

# The Architectural Influences on Alor Setar Historical Buildings in Kedah, Malaysia

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The area of north-western part of Peninsular Malaysia has had many conflicts through the past centuries, specifically Alor Setar the state capital of Kedah, Malaysia. which affected the identity of the Malaysian Royal town classical form of architecture by the colonial influences, by analyzing the form of the layout and the frontal facade for Istana Pelamin, Balai Besar and Masjid Zahir, as well as illustrating the setting of Medan Bandar, Padang court and Nobat tower' and defining the 'generic' or 'classical' and the 'variant' or 'colonial influences', will understand the basic form of Malaysian classical form of architecture and identify the hybrid elements that has evolved. By studying the elevation characters and the settings of 'Medan Bandar' or 'Medan Alor Setar' and highlights the underlying themes of the Malay classical form.

**Keywords:** Malay classical form, Malay Royal town, Recurring elements, Hybrid language, Vernacular architecture

## 1. INTRODUCTION

The historical buildings are being recognized when the architectural style is characterized by the feature that reflect the heritage either by local building materials or construction methods, or portrayed element or defined form from the regional character (P. S. J. Kassim, Majid, Kadir, & Latip, 2018). The evolution of architectural form can be classified as a chronology of styles which had undergone changes over time. These changes, at times, are gradual, and at times, are abrupt - reflecting changing fashions, beliefs and religions, or the emergence of new ideas, technology, or materials globally (P. S. J. Kassim et al.). In Medan Bandar the style has been influenced by external nations, due to the British colonization influence 18th and 19th centuries, the Javanese and Thai influence, and who introduced the Moghul and Moorish architecture as seen in Masjid Zahir. It is essentially to mention the historical events that occurred in that place. In 1770, Bugis attack which caused destroying Balai Besar and Istana Pelamin. In 1821, the attack on Balai Besar and Istana pelamin by the Siamese, in 1904, marriage of five sons of Sultan Abdul Hamid Halim Shah at Istana Pelamin. In war world II, an occupation for Istana Pelamin by the Japanese military.

The evolution of these classical forms was occasionally 'interrupted' by colonial elements and juxtaposed upon the original Malay characteristic forms (Kadir, Kassim, Majid, & Kamaruddin, 2018). With all these external influences on the identity and the socio-cultural context, where does the Malaysian classical form of architecture withstand, and how it adapted the external influence. this paper studies the frontal facade and the spatial layout in terms of originality and classicality of form that reflect the local identity, sense of symmetry, proportionality in form, controlled decorative character and clean lines, and highlighting the variant elements that occurred to the original Malaysian form of architecture in palaces and public squares in Medan Bandar. The interference of colonial influences created variant and hybrid forms, and by variant means cases absorbed external influence but yet the sense of identity is remained. In this case, focusing on Medan Bandar and the historical buildings around it, this study will represent the classical Malay palace form and its essential character in general and the hybrid elements and details in the palaces at Medan Bandar. The original Malay elements that are founded in many cases and survived by existence the colonial influence can be defined as certified

element of Malay architecture and urban identity and character.

The aims of this paper is to establish a common language on frontal facade and spatial form for the classical Malaysian architectural form in royal towns. 'It is crucial and urgent for urbanscape to develop guidelines and a set of compositional rules and language of urban architecture derived from the essences of tradition and past forms'(Kadir et al., 2018). This studies conducted in Medan Bandar and will use the methodology of Clark and Pause (2005) in mapping the spatial form of Balai Besar, Istana Pelamin and Padang court and nobat tower. This paper demonstrates the variant styles of architecture that is derived and introduced by external influence, and how the Malaysian identity adapt and absorbed it as is seen in the case of Masjid Zahir.

## 2. TYPOLOGIES OF CLASSICAL MALAY FORMS

The typologies were founded across the Malay Royal Towns are organized according to the studies of Clark and Pause, and identified by P. S. J. Kassim, Majid, Nawawi, and Kadir (2019) as they worked to map the style, proportion, scale, type, design principle and influences of the Malay classical form. In their studies they elaborate about the linkage between the frontal façade and spatial layout with the different types related to the typologies of classical Malay forms Below are the five major observed typologies:

### *The 'Axial' Form*

This form represents a frontal elevation character which is axial and whose center contains the highest point of the frontage. The center point or central axis is typically, the midpoint and is the highest point of the façade (Kadir et al., 2018). The observation of an axial form in the classical Malay forms always leads to hierarchal centered façade that is the middle point is the highest in the building, the dominance sense appears on the frontal façade through characterized hierarchal center to focus the attention to it. The massing is represented in a dominance character in the center that's reflected on the layout in a matter of symmetrical organization, axially divided the facilities as show in figure 1.

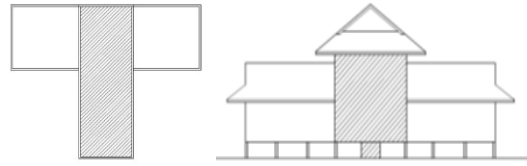


Figure 1: On the left show the typical plan of 'Axial Form' and on the right show the typical elevation of 'Axial Form'  
(Source: (Kadir et al., 2018))

Various examples of the axial form in the palatial Malay palace, where the middle portion acts as a core to the building and distributor of the movement, and usually linked to enclosed or semi-open pavilion, leading to back end where is a 'bumbung panjang' or 'bumbung limas'. in some cases, the form is simple and generic types related to timbered structure as in Istana Malige, Sulawesi (Figure 2). In other cases, the forms are variant in terms of usage of timber and masonry in the structures as in Rumah Penghulu Abdulghani, Melacca (Figure3).



Figure 2: Istana Malige, Sulawesi



Figure 3: Rumah Penghulu Abdulghani, Melacca.

### *The 'Binuclear' Form*

In this morphological studies, the binuclear saw as a massing where the overall form is essentially capped by two dominated roof and these mirror images of one another (Kadir et al., 2018). This form represents a symmetrical axial form, meaning the elements are mirrored in both sides with a feature capturing the essence with two dominant roofs. The defined pattern of binuclear form is founded to be identical two masses, the pattern of the overall massing shows axial, dual identical mirrored image as show in figure 4.

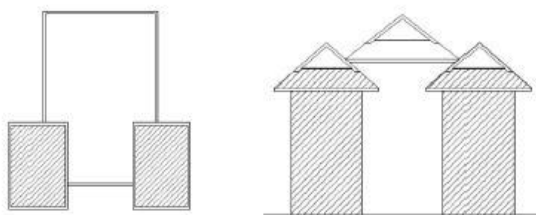


Figure 4: On the left show the typical plan of 'Binuclear Form' and on the right show the typical elevation of 'Binuclear Form' (Source: (Kadir et al., 2018))

The pattern observed on the frontal façade of binuclear form as represented in Istana Seri Menanti, Negeri Sembilan as show in figure 5. Shows a generic Malay classical type between dual axial form in two equally roofs in mass and height in the both sides, the roof line then in gradual format to reach the highest mid-point, the elements are mirrored till the meeting point where it forms the peak of Istana Seri Menanti, adding the sense of hierarchy to the center of the Istana, that work in favor of dominance appearance that withdraw the attention and awareness.



Figure 5: Istana Seri Menanti, Negeri Sembilan

### *The Peristyle Form*

As defined by Clark and Pause, the peristyle is extension of the axial form, where the core as a courtyard surrounded by a series of colonnaded elements, creating a walkway that is semi-transparent when observed from a frontal façade, enclosing the space within a building that might act as internal garden or edging a verandah or porch as show in figure 6. Peristyle can be defined as a central core shape surrounded by a series of colonnaded walkways or spaces (P. S. J. Kassim et al., 2019). The peristyle form can be argued as a derivation of the axial form, but with a row of columns surrounding space within a building such as a courtyard or internal garden or edging a veranda or porch The peristyle is usually a rectangular or square in shape, the essence of peristyle is that they have to be connected to part of the structure that surrounds the open area.

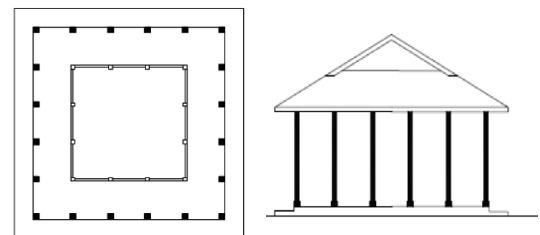


Figure 6: On the left show the typical plan of 'Peristyle Form' and on the right show the typical elevation of 'Peristyle Form'. (Source: (Kadir et al., 2018))

As observed in Istana Balai Besar, Kedah. The peristyle impact is widely notice with a set of columns and colonnades, enclosing the distinctive staircase that leads to a semi-transparent foyer (Figure 7).

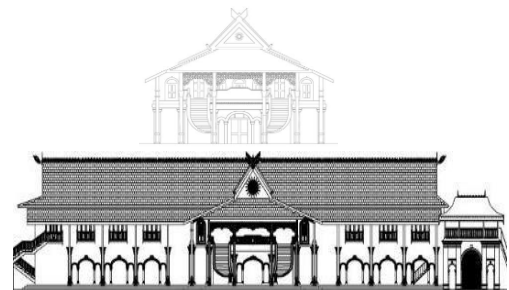


Figure 7: On the left show the front elevation of 'Istana Balai Besar, Kedah and on the right show the peristyle form of Istana Balai Besar. (Source: (Kadir et al., 2018))

### *The 'Perabung' Form*

The characterized unique roof in form of a five-sided pyramid is what defined the Perabung form, it originally influenced by the Dutch style, the main function of the unique roof is to home the extended porticos or 'anjung'. The 'Perabung Lima' form is distinguished by the unique style of the roof, which resembles a five-sided pyramid (the word 'Lima' means five in Malay) influenced by Dutch-style home architecture to shelter 'anjung' or porticos in Malay building (Kadir et al., 2018).

The criteria to identify the shape as Perabung form is lenient, it doesn't always have to look like pyramidal form, more likely to form domes as in Istana Leban Tunggal. As long as the form have segmented obvious clear plane, pointed up looks like a pyramid, cone or dome. According to the authors of Classifications of classical Malay aristocratic architecture: identifying generic and variant forms, this Malay form or style was usually found in the states of Kelantan, Perak and Terengganu, it was the favorite style for the royal families. As an example of the pyramidal five-sided roof in Istana Jahar, Kelantan. Where the 'Perabung lima' pyramid is centralized, loaded on columns with no walls, forming a canopy on the ground level, and the structure is extended to the first floor, where a balcony can screen the view for the royal family members to witness ceremonies and events.

### *The 'Asymmetrical' Form*

The asymmetrical form is common language in the classical Malay typologies, it is the language of the traditional vernacular architecture, as seen in Kedah and Perak. The analysis of this form indicate to unbalance in the layout form. The same form is reflected multiple times across Malaysia. The asymmetric form refers to a generic vernacular form, typically seen in typical traditional Malay houses (Kadir et al., 2018). In advantage of one side on the account of the other, giving more emphasis and attention to the semi-private entrance or verandah side that's is usually inserted deep and elevated, led to by decorated staircase as show in figure 8.

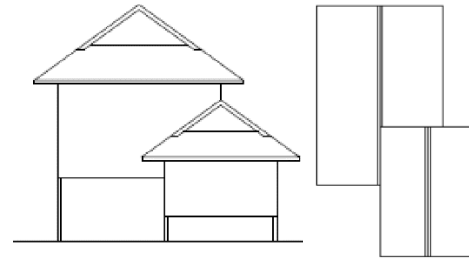


Figure 8: On the left show the façade of asymmetrical form and on the right show the plan of asymmetrical form (Source: (Kadir et al., 2018))

As seen in Kedah Royal Museum, where the asymmetrical form is hardly noticed due to visual blockage on the site, but the satellite images shows the impact. The entrance of the museum capture the sights with continuous linear walkway aligned to the center of the entrance, giving a dominant feeling and emphasis to the entrance, that is characterized by an elevated lobby inserted in a semi-private zone as show in figure 9.



Figure 9: Front elevation on Istana Pelamin Alor Setar, Kedah.

## **3. METHODOLOGY**

The methodology used in this paper has three main methods where used to collect data about the architectural influence on Alor Setar, specifically Medan Bandar. Including site observation, content analysis and semi structured interview. In order to clarify the classical Malay typology, style and influence in the area on Medan Bandar Alor Setar. The site visit was conducted at Masjid Zahir, Balai Besar, Istana Pelamin, Nobat Tower and the public square 'Medan Bandar'. The data collected was observed in aspect of profile and settings, and the architectural influence on the historical buildings. The analysis of the collected data describes the frontal elevation in terms of proportion, scale, type, style, dominant feature



and spatial layout. As well as reporting the current profile and settings of Medan Bandar. The objective of the collected data is to help developing set of rules and regional language of local architecture that reflects the identity of Malaysian Royal Town. Semi-structured interviews were also utilized to provide and verify data. The method was also used for data collection in order to develop a deep understanding on the architectural influence. Respondents were Malaysia Historian and also the Chairman of Malaysian Historical Society, Officer at National Museum, Officer at Department of National Heritage and a few local people with has a knowledge on the history of the particular study area. Then the information that has been gathered from the interviews were later screened, transcribed and analyzed.

#### 4. RESULTS AND DISCUSSION

The following cases are linked to the Malay royal town classical form of architecture in Alor Setar, Kedah. The case studies are derived from the 19 Century. The cases were focused on the area of Medan Bandar, Alor Setar where the following cases are located: Masjid Zahir, Balai Besar, Istana Pelamin and Nobat tower.

##### 4.1. Profile and Setting of Medan Bandar

The selected location is considered one of the richest locations in the cultural identity and the social context of Alor Setar, and that is for containing many characteristics of the Malay royal town, which are a palace complex, a Padang, a mosque. The area of Medan Bandar links up all of the important buildings such as; administrative, a palace and a mosque. This area had witnessed many historical events from invading and occupation to hosting ceremonies and weddings. The settings of the land of Bandar Alor Setar is flat, hardscaped and wide highway 4 lanes and it's called Darul Aman Highway. On the east side of Darul Aman Highway, Medan alor Setar is located, that links up many of the historical buildings such as Balai Besar, Kedah Royal Museum, Balai Seni Negeri and Nobat Tower, the land of the Padang is flat and paved in grey color and rectangular pattern, which is not user friendly. The streetscape atmosphere found at Medan Bandar Alor setar suffers the sense of emptiness due to lack of shading systems, public amenities, resting and seating areas. The tactile quality on the sidewalk is unpleasant, no proper width of sidewalk, the problem of insufficient lighting and lack of soft-

scape. The findings also shown that Medan Bandar is not having a good connectivity and continuity to the other elements that influence the identity of a Malay Royal town itself (Shukri, Wahab, Ibrahim, & Rozaly, 2017).



Figure 10: Aerial view at Medan Bandar.

The Medan Bandar Alor Setar consists of many streetscape elements starting from the sidewalk that has drainage tiles, vegetation pots. the fountain existed located in the middle of Medan Alor Setar forming a strong focal point, and the wideness of the Padang give a strong feeling of an open space, although the lack sense of continuation of elements make the urban design weak, beside, the view on the east of the highway is obstructed with many buildings, making distortion in the sense of enclosure, due to the spacing between the buildings, Parking lots are founded and distributed around Medan Alor Setar but still the capacity remain an issue. 'it is discovered that Medan Bandar Alor Setar is not a user friendly. Major factors such as of less public amenities, insufficient width of sidewalk on a certain area and bad quality of surface along the pedestrian and pavement at Medan Bandar that influence to the unuser friendly at Medan Bandar' (Shukri, Wahab, Amat, Taib, & Rozaly, 2018).

There is no clear and distinctive skyline on the east of the Darul Aman highway, people used to sit and gather around Medan Bandar, but after the replacing of the soft cape with hardscape pavement, people activities there were changed, they mostly meet in the evening for cycling and walking. The skyline on the north of Darul Aman Highway is distinguished with the landmark building Alor Setar Tower. The settings of the land on west of Darul Aman highway is flat, where Masjid Zahir is located. the gateway is existed on the west frontier line of the highway, a walking distance to the entrance

of the mosque is surrounded by greenery, giving a majesty and prestige to the mosque according to its scale, water bodies existed as small fountain on the left and the right of the walkway leading to the mosque's entrance.



Figure 11: The Padang court before replacing soft-scape at Medan Bandar  
(source: Nobat di raja)



1. Padang Court
2. Masjid Zahir
3. Istana Pelamin / Kedah Royal Museum
4. Balai jam
5. Balai Seni Negeri
6. Bangunan Wat Mat Saman
7. Wilma Negeri
8. Balai Besar
9. Balai Nobat
10. Supreme Court

Figure 12: locations of the historical buildings at Medan alor Setar

The Nobat Tower sits in Medan Bandar near Zahir Mosque Rising 18 meters (59 feet), the three-tiered structure pre-dates the mosque by a few years (officially opened in 1906). Pastel yellow forms the borders around the whitewashed façades with a yellow-gold dome on the top. This example of historical

architecture in Alor Setar housed royal instruments used only during official ceremonies. Muezzins from Zahir Mosque once banged the drums to call local Muslims at prayer time before the clock tower next door opened. It was built in The roman style with columns in the Tuscan Italian style.



Figure 13: Nobat Tower & Balai Seni Negeri.  
(source: Kedah Muzium)

The original Nobat Tower was one-storey height building and was built from timber and zinc roofing. It was built in 1735 under the reign of Sultan Muhammad Jiwa Zainal Adilin Shah II. (Nobat di Raja) 'This shows that Medan Bandar does not apply the universal design concept that considers a wide range of people with different abilities and remove or reduce the physical barriers. The finding on the amenities also shows that Medan Bandar Alor Setar is not friendly in terms of lack of seating and rest areas, inadequate public toilet, insufficient lighting during the night and no clear signs for legibility that raised by JPBD (2011) on the user friendly public amenities at accessible location' (Shukri, Manteghi, Wahab, Amat, & Wong, 2018).

#### 4.2. Architectural Influence on the Historical Buildings of Medan Bandar Alor Setar

A style is defined by a characterized feature that add aesthetics value to a structure or a building in a matter to make it notable and historically identifiable, or it could be a technique that include elements as form, building material, a method of construction and regional character. Most architecture can be classified within a chronology of styles which changes over time reflecting changing fashions, beliefs and religions, or the emergence of new ideas, technology, or materials which make new styles possible (P. S. J. Kassim et al., 2018). The

decorative style that appeared on the building facades evolved chronologically according to the influence of the design style in Europe, such as Neo-Gothic, Baroque and Neo-classical, Dutch Patrician, Art Deco and International Style (Ju & Omar, 2011). The cultural and environmental context is the essence character of the Malay architecture formulation, because its important component in the formation of contemporary architecture language (Hosseini, Maleki, & Azari, 2012).

In order to have a bigger picture of the influences of Alor Setar, Kedah. It is a must to look at the historical events that occurred in the time line of Kedah and shaped the cultural society and the identity especially in the public square of 'Medan Bandar Alor Setar' the linkage area between the historical buildings. The research data indicates to the beginning of events in 1735, when Sultan Muhammad Jiwa Zainal Adilin Shah II order to build Balai Besar, Istana Pelamin and Nobat tower in the area of Medan Bandar. Over the days the events rolled on Medan Bandar, expressed in the attacks by the Bughis in 1770 and the Siamese in 1821. Resulted in demolition of Balai Besar that was built again in 1898. Medan Bandar as it witnessed war and invading, it witnessed ceremonies and national events. In 1904, Istana Pelamin and the public square of 'Medan Bandar' witnessed the wedding ceremony for 5 prince and princess the sons and daughters of Sultan Abdul Hamid Halim Shah. In 1906, the opening of the Nobat Tower. In 1912, Masjid Zahir was built. In 1939, the beginning of WWII, during that time the historical area of Medan Bandar was affected and resulted in the occupation of the Japanese army to Istana Pelamin. In October 18th, 1943. A ceremony

took place in Medan Bandar celebrating the handing over Kedah to the government from the Japanese army. In 1946, the protestation took place in Medan Bandar where the Malay protest against the Malayan union. In 1957, the proclamation of independence took place as well in Medan Bandar. In 1957, the addition two wings to Istana Balai Besar as an order from his highness Sultan Abdul Halim Muadzam Shah. In 1983, the declaring of Kedah Royal Museum instead of Istana Pelamin.

In the case of the historical buildings of Medan Bandar Alor Setar that adopted external influence especially during the British colony that introduced a new variant element to the vernacular Malay architectural language creating a new breed of Malay Neoclassical style represented in the fusion style of Istana Pelamin and Istana Balai Besar. The fusion style introduced new materials as the masonry and technology of cast iron, in` addition to primary usage of timber as main material that remained the spirit of classical Malay style. The other part that shares historical value is Masjid Zahir, that once was introduced to the Malay people by the British, the usage of the Moghul and Moorish style is due to the mosque was built during the same era, where the British colonies influence each other, thus the British architects were inspired by the Islamic architecture. The overall style doesn't reflect the Malaysian identity, but in terms of importance and active role in the socio-cultural activities, Masjid Zahir was successfully adopted and blended with the surrounding environment, according to Asst. Prof. Dr. Ahmad Shukri Yusof and Prof. Dr. Mansor Ibrahim.

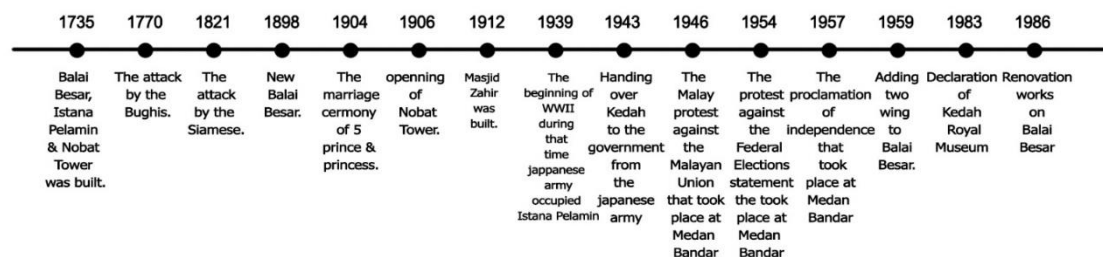


Figure 14: the historical events on the timeline of Alor Setar, Kedah

#### 4.2.1 The Balai Besar, Bandar Alor Setar, Alor Setar, Malaysia

The palatial complex is located in the core of Alor Setar, specifically at Medan Bandar, Bandar alor setar, the Balai Besar is called the Royal Audience hall of Alor Setar, Kedah. The Balai Besar thus is a space within an urban public space and is a palace that is accessible to the public within a palatial complex. It was built by Sultan Muhammad Jiwa Zainal Adilin Shah (1710-1760), the first Sultan of Kedah. It is located in front of Istana Pelamin. This heritage complex faced a series of historical events that shaped the identity of Alor Setar till this day, the original building was completed in 1735, it was completely made by timber. Since 1735, Balai Besar had witnessed a several attack by foreign military forces, the new Balai was completed in 1896, replacing the old palace that was destroyed by the invaders. In 1959, due to the Balai Besar wasn't fit enough in terms of capacity to host the coronation ceremonies for his Highness Sultan Abdul Halim Muadzam Shah, his highness ordered to add two wings on each side before the ceremony take place in 1958. In 1986, renovation works took place, resulting in a hybrid form of selected mixture between Malay, Javanese, Thai and Colonial influence. the final form gathered a sense of Greek columns, flat renaissance arches, Viennese staircase and a Malay / Thai roof (Shukri, Wahab, Amat, Taib, & Ismail, 2018). This case study showed through the time an evolutionary change in material from pure timber to timber, masonry, & iron cast (Nasir, 1990). At first the Balai was used as an audience hall and coronation, but later it was turned to serve the meetings of the state council and as a banquet hall.

Balai Besar falls under the peristyle and symmetrical form, which is derived from the axial form, but with the existence of repetitive columns, makes it more likely to fall under the peristyle form. It represents the simple vernacular structure of the Malay house, injected with hybrid elements to derived from the Neoclassical style, the addition of flourish the building in essence of aesthetical values. The sense of palace in terms of luxuries style and amplified height is preserved and strongly felt, the transition and importance given to the lobby form -serambi or anjung- with vast numbers of columns and the expansion of height and decorative elements that reflect the style of Malay-Siamese. The recurring feature of the Malay palace is that it is a heightened and

amplified version of the archetypical vernacular structure of the Malay house. In each case, slender columns are maintained and recall the simple vernacular house composed of stilts, various lintel structures, and a pitched roof (P. S. J. Kassim et al., 2018).

Balai Besar attain a fair equitable equation in terms of preserving the Malay essence and achieving universal classical proportions in the balai. The ideal role of placing the simple bumbung panjang roofs around the both left and right side of the palace, strengthen the sense of the Malay classical form and allows natural ventilation to the audience hall, the existence of slender columns maintained the idea of a simple traditional house. The stylization contrasts widely when Colonial elements made of masonry such as the shop house architecture prominent in the old districts of Singapore and Malaysia begin (S. J. Kassim & Nawawi, 2018). The frontal facade of Balai Besar is embellished with curved staircase, the railing of the grand staircases is now masonry decorated with 'lotus' carvings reflecting Thai influences.

The spatial relationship is defined with a row of decorative columns – the colonnaded feature, and arches with slender columns reaching a height of over nine meters, and with openwork at the joint between the roof and column, the external decorative columns on the ground floor are decorated triangular way arches that functions as an architrave - an element used to support a row of columns- and is decorated with three layers of awan larat, the column itself is decorated of local flora and there are 16 in total decorated with bunga sulor paku at the top. The roof is arranged in different heights and decorated to fulfill the purpose of eye-catching, the roof's colour scheme of yellow and green, reflects the Siam influence due to the close relationship they had in that era, and it is stylized with types of local flora like Bunga sulor paku. The identity of the Malay classical form is preserved by the design of roof that reflects the Malay form of roofs *Tiang menungkat pisang sesikat*.





Figure 15: Current photo for Balai Besar



Figure 16: Old photo of Balai Besar in 1975.  
(source: Muzium Kedah)

#### 4.2.2 The Istana Pelamin, Bandar Alor Setar, Alor Setar, Malaysia

The Royal Museum building or Istana Pelamin and goes by many names as Istana Kota Setar, Mak Wan Besar Palace. The castle was completed in 1735 in the reign on Sultan Muhammad Jiwa Zainal Mu'adzam Shah II. This old castle housed few Sultans of Kedah, this historical palace surpassed many historical events shared with Balai Besar, as well as the occupation of the Japanese military during World War II. This Istana was declared as the Kedah Royal Museum on July 25, 1983.

The complex consists of three main spatial areas. The main area served as the ceremonial hall that contained the 'pelamin' – is leveled terrace where the pride and the groom sits- Figure4. The middle room was the residence of the women and the children, the left room was the Sultan suite. The overall complex sense of place and identity is reflected by the local form of vernacular houses, the organization of Istana Pelamin form is Asymmetric, with more dominance on the right side – the entrance of the ceremonial hall, which makes sense to give the hierarchical feature to the more accessible hall than the rest of the palace, and keep the residential zones secured and private, another

element grants more dominance and emphasis to the pelamin hall is the gateway and walkway which limits a linear aligned view to the distinctive element of the Malay traditional form of palaces, the staircase which is centralized according to the pelamin hall entrance. As many cases founded in the Malay Royal Town Classical Form of Architecture, the recurring element in this case is the fair proportional semi-open verandah / portico extended outside to surround and decorate the staircase with colonnade, a barrier alongside the exposed verandah on the left of the frontal elevation at pelamin hall, governs the privacy and block the visual from outside. The verandah function nowadays as a welcoming lobby / foyer for the visitors of Kedah Royal Museum. The second entrance is found on the left side of the frontal façade of Istana Pelamin, that serves the private zones of the palace. The recurring elements of roof forms, which in this case, a different height wooden roof with triangular shape at the entrance that reflect the traditional vernacular construction method as shown in figure 17.

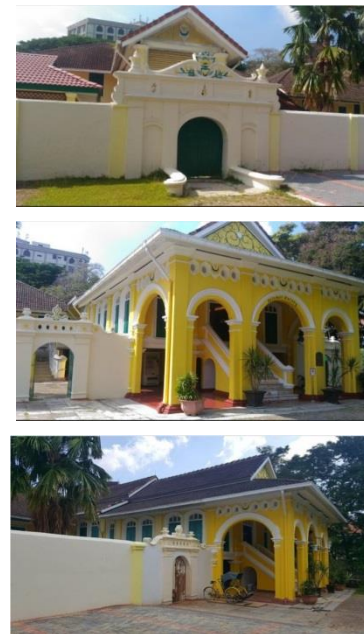


Figure 17: The frontage façade of Istana Pelamin

The frontal elevation is concrete and painted generally in yellow and highlighted the boundaries of the arches in white paints, this palace is a form of simplicity and plainness in terms of decoration which are not excessive and costly, either on the staircases of arches around the palace, the ornamentations are simple and

reflects the influence of Greek elements alike the Doric style. The noticeable element in this case is number of the staircases which are 9 distributed around the palace and its derivation of the classical Malay house leveled flooring system. The sense attained from the frontal elevation is the sense of unity achieved by repetitive columns, arches and windows, which are proportionally large, covered with traditional wooden shading device.



Figure 18. frontage entrance of Istana Pelamin  
(source: Muzium Kedah)



Figure 19. The 'pelamin'

#### 4.2.3 Masjid Zahir, Bandar Alor Setar, Alor Setar, Malaysia

Masjid Zahir is located at the intersection point of Jalan Kampung Perak and Darul Aman Highway, the historical building is facing Medan Bandar, 'an imposed a sense of place through its aesthetical design and characters of the elements. It is found that most of the building structure applied different characters/ design for different spaces as to identify the space functions and some signify the royal concept. It is without a doubt that the case studies of the three mosques and Masjid Zahir were designed using the influences of Moorish and Moghul architecture. The use of these types of style of architecture may not necessarily be inappropriate to the Malaysian contexts, but more of a trend introduce to Malaysia by the British (Yusof &

Ibrahim, 2011). Building organization is axial and symmetrical, the complex is composed of main prayer hall, the verandah area which is a multifunctional open area, female prayer hall located at the southeast the main prayer hall, the royal dining room located northeast the main prayer hall, the spatial organization refers to linking internal spaces by a common shared space.

The frontal scenery when you enter the complex is rich with feelings of prestige and dignity, due to the amplified scale of the historical mosque and the grand use of concrete, the facade of the mosque is painted pale yellow to symbolize royalty. The frontal facade is semi-transparent due to the usage of the colonnade elements in the facade, the addition of the colonnade elements to the facade is to let some sort of visual and spatial connection between the inside and outside spaces, as well as defining the edges between the interior and the exterior, the quality of the colonnade feature is permits airy atmosphere which helps in inserting the proper mindset required for meditating, calmness and humbling feelings, the decorations of the colonnade elements is ornamented with arabesque motifs - the character of the arabesque pattern are repetitive, symmetrical and rhythmical in movement, producing a free pattern from tension, strengthen the flow and the balance.

The various columns set founded at Masjid Zahir, makes it an interesting feature to analyze, the results of the findings clarify the 4 types of columns existed in Masjid Zahir: the single column, the twin columns, the identical triple columns and the identical quart columns. The number of columns founded are 261 columns, distributed in form of structural and decorative elements. The materials used at the main prayer hall is enclosed by four-sided brick masonry walls, the veranda is an open space area. The walls are made of bricks with plaster finish on both sides. The external wall of the masjid is painted with pale yellow. Aluminum clad ceiling panels are used for ceiling in the foyers and along the corridor area. Brown cladding is used to create a timber effect (Yusof & Ibrahim, 2011). Concrete with plaster finishes and white paint are used for the ceiling finishes at the veranda area. The structural grid pattern of waffle slab utilizes part of the ceiling design and they are decorated with gray floral motifs.



The windows are located at the four-sided brick masonry walls, the placement and the proportion of it secures the sense of privacy and support the feeling of serenity and humbleness for the worshippers. Besides, the addition of the windows gives beautification values to the place. The roof form of Masjid Zahir, ceiling is a major architectural element of interior spaces because it plays an important visual role in shaping the interior space. The dome design, which differs from the local style, makes Masjid Zahir design unique and interesting (Yusof & Ibrahim, 2011). The roof form is composed of flat ceiling contains four domes, that are positioned at the top of the core of the mosque, forming the main dome for the main prayer hall, the other 3 domes are distributed at the top of each lobby / foyer. The main dome style is unique, reflecting the influence of the Moghul style, the shape of the dome is octagonal drum, the main dome acts as a skylight element for allowing natural light in through the windows positioned at the drum of the dome. The other 3 domes introduce the feature of Turrets, which are alike the minarets but smaller in scale, acts as a gradual visual transition for the dominance appearance of the main dome, its gives a sense of welcoming because of its positioning at the top of each lobby / foyer. Another decorative element founded in the roof form is the Chatris, which is again a reflect of the external influence, but the usage of it in Islamic architecture as a decorative element that governs the proportion of the elevation (Yusof & Ibrahim, 2011).



Figure 20: frontage entrance of Masjid



Figure 21: Aerial View for Masjid Zahir

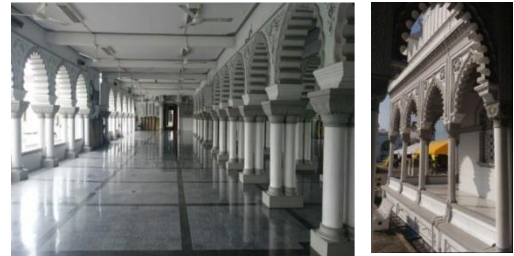


Figure 22: The internal space of Masjid Zahir, the Decorative colonnaded feature

#### 4.3. The Relationship on Architecture Influence Between Balai Besar, Istana Pelamin and Masjid Zahir

Architectural features also shown some significant in characterizing the image and identity of Malay Royal towns in Malaysia. Through observations that were conducted during the site visit, it was discovered that the architectural styles for each historical building in Medan Bandar is differed from each other some with slightly changes as in Istana Pelamin and Balai Besar, and some with extreme changes due to foreign adaptation for the architectural style as seen in Masjid Zahir, but the relationship on the architectural influence is not only limited on the architectural style, is deeper, its extended to the edge of the socio-cultural activities that shapes the identity of a place, and add a sense of nationhood, especially in a location rich of history and heritage like Medan Bandar.



The architectural features can be categorized according to the style of architecture, spatial organization, frontal façade pattern, dominant architectural features, materials and the similar features in the decoration elements and motifs and their meanings. The similar architectural features that recurred and observed during the site visit in the selected building are founded in the colonnaded feature, where variant styles of ornagements emerged with each reference and meaning, for instance, the ornamentation on Masjid Zahir's frontal façade reflects the Mogul and Moorish architecture (Yusof & Ibrahim, 2011), geometrical patterns, arabesque decorating the colonnaded feature and stained glass, reflecting the heavy inspiration of the Islamic architecture by featuring the turrets, Chattris and stair step crenellation, those detailed components are positioned to serve the transition of the hierarchal dome in the roofline and prospers the scenery with details. The style of decorations in Masjid Zahir doesn't reflect the Malaysian identity conversely the other cases represented in Balai Besar and Istana Pelamin, where they share the same colonnaded feature in total different style, it carries originality from the classical Malay Form, according to Kadir et al. (2018) the stylistic character of Balai Besar and Istana Pelamin is Neoclassical Malay style, The term 'neo-Classical' is judiciously used to represent the 19th century evolvments of the Malay style which saw history as a resource in combining styles and elements.

The representation of vernacular cases has a minor influence from Thai, Javanese, and the colonial. The colonnaded feature of Balai Besar governs the existence of 'Serambi', and

characterized by slender column, where the capital is ornamented in floral patterns, the pattern is in triangular form between the slender columns, the colonnaded feature is attached to the roof through ventilated architrave supporting system that was decorated in three layer of 'Awan-larat'. The colonnaded feature in Istana Pelamin is restricted by the entrance, due to visual blockage formed in barrier to secure privacy to other part of the palace, the decoration reflects the local identity.

## 5. CONCLUSION

Kedah, Alor Setar. Hold much history, heritage and local identity. Alor Setar is considered as one of the Malay Royal Towns, because it was the house for Sultans back in the 17's century, beside the historical events and what Alor Setar had endured from the 17's century till the current period, due to that Alor Setar portray various architectural styles that influenced the architecture in the area. Javanese, Thai and the British influence that introduced Alor setar to the Moghul and Moorish styles. The scope of emphasis in this study is to identify the classical, vernacular, traditional form of classical architecture in the Malay Royal Town, and to extract a language based on developed set of rules and regional language of local architecture that reflects the identity of Malaysian Royal Town. Besides that, noting the hybrid and variant forms that where introduced by the external impact, on account of the invaders – the Bughis and the Siamese in 17's century, and the British influence in 18's century till 20' century.

This study was conducted in Medan Bandar Alor Setar, the site is rich of historical events and identity value which are formed by the existence of Palace complex, Mosque, and Padang, which are essential components in determining the Malay Royal Town (Shukri, Manteghi, et al., 2018). The finding and results shows the recurring elements in the traditional palatial Malay housing style, especially in the styles of Istana Pelamin and Balai Besar that played influential role in symbolizing the identity of local architecture style in Alor Setar, the recurring elements that withstand the historical events and the colonial influence, has the eligibility to be defined a certified element of Malay classical form of architecture. The elements are the pitched roof, elevated floor system, a distinctive staircase, extended portico /



verandah, numbers of columns elevated by base, windows with full or majority body height proportion, shading elements, and the use of wooden as major building material component, but by the 18's century, the injection of masonry brick components took place by the colonial impact, resulting in creating hybrid form in the royal residence.

The findings on the style and influence of Masjid Zahir, is that in Moorish and Moghul architectural style that was introduced to the Malay people by the British, the reason behind that lies in the fact that this mosque was built in an era where the British colonies influenced each other due to the close economic and regional relationship, which led the British architects to be influenced by the Islamic architecture (Yusof & Ibrahim, 2011). The findings on Medan Bandar Alor Setar, this significant Padang nowadays is missing many universal design principles represented in the sense of place that doesn't reflect the heritage of Alor Setar, the sense of emptiness is strongly felt due to bad tactile quality, that is not walker friendly, lack of proper seating and rest areas, no vegetation or shading devices which makes it unvisitable in the day light, no soft scape around Medan Bandar, that used to have according to the images, and lack of public amenities and parking lots (Shukri, Wahab, Amat, Taib, & Rozaly, 2018).

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