



## MUGHAL ARCHITECTURAL STYLE IN COLONIAL BUILDINGS IN MALAYA: THE ROLES OF BRITISH ARCHITECTS

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### ABSTRACT

The British architects during the colonial time had adopted and contributed to the Mughal architectural style in their building design in Malaya. A historical investigation has been analyzed for the role of the British architects integrating Mughal styles when working at the Public Works Department in British India and later in British Malaya during their services. A historical description is formulated using a content-analysis method to narrate the research survey and analysis. The finding shows that the involvement of British architects and engineers in the design of public buildings was one of the primary factors for the Mughal architectural route to the image of British Malaya. The results illustrate that Mughal architectural elements were deliberately incorporated into the local architecture. The British architects had a fascination with Mughal architecture and presuming British East Indian Company as a successor of the Mughal Empire were the two reasons for choosing a mixture of British and Mughal architecture as a hybrid symbol of the empire. This study is conducted to fill a gap in the existing literature on the subject of Mughal style and its influence on present Malaysian architecture.

**Disciplinary:** Architecture, History Studies.

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## 1. INTRODUCTION

Climatic factors and available local materials have shaped the indigenous architecture of a region. Socio-political and socio-cultural conditions contribute to further development of architecture. Southeast Asian architecture, being in the equatorial region with high humidity level, primarily was evolved to house the inhabitants from the heat and humidity. The abundant availability of wood in the region and its heat insulation quality made timber construction ubiquitous. Hence, house-on-stilt building with attap roofs, louvred windows, and timber walls

became common in the architecture of the Malay region. This architecture continued to become the most dominant style not until a new architectural style introduced by the western colonizers starting with Portuguese who had colonized the Empire of Malacca (later named Malaya). The Portuguese were the first European who introduced cement, bricks and stones as the main materials in building construction. Malaya was established during the British colonization in the Malay Peninsula while Malaysia was constituted after the annexation of Sabah and Sarawak with the Malay Peninsula. The story began with Portuguese and Dutch colonization from 1511-1825 in the Malay Peninsula. They had introduced European architectural elements to the region.

The British took over Malaya from the Dutch in 1825 until 1957. They further contributed to the changes to the current development of the architecture of the region. In more than 400 years, the colonizers had transformed the buildings in Malaya with a mixture of British and Mughal elements known as Indo-Saracenic architecture. Several typological studies are used in this topic as the main references, which show the influence of Indo-Saracenic style in on architecture of Malaya (Ahmad, 1997; Khazaee et al., 2015; Rasdi, 2007; Saaid and Hassan, 2019). During Contemporary British Indian colonial bureaucrats and technocrats were greatly fascinated with Mughal architecture. This interest of the British enticed to introduce Mughal architectural style in South East Asia, including Malaya. Scholars summarize two reasons for the involvement of Indo-Saracenic architecture in the Malay world, which are the British architects' fascination with Mughal style and its construction carried by migrated Indian Muslims settled in various parts of Malaya (Rasdi, 2007). The research objective is to investigate how the Mughal architectural style was brought to Malaya by the British architects and engineers.

## 2. HISTORICAL BACKGROUND

In the late nineteenth and early twentieth century, the colonial architecture of Malaya was influenced by a hybrid of neoclassical and Mughal architecture. This research study applies a content-analysis method to identify the route of a transformation of Mughal style to architecture in Malaya. A historical investigation is used to identify the route of Mughal architectural transition from India to Malaya with evidence from the architectural elements as the indicators. A parallel descriptive analysis of British colonial time in India and Malaya is needed to fulfill the objectives of the research.

### 2.1 COLONIAL ARCHITECTURE IN INDIA

The British had entrusted its trading corporation, British East India Company (BEIC) involved trades in India since the 1600s. BEIC started functioning with its military authorized by the British government in 1757 after the Battle of Plassey at Palashi, Bengal in India. By the next century, the British extended their territory to almost overall present-day India. Much attention was not given to architecture by the British in the beginning as they focused on territorial expansion, except the construction of few government buildings and other structures required for the elite class in Madras, Bombay, and Calcutta. These structures mostly were in contemporary European classical style, especially in Madras and Calcutta. This style reflected racial and cultural supremacy and dominance over the conquered territory. In 1854, the Public Works Department (PWD) was established, and later architects were appointed in each province for the construction of various public buildings.

At the same time, England was also facing the stylistic competency, and by the mid of

nineteenth century, Gothic architecture prevailed over the European classical style. Soon after the construction of Muir College in Allahabad with a reflection of Mughal style, a debate started among the British technocrats about the suitable architectural style under the rule of the British East Indian Company. The issue rose to dissent on whether the colonial buildings in India should hold the British neoclassical style or the style should be founded on Indian architectural legacy. The style was not merely concerned with the aesthetical choice of buildings, but it is an identity of a new nation also accepted by the Indian population.

## 2.2 COLONIAL ARCHITECTURE IN MALAYA

Portuguese captured Malacca in 1511 and occupied till 1641, marking the first European colonization in the Malay Peninsula. They built various public, residential and religious buildings and fortified the city with a stone wall (Vlatseas, 1990). Most of the Portuguese buildings were destroyed during the Dutch attack in 1641. Portuguese introduced arch construction to the Malay world and constructed buildings using masonry technique. Later Malacca was occupied by Dutch from 1641 to 1824. Stadhuys, a town hall building in Malacca, was the earliest example of Dutch colonial structure in the Malay world. Christ Church is another example of the Dutch neoclassical building in Malacca built in the mid-eighteenth century. The features of these two buildings like round pediment shape, louvred windows, balustrades, and open balconies, introduced classical architecture in this region. However, the greatest impact on Malaysian architecture today was made by the British.

The first British colony in Malaya was established in Penang in 1786. Hence, Penang observed earliest British colonial architectural influence, but later other states were also influenced as the British involvements in political and economic affairs of states deepened (Hassan, 2009). The Strait Settlements, in the early nineteenth century and rubber plantation and establishment of the tin industry in the states of Selangor and Perak further augmented British involvement in administration. The establishment of the Public Works Department (PWD) and the Survey Department authorized by the British, regulated further guidelines for public services and development of infrastructure. In 1895, Kuala Lumpur became the center of British rule and headquarters of Resident-General and other departmental heads. In the late eighteenth century, a series incidences of fire destruction took place in Kuala Lumpur, and finally, Selangor State Council banned the use of wood and thatch in construction (Sharif, 2017).

The colonial architecture of Malaya is influenced by various styles like neo-classical, Tudor, neo-Gothic and Mughal architecture. However, neoclassical and Mughal architecture was more influential than other styles. Neoclassical style, the revival of Greek and Roman forms, was already prevailing in England from the mid-eighteenth century. Hence, the neoclassical style was a favorite choice in the British Empire as a symbol of democracy in the British Imperialism's supremacy (Hassan & Che Yahaya, 2012). Triangular pediment, Roman and Greek orders, balustrade, pilasters, Venetian windows and a large central entrance of the facade were the features of colonial neoclassical examples. With the construction of the Sultan Abdul Samad building (Supreme Court building – Figure 1), Mughal architectural features were also incorporated with the neoclassical elements into the building style in Malaya. Later, the style became conventional to the architecture of Malaya and regarded the status symbol. Kuala Lumpur Railway Station and Masjid Jamek, Zahir



Mosque in Alor Setar, Ubudiah Mosque in Perak (Figure 2) and Alwi mosque in Perlis are among the buildings highly influenced with the Mughal style.



**Figure 1: Sultan Abdul Samad Building, Kuala Lumpur**



**Figure 2: Ubudiah mosque (exterior photo – left and interior photo – right)**

### 3. DISCUSSION AND ANALYSIS

British architects and engineers preferred this Indo-Saracenic architectural styles able to embody the Islamic culture of the time acceptable to the Muslim Malay people under the British colonization. Two ideal styles were found suitable for this purpose, Mughal and Moorish style. The former was a dominant style and was borrowed from the British-India architecture while the latter had less influence. A few of Moorish elements were integrated as the secondary elements of the Mughal architecture. The Moorish style was the Umayyad architecture of Spain, Morocco, Algeria and Tunisia. This section explains three factors of the content-analysis study, which are the British fascination with Mughal style, its inception in Malaya and the role of the British architects during the colonial period.

#### 3.1 BRITISH FASCINATION WITH MUGHAL ARCHITECTURE

British colonial architects considered Mughal architecture as their appropriate choice of style for constructing public buildings in India for two reasons (Metcalf, 1984).

- a). British took over power from Mughals and considered themselves next in the hierarchy of power and assimilating their position in Indian society as their new rulers.

b). The dome and arch construction (arcuated system) of Mughal architecture was similar to the contemporary British architecture. It was practical enough to cover the larger spans in comparison to ancient Indian post and lintel construction (trabeated system).

In 1870, Lord Napier, the then Governor of Madras, in a speech, pointed out the advantages of dome and arch construction of medieval India over the trabeated and corbelled system of ancient India. He argued that the dome and arch system is more scientific and practical to build colonial public buildings. He urged the Government of India to make this an official style of constructing colonial buildings. Napier referred it as “Mussulman style” and “a tribute to the genius of the past” while talking about the style incorporated by the government architect R. F. Chisholm, to the building of Madras Board of Revenue. In 1860, Madras departed the European classical style with the design of Memorial Hall, the last classical structure.

Mayo College was established to educate the royal siblings of the princes of Rajputana with an English environment. In 1875, Major C. Mant received the commission of Mayo College, Ajmer, a significant structure in the development of Mughal style during the colonial period. However, the design raised a controversial debate for the appropriate architecture for the college and delayed the work. The choice was classical, Indo- Islamic and Hindu styles. Lord Mayo, who was a viceroy of India was interested in classical style, but later he preferred to build the college in the Hindu style. He sent Gordon, the Executive Engineer, to visit contemporary Hindu palaces for the study. Gordon found that by the late Mughal period, the two architectural styles, Hindu and Muslim, already amalgamated. Gordon made the design and Cunningham, archaeological surveyor to the Government of India added turrets and cupolas.



**Figure 3: Albert Hall Museum, Jaipur**

The building was completed in 1885 on the design of Mant. He argued that the Hindu and Muslim architecture had already been intermingled and also harmonious to the local climate, hence suitable for further development of colonial architecture in India. A similar approach was observed in style adopted for Albert Hall, Jaipur (Figure 3) and Prince of Wales Museum, Bombay. Hence British technocrats and bureaucrats were convinced by the last quarter of the nineteenth century that medieval Indian architectural features were suitable for the inspiration of colonial development in India and they called it ‘Indo-Saracenic’. Sir Richard Temple mentioned Mughals as “the greatest architectural genius that ever lived” (Metcalf, 1984). British rulers compared the colonial structure to the Mughal buildings to claim themselves the direct line of descent of Mughals.

The British had collected the census of population, archaeological and ethnological survey and

started detailed gazettes in the late nineteenth century. The process revealed the treasures of Indian art and architecture in the Western world. Subsequently, the work of contemporary architectural historians like James Fergusson got large readers reading his book ‘History of Indian and Eastern Architecture’ published in 1876, which made the European world more familiar with the Mughal architecture. At the same time, the wide use of camera photography promulgated Indian architectural heritage to the rest of the world.

### 3.2 THE BEGINNING OF MUGHAL ARCHITECTURAL TRANSFER TO MALAYA

The evidence shows that it was a deliberate decision to incorporate a hybrid of neoclassical style with Mughal architectural elements into the buildings in Malaya during the design of the first building with this style, i.e. Sultan Abdul Samad building in Kuala Lumpur. On the completion of this building in 1897, Charles Edwin Spooner, who was the state engineer of Selangor PWD mentioned in his speech that the style of the building is ‘Mahometan style’. The name is derived from the word ‘Muhammad’, the last Prophet in Islam. The style was also known as Indo-Saracenic, Indo- Islamic, Euro-Islamic and sometimes as Moorish style by the researchers. Like in India, the early examples of colonial buildings also had the design of neoclassical style that the issue of incorporating Mughal style at the early stage was reluctant. But later the style flourished and embellished a hybrid identity of the urban fabric. Spooner argues,

“Mr. Norman then drew out a ground plan and Mr. Bidwell an elevation in Classic Renaissance of a building. Though I did not like the design, I adopted the arrangement of the offices and the general lines. I then decided on the Mahometan style, and in due course sent it in with an estimate for \$152,000. One stood behind the chair of the acting Governor (Mr. Maxwell) when he was examining the trial estimates, and I leave it to you to imagine my feelings when he did not put his pen through the \$76,000 down as the first part of the vote for \$152,000.” (Gullick, 1992)

### 3.3 BRITISH COLONIAL ARCHITECTS IN MALAYA

Izumida (2003) has enlisted more than fifty Royal Institute of British Architects (RIBA) members who had worked in Southeast Asia during the colonial period. Six of them worked in Malaya (Table 1), and most of them served in PWD while several of them also had their private practice in an architecture firm. One of the architects was Arthur Benison Hubback, who was British army personnel, a sportsman and an architect. He was born in Liverpool in 1871. After he had completed his studies, he was working as an apprentice for the city of Liverpool. In the late nineteenth century, Hubback joined as a chief draughtsman in the Public Works Department (PWD) in Selangor and later started his private practice.

**Table 1: Colonial Architects worked in Malaya**

British Colonial Architects	Office at the Public Work Department (PWD)
R. A. J. Bidwell	PWD Selangor (1895)
C. G. Brother	PWD Alor Setar (1913-1999)
B. Hubback	PWD Selangor (1901-1910)
F. A. Mallard	PWD Kuala Lumpur
H. A. Neubronner	W. & Neubronner Penang (1899-1907)
C. A. Norman	PWD Malaya





**Figure 4: Kuala Lumpur Railway Station.**

While working with PWD, he got an opportunity to work with R. A. J. Bidwell on the design of government office building, today it is known as Sultan Abdul Samad Building. Later Hubback designed several buildings like Kuala Lumpur Railway Station (Figure 4) and Masjid Jamek Kuala Lumpur and Ipoh Railway station. He designed almost 25 buildings in Malaya, and some of them are considered today as landmarks in Kuala Lumpur. In 1913 Hubback was commissioned to design Kowloon railway station by Hong Kong government. Hubback and Bidwell introduced the onion-shaped dome to the architecture in Malaya. His works considerably affected the architecture of the country. A. B. Hubback had already worked as Deputy Director of Architecture Department, PWD, India (Khazaee et al., 2015).

H. A. Neubronner, born in Malacca, studied in London and established Wilson and Neubronner, a construction and renovation firm in Penang (Ho, 2009). He renovated many notable buildings including Kapitan Keling mosque and Aceh mosque. Another Architect C. A. Norman, an associate of RIBA (Royal Institute of British Architect) joined Selangor PWD as an Assistant Superintendent in 1883. In 1896, he became the Fellow of Royal Institute of British Architects. The foundation stone of Sultan Abdul Samad Building bears the name of C. A. Norman. However several changes were made later by C. E. Spooner and A. B. Hubback. Another colonial architect, R. A. J. Bidwell was trained in a London firm and got an honorary member of the Architectural Association. He worked in different firms in England and later appointed at Selangor PWD. After a very short service of two years, Bidwell resigned Selangor PWD in 1895. Bidwell became the partner of Swan and Maclaren in Singapore in 1899 and later continued his practice.

Other architects who worked in Southeast Asia and Japan also influenced the architecture of Malaya when they incorporated Mughal architectural elements in their designs. Singapore's pioneer colonial architect George Dromgold Coleman appointed as the Government Superintendent of PWD while he had also already worked in Calcutta (Hancock, 1986). Colonel Mackenzie worked in South India, shortly stayed in Java as a Royal Engineer under East India Company (Izumida, 2003). In 1881, Josiah Conder designed Ueno Imperial Museum in Japan, with two onion-shaped domes at the center of the building with Mughal influence. The building was damaged in the Great Kanto earthquake in 1923 and was replaced with a new structure. Not all the British Colonial architects and engineers working in Southeast Asia visited India, but it seems that most of them were aware of the growing fascination of the Mughal architectural style in the British colonial world.

## 4. CONCLUSION

British architects were fascinated with Mughal architecture. The reason was similarities of arches and dome construction system over ancient Indian corbelled techniques and its aesthetical quality. In the beginning, the British architects designed their buildings with neoclassical style, but later they integrated Mughal architectural elements in this neoclassical architecture for building design in India. They established a hybrid style for an architectural symbol of the British colonial government under the British East Indian Company compared to the architectural style of the British government in England (Hassan, 2017). The choice of a hybrid of Mughal and classical style in Indian soil help the British presence acceptable by the population as governing transition from the Mughal Empire. The orientation towards Indo-Saracenic style had affected the further development of their colonial architecture, including in the Muslim populated regions near India like the British Malaya. British colonial architects and engineers deliberately designed this hybrid architecture for many government and religious buildings in Malaya, marking a new architectural style and symbol of the British administration in this region.

## 5. AVAILABILITY OF DATA AND MATERIAL

Data can be made available by contacting the corresponding author.

## 6. ACKNOWLEDGEMENT

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## 7. REFERENCES

- Ahmad, A. G. (1997). *British Colonial Architecture in Malaysia 1800-1930*. Kuala Lumpur: Museums Association of Malaysia.
- Gullick, J. M. (1992). The Bangunan Sultan Abdul Samad. *Journal of the Malaysian Branch of the Royal Asiatic Society*. 65(1) (262), 27-38.
- Hancock, T. H. (1986). *Coleman's Singapore: Volume 15 of Monograph*. Kuala Lumpur: Malaysian Branch of the Royal Asiatic Society.
- Hassan, A. S. (2009). The British colonial 'divide and rule' concept: its influence to transport access in the inner city of George Town, Penang. *Transportation*. 36(3), 309-324.
- Hassan, A. S. & Che Yahaya, S. R. (2012). *Architecture and Heritage Buildings in George Town, Penang*. Penang: USM Press.
- Hassan, A. S. (2017). *Amalan Tebus Guna Tanah, Reka Bentuk Bandar dan Seni Bina di Malaysia (Reclamation Practice, Urban Design and Architecture in Malaysia)*. Penang: USM Press.
- Ho, K. L. (2009). *Connecting and Distancing: Southeast Asia and China*. Singapore: Institute of Southeast Asian Studies.
- Izumida, H. (2003). A Study on British Architects in East and Southeast Asia: 1830-1940. *Journal of Asian Architecture and Building Engineering*. 2(2), 131-136.
- Khazae, M., Yaacob, N., Awad, M., Alcheikh, Z., & Ali, Z. M. (2015). Mughal or Moorish Architecture: The Origins of Malaysian Mosques during Colonial Periods. *Pertanika Journal of Social Sciences & Humanities*. 23(3), 639-654.
- Metcalf, T. R. (1984). Architecture and the representation of empire: India, 1860-1910. *Representations*. 37-65.



- Rasdi, M. T. M. (2007). Mosque Architecture in Malaysia: Classification of styles and possible influence. *Journal Alam Bina*. 9(3), 1-37.
- Saaid, A.S.H.M., Hassan, A.S. (2019). The Influence of Mughal Architecture on Masjid Zahir: Case Study on Five Rural Mosques in Kedah, Malaysia. *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies*, 10(12), 10A12I: 1-14.
- Sharif, S. (2017). The Brick-making Industry in Kuala Lumpur in the Late Nineteenth Century. *Journal of the Malaysian Branch of the Royal Asiatic Society*. 90(1), 61-72.
- Vlatseas, S. (1990). *A History of Malaysian Architecture*. Singapore: Longman.



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