

Address: Jl. Nangka No. 58 C (TB. Simatupang), Kel. Tanjung Barat, Kec. Jagakarsa, Jakarta Selatan 12530, Indonesia. +62 (021) 7818718 – 78835283; url: www.unindra.ac.id; cultural.syndrome@unindra.ac.id

The Balustrade and the 'kekisi': A strategy in infusing Malay identity through filters and railings in South East Asian urbanism and architecture: case studies in Melaka and Kedah, Malaysia

Norzalifa Zainal Abidin Puteri Shireen Jahn Kassim Zumahiran Kamaruddin

Department of Applied Arts and Design, Kulliyyah of Architecture and Environmental Design, International Islamic University Malaysia

Correspondence regarding this article should be addressed to: **Norzalifa Zainal Abidin**, norzalifa@iium.edu.my

Article History

Submitted: 06-02-2020 Revised: 10-02-2020 Accepted: 13-02-2020



Cultural Syndrome

a peer review, internasional open access journal e-ISSN: 2685-3825 Editor: Nurulfatmi Amzy

Publication details, including author guidlines https://journal.unindra.ac.id/index.php/cusy/ about/submissions#authorGuidelines

How to cite this article (MLA 8th)

Abidin, Norzalifa Zainal et al. "The Balustrade and the 'Kekisi': A Strategy in Infusing Malay Identity through Filters and Railings in South East Asian Urbanism and Architecture." *Cultural Syndrome*, vol. 1, no. 2, 2019, pp. 117-132, doi:https://doi.org/10.30998/cs.v1i2.234.

The readers can link to article via https://doi.org/10.30998/cs.v1i2.234

SCROLL DOWN TO READ THIS ARTICLE



Universitas Indraprasta PGRI (as Publisher) makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications. However, we make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Universitas Indraprasta PGRI. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information.



This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.

Copyright by Norzalifa Zainal Abidin, Puteri Shireen Jahn Kassim, Zumahiran Kamaruddin (2019)

The authors whose names are listed in this manuscript declared that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript. This statement is signed by all the authors to indicate agreement that the all information in this article is true and correct



Norzalifa Zainal Abidin, Puteri Shireen Jahn Kassim, Zumahiran Kamaruddin

Department of Applied Arts and Design, Kulliyyah of Architecture and Environmental Design, International Islamic University Malaysia

Abstract. Fundamentally, the element of the Malay decorative kekisi is either as a perforation between inside and outside or separation between two functional spaces are endemic in the traditional world. The same functions can be re-engaged in the modern world, to encourage good airflow and natural ventilation, rather than fully dependent on air conditioning. The paper discusses how the element itself reflects a fusion and unity of both form and function. It has sustainable and climatic functions and also has versatile elements which can be inserted to infuse identity consciousness and expressions in a range of scale of spaces, construction elements and forms. In this paper, the generic elements and their cultural variations are highlighted in the traditional building of Melaka and Kedah in Malaysia.

Keywords: kekisi, balustrade, filtration, ornamentation, Malay identity expression, functional

Correspondence author: Norzalifa Zainal Abidin, norzalifa@iium.edu.my, Kuala Lumpur, Malaysia



This work is licensed under a CC-BY-NC

Introduction

Modern architecture has lost its detailed expressive characters, and many of the public buildings of tropical Asia has suffered due to the modularity of modern construction methods has highlighted how the present emergence of modern typologies

in the modern cities such as airports, hospitals, highrises and universities has made the search for strategies to imbue identity even more critical and urgent. Construction techniques such as cast-in-situ methods and industrial building systems has made the infusion of cultural identity in modern buildings more challenging. Drastic changes to industrialisation and building elements such as windows and doors need to be achieved, in order to infuse these mass manufactured elements with elements of the local identity. Without this approach, there will be a continued trend of Modernist simplification and bland designs, homogenous results, creating alienation without the cultural immersions in the local environments. Figure 1 and 2 showed a recent construction in the state of Kelantan, which is known for its intricate design and cultural identity. The present trend is due to the lack of awareness of simple and direct systems that can be specified with patterns of identity.

Ornamentation in heritage architecture are typically featured in the elevational elements such as walls, windows, panels and doors. However, without involving these major elements, other elements i.e. – the balustrade or 'railing' can be used as an identity strategy. Typically made from steel or 'softer' metal, these railings typically adorn windows and pathways; hence can be seen as a way to imbue identity into large scale concrete constructions

The essence and background of the Malay ornamental elements

The late anthropologist Alfred Gell once argued that the curved patterns' characteristics of the decorative Malay motifs and carvings were the means by which 'the viewer becomes enchanted by its complex or convoluted forms'. The movements, curves and tessellation were part of the Malay identity of balustrades which essentially were wooden carvings. They are fused into spaces and they become a three-dimensional equivalent of two-dimensional art and inventiveness. Rosnawati Othman (2005) has stated that there are three main traditional ornamental shapes which featured in Malay architectural woodcarving: (a). Panels, referring to ornaments captured in rectilinear forms; (b). Arca, referring to ornaments captured within arch-like forms; (c). Larik, referring to ornaments captured with row-like or linear-like forms (Rosnawati). These carved patterns are inherently organic, seemingly freezing or capturing animate forces in nature. They recall natural forms not unlike seeds which are known to sprout life in all flora and whose life-force can be sensed by all. Yet, in the Malay architecture, such dynamism is controlled within geometric boundaries, which give a sense of decorum innate to the Malay worldview. Leaf stems, leaves, flowers and branches seem to emerge from a source and fully or partially fill a wall or component of the interior, exuding a kind of freshness and exoticism. Later patterns of cultures such as Chinese and a more syncretic style of ornamentation. What is common is there these curving patterns seem to emanate from five main 'subtle' sources: They are: (a). A visible seed or source; (b). Seeds hidden behind flowers; (c). Sources behind pots; (d). Source below the earth; (e). Sources from or below the water.

The Islamic contextualization

Though having allusions to the mythical symbolism of Hindu-Buddhist origin in selected regions, these were subtly reduced as these patterns were evolved into more Islamic based patterns and natural references and abstract references to the One Creator. As the Malay world gradually embraced Islam, Malay ornaments and their meanings underwent certain ontological and conceptual changes and were restructured towards the Islamic worldview. <u>Durrans</u> has observed:

In older Malay traditions, the word semangat translates into a state of mind, the vital essence of man, plants and animal, courage and enthusiasm. Hence, when Islam came, it forbade the direct representation of life-like animal and human forms, due to its use as object of worship in past societies. Leaves, tendrils, geometry and Kufic calligraphy then replaced the aesthetic elements and strategies incorporated in Malay artefacts and architectural elements.

The cultural worldview of pre-Islamic Malays, were aware of the active forces to certain elements of nature, and these changed with the onset of Islam. Artistic works started to be inspired by the intention to engage the viewer with a central source; brought about by deep-seated beliefs in the heart of the Malay world. Although modernity has led to changes in lifestyles and technology, a certain faithfulness in the reproduction of nature in decorative motifs was always maintained. Stylistic trends throughout the ages recall how architecture has used natural forms as an embellishment to induce particular emotions in human beings.

The Assimilation of Islamic Arts with the Malay decoration

This assimilation is seen in the decorative balustrade and kekisi in the traditional Malay Masjid (mosque), whereby the decorative elements are also functional, to allow good ventilation and penetration of good daylighting for the prayer hall area. In masjid, the infusion and assimilation of Islamic Arts and Malay motifs are applied successfully. The function of decoration as an aesthetic expression is to remind us of the Muslim faith and belief. The idea of decoration is to reflect on the inner and outer beauty and relating it to Allah Attributes of Beauty, Unity and Transcendences. This is reflected in the decoration which are applied in any the Islamic buildings particularly in masjid.

The link between the theory of Islamic art and the practical usage of decoration is established in order to achieve the main goal and function of decoration in the Islamic Arts and architecture. This includes how the interior lighting in a Masjid could also affect the way people perceive Islamic art and Malay decoration. The impact of lighting on decoration can also affect the users` awareness of the decoration. The balustrade and keksi are mostly designed to allow good lighting for the inner prayer hall. The awareness should be in a positive manner so as to accentuate the Feeling of Taqwa and remembrance of Allah. On the other hand, decoration is not only to express the physical aesthetic appearance – outer beauty (which was commonly assumed by non-Muslims), but also to express the inner beauty, as explained by al Ghazzali, whereby, whenever

anybody sees the decoration, it helped remind him/her of Allah and obtain the Feeling of 'Taqwa' and Serenity.

The beautification, the main use of decoration is to beautify and embellish. The patterns created are pleasing to the eye, has symmetry uses pleasing colour composition, is graceful and has varied shapes. The expression of 'Tawhid', Truth and Goodness is evident in the works. All of these constitute its unity. They can be found in any medium, technique, in every region of the Muslim world, in every century of Islamic period. The possible elements or factors, which provide the regional specificity, are the techniques, materials and motifs. These can be clearly seen in the examples of decoration which are used in the case study of the traditional mosques in Melaka.

'Balustrade', refers to the ornamental railings found in Balconies and Staircases. In the Malay world, these are part and parcel of the aesthetic grammar and heighten the intricate and decorative quality of a traditional interior and partial exterior. These elements can range to simple, undecorated forms, to geometric compositions and become more complex, as to depict intricate patterns. Some of these have undergone Colonial influences. Some of the 'Malay'-Classical forms can be taken such as the Pagar Musang forms of Kelantan and the geometric forms of Perak as seen in Baitul Rahmah, Kuala Kangsar. In Kelantan, the' pagar musang' forms are particularly intricate and represent a certain ratio and proportion of solid to void. Their name is such to reflect the original functions of these elements which was intended to be perforated, yet whose perforations are small enough as to obstruct the 'head' of a fox but large enough to maximise cross ventilation. Hence the term 'pagar musang' literally means the 'fox fence'. Some of these grammar and ornament undergo modernisation and transmutation while still retaining the Malay identity such as the spiral staircase of Istana Jahar Kota Bahru.

Kekisi

"Kekisi" which refers to the Lattice means filtered elements which are essentially perforated panels. These originated from panels and stems of wood, which then evolved into metal (iron and others) mounted on the windows and others, or bars. It is a specific character of tropical architecture of the region as it allows the windows to be fully secure yet open to natural ventilation. At times, the kekisi refers to 'a lattice, framework of crossed strips'. Basically, the kekisi is a form of railing or support which defines and is integrated with long windows in order to maximise ventilation under a tropical humid climate. The forms of the Malay 'kekisi' are particularly slender and at times, reflect the balustrade forms of the staircases. Shuaib and Enoch includes, also the definition of 'kekisi' as windows with decorative bars. He calls this carved perforated panels as 'wind kekisi'. Typically, these panels separate two spaces of different functions. They also sometimes are located as 'punched' openings with decorative carvings for airflow and daylight admissions. Typically, the carved motifs are geometric or at times, derived from vegetal forms arranged in the 'awan larat' formation. Interestingly, there are panels which reflect the law of the 'golden section'.

Fundamentally, the element of the Malay decorative kekisi as either a perforation between inside and outside or separate two functional spaces are endemic in the traditional world and the same functions can be re-engaged in the modern world, to encourage airflow and natural ventilation, rather than fully dependent on-air conditioning. The element itself reflect a fusion and unity of both 'form and function', in which an element of aesthetic grammar also performs a sustainable and climatic function.

Result and Discussion

Case study- the case of Melaka masjid

Melaka is situated at the south west of Peninsular Malaysia. It becomes one of the famous historical cities in Malaysia. It is divided into three regions, which are Alor Gajah, Jasin and Central Melaka. Most of the traditional mosques in Malacca are situated in the central region of Melaka. Masjid Kampung Hulu is one of the famous community mosques, which as earlier stated, is located in the middle of the old town of Melaka. Also, it is the first mosque which was constructed during the Dutch colonization in 1728 M (1141 Hijrah).

The State Mosque of Melaka which is Masjid Al-Azim was constructed in 1990 (1410 Hijrah). This mosque was designed in reference to the other older traditional mosque form, which was earlier mentioned. Even some of the decoration motifs are designed to follow the motifs which are applied in the older traditional mosque. However, this mosque complex has other blocks of buildings which serve and accommodate other facilities such as administration, lecture and conference halls and also educational center for all the religious talks and activities. It was designed in larger scale as to suit with the current requirement for a state mosque.

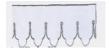
Most of the people who live and go to these mosques are families who are originated from mixed marriages of the earlier foreign traders who came from China, Pakistan, Gujerat and India with the local Malay people. Therefore, the socio cultural of these Malacca people are considered very unique and rich. Nowadays, the Malays in Malacca mostly live at the outskirts at the city center and the old town area. The Chinese and other races do live in the city center area. There are less houses and living quarters in the city center as compared to the outskirts of the Melaka City.

The obvious link between the Malay and the Islamic artworks is the usage of the natural and organic motifs. The usage of repetitive features or motifs are used to create the patterns or Corak by using the local motif of the flora and fauna. The abstract form of the organic nature is also similar with the type of motifs used in the Islamic artworks for the Arabesque patterns. Being significant, strategic location and amongst the early and famous Islamic kingdoms in South East Asia, Melaka provided a good basis to capture the rich variety of culture and social structure of the study population. Even the local such as the Malay, Chinese and Hindu arts are reflected in some of the decoration motifs and typologies which are commonly found in buildings especially in Melaka. These traditional mosques in Melaka are mostly still in use and being well maintained or preserved by the State Government of Melaka.

Balustrade and Kekisi designs in Masjid Kampung Hulu, Melaka

The different typologies of decoration are applied in this mosque. Most of the decoration were in Arabesque (floral and fauna) patterns. The Arabesque patterns were mostly found within the main prayer hall and entrances. These patterns were mostly applied onto the ceramic tiles and woodcarving panels. The other patterns were less in quantum but were commonly seen outside the hall. In any traditional Melaka mosques, the common usage of Arabesque (flora and fauna) motif was obviously applied on woodcarving works such as at the window, column and above the door frames. The usage of Arabesque motifs was of the abstract forms of the local floral and fauna plants which can be found within the surrounding in Malaysia. The usage of the woodcarving artworks was to express the beauty of nature. In the Malay arts expression, this was expressed with great patience and hard work. The natural surrounding becomes the inspirations for the local arts craftsmen. This philosophy and approach of arts become the continued source for the Malay artists.

There are three basic type of motifs which are been used for the woodcarving works. They are: (a) the normal motifs; (b) the recessed and punched through motifs and; (c) the punched through carved motifs (see Figure 1). The most difficult and intricate patterns are the punched through carved motifs. It requires a more intricate and hard work approach and has high quality of carved work. The artist will need to spend more time and patience to produce this high quality of intricateness. The design formation for any Arabesque patterns in the Malay artworks especially their wood carving patterns are mostly derived on 2 (two) main formations: a) circles and b) curves. The analyzed sketches which are shown later were based on these 2 basic formations. This mosque has unique designs of Arabesque patterns which were applied onto the wood carved panels and metal work. For the metal work, these patterns were seen at the balustrades and railings along the parameter corridors of the main prayer hall (see Figure 2). The motifs were referred to the local flora and fauna forms and applied as part of the decoration motifs in this mosque. The same formations were similarly applied onto the other parts of surfaces within the mosque interiors.







(a) Pola Biasa

(b)Pola Tebuk

(c) Pola Tebuk and Berukir

Fig. 1 The different types of Arabesque motifs which are applied in the traditional buildings in Malaysia

(Source: Hanafi)



Fig. 2 The Arabesque motifs at the balustrades and railing outside the main prayer hall of Masjid Kampung Hulu. The material is of metal work

Source: Norzalifa Zainal Abidin, 2017

The balustrade is located along the main corridor and verandah of this mosque. It is designed using the metalwork formation, and painted with silver and gold colours. The gold colours were painted on the main flowers of the floral composition (see Figure 3).



Fig. 3 The detail motif formation. The formations of the motifs are based on 5 circular rings of the foliages. The motif is found applied in Masjid Kampung Hulu. Source: Author

These motifs were basically formed with repetition of circles and curves lines. These lines were formed as the guideline formation before the motifs were developed. These could be seen in the following figure, Figure 7 the basic compositions were of two parts: the central part as shown in Detail X (see Figure 6) was derived from a circle. Then the curve lines were formed linking from the center to the right and left side of the whole composition. For Detail y, the circles were arranged in the center and at the 4 corners then the curves were formed in the series of ellipses, forming the flower and foliage patterns.

Showing the design formations for the balustrade design in Masjid Kampung Hulu



Fig. 4 The whole composition of the balustrades Source: Norzalifa Zainal Abidin 2017

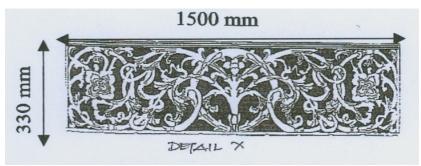


Fig. 5 The central floral composition of the whole panel Source: Norzalifa Zainal Abdin 2017

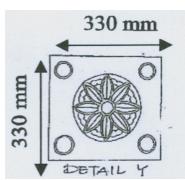


Fig. 6 The side panel of the floral composition Source: Norzalifa zainal Abidin ,2017

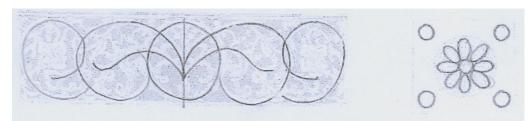


Fig. 7 The design formation of the floral composition Source: Norzalifa Zainal Abidin, 2017

The actual dimensions of the whole motif composition are shown above. Detail X is considered very large composition since it was applied as a whole composition panel

of balustrade. The detail Y is considered as small motif compared to the overall composition. However, the treatment of colour in this composition has tied these compositions as one panel, with silver paint and yellow flower to represent the golden flower. The next Arabesque motif was found at the window panels. These were carved on wood surfaces. The following photos were showing the said Arabesque pattern which were applied in this mosque. All of which are unique in nature (see Figure 8 and 9).

The woodcarving works of Arabesque patterns incorporated as the decoration motifs in this mosque Masjid Kampung Hulu



Fig. 8 The top panel motif design with the arch base formation Source: Norzalifa Zainal Abidin 2017



Fig. 9 The window panel design with woodcarving works Source: Norzalifa Zainal Abidin 2017

The design composition was quite complex and unique. This was shown in the following diagram, Figure 10. The analysis of the design formation is shown in Figure 11. There were two circles at the top and bottom center of the motifs. From the center, the curves were spread to the right and left sides of the motifs. The curves branched out to form leaves for the whole compositions. From this simplistic form, more curves were formed as branches of leaves with added flowers.

Archetypal design formation within the whole composition



Fig. 10 The arch floral motif on the top panel window frame Source: Norzalifa Zainal Abidin, 2017

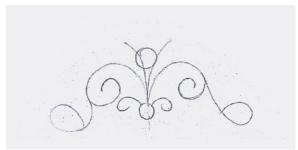


Fig. 11 The detail design formation analysis of the arch floral motif Source: Norzalifa zainal Abidin 2017

This panel is considered of medium size panel as highlighted in detail in the sizes section. The panel is designed for allowing good ventilation above the doorway. The other Arabesque motif was seen on the window panel at the main prayer hall (see Figure 6.9, as shown below). The window panel was carved with intricate local Malay art motifs the center piece was with 4 corner flowery motifs with a smaller rectangular piece. The bigger background pice was of geometrical pattern. The design formations were shown as below: in Figure 12 and 13.



Fig. 11 The window panel at the main prayer hall. The Arabesque motifs were applied on wood panel

Source: Norzalifa Zainal Abidin 2017

The window panel was formed with three main frames

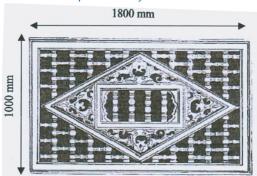


Fig. 12 Frame 1 The big rectangular piece Source: Norzalifa Zainal Abidin 2017

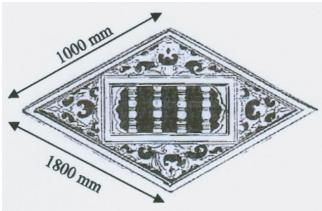


Fig. 13 Frame 2 The center diagonal rectangular piece Source: Norzalifa Zainal Abidin 2017

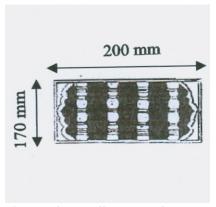


Fig. 14 The small rectangular piece Source: Norzalifa Zainal Abidin 2017

The diagonal rectangular frame

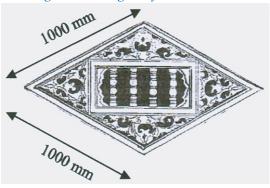


Fig. 15 The central diagonal wood carved window panel Source: Norzalifa Zainal Abidin 2017

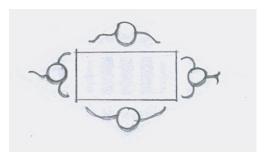


Fig. 16 The design formation of the floral motif for the central window panel Source: Norzalifa Zainal Abidin 2017

As shown in Figure 16, the main Arabesque pieces were of the 4 corners which were derived from 4 same circles. From the circles, the curve lines were projected out to 3 branches. There were of symmetrical composition. This motif was called the Bunga Pudin Emas. Figure 17 is showing the simple formation of the center small frame.

The central small rectangular frame

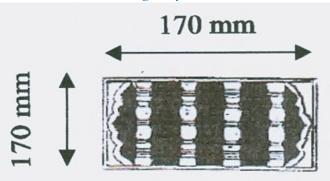


Fig. 17 The central small rectangular piece of the wood carved opening the window panel Source: Norzalifa Zainal Abidin 2017

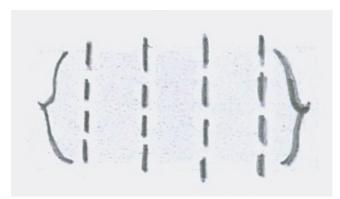


Fig. 18 The simple design formation of the window panel Source: Norzalifa Zainal Abidin 2017

The corners of the frame were formed from curved lines. The vertical lines were repeated in 4 lines to allow gaps for ventilation purpose. This motif was called the Bunga Larik. These Arabesque patterns which were mostly applied on the wood paneling. The other types were applied on the metal work. However, the names of these motifs were based on the local wood carved motifs. The next arabesque patterns were of the motifs which were applied onto the ceramic tiles. These tiles were most applied onto the walls and steps near the main prayer hall. Some were applied at the ablution area. The first ceramic motif was as shown below, Figure 19, This motif is hand painted with colourful composition and was composed using the design formation as below.

Showing the Arabesque motif applied in repetition and formed the floor and wall patterns

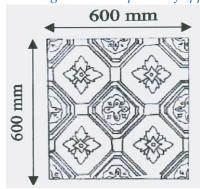
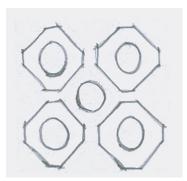


Fig. 19 The 4 components of the floral motif applied onto the floor surfaces Source: Norzalifa Zainal Abidin 2017



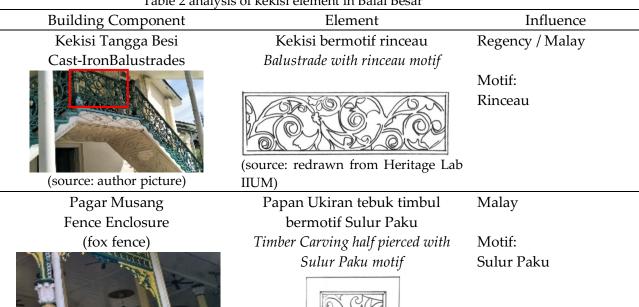
(source: author picture)

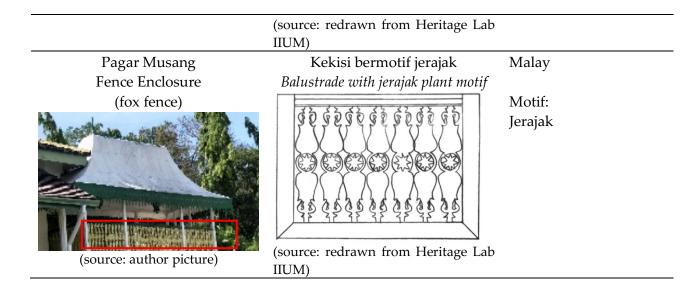
Fig. 20 The design formation of the 4 components of the floral motif Source: Norzalifa Zainal Abidin 2017

2. The case of Alor Setar's Balai Besar, a Royal Palace Hall, Kedah

Kedah is another case study which represent an amalgamation of cultures, yet within the dominant Malay style. Due to its location, it has diffused and absorbed influences across the Thai border and later the Penang border, which was under colonial administration. In the following table, the visual expression of the kekisi refers to the fusion between Malay, Siamese and to some extent, colonial influences. The Balai Besar is a Malay palace which have been influenced by Colonial stylization but which retained many elements of Malay identity. Amongst them which fused the form with a measure of identity of Malayness which are the kekisi elements.

Table 2 analysis of kekisi element in Balai Besar





Based on the table above it can be seen that the kekisi element in these elements also would have a local floral motif. The use of local floral is a proof that Malay influence is still strong on every elements of the building. The kekisi in Malay Architecture has spatial functions which can be summarized as: (a). To delineate Focal and central point – Main Hall (Balairong Seri); (b). To express and decorate the Frontage open double volume resembling a large-scale veranda; (c). To create Flexible spaces on the ground floor, with open halls; To create physical boundary/fence; (d). To create spatial zones with Minimal partitions/physical boundary; (e). To Separate entrance male and female; (f). To create pathways and walkways.

Conclusion

The examples of the application of the kekisi represent how past architecture of the region had utilized the expressive and identifiable impact of these filtration or lacelike elements. The grammar of Malay architecture includes the physical formation of Balustrade and Kekisi designs and these has been continuously applied in Malay architecture, even as the built forms absorbed external influences across time. This paper, with focus in applications in Masjid Kampung Hulu, in Melaka and Kedah palaces demonstrate how balustrades play essential roles in instilling the identity and local expressions with good assimilation of the Malay motifs with the modern materials and conventional wood materials. Both, the outer beauty and inner beauty with the aesthetical approach are enhanced to assimilate the influence of the Islamic arts whereby it is important for the application in the traditional masjid in Melaka. The functional role of the Balustrade and Kekisi are discussed and considered with the aesthetic designs showing the high richness of the Malay Arts and culture. In the Malay world, these decoration elements are showing the aesthetic and architectural grammar which heighten the intricate and decorative quality of its spatial experience. These decorations can range from simple, undecorated forms, to geometric compositions and become more

complex, yet represent the refined nature of the Malay artisanal traditions as these depict intricate patterns. Its potential seems untapped by our current development and built forms in order to infuse the urban space and built expression with a strong sense of regional identity in Asia.

Acknowledgements

Thanks to the Ministry of Higher Education (MOHE) for the research grant "Trans-Disciplinary Research Grant Scheme" (TRGS16-03-001-00001) for the funding to this research.

References

- Durrans, B. "Malay Design: Towards an Anthropological Perspective." *Seminar on Spirit and Form in Malay Design*, Department of Museums and Antiquities, 2005.
- Gell, Alfred. Art and Agency: An Anthropological Theory. Clarendon Press, 1998.
- Hanafi, Zulkifli. *Pola-Pola Hiasan Di Dalam Bangunan Tradisional Melayu*. Dewan Bahasa dan Pustaka, 2000.
- Jahn Kassim, S et al. *The Resilience of Tradition, Malay Allusions in Contemporary Architecture.* edited by Khoo Salma Nasution and Manasi Dhanorkar, Areca Publishers, 2017.
- Rosnawati, O. "Seni Ukir Melayu: Asal Usul Dan Perubahan Rupa Dan Jiwa (Malay Art of Woodcarving: Derivation and Transformation of Form and Content)." 2005.
- Shuaib, Ab Aziz and Olalere Folasayo Enoch. "Integrating the Malay Traditional Design Elements into Contemporary Design: An Approach Towards Sustainable Innovation." *Procedia-Social and Behavioral Sciences*, vol. 129, 2014, pp. 59-67, doi: https://doi.org/10.1016/j.sbspro.2014.03.648.