 2009)
Hexagonal Frame	Geometry	Kit'a (Ismail, 2025; Ismail et al., 2024; Ismail, 2023)	Motif Geometry

Source: researcher, 2026.

3.1. Blooming Flower or Bud Motif

Blooming flower or bud motif as shown in Figure 3 is characterised by a broad lower section that gradually narrows toward a pointed apex. This forms vertically oriented composition that draws viewer's attention upward. This motif appears as stylised floral form rather than naturalistic representation. This execution demonstrates tendency of Islamic ornament to abstract nature into structured decorative patterns. Its symmetrical arrangement and controlled curvature further reflect disciplined visual language commonly associated with Islamic vegetal ornament.

Figure 3: Illustration of different stylisation the blooming flower and bud motif. Source: researcher, 2026.



In broader Islamic artistic tradition, similar forms correspond to heading motif (Al-Jazzar et al., 2025) while also parallel to Turco-Persian influence khatā'ī and toranj repertoire (Ismail 2025, 2023). Although originating from botanical inspiration, such motifs were rarely intended to function as direct representations of actual flowers. Instead, they became symbolic ornamental devices through which ideas of growth, regeneration, and spiritual transformation could be visually articulated. This symbolic function corresponds closely with Islamic conceptions of paradise. In this religious framework, gardens and flourishing vegetation are repeatedly employed as metaphors for divine mercy and eternal life (Tabbaa, 2001; Burckhardt, 2009).

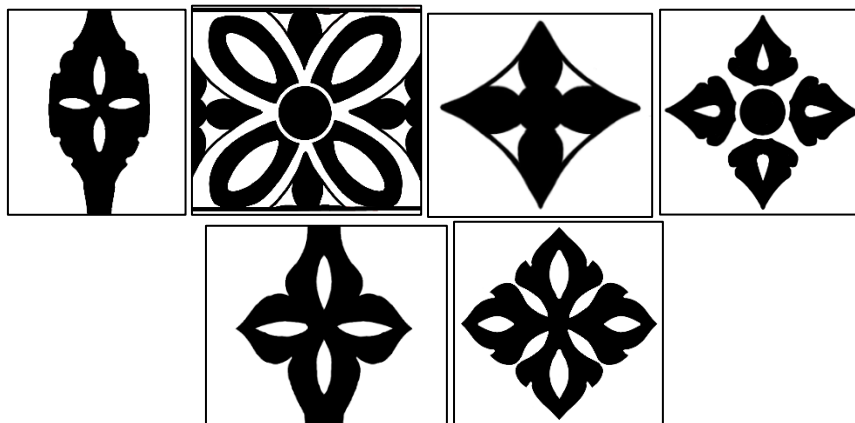
The motif upward-tapering structure carries strong semiotic weight. At the denotative level, the composition records a stylised botanical form directing movement from a wider base towards a concentrated apex. At the connotative level, however, this upward movement creates a visual impression of ascent. Such movement can be interpreted as representing spiritual progression from the earthly realm towards a higher state of existence. Within a funerary context, this symbolic reading becomes especially relevant. The gravestone serves as a permanent monument commemorating the transition from worldly life to the hereafter.

When read through an Islamic lens, inverted teardrop silhouette evokes the protective form of hanging mosque lamps (*qanādīl*), calling to mind metaphors of divine guidance found in the Verse of Light (Surah al-Nur 24:35). The curved contour acts as a protective vessel enclosing the central bud. This inner core symbolises the pure human soul (*fitrah*) responding to divine illumination within the darkness of the grave. The motif also demonstrates a clear process of localisation. In traditional Malay craft vocabulary, this form mirrors elements of *Bunga Langkasuka* or stylised lotus buds (*bunga teratai*). The localisation process relies on the indigenous woodcarving philosophy of *Tumbuh Berpunca*. Through this principle, the outward expansion of the petals remains strictly tied to a central axis. This visual arrangement successfully translates the transregional concept of human dependence on the Creator into a familiar, regional artistic language. Ultimately, this structural treatment turns a cemetery monument into a tactile essay on spiritual ascent.

3.2. The Four-Petaled Flower

The Four-Petaled Flower motif occupies a prominent position within the decorative programme of the selected *Batu Nisan Aceh* specimens. Formally, the motif consists of four evenly distributed petals radiating from a central point, creating a balanced radial composition (Figure 4). The petals are arranged according to strict bilateral and rotational symmetry. This configuration results in a visually stable structure that immediately conveys order and equilibrium. Unlike naturalistic floral representations, the motif exhibits a high degree of stylisation. It reduces botanical forms into a simplified geometric arrangement. Such abstraction reflects a broader tendency within Islamic ornamentation to transform natural elements into idealised decorative structures.

Figure 4: Illustration of different stylisation the four petaled motif. Source: researcher, 2026.



Within the wider Islamic artistic tradition, this motif corresponds to the four-petaled almond rosette and the Turco-Persian *Khatā'ī Penç* tradition documented by Ismail (2025, 2023) and Ismail et al. (2024). The *Khatā'ī* repertoire emerged from synthesis of floral ornament developed across Persian, Central Asian, and Ottoman artistic centres (Ismail 2023). In these works, flowers were progressively stylised into symmetrical decorative units. Rather than functioning as botanical illustrations, these floral compositions became integral components of larger ornamental systems governed by repetition, proportional harmony, and visual balance.

The significance of the motif extends beyond its decorative appearance. In Islamic art, symmetry is frequently employed as a visual expression of harmony and order within creation. The structured organisation of Islamic ornament reflects an underlying metaphysical principle in which multiplicity is unified through a coherent system of relationships (Burckhardt, 2009). The four-petaled arrangement embodies this principle through its equal distribution around a central axis. This distribution produces a composition in which no individual element dominates the others. The motif therefore communicates stability and unity through visual means rather than textual representation.

From a semiotic perspective, this motif operates simultaneously at denotative and connotative levels. Denotatively, it appears as a stylised flower composed of four petals organised around a central core. Connotatively, however, the motif represents balance, harmony, and connection. The central nucleus acts as an organising point from which the petals emerge. This creates a visual relationship between unity and multiplicity that remains characteristic of Islamic ornamental systems. Through this arrangement, the motif transforms a simple floral form into a structured visual statement concerning order and cohesion.

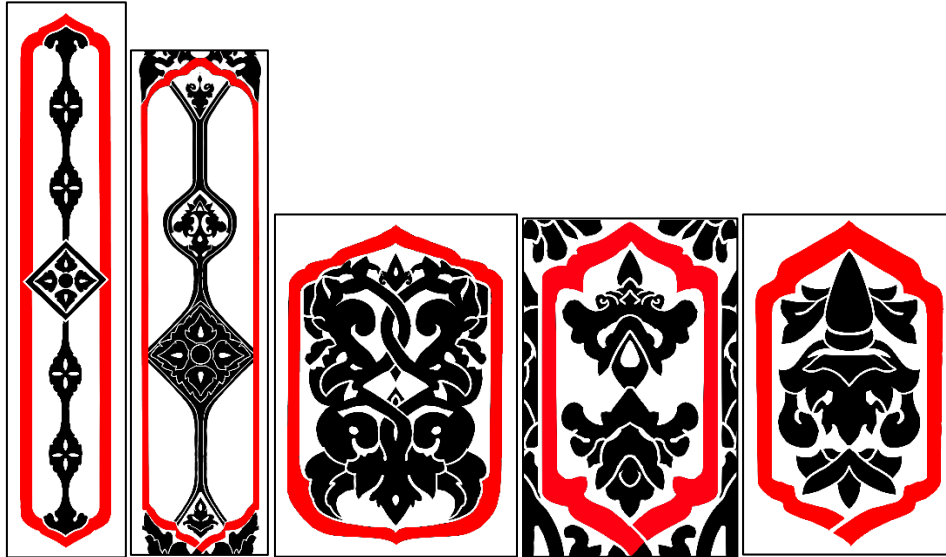
This motif also demonstrates a clear process of localisation within the Malay artistic environment. Comparable forms are recognised locally as *bunga pecah empat* and *bunga ladu pecah empat* (Bakar et al., 2022; Dasuki et al., 2017). While the underlying radial symmetry remains consistent with broader Islamic decorative traditions, the motif became integrated into regional decorative vocabulary and artistic practice. This adaptation illustrates how imported visual forms were not merely replicated but reinterpreted according to local aesthetic preferences and cultural contexts. The continued preservation of its symmetrical structure alongside local terminology suggests that Malay artisans recognised the motif's compositional value while incorporating it into an existing system of visual expression. Consequently, the motif serves as evidence of artistic continuity between transregional Islamic ornamentation and regional Malay decorative traditions.

3.3. Hexagonal Frame

Unlike the fluid floral motifs, hexagonal frame makes a structural role within the overall composition. Constructed from six interconnected sides, this regular geometric enclosure establishes boundaries, defines compositional zones, and regulates spatial distribution (Figure 5). Its repeated appearance demonstrates a deliberate concern for organisation, using mathematical precision to govern the relationships between motifs. Within Islamic artistic traditions, geometric forms generate complex visual networks through repetition and proportional relationships. Sutton (2007) notes that hexagonal structures serve as highly efficient modular units in Islamic geometric design. The strict

discipline underlying these forms reflects a broader cultural commitment to cosmic order, harmony, and structural coherence, transforming raw visual space into an organized system.

Figure 5: Illustration of different stylisation the hexagonal frame motif. Source: researcher, 2026.



Comparatively, the hexagonal frame corresponds to *Kit'a*, a decorative framing device widely used in manuscript illumination, architecture, and calligraphy to isolate and elevate visual content (Ismail, 2025, 2023; Ismail et al., 2024). Beyond simple enclosure, the *Kit'a* border establishes a visual hierarchy that directs attention toward the elements contained within it. On these *Batu Nisan Aceh* specimens, the hexagonal structure similarly separates ornamental zones to secure the cohesion of decorative arrangements.

At denotative level, this motif functions strictly as a linear geometric border. At connotative level, however, it communicates ideas of permanent order, cosmic stability, and divine containment. This mathematical integration of multiple sides into a single coherent structure embodies the core Islamic principle of unity within diversity (Sutton, 2007; Burckhardt, 2009), securing more flowing character of the surrounding floral designs.

The relationship between this geometric frame and organic floral elements creates an intentional intellectual interplay. While the blooming flower or bud motif and four-petaled flower introduce movement, frame carry out containment. This interaction reflects a recurring law of Islamic ornament where vegetal and geometric elements control one another, ensuring that natural complexity remains regulated through proportion.

Within the Malay tradition, this motif corresponds directly to *pola pemicang*, a border arrangement traditionally used in woodcarving to define layout boundaries. The adoption of this transregional geometric framework indicates a clear process of localization. Instead of operating as an imported shape detached from local craft practice, the hexagonal frame was integrated into an existing regional approach to design organization. Consequently, the motif simultaneously reflects participation in a universal Islamic visual tradition and adaptation to local Malay aesthetic conventions.

4. Conclusion

The systematic visual analysis of selected *Batu Nisan Aceh* specimens reveals a highly disciplined visual language wherein formal composition, and semiotic layers operate to secure seamless integration of universal Islamic theology with local Malay artistic conventions. At denotative level, blooming flower or bud motif, four petaled flower, and hexagonal frame present themselves as stylised botanical and linear geometric forms. Connotatively, they go beyond random ornamentation to integrate core components of the Islamic and Malay-Muslim worldview into physical stone. The blooming bud, evoking protective form of hanging mosque lamps (*qanādil*), charts the soul's spiritual ascent, while radial symmetry of the four-petaled flower expresses cosmic harmony and hexagonal frame imposes structural containment, mirroring human agency operating within divine law. Rather than replicating transregional templates verbatim, the execution of these motifs demonstrates a sophisticated process of localisation.

Ethics Approval and Consent to Participate

Not applicable. This study did not involve human participants, animal subjects or sensitive personal data. The research protocol and research design were evaluated and approved at the faculty level by the school assessment committee (PTJ), Universiti Sains Malaysia.

Funding

This work was funded by Universiti Sains Malaysia Short-Term Grant with project number R501-LR-RND002-0000001173-0000.

Acknowledgement

Part of this article was extracted from an ongoing Master's thesis at Universiti Sains Malaysia. The author would like to express sincere appreciation to my supervisor for his guidance and support throughout this research.

Conflict of Interest

The authors declare that there is no potential conflict of interest with respect to the research, authorship, or publication of this article.

Artificial Intelligence (AI) Declaration

The author used Gemini AI strictly to improve the clarity of this manuscript.

References

- Al-Jazzar, F. H., Hijazi, H. M., & Jahameh, S. S. (2025). Classification of biomorphic motif designs: a case study on the exterior façades of the Dome of the Rock. *Cogent Arts & Humanities*, 12(1), 2583329. <https://doi.org/10.1080/23311983.2025.2583329>

- Azra, A. (2004). *The origins of Islamic reformism in Southeast Asia: Networks of Malay-Indonesian and Middle Eastern 'Ulama' in the seventeenth and eighteenth centuries*. University of Hawaii Press.
- Bakar, A. A., Kosman, K. A., & Harun, N. Z. (2022). Pemilihan jenis-jenis motif ukiran pada rumah warisan selepas kedatangan Islam ke Tanah Melayu. *Jurnal Kejuruteraan SI*, 1(5), 135–141. [https://doi.org/10.17576/jkukm-2022-si5\(1\)-14](https://doi.org/10.17576/jkukm-2022-si5(1)-14)
- Barthes, R. (1977). *Image-music-text*. Fortana Press.
- Basaree, R. O., & Silah, S. (2012). Aesthetics and geometrical principles of Malay Woodcarving. *International Journal of Arts, Culture & Heritage (Ijach)*, 1, 77-100.
- Burckhardt, T. (2009). *Art of Islam: Language and meaning*. World of Islam Festival Publishing Company.
- Dasuki, S., Abdullah, N. H., Idris, N., Mohd Radzi, F. and Ali, S. (2017). Keindahan konsep tauhid dalam rekabentuk motif-motif seni tradisi Melayu. In *Proceeding of the 2nd international Islamic heritage conference (ISHEC 2017)* (pp. 239 – 253). Academy of Contemporary Islamic Studies, University Teknologi MARA
- Grabar, O. (1992). *The mediation of ornament*. Princeton University Press.
- Ismail, M. U. (2023). Unsur seni Islam Turko-Parsi dalam seni ragam hias ukiran kayu di Alam Melayu. [Doctoral dissertation, Universiti Kebangsaan Malaysia].
- Ismail, M. U., Ahmad Zakaria R. M. and Ramli, Z. (2024). Traces of Turco-Persian influences in Malay Woodcarving motifs on vernacular buildings in Terengganu. *Humanities and Social Science* 11(1), 1–13. <https://doi.org/10.1057/s41599-024-04173-0>
- Ismail, M. U. (2025). Revitalising traditional Malay cultural identity based on early Muslim gravestones in Penang Island. *Journal of Art Discourse*, 24, 110–132. <https://doi.org/10.21315/ws2025.24.8>
- Musa, M. (2012). Early history: Penang before 1786. In M. H. Salleh (Ed.) *Early Penang history* (pp. 17–31). Penerbit University Sains Malaysia.
- Nadri, M. N. A. (2020). *An annotation on Batu Aceh Islamic gravestones in Pulau Pinang, Malaysia* [Unpublished master's thesis] International Islamic University Malaysia.
- Perret, D., Razak, Ab. K and Kalus. L. (2004). *Batu Aceh Johor dalam perbandingan*. Johor Baru: École française d'Extrême-Orient and Yayasan Warisan Johor.
- Qureshi, A. K. (2025). Islamic motifs and sacred geometry: Symbolism and interior design in the Wazir khan Mosque, Lahore (1634–1641 CE). *International Research Journal of Arts, Humanities and Social Sciences*, 2(3), 311-344. <https://irjahss.com/index.php/ir/article/view/151>
- Rashid, M. S. A. (2009). Cadangan kaedah kod 'S' bagi penamaan dan penentuan motif bunga ukiran Melayu dalam proses inventori. https://www.academia.edu/8681436/CADANGAN_KAEDAH_KOD_S_BAGI_PENAMAAN_DAN_PENENTUAN_MOTIF_BUNGA_UKIRAN_MELAYU_DALAM_PROSES_INVENTORI
- Stewart, C. A. (2020). The four-petal almond rosette in Central Asia. *Bulletin of IICAS*, 30, 69-85. <https://doi.org/10.34920/1694-5794-2020-36>
- Sutton, D. (2007). *Islamic art and cosmology*. Islamic Arts Museum Malaysia.
- Tabbaa, Y. (2001). *The transformation of Islamic art during the Sunni revival*. University of Washington Press.
- Wong, L. and Lee, K. (2014). Aceh-Penang maritime trade and Chinese mercantile networks in the nineteenth century. *Archipel* 87, 173–202. <https://doi.org/10.3406/arch.2014.4461>
- Yatim, M. O. (1988). *Batu Aceh: Early Islamic gravestones in Peninsular Malaysia*. Museum Association of Malaysia.

- Yusof, H., Ramli, Z., Ismail, M. U. & Samsudin, M. (2023). The meaning of the flora and fauna motifs on Malay traditional cannons. *Journal Archaeology Malaysia* 36(2), 23–39. ISSN 0128-0732 e-ISSN 2590-4302. <https://arkeologimalaysia.org.my/jurnalarkeologi/index.php/jurnalarkeologi/issue/view/45>
- Zuhdi, S., Sadi, H. and Pradjoko, D. (2023). The Kingdom of Banggai and the reorganization of administrative regions: A persprctive in maritime history. *Jebat: Malaysian Journal of History, Politics & Strategic Studies*, 50(3), 18–29. <http://doi.org/10.17576/jebat.2023.5001.02>